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Joanne Haddad
ECARES, Université libre de Bruxelles

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ECARES
ULB - CP 114/04
50, F.D. Roosevelt Ave., B-1050 Brussels BELGIUM
www.ecares.org

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Abstract

The distinctive traits of early settlers at initial stages of institutional development may be crucial for cultural formation. In 1973, the cultural geographer Wilbur Zelinsky postulated this in his doctrine of "first effective settlement". There is however little empirical evidence supporting the role of early settlers in shaping culture over the long run. This paper tests this hypothesis by relating early settlers' culture to within state variation in gender norms in the United States. I capture settlers' culture using past female labor force participation, women's suffrage, and financial rights at their place of origin. I document the distinctive characteristics of settlers' populations and provide suggestive evidence in support of the transmission of gender norms across space and time. My results show that women's labor supply is higher, in both the short and long run, in U.S. counties that historically hosted a larger settler population originating from places with favorable gender attitudes. My findings shed new light on the importance of the characteristics of immigrants and their place of origin for cultural formation in hosting societies.

KEYWORDS: female labor force participation, settlers, gender norms, cultural formation.

JEL CODES: J21, J22, N31, Z1.

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1 Introduction

Cultural variation is pervasive both within and across countries and is known to correlate strongly with economic and political development.[1] According to the cultural geographer Wilbur Zelinsky, "the dominant culture of a given nation is determined by the characteristics of the first group of settlers who came to an empty territory regardless of how small the initial band of settlers might have been" Zelinsky (1973).

Zelinsky (1973)'s doctrine of "first effective settlement" argues that "the activities of this first group of people matter much more for the cultural geography of a place than the contribution of tens of thousands of new immigrants a few generations later". This is consistent with theories of persistence (via horizontal/spatial and vertical/inter generational transmission of norms), path dependence and how initial conditions at critical junctures of institutional development play an important role in shaping social norms and attitudes in the short and long run (Alesina and Giuliano (2015); Bisin and Verdier (2017); Tabellini (2008)).

To understand the role of immigrants in shaping the cultural and institutional development of settler societies, I partially revisit Zelinsky's doctrine and focus on settlers' culture as one key set of their characteristics. In particular, I evaluate the role of early settlers' culture in explaining within state variation in gender norms in the United States.[2] I document higher female labor force participation, both historically and nowadays, in U.S. counties that historically hosted a larger share of settlers from origins with liberal gender attitudes. I also find that current residents of these U.S. counties have liberal attitudes toward women's roles in societies.

This paper focuses on gender norms because of the large disparities in beliefs and values regarding women's role in society both across and within states. Survey-

[1] Nunn (2021) for instance presents a detailed overview on the short and long run determinants of cultural traits.

[2] See Giuliano (2020) for an excellent review of the literature on determinants and persistence of gender norms.

based measures, like the General Social Survey (GSS)[3] capturing respondents' views on gender issues in the United States, are revealing of the great differences in gender roles and attitudes. Moreover, by focusing on gender norms, I am able to provide suggestive evidence in support of potential mechanisms related to gender values and belief formation and evolution in U.S. counties. These mechanisms relate to gender attitudes at the place of origin of settlers (See Sections 2.2 and 3 for details).

This research provides a novel framework to empirically examine the doctrine of first effective settlement and investigate cultural formation in settler societies. I consider the context of the United States and capture the settlers' population using information about the people that lived in U.S. counties around the time of their creation. Settlers include individuals born in-state, out-of-state and abroad.

Focusing on county creation events and restricting to U.S. counties created around the "Age of Mass Migration", which refers to the era of massive influx of diverse migrants to the United States between 1850 and 1940, is informative for a number of reasons. First, this allows me to capture counties at their early stages of cultural and institutional development. Second, the era of mass migration provides an adequate setting for both across and within state variation in settlers' composition as a result of the diverse and heavy migrant inflows to the United States during that period.

I first explore the composition of settlers using information on their demographic characteristics, their birthplace, and then most importantly, gender-related characteristics at their place of origin. This is because settlers' culture is proxied with values and beliefs from the place of origin. The underlying assumption is that settlers internalize their culture before migrating to new places (i.e. there is a correspondence between settlers' culture and the dominant culture in their sending country/state). I provide suggestive evidence in support of this assumption in Section 6.

[3]GSS asks respondents' views for example about the following: "It is better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and the family".

My main sample of newly established counties includes those that were not partitioned or subdivisioned from previously formed counties, but that were created from non-county areas. I refer to those as "new" counties. In an alternative analysis, I use counties that were partitioned from already settled places and other types of counties that were not created from non-county areas as a placebo test. I refer to those as "partitioned" and "other" counties. The rationale for focusing on "new" counties is that these might be different from those that are subdivisions of already formed counties with regards to how established and developed the county, community, society, culture and institutions are. Thus, "new" counties better reflect the "empty" territories that Zelinsky (1973)'s doctrine refers to. A major difference between "new" counties and "partitioned" and "other" counties is the fact that the latter were densely populated.

I explore the data on settler population to provide a descriptive analysis which offers novel insights on the characteristics of early settlers living in U.S. counties around their creation time. I document that settlers were mostly literate men in their prime age. The majority of settlers were born out-of-state, followed by those born in-state and then those born abroad. Examining settlers' characteristics by gender, as well as by origin and by gender, I find that, in comparison to women settlers, male settlers were younger and more likely to be literate and single, especially among those born out-of-state or abroad. With regards to settlers' culture, foreign-born settlers came mostly from countries with high female labor force participation (FLFP) and out-of-state born individuals came mostly from states where women had property and earning rights.

When I examine the role of settlers' culture in explaining within state variation in female labor force participation, my findings provide evidence in support of cultural continuity via portability of norms (spatial/horizontal transmission) and persistence of norms over time (across generations/vertical transmission) for my main sample of "new" counties. I document a positive and statistically significant relationship between female labor force participation in newly established U.S. counties in the

short and long run and initial settlers' cultural values. These are proxied by past female labor force participation, women's suffrage rights passage and financial liberation in settlers' place of origin, as well as intensity measures capturing the length of time since the passage of these rights. I show that by restricting to the placebo sample of "partitioned" and "other" counties, this relationship does not hold.

Next, I test whether individuals currently living in U.S. counties that historically hosted a larger share of settlers with liberal gender attitudes, have pro-women working and achieving outside the home attitudes. I rely on data from the General Social Survey (GSS) and show that residents in counties with higher shares of early settlers from places with high FLFP, and from places where women could vote and had financial rights, are more likely to approve on women working and taking care of the country not just the home. These results suggest that liberal gender attitudes persisted in these counties.

This paper contributes to three strands of the literature. First, I contribute to the literature on the roots and persistence of cultural traits, specifically gender norms (Alesina et al. (2013); Algan and Cahuc (2006); Ashraf and Galor (2011); Becker and Woessmann (2008); Campa and Serafinelli (2019); Grosjean and Khattar (2019); Hansen et al. (2015); Nunn (2014); Teso (2019)). Natural experiments in history affecting sex ratios, historical agricultural practices, historical institutions including religion and family structures, are documented as crucial determinants affecting the formation of gender norms. I contribute to this literature by showing that the cultural traits of settlers at early stages of institutional and cultural formation have lasting impacts on the prevailing culture. One particularly relevant study is Bazzi et al. (2020) that revisits Turner's thesis, which argues that the American frontier fostered individualism in the United States. The paper documents a more pervasive individualism and a greater opposition to redistribution in U.S. counties with greater frontier experience. Frontier locations had distinctive demographics and greater individualism.

Second, this paper contributes to the literature on immigrants, immigrants' as-

similation and gender norms (Alesina and Giuliano (2010); Antecol (2000); Blau (1992); Blau et al. (2011); Blau and Kahn (2015); Blau et al. (2020); Fernandez et al. (2004); Fernandez and Fogli (2009); Fortin (2005)). A strand of literature examining culture and gender norms relies on an epidemiological approach, which aims at separating the impacts of culture from those of institutions and economic environments. This approach relies on the descendants of immigrants, arguing that the latter transmit the values and beliefs of their country of origin in an institutional environment that is the same across all different immigrant groups (Fernandez (2011)). This paper considers the first iteration of immigrants, which themselves played an important role in shaping the institutional environment that previous studies, relying on epidemiological approaches, would treat as constant when examining subsequent immigrants.

Third, my results support the theoretical models that highlight the importance of initial conditions in determining the long-run equilibrium as well as the modes of transmission (Akerlof and Kranton (2000); Bisin and Verdier (2011); Shayo (2009)), and to the emerging quantitative research that shows that culture matters for economic outcomes (Algan and Cahuc (2006); Barro and McCleary (2003); Fernandez and Fogli (2009); Guiso et al. (2009); Giuliano (2007); Tabellini (2010)).[4] My results provide evidence in support of horizontal/spatial and vertical/over time (across generations) transmission of norms. Finally, this paper sets the stage for future research to look at a host of other cultural traits in settler populations, as well as other settler societies.

The rest of the paper is structured as follows. In Section 2, I provide a brief historical background on the process of county creation in the United States and a conceptual framework. In Section 3, I describe the novel methodology that allows to investigate cultural formation in settler societies, the data sources used in this framework and provide some detailed descriptive statistics. Section 4 outlines my empirical strategy. In Section 5, I discuss my results and then present a battery of

[4]See Nunn (2012) for a comprehensive review of these studies.

robustness checks in Section 6. I briefly conclude in Section 7.

2 Historical and Conceptual Background

In this section, I provide a brief overview on the process of territorial expansion in the United States, as well as state incorporation and county creation. County creation events provide an adequate setting to focus on counties at early stages of their community, societal, cultural and institutional development. I then provide a conceptual framework offering insights on the implications of Zelinsky (1973)'s doctrine of "first effective settlement".

2.1 Territorial Expansion, State Incorporation and County Creation

On July 4th 1776, the United States of America was created out of the Thirteen British colonies[5] which declared their independence from the Kingdom of Great Britain and proclaimed themselves as free and independent states. It was not until 1873 with the Treaty of Paris, which put an end to the American Revolutionary War, that their independence was recognized by Great Britain.

The United States of America evolved from the Thirteen Colonies to its current form as a result of the following five largest territorial expansion events[6]. The first was the Louisiana Purchase (1803), which was a massive land purchase constituting almost 25% of the present day U.S., covering land from New Orleans up to Montana and North Dakota. The Adams-Onis Treaty or the Florida Purchase Treaty (1819) put an end to lengthy negotiations between the U.S. and Spain, officially transferring Florida to the United States. The third largest territorial expansion was the Texas Annexation (1845) resulting in the annexation of the Republic of Texas, declaring its independence from Mexico and transferring it to a U.S. state that was admitted

[5]The Thirteen British Colonies became New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Maryland, Delaware, Virginia, North Carolina, South Carolina, and Georgia states.

[6]Appendix Figure A1 displays these expansion events.

to the Union. In 1848, the Mexican Cession encompassed the region that Mexico ceded to the U.S. as a result of the Treaty of Guadalupe Hidalgo after the Mexican-American war. Finally, the Alaska Purchase in 1867 resulted in the acquisition of Alaska from the Russian Empire by the United States.

The Congress of the Confederation, known as the United States in Congress Assembled, had governing authority over the United States. Its authority was granted by The Articles of Confederation and Perpetual Union, which was the first Constitution of the United States (an agreement among the 13 original states). The Congress of the Confederation enacted two key ordinances: the Land Ordinance of 1784 and the Northwest Ordinance of 1787. These two ordinances organized the creation of territorial governance and dictated the protocols for state admission to the union, the division of land into administrative units and public use of land. The Land Ordinance (1784) was a standardized system for settling and selling land, allowing frontier migrants moving westward to acquire land through direct sales from the federal government via the Public Lands Survey System (PLSS) of grids of square townships for the distribution and sale of land in definable parcels as a commodity. The Northwest Ordinance (1787) created the Northwest territory, the first organized incorporated territory of the U.S. beyond the thirteen original colonies.

The U.S. territorial expansion westward happened gradually and was largely driven by population pressures and external geopolitical forces (Gallman et al. (1972)). The westward expansion, however, did not occur peacefully. With the arrival of more explorers, and as new settlers moved in, Native American tribes, previously occupying the west, were displaced and lands were violently taken from them. Treaties forced millions of Native Americans onto reservations which were then frequently broken, leading to even larger shares of lands being acquired by settlers.

United States territories were administrative divisions overseen by the U.S. government, but they were not sovereign entities like U.S. states. They included both

organized incorporated territories, where governance was dictated through an organic act and that constituted integral parts of the United States (i.e. full constitutional rights were applicable), and unincorporated territories which were not integral parts of the United States (i.e. only partial application of the Constitution). The process of incorporation was under the authority of the U.S. Congress. The Admission to the Union Clause of the United States Constitution (preceded by the two ordinances) dictated how these territories would be admitted to the Union as U.S. states. A total of 31 out of 37 states admitted to the Union by Congress were established within U.S. organized incorporated territories. Sometimes an entire U.S. territory became a state and sometimes just part of it.

The Northwest ordinance (1787) authorized county creation by proclamation of the governor until the organization of the territorial general assembly, and thereafter by the latter. U.S. counties constituted administrative or political subdivisions of a state. In an organized incorporated territory (not yet granted statehood), the territorial legislative assembly had the authority to create counties. For example, Arizona territory established by the Arizona Organic Act enacted the creation of Arizona's first four counties (Mohave, Pima, Yavapai and Yuma counties). Thus, U.S. counties were in some cases formed prior to statehood.[7] In U.S. states (organized incorporated territory admitted to the Union or U.S. states not established within U.S. organized incorporated territories), county creation was under the authority of the state-specific General Assembly of Senate and House representatives, and conditions for county creation were dictated by state constitutions.[8] Appendix Figure A3 displays an act passed by Alabama state to establish a new county as a subdivision of previously formed counties.

[7]Appendix Figure A2 for instance displays the territorial act in 1818 enacted by the territorial legislature of Alabama which established Marengo county.

[8]Texas' state constitution, for instance, dictated that "no existing county could be reduced to less than 900 square miles without the consent of a two-thirds majority of the Legislature. In addition, the Legislature could continue to create counties without consent of the residents living on the land area being considered." Other conditions imposed that for new counties to be formed in Texas state from unorganized lands, these must be at least 900 square miles.

2.2 Conceptual Background

Wilbur Zelinsky is an American cultural geographer with many geographical studies on American popular culture. He famously argued in one of his books (Zelinsky (1973)) that the first settlers significantly impact the dominant culture of a given nation. His doctrine of "first effective settlement" (also known as the Zelinsky (1973) doctrine) is a theory in cultural geography that served as a basis for future theories linking American history to present day events. Zelinsky's view - on how and why the behaviour of the initial group of colonizers (settlers) matters more than that of subsequent immigrants in shaping the cultural geography of a given place - is based on the idea that the cultural institutions established by the first settlers will remain ingrained in the social fabric of a given territory. Moreover, the newly established institutions are self-perpetuating in the sense that they reproduce their cultures across time. Later immigrants will not defy prevailing institutions; rather, they will assimilate and socialize into the territory's cultures and views. While changes will continue to occur in settled regions, these will be anchored in the cultural institutions established by the initial settlers.

Woodard (2011), for instance, expanded the doctrine of "first effective settlement", particularly the homogeneity within settled nations, and argued that the movement of people to new territories, bringing with them the culture of the society they came from, resulted in the creation of multiple nations, which together constitute the country. These multiple American nations are thus culturally segmented parts, each composed of a group of people that share a common culture and origin defined beyond legal states and international boundaries.

Woodard's argument, inspired by the doctrine of "first effective settlement", relates directly to cultural formation in settler societies. The question that arises from it is the following: did the migrants who moved to U.S. counties in their early creation carry the values and beliefs from the societies where they came from to the areas they moved to, thus affecting the way in which institutions and culture were

formed in these newly settled places? In other words, the question is whether these early settlers shaped culture in a way that mirrored the culture of their country of origin or whether a new culture was formed in newly established U.S. counties. The implications of Woodard (2011) and the Zelinsky (1973) doctrine suggest that the culture of settlers of newly created U.S. counties has a lasting impact on the culture formed in these areas. As counties are newly formed, and given that settlement is at its early stages, settlers who first inhabited these territories may influence the formation of local economic, social, political, and cultural institutions - both formal and informal - institutions in a way that shapes the social fabric of that given county.

This hypothesis relates to both the spatial (horizontal/cultural continuity via portability) and the vertical (across generations/over time) transmission of cultural beliefs. One possible outcome is that these settlers carried their cultural beliefs from their home country/state, moved to U.S. counties and shaped a culture that mirrors their home country/state culture, which persists to the present day. This would validate both the horizontal and vertical aspects of transmission of norms and values in newly formed U.S. counties. Another possible outcome is that these settlers moved to U.S. counties and shaped a culture that mirrors their home country/state culture, but which did not persist over time/across generations. This would thus validate the horizontal transmission of norms and values only. Lastly, settlers may have arrived to U.S. counties and formed a "new" culture. This means that both horizontal and vertical transmissions of cultural beliefs are absent in newly formed counties.

3 Data

In this section, I describe the novel methodology used to investigate cultural formation in settler societies, particularly how to capture counties in their early stages of cultural and institutional development, how to construct settlers' population and

lastly how to examine their composition in terms of demographic as well as cultural characteristics. I also describe the data sources used in this framework and provide some detailed descriptive statistics.

3.1 Data on U.S. Counties

I focus on county creation events to capture counties at their early stages of cultural and institutional development. I disregard counties created pre-1840 and post-1940, limiting my analysis to U.S. counties formed between 1840–1940 for two reasons. First, the time period falls within the era of mass migration, which provides an adequate setting for both across- and within-state variation in settler composition as a result of the diverse and heavy migrant inflows to the United States during that period. Second, given that full count U.S. Censuses are available only between 1850–1940, and counties are not identified in public-use microdata from 1950 onwards, I will not be able to examine the composition of settlers residing in newly formed U.S. counties any time before or after that period.

In order to construct my sample of U.S. counties created between 1840–1940, I rely on the ATLAS of Historical County Boundaries dataset[9], which offers information about the creation of every U.S. county, as well as the changes in administrative status, size (land area in square miles), shape and location of these counties.

Focusing on county creation events results in a total of 1,494 U.S. counties created between 1840 and 1940 (See Figure I). About 75% of these counties were created before 1900 and about 57% are in the West and Midwest Census regions, 41% in the South, and the remaining counties are in the Northeast Census region. Due to missing Census data for 1890 from all sources, 153 counties created between 1880 and 1889 were excluded from my sample. Appendix Figure A4 displays the chronological timing of U.S. counties' creation.

The 1,494 U.S. counties created between 1840 and 1940 include counties that were not subdivisioned or partitioned, but that were created from non-county areas.

[9]Data is available from the following website: https://publications.newberry.org/ahcbp.

I refer to those as "new" counties. Figure II displays these "new" U.S. counties. About 56% of these counties are in the Midwest Census region, about 25% are in the South Census region and the remaining 19% are in the West Census region. Close to 83% of these counties were formed before 1900 and the remaining 17% were formed sometime after 1900.

Additionally, new counties were created from a subdivision of a previously formed county or as a result of a combination of many established formed counties. I refer to those as "partitioned" counties. Finally, there are counties that were created from a combination of districts and non-county areas, those already created under territorial jurisdiction which then changed from an organized incorporated territory to a U.S. state, those created under a given territorial jurisdiction which then came under another territorial jurisdiction and counties created as a result of the passage of a new constitution converting all judicial districts to counties. I refer to those as "other" counties. Appendix Figure A5 displays "partitioned" and "other" counties.

In this paper, my main analysis is limited to the sample of "new" counties, i.e. those that were not subdivisioned or partitioned but that were created from non-county areas. The main sample sums up to a total of 436 counties, excluding "partitioned" and "other" counties. This is crucial given that counties that are subdivisions of previously created counties could be different from "new" counties with regards to how established the county, community, society and institutions are. While the average number of inhabitants was 6,264 for "new" counties and 7,110 for "partitioned" and "other" counties, population density per square mile was more than 3 times larger in the latter group of counties (population density of 48.8) in comparison to "new" counties (population density of 12.4). Population and population density data are extracted from the first U.S. Census available post-county creation date.

To fix ideas, consider Bullock county (Appendix Figure A3) for example, founded in 1866, in Alabama state. It was created as a combination of four previously

established counties (Macon, Montgomery, Pike and Barbour). Bullock county is thus a "partitioned" county and it is excluded from my main sample of "new" counties.

3.2 Data on the Settler Population

In the following subsection, I describe how I construct my settlers' population, as well as the data sources and variables used to examine the composition of this population. I also provide a descriptive analysis offering new insights on the characteristics of settlers living in newly created U.S. counties. I present summary statistics for my entire sample of settlers. I also report statistics by gender, and by gender and category (foreign, out-of-state and in-state born settlers) simultaneously.

3.2.1 Settler Population and Demographic Characteristics

I define the population of settlers as the people that inhabited U.S. counties at the time of the creation of their territorial government. Having information about the year of creation of each U.S. county, I construct the settler population using information about county identifiers from full count Census data. Specifically, I build a dataset of people living in these U.S. counties by relying on the first U.S. full count Census available after the county creation date. In Section 6, I examine the validity of settlers' definition given that Census data is not available for areas before they become politically organized as an administrative entity of the United States.

I rely on the complete count United States Census data (1850–1940) from the Integrated Public Use Microdata Series (Ruggles et al. (2020)).[10] IPUMS provides access to U.S. Census microdata and includes a wide range of information about individual's education/literacy, labor force and fertility status, income and occupational score among other information. I carry out my analysis at the county level, so

[10]Data is available from the following website: https://usa.ipums.org/usa/. Note that Census data is missing for 1890 from all sources. Due to this lack of data on settlers of counties created between 1880 and 1889, these counties have been excluded from the sample.

I generate county averages based on individual characteristics. County identifiers allow me to identify the county where the household was enumerated, and more importantly, where individuals are residing. I generate the county-level average age and gender composition of settlers, as well as their marital, fertility and literacy status.

Additionally, given that people coming from different places are exposed to a different set of values and beliefs, it is crucial to identify the country/state of origin of these settlers. To do so, I rely on a variable available from IPUMS, which indicates the U.S. state or foreign country where the person was born. Using information about the birthplace of individuals allows me to divide the settler population into three different categories. The first category comprises foreign-born individuals, i.e. those who were born in a country different from the United States. The second category includes out-of-state born individuals, i.e. those who were born in a U.S. state that is different from the state in which the household was located when the Census enumerator conducted the interview. Finally, in-state born individuals are those born in the same state as the one where the household is located.

In Table I, I provide summary statistics of the characteristics of settlers living in my sample of "new" U.S. counties. I present statistics for my entire sample of settlers in column (1) of Table I. I also report statistics by gender in columns (2) and (3). Figures from column (1) show that settlers that occupied newly formed counties were mostly literate men in their prime age. Settlers were mainly out-of-state born migrants (62%) followed by in-state born individuals (22%). Foreign-born individuals constitute 15% of settler populations. Figure III illustrates the distribution of foreign-born, out-of-state and in-state migrants out of the entire population respectively across my main sample of "new" counties. Appendix Figure A6 shows this distribution for the alternative sample of "partitioned" and "other" counties.

Columns (2) and (3) of Table I show that male settlers were more likely to be in their prime age, literate and single in comparison to female settlers. In the

Appendix Section, I report these statistics for the entire sample of U.S. counties created between 1840–1940. The majority of male and female settlers were out-of-state born individuals, followed by in-state born individuals.

Appendix Table A1 repeats these descriptive statistics by gender for foreign, out-of-state and in-state born settlers separately in columns (1) and (2), (3) and (4), and (5) and (6) respectively. This table shows that among the population of foreign-born settlers and out-of-state born settlers, men are more likely to be in their prime age, literate and single in comparison to women settlers. The characteristics of settlers by gender are similar between men and women with respect to the literacy level and distribution by age for in-state born individuals.

3.2.2 Settlers' Culture

To capture settlers' culture, I use various proxies that reflect values and beliefs from their place of origin.[11] The underlying assumption is the correspondence between settlers' culture and the dominant culture in their sending country/state. I use a series of quantitative variables including female labor force participation, women's suffrage rights and women's financial liberation, rather than simply using the country or state of birth as a proxy variable for gender norms at the place of birth.

Specifically, I build three quantitative variables. The first captures female labor force participation by country of origin by decade. Second, I explore the chronological implementation and passage of women's suffrage rights across U.S. sending states and countries. Lastly, I explore variation in the passage of women's financial rights as well as their intensity (number of years since passage of these rights) across U.S. sending states.

I construct a dataset of historical female labor force participation for sending

[11] People moving to U.S. counties from different places might be exposed to a different set of norms at their place of origin/birth, including gender-related ones. Distance travelled by these settlers is not the intended underlying characteristic to be examined in this paper. Von Berlepsch and Rodríguez-Pose (2019) for instance exploit distance travelled and distinguish between internal migrants (what I refer to as out-of-state born individuals) and external migrants (foreign-born individuals) in their examination of the impact of migrants on counties' long-run economic development. Unlike Von Berlepsch and Rodríguez-Pose (2019), I exploit migrants' culture using gender norms at their place of origin/birth as the underlying variation and not the distance travelled.

countries (countries of birth) for foreign-born settlers using a combination of at least three different sources.[12] I rely on data from the Integrated Public Use Microdata Series (IPUMS) International Historical Censuses.[13] I combine this with information on female labor force participation by country by decade, extracted from (Olivetti (2014)) and (Olivetti and Petrongolo (2016)). The optimal choice of decade from which to construct historical women's labor force participation by sending country is not obvious. In this paper, I use source countries' labor force participation from the same decade, or a decade or two earlier, depending on data availability, relative to when I capture the population of foreign-born settlers. Given that data on the migration date of settlers is not available, I measure source countries' characteristics based on when I observe settlers, i.e. the same decade, or a decade or two earlier, depending on data availability, before county creation date. The assumption is that the cultural beliefs of these foreign-born settlers are best reflected in what their counterparts were doing at the time in the country of origin (Fernandez and Fogli (2009)).

I aim to extract data on women's labor force participation from the same decade, or a decade or two earlier, relative to when I study the population of out-of-state born settlers. Such data is unavailable at the time for counties that had not yet been created or that were recently created. This means that using female labor force participation from sending states to capture out-of-state born settlers' cultural beliefs is not always possible.

Summary statistics related to settlers' culture show that foreign-born migrants came mostly from places with high FLFP. In Table II, I document that 54% of foreign-born individuals from countries with known female labor force participation are from countries with *above* decade specific median female labor force participa-

[12] I also do a thorough web search using countries' official sources to append otherwise missing data on women's labor force participation. Foreign-born individuals from countries with missing information on their historical labor workforce are excluded from the population of foreign-born settlers with known FLFP. These are instead classified into a population of foreign-born settlers with unknown FLFP. Foreign-born settlers from countries with known and unknown FLFP add up to the entire foreign-born settler population.

[13] Data is available from the following website: https://international.ipums.org/international-action/samples.

tion.[14] Figure IV shows the distribution, across my main sample of "new" counties, of the share of foreign-born settlers from countries known to have *above* median female labor force participation. Appendix Figure A7 displays this distribution for the alternative sample of "partitioned" and "other" counties.

My second quantitative measure to proxy for settlers' gender norms explores the chronological implementation and passage of women's suffrage rights across sending U.S. states and countries, relative to county creation date. I rely on the variation in the timing of passage of suffrage laws enfranchising women at different points in time across different U.S. states, given that some states passed suffrage rights for women prior to the passage of the federal mandate (the Nineteenth Amendment of 1920). The data on passage of suffrage laws for U.S. states is obtained from Lott and Kenny (1999) and Miller (2008). I also collect data on the timeline of women's suffrage across countries. Table II shows that 16% and 0.3% of the foreign-born settler and out-of state settler population respectively came from places where women could vote. Figure V displays the distribution of these shares across my main sample of "new" counties and Appendix Figure A8 shows this distribution for the alternative sample of "partitioned" and "other" counties.

I also compute a measure of suffrage intensity, which is a weighted share of settlers coming from places where partial/full voting rights were granted to women, weighted by the number of years between the passage of the relevant suffrage law and the year of county creation. The mean of this variable for foreign-born migrants is close to 6, and it is 0.07 for out-of-state born individuals.[15]

The third quantitative measure proxies for out-of-state born settlers' gender norms, using the variation in the intensity and timing of passage and implementation of women's financial liberation relative to county creation date. This measure explores the timing of granting of property and earning rights to women across U.S. sending states. The data on the timing of women's financial liberation by state is

[14] Of note, using the mean instead of the median does not affect the analysis.

[15] The suffrage intensity measure is much larger for foreign-born settlers and this is likely driven by the fact that those came from places where at least partial rights were granted to women long before U.S. county creation.

obtained from (Geddes and Dean (2002)). Table II shows that almost 33% of out-of-state born settlers came from U.S. states where women had property and earning rights (See Figure VI for the distribution of this share across my main sample of "new" counties and Appendix Figure A9 for the sample of "partitioned" and "other" counties).

The measure of financial liberation intensity is generated using the share of out-of-state born settlers coming from U.S. states where property rights and earning rights were granted to women, weighted by the number of years between the passage of financial liberation laws and the date of county creation. The mean of this variable is 6.7 as displayed in Table II.

4 Empirical Strategy

4.1 Strategy Visualization

I start by providing a visual display to better understand the methodology used in this paper to examine the impact of settlers' culture on gender norms in the United States.

Figure VII details an exhibit of the way I construct and undertake my analysis. The first relevant event for the analysis is the county creation event. Whenever a county is created (between 1840–1940), I construct settlers' population using the first U.S. Census available after that county creation date. To examine settlers' culture, I rely on female labor force participation, female suffrage rights and financial liberation in the settlers' place of origin. To examine the role of settlers' culture in explaining within-state variation in gender norms in the United States, I compute female labor force participation in U.S. counties using data from the first U.S. Census available after the county creation date for the short-run analysis. For the persistence analysis, I compute FLFP about 100 years after county creation and a measure of gender values and attitudes using General Social Survey (GSS) data.

4.2 Identification Strategy

In this subsection, I formally describe my identification strategy and discuss plausible threats to causal identification. The objective is to investigate the role of settlers' culture in explaining within state variation in gender norms in the United States. The identification strategy consists of comparing U.S. counties created at the same time within a given state and that differ in the share of hosted settlers originating from places with liberal gender attitudes. The analysis is carried at the county level for my main sample of "new" U.S. counties created between 1840–1940, i.e. those that were not subdivisioned or partitioned but that were created from non-county areas. In an alternative examination, I carry out this analysis for the sample of "partitioned" and "other" counties. This serves as a placebo treatment given that counties that are subdivisions of previously established counties could be different from "new" counties when it comes to their level of societal, institutional and cultural development.

While U.S. counties were created at different points in time and across different states, variations across states and in the timing of county creation are not relevant for this research. The only relevant variation is the composition of settlers of newly created counties, i.e. the composition of the first inhabitants of these counties after their creation, particularly, their culture. The main concern to causal identification lies in omitted variables correlated with both the county shares of settlers from places with liberal gender attitudes and female labor force participation in newly created U.S. counties. I address this concern by controlling for an exhaustive list of covariates susceptible to affect both the composition of settlers and gender norms in U.S. counties.

There are, however, other potential threats to my identification, in addition to the omitted-variables bias. First, it might be argued that the timing of county creation might be a function of settlers' composition, where having a more homogeneous population might speed up the process of county creation. Second, defining

settlers as the first inhabitants of newly created counties using the first Census data available might be problematic if people resided in these counties long before their creation and therefore long before the first U.S. Census became available. Lastly, the correspondence assumption between settlers' culture and the dominant culture in the sending country/state of settlers might not hold if settlers have beliefs, preferences and values that are not representative of the norms of country/state of birth. I address these concerns in Section 6.

4.3 Model Specification

I now present the model specification used in this paper. I thus estimate the following specification using Ordinary Least Squares (OLS) estimation:

$$y_{csd} = \alpha + \tau Settlers' Population_{csd} + \beta Settlers' Culture_{csd} + X'_{cs}\gamma + \theta_{FE(s)} + \phi_{FE(d)} + \varepsilon_{csd} \quad (1)$$

Where csd captures a given county c, created in a given state s, in a given decade d. y_{csd} is the county-level female labor force participation. For the short (long) run analysis, data on female labor force is extracted from the first (tenth) U.S. full count Census available after county creation date. *Settlers' Population*$_{csd}$ is the distribution of foreign, out-of-state and in-state born individuals out of total population. *Settlers' Culture*$_{csd}$ is my independent variable of interest. X'_{cs} includes an exhaustive list of covariates susceptible to affect both the composition of settlers and gender norms in U.S. counties. The list incorporates baseline county-level geo-climatic controls such as latitude, longitude, mean county temperature and rainfall, elevation, distance to lakes and rivers from the county centroid, and average potential agricultural yield. To these, I add a set of demographic controls including the share of prime age population, share of literate population, the sex ratio computed as the ratio of the male over the female population, the share of the single population and the child to women ratio computed as the ratio of the number of children

under 5 years of age over the number of women in their childbearing age times 1000. Finally, I also include additional controls that capture counties' geography, isolation, conflict with Native Americans and other factors that may be correlated with both settlers' culture and gender norms in U.S. counties. Specifically, I control for terrain ruggedness, rainfall risk, the distance to the nearest portage site, the distance to the nearest Indian battle site, the distance to the coast, the number of years that the county has been intersected by railroads since its creation date and the distance to the nearest mineral discovery site. θ_s and ϕ_d are state and decade of county creation fixed effects respectively, in order to account for time-invariant differences across states and common decade-specific shocks. ε_{csd} is the error term. My standard errors are clustered on 60-square-mile grid cells (Bester et al. (2011)).

5 Main Results

In this section, I report the results from estimating the impact of settler population, based on settlers' distribution as foreign, out-of-state and in-state born individuals, on female labor force participation in U.S. counties. More importantly, I study systematic evidence on the short-term historical relationship between settlers' culture and female labor force participation at the county level. I then repeat this analysis in the long run to investigate the enduring relationship between settlers' culture and FLFP as well as gender atttitudes today.

5.1 Settler Population: Short-Run Analysis

Appendix Table A2 reports the results from estimating a restricted version of Equation (1). I first examine settler population based on the distribution of foreign, out-of-state and in-state born individuals. The dependent variable in columns (1)–(6) is female labor force participation in U.S. counties in the short run. Data on labor force participation is based on the first U.S. Census available after county creation. Throughout the analysis, I include state and decade of county creation fixed effects.

In columns (1)–(6) I control for the list of county-level geographic controls. In columns (2)–(3) and (4)–(5), I also control for settlers' demographic characteristics including the share of prime age population, share of literate population, the sex ratio computed as the ratio of the male over the female population, the share of the single population and the child to women ratio computed as the ratio of the number of children under 5 years of age over the number of women in their childbearing age times 1000. I further include additional county-level controls capturing geography and isolation in columns (3) and (6).

The analysis in columns (1)–(3) is based on my main sample of "new" counties, i.e. those that were not subdivisioned or partitioned but that were created from non-county areas. The estimates suggest that higher shares of foreign-born and out-of-state born settlers in comparison to higher shares of in-state born settlers (the omitted category) do not seem to correlate with female labor force participation in U.S. counties in the short run. In columns (4)–(6), I repeat the analysis, but restrict my sample to "partitioned" and "other" counties. The direction of the results remains very similar to that in the main analysis.

5.2 Settlers' Culture: Short-Run Analysis

Next, rather than considering the settler population only based on the distribution of foreign, out-of-state and in-state born individuals, I explore settlers' culture and rely on female labor force participation levels in sending countries to capture foreign-born settlers' values and beliefs. In Table III, I report the results from estimating Equation (1), where my outcome variable of interest is female labor force participation in U.S. counties in the short run. Data on labor force participation is extracted from the first U.S. Census data available after county creation. I control for state and decade of county creation fixed effects as well as my list of geographic county-level variables in columns (1)–(4). I introduce settlers' demographic controls in columns (2)–(4) and additional county-level controls related to geography and isolation in columns (3) and (4). My main sample of U.S. counties includes "new"

counties created between 1840–1940 in columns (1)–(3). In column (4), I restrict my sample to "partitioned" and "other" counties.

Conditional on the shares of foreign and out-of-state born settlers in the total county-level population, I examine whether having a higher share of foreign born settlers coming from countries known to have *above* median FLFP is correlated with women's labor force participation in U.S. counties in the short run. The findings for my main sample analysis in columns (1)–(3), restricted to "new" counties created between 1840–1940, show a positive and statistically significant correlation between the share of foreign-born settlers from countries known to have *above* median FLFP and women's labor force participation in U.S. counties. The estimate in column (3) shows that a 1 percentage point increase in the share of foreign-born settlers from countries known to have *above* median FLFP is associated with a 0.06 percentage point increase in female labor force participation in U.S. counties.[16]

My results for the sample of "partitioned" and "other" counties show weak evidence in support of this relationship. Interestingly, in column (4), I find that the estimate for the share of foreign-born settlers from countries known to have *above* median FLFP is close to zero and not statistically significant.

In Table IV, I report the results from estimating Equation (1) using the variation in the timeline of passage of women's suffrage rights across countries and U.S. states to proxy for gender norms at the place of origin of foreign and out-of-state born settlers. The structure of the table is the same as Table III. This time, instead of examining the share of foreign-born settlers coming from countries known to have *above* median FLFP, I investigate the relationship between U.S. county-level female labor force participation in the short run and the share of foreign born and out-of-state born settlers coming from countries/U.S. states where partial or full suffrage rights were granted to women, anytime before I observe them.

I do not find evidence in support of a relationship between having more settlers

[16]The mean of the dependent variable of interest, female labor force participation, in my main sample of "new" counties is equal to 0.11 with a standard deviation of 0.12. The mean is equal to 0.13 with a SD of 0.12 for my alternative sample of "partitioned" and "other" counties.

coming from places where women could vote and female labor force participation in U.S. counties in the short run. Estimates across columns (1)–(4) for my main sample of "new" counties and alternative sample restricted to "partitioned" and "other" counties are not statistically significant. In Appendix Table A3, I instead use my measure of suffrage intensity based on the number of years that suffrage laws had been in effect. I find that a longer exposure to suffrage rights is not related to women's labor force participation in U.S. hosting counties in the short run.

I next rely on an alternative quantitative measure that proxies for out-of-state born settlers' gender norms, using the variation in the intensity and timing of passage and implementation of women's financial liberation. In columns (1)–(3) of Table V, the positive and statistically significant estimates for the share of out-of-state born settlers coming from U.S. states where women had property and earning rights document a positive association with women's labor force participation in U.S. hosting counties in the short run for my main sample of "new" counties, with a magnitude of about 0.07 percentage point. The relationship is not robust, however, when restricting to partitioned and subdivisioned counties, and other counties that are not created from non-county areas. The estimate in column (4) is about half the size of my estimates for the sample of "new" counties and not statistically significant.

In Appendix Table A4, I use my measure of financial liberation intensity based on the number of years that relevant laws had been in place. Positive and statistically significant estimates in columns (1)–(3) document a robust relationship between a longer exposure to women's financial liberation and female labor force participation for my main sample of "new" U.S. counties. Excluding those counties and restricting to partitioned and other type of counties decreases the size of my estimate by about one third compared to the effect for my main sample analysis (column (4) of Table A4).

5.3 Long-Run Analysis

In Appendix Table A5, I repeat the same analysis of Table A2, but using labor force participation data from 100 years after county creation. Now, instead of examining the relationship in the short run, I carry my analysis using data on labor force participation in the long run. This captures the relationship between having more foreign and out-of-state born settlers in comparison to in-state born settlers in U.S. counties in their early stages of cultural and institutional formation, and gender norms in the long run. The estimates suggest weak evidence in support of a relationship between settlers' population as categorized into shares of foreign, out-of-state and in-state born settlers and labor force participation outcomes in U.S. counties in the long run.

Results from both the short- and long-run analysis (Table A2 and Table A5 respectively) confirm that settlers' population per se, as distributed between foreign, out-of-state and in-state born migrants, does not relate to female labor force participation in hosting areas.

Exploiting settlers' culture instead, I document an increase in female labor force participation 100 years later, with a higher share of foreign-born settlers from countries known to have *above* median FLFP. The estimate reported in column (3) of Table VI suggests that a 1 percentage point increase in this share is associated with about 0.02 percentage point increase in FLFP for the main sample of "new" U.S. counties in the long run. Findings in the long run go in the same direction of my results for women's involvement on the formal labor market a few years after county creation (Table III). This provides evidence in support of the persistent impact of settlers' culture. In column (4) of Table VI, I restrict to subdivisioned or partitioned counties from previously formed ones and I find that my estimate for the share of foreign-born settlers from countries known to have high FLFP is smaller in magnitude in comparison to columns (1)–(3). While the estimate for settlers' culture is statistically significant for the alternative sample of partitioned and other coun-

ties, results from the next two specifications using alternative quantitative proxies for settlers' culture confirm the weak evidence in support of this relationship for counties not considered "new".

In Table VII, I estimate Equation (1) using the variation in the timeline of passage of women's suffrage rights across countries and U.S. states to capture settlers' culture. The structure of the table is the same as Table IV. My results for the main sample of "new" counties show that having more foreign-born settlers from countries where women could vote is associated with an increase in women's labor force participation in the long run. This relationship is not robust to restricting to "partitioned" and "other" types of counties that resulted from already settled places.

Finally, in Table VIII, I document a positive and statistically significant relationship between having more out-of-state born settlers from U.S. states where women were granted property and earning rights and women's labor force participation in "new" U.S. counties 100 years later. The estimates are close to 0.09 percentage point (column (3) of Table VIII). The estimated effect is smaller in magnitude and not statistically significant for the sample of counties that were subdivisioned from already settled places.

5.4 Later Settlers' Culture

In this subsection, I directly test Zelinsky's predictions by examining whether the culture of later settlers matters for cultural formation in hosting areas. I check whether the impact of early settlers' culture on female labor force participation in the U.S. remains robust in the long run when controlling for the culture of settlers residing in U.S. counties in later decades. To do so, I modify Equation (1) to incorporate measures for later settlers' culture. These are computed as shares of foreign born individuals out of total foreign settlers coming from countries with high FLFP in 1920, 1930, 1940, 1950, 1970, 1980 and 1990.

I start by computing my later settlers' population and culture using female labor force participation in the settlers' country of origin from 1920 to 1990 (excluding

1960 due to data restrictions) for my sample of U.S. counties created between 1850 and 1930. To fix ideas, this means that for counties created in 1850, I examine whether the culture of settlers residing in these counties in 1920 (1990) for instance, i.e. 70 (140) years later impacts FLFP in the long run. For counties created in 1910, I examine whether settlers' culture about 10 to 80 years later affects FLFP.

Table IX reports the results from doing this analysis. The dependent variable in columns (1)–(4) is female labor force participation in U.S. counties in the long run (using 1990 Census data). In columns (1)–(3) the sample is restricted to "new" counties. In column (4), I carry my analysis for the placebo sample of "partitioned" and "other" counties. Throughout columns (1)–(4), I include state, decade of county creation fixed effects and county-level geographic controls. In columns (2)–(4), I control for initial settlers' demographic characteristics including the share of prime age population, share of literate population, the sex ratio computed as the ratio of the male over the female population, the share of the single population and the child to women ratio, computed as the ratio of the number of children under 5 years of age over the number of women in their childbearing age times 1000.

Later settlers' culture is measured using the share of foreign-born settlers from countries known to have *above* median female labor force participation from 1920 to 1990. The data on the total number of foreign-born individuals at county level by country of birth is extracted from the *National Historical Geographic Information System (NHGIS)*. This data is available for the white foreign-born population only.

Results in column (3) of Table IX document that early settlers' culture remains robust to the inclusion of later settlers' culture. My estimates show about 0.02 percentage point increase in FLFP in U.S. counties in the long run, with higher shares of settlers at early stages of cultural and institutional development coming from places with high FLFP. This is robust to controlling for early settlers' population as categorized into shares of foreign, out-of-state and in-state born settlers, early settlers' demographic characteristics, county-level geographic controls, state and decade of creation fixed effects and, most importantly, later settlers' culture.

Estimates in column (4) of Table IX show that this relationship is not robust to restricting to partitioned and subdivisioned counties, and other types of counties that were not created from non-county areas ("empty" territories). The estimate for early settlers' culture is close to zero and not statistically significant.

Findings from this analysis provide evidence in support of Zelinsky (1973)'s doctrine that the first group of people matter much more for cultural formation than the contribution of new immigrants a few generations later.

5.5 Attitudes Regarding Women's Roles

In this subsection, I present the results on the impact of settlers' culture on current attitudes regarding women's roles in societies. I rely on data from the General Social Survey (GSS) over the years 1993–1998 and focus on the following two questions: "Do you approve or disapprove of a married woman earning money in business or industry if she has a husband capable of supporting her?" and "Do you agree or disagree with this statement: Women should take care of running their homes and leave running the country up to men?".

The model is similar to Equation (1) with the exception that the unit of observation is now the respondent. I also include controls for the respondent's demographic characteristics and a dummy for survey year. Specifically, I estimate:

$$y_{icsdt} = \alpha + \tau Settlers' Population_{csd} + \beta Settlers' Culture_{csd} + X'_{cs}\gamma + Z'_{it}\omega + \theta_{FE(s)} + \phi_{FE(d)} + \pi_{FE(t)} + \varepsilon_{icsdt} \quad (2)$$

Where $icsd$ captures respondent i, residing in a given county c, created in a given state s, in a given decade d. y_{icsdt} is the answer to the first question of whether women should work and the second question of whether women should take care of the country for individual i in county c, state s, decade of county creation d and GSS survey year t. The dependent variable is a binary dummy that takes the

value 1 if respondents have liberal attitudes regarding women's roles in societies, i.e. if they approve of women working and if they disagree with the statement that women should take care of running homes and not the country. Z'_{it} is a vector of individual characteristics. These characteristics include the individual's gender, age, age squared, six education dummies, three race dummies and five marital status dummies. *Settlers' Population*$_{csd}$ is the distribution of foreign, out-of-state and in-state born individuals out of total population. *Settlers' Culture*$_{csd}$ is my independent variable of interest. Data on the settler population is based on the first U.S. full count Census available after the county creation date. X'_{cs} includes my set of county-level geographic, isolation and demographic controls. π_t, θ_s and ϕ_d are GSS survey year, state and decade of county creation fixed effects respectively. ε_{icsdt} is the error term. My standard errors are clustered on 60-square-mile grid cells (Bester et al. (2011)).

Table X shows my OLS estimates. I include GSS survey year, state and decade of county creation fixed effects throughout. I add county-level geographic and demographic controls, as well as isolation and other geography-related controls in columns (1)-(6). I also include individual's characteristics. In columns (1) and (2), I capture settlers' culture using the share of foreign-born settlers coming from places with high FLFP. In columns (3) and (4), settlers' culture is proxied for using the share of foreign-born and out-of-state born settlers coming from places where women could vote. Lastly, in columns (5) and (6), I measure settlers' culture using the share of settlers coming from states that passed legislation on women's financial rights. The estimates are all positive and statistically significant (except one), which suggests that settlers with liberal gender norms had a persistent (positive) effect on attitudes toward women's roles in societies.

To examine the size of my estimates, I repeat this analysis using probit response models. Marginal effects suggest that respondents residing in counties that historically hosted a larger share of foreign-born settlers from countries where women could vote are about 30 percent more likely to approve of women working. I document

an increase of about 34 percent in the likelihood of respondents approving whether women should be allowed to work, for counties that historically hosted more settlers from states where women were granted their financial rights.

In an alternative analysis, and as a robustness check, I rely on LifeStyle Survey (LSS) data to assess gender attitudes in the long run. I use a question that asks respondents whether they believe men are *not* naturally better leaders than women. I show the results using an OLS estimation in Appendix Table A6. These results support my findings that respondents residing in U.S. counties that historically hosted a larger share of settlers from gender-liberal destinations are more likely to believe that men are not naturally better leaders than women. Estimates in columns (2) and (4) remain statistically significant at 11% and 15% respectively.

5.6 Selective Ex-Post Migration

One possible channel for persistence of gender values and norms is selective ex-post migration. Early settlers can determine the type of people that populate a given place/area thereafter. Transmission may thus occur by attracting similar people, making locational decisions of later migrants a function of the size of the population of early migrants that resided in that location.

Table XI shows evidence in support of selective ex-post migration of foreign-born migrants. I compute the share of settlers from a given foreign country for the top sending countries in 1850 out of total foreign-born settlers. The dependent variable in columns (1) to (7) is the share of foreign-born settlers from a given country of origin o out of total foreign-born settlers residing in county c in state s in 1860, 1870, 1880, 1900, 1910, 1920 and 1930 respectively. The independent variable of interest is the share of foreign-born settlers from a given country of origin o, out of total foreign-born settlers residing in county c, in state s, in 1850. Across columns (1)–(7), I include state fixed effects, geographic county-level and additional controls for geography and isolation.

Positive and statistically significant estimates reported in Table XI document

that a higher share of early settlers from a given country of origin residing in U.S. counties in 1850 increases the size of later settlers' population from that country of origin in that location thereafter. This thus provides suggestive evidence in support of selective ex-post migration of settlers as one plausible channel of persistence of gender norms.

5.7 Discussion

This paper provides evidence on the short- and long-run effects of settlers' culture on norms and values in newly established places. My findings are indicative of the long-lasting link between the composition of settlers, specifically settlers' culture, and cultural formation in hosting societies.

The mechanisms of transmission and persistence are related to having more people exposed and carrying gender-liberal norms from their place of origin and moving to new places at their early stages of cultural, community, societal and institutional development. The weak cultural and institutional setting in the early stages of settlement in these newly established counties allowed settlers to impact the formation of culture, local institutions and social identity. The cultural fabric in the newly established and settled area is self-perpetuating, transmitted partly through generations (vertical/over time transmission of norms) and acquired by newcomers (later immigrants) that self select or that assimilate into the area's particular culture (spatial/horizontal transmission of norms). This is related to the idea of how initial conditions can determine long-run equilibria (Bisin and Verdier (2011)).

My empirical findings lie at the heart of Zelinsky (1973)'s doctrine of "first effective settlement" and Woodard (2011)'s argument of how culture in a given area is defined and determined by the people who first occupied it and the type of institutions that they establish.

In the next section, I examine potential threats to identification that might undermine the validity of the interpretation of my results and carry out a robustness

analysis.

6 Robustness Analysis

In this section, I carry out a robustness analysis and account for and address potential threats to identification. These include the potential caveats in the measurement of settlers' populations, the link between the timeline of county creation and settler population and lastly, the validity of the cultural correspondence assumption. The results that I present in the next subsections help address these concerns and support the validity of my findings and interpretation.

6.1 Settlers' Culture: All Three Measures

I examine the impact of settlers' culture on female labor force participation in the short- and long-run using all three variables that capture values and beliefs from their place of origin in one regression. The first measure captures female labor force participation by the settlers' country of origin, by decade. The two other measures explore the chronological implementation and passage of women's suffrage rights across sending U.S. states and countries, and variation in the passage of women's financial rights across U.S. sending states.

The results from this analysis are reported in Appendix Table A7. Columns (1) and (2) display results in the short-run and columns (3) and (4) report the long-run results. My sample of U.S. counties is restricted to "new" counties. I include state, decade of country creation fixed effects and county-level geographic controls throughout columns (1)–(4). I include further controls for geography and isolation in columns (2) and (4).

Results in Appendix Table A7 suggest that settlers' culture, as proxied for using the share of out-of-state born settlers coming from states where women's financial rights were granted, is robust to the inclusion of the two other measures of culture, both in the short- and long-run. Estimates remain positive and statistically

significant across columns (1)–(4) with magnitudes ranging between 0.06 and 0.09 percentage point.

Conditional on the share of settlers coming from places where women's suffrage and financial rights were implemented, I find that having more foreign-born settlers from countries with high FLFP has a positive and statistically significant impact on female labor force participation in the U.S. in the short-run, with a magnitude of about 0.06 percentage point.

6.2 Settlers and County Creation

The historical background on U.S. territorial expansion, state incorporation and county formation helps support the claim that the composition of settlers is not a crucial determinant of county creation. Appendix Table A8 helps illustrate this claim, where I analyze the explanatory power of different determinants of U.S. counties' timing of creation. This table displays the estimates and the adjusted R-squared from regressions of the timing of creation (the date at which a given land area was first politically organized into a U.S. county) on a number of explanatory variables and state fixed effects. Column (1) shows that counties with higher shares of foreign-born and out-of-state born settlers were created sooner than others. This explains about 50% of the variation in the timing of counties' creation. In column (2) of Appendix Table A8, in addition to settlers' population as categorized between foreign-born, out-of-state and in-state born migrants, I add a list of county-level geographic variables such as latitude, longitude, mean county temperature and rainfall, elevation, distance to lakes and rivers from the county centroid and average potential agricultural yield. The explanatory power of the specification increases to about 58%. In column (3), I further include county-level geographic and isolation variables. This explains about 74% of the variation in the timeline of county creation. Lastly, in column (4), I include settlers' culture as proxied by the share of foreign-born settlers from countries known to have high FLFP. Results show that settlers' culture has weak explanatory power, with an adjusted R-squared

that is almost the same between columns (3) and (4). Results from Appendix Table A8 thus provide suggestive evidence in support of the weak significance of settlers' culture as a driver of county creation.[17]

6.2.1 Pre-County Creation Population

In this subsection, I describe pre-county creation populations by inferring the time of migration to U.S. counties and restricting to people who plausibly migrated prior to county formation.

Census data is not available for areas before they become politically organized as an administrative entity of the United States. This means that information about the population, population density, and composition of inhabitants of geographic areas is available only after the area was formally incorporated into a U.S. county given that our unit of study for this research is a county. The lack of information about the population living in these places before they are formally incorporated might constitute a potential caveat to my construction of the settler population. This is because it might be argued that these areas were settled for a long period of time before they formally became a U.S. county, which means that I might not actually be capturing the initial settlers of these counties.

To account for this, I investigate the timing of migration for a subsample of population (households/families with children) to infer these people's "time-at-move", to places before they become formally incorporated as U.S. counties. The purpose is to identify the people that plausibly migrated to U.S. counties prior to their formation. The analysis is possible only for families/households with children, given that data on individuals' county of birth and migration variables (pre 1940) are missing from the U.S. Census.

I find that the average "time-at-move" for families with one child only born outside the current state of residence, for residents of counties created in 1860, is

[17] The analysis using the shares of settlers from places where women could vote and had property and earning rights also confirms the weak explanatory power of settlers' culture in determining the timing of county creation.

about 7 years. For households with more than one child, the average move time is almost 4 years. I repeat this analysis considering the sample of counties created in 1920. I find that families with one child only born outside the current state of residence moved to the area where the county falls about 11 years earlier than county creation. For households with more than one child, the average "time-at-move" to these counties is 3 years prior to county creation. While here I have only reported the time at move to counties created in 1860 and 1920, the average time since people moved to other U.S. counties prior to their incorporation is always less than 10 years for households with children.

This provides suggestive evidence that the settler population I observe is not very different from pre-county creation populations, and that these counties were not settled for a long period of time before they formally became relevant U.S. counties. Of note, it is impossible to capture moves within states due to the lack of data from the U.S. census. This means that these settlers might have moved to other counties within the same state before actually moving to their current county of residence, and I will not be able to capture that. Nonetheless, my analysis reflects at least partially on the time of move to these newly created places.

6.3 Cultural Correspondence Assumption

In this study, settlers' culture is proxied with values and beliefs from settlers' country/state of birth. The logic behind it is that when individuals migrate to new places, they carry with them some aspects of their cultural beliefs and values and transmit them to where they move, i.e. settlers internalize their culture before migrating. This relates to the idea of "cultural continuity" via "portability" (horizontal transmission) of beliefs and values (Alesina et al. (2013); Antecol (2000); Fortin (2005); Fernandez (2007); Nunn and Wantchekon (2011)). The underlying assumption is that there is a correspondence between settlers' culture and the dominant culture in their sending country/state, i.e. settlers have beliefs, preferences and values that are representative of the norms of country/state of birth.

A potential caveat that undermines the credibility of this assumption is the following: individuals that migrate might not have beliefs, preferences and values that are representative of the average in their country of origin. Plausible selective emigration from country/state of birth might have occurred, and individuals therefore selectively decided to migrate to new places as a result of the opposing views to the local norms and hence, the desire to leave.

If immigrants are unlikely to be a representative sample of their home country's population, i.e. if their beliefs and preferences differ significantly from the country average; then this will introduce a bias toward finding settlers' culture to be insignificant in explaining gender norms in the U.S (Fernandez (2007), Fernandez and Fogli (2009)). Alternatively, one may argue that these results are explained by a selection into immigration story in favor of culture. If culture does not matter and for selection to be responsible of these results, then settlers from high (low) FLFP countries should possess higher (lower) preferences and beliefs toward work compared to their country's average. There is no reason to believe that this is the case.

To empirically examine whether the correspondence assumption between settlers' culture and the dominant culture in their sending country/state is credible for migrants moving to U.S. counties, I carry out an approach that is inspired by the work of Fernandez and Fogli (2009). The purpose of their research is to study culture by examining the work and fertility behavior of second-generation American women. To proxy for culture, they rely on past female labor force participation and fertility rates from women's country of ancestry. The argument is that female labor force participation in a given country is a function of a women's preferences and beliefs, including how she will be treated by others based on her work decision, as well as her own perception of the role of women in the household, her perceived impact on children as a result of her work, etc. This is in addition to other economic and institutional factors determining women's work decisions. Second-generation American women face the same markets and institutions in the U.S., yet they differ

in their cultural heritage.[18]

Unlike Fernandez and Fogli (2009), I focus on first-generation female immigrants, i.e. those who were born in foreign countries and then moved to the United States, which allows the sample of foreign migrants to be plausibly exposed to their home country culture before migration. Using Census data from the period of 1860 to 1930 (labor force status is missing for women in 1850) on first generation female immigrants residing in newly created U.S. counties, I show that past female labor force participation in their country of origin at the same time or a few decades earlier are important determinants of their labor supply.

I estimate FLFP of foreign-born movers observed in the U.S. (i.e., FLFP for women (foreign-born) that moved to the U.S.) on FLFP of the stayers for each sending country. I restrict my main sample to "new" counties created between 1860–1930 and carry the analysis at the U.S. county level. Results are reported in Table XII.

The dependent variable in columns (1) to (4) is the ratio of foreign-born women settlers from a given country of origin o that are in the labor force, out of total foreign born women settlers from the country of origin o, residing in county c, in state s, in 1860, 1870, 1880, 1900, 1910, 1920 and 1930. The independent variable of interest is FLFP for stayers, i.e. average FLFP in the sending country. Across columns (1)–(4), I include decade of county creation fixed effects and introduce state fixed effects in columns (2)–(4). I introduce county-level geographic controls in columns (3) and (4) and append the last column with additional controls for counties' geography and isolation. Estimates of the coefficient on my main independent variable of interest, historical female labor force participation in the country of origin of the foreign-born women, are all positive and statistically significant. This indicates that foreign-born women observed in the U.S. are more likely to work if they come from a country with high female labor force participation. In other words, women born in countries with high (low) FLFP tended to work more (less) themselves in the United States.

[18]See Fernandez and Fogli (2009) for a detailed discussion about the rationale for using countries' female labor force participation to reflect culture.

If beliefs and preferences differed from the country average, then this will introduce a bias toward not finding an effect. Alternatively, for selection to be driving these results, women who have a high (low) preference for work should select to immigrate from countries with high (low) FLFP, which seems implausible.

7 Conclusion

The purpose of this paper is to examine the relationship between the culture of settlers residing in U.S. counties at early stages of their cultural and institutional development and gender norms, both historically and in the long-run. This research provides an analytical empirical framework that allows for the revisiting of a doctrine in cultural geography proposed by Zelinsky (1973), which argues that the characteristics of the first people residing in a given place are crucial for cultural formation.

I focus on counties that were not subdivisioned or partitioned from previously formed ones, as those better reflect early stages of development and establishment of the community, society, culture and institutions formed. I document a higher female labor force participation in the short and long run in U.S. counties that were initially occupied by migrants originating from places with liberal gender attitudes. I also document liberal attitudes toward women's roles in societies for individuals currently residing in U.S. counties that historically hosted higher shares of early settlers from places with liberal gender attitudes.

This research sets the stage for future work to look at a host of other cultural traits in the U.S. context. Applying this analysis in other settler societies is also crucial, as settlement may have different effects in other countries.

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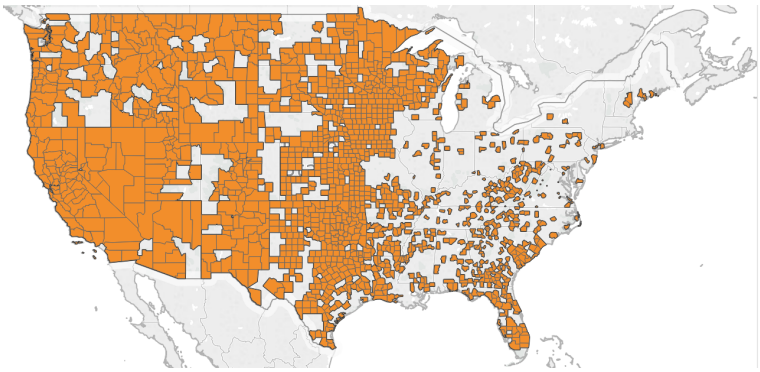
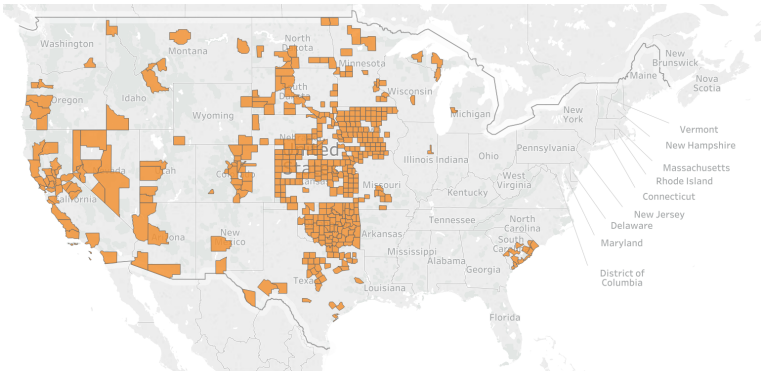
Figures

Figure I: U.S. counties created between 1840 and 1940



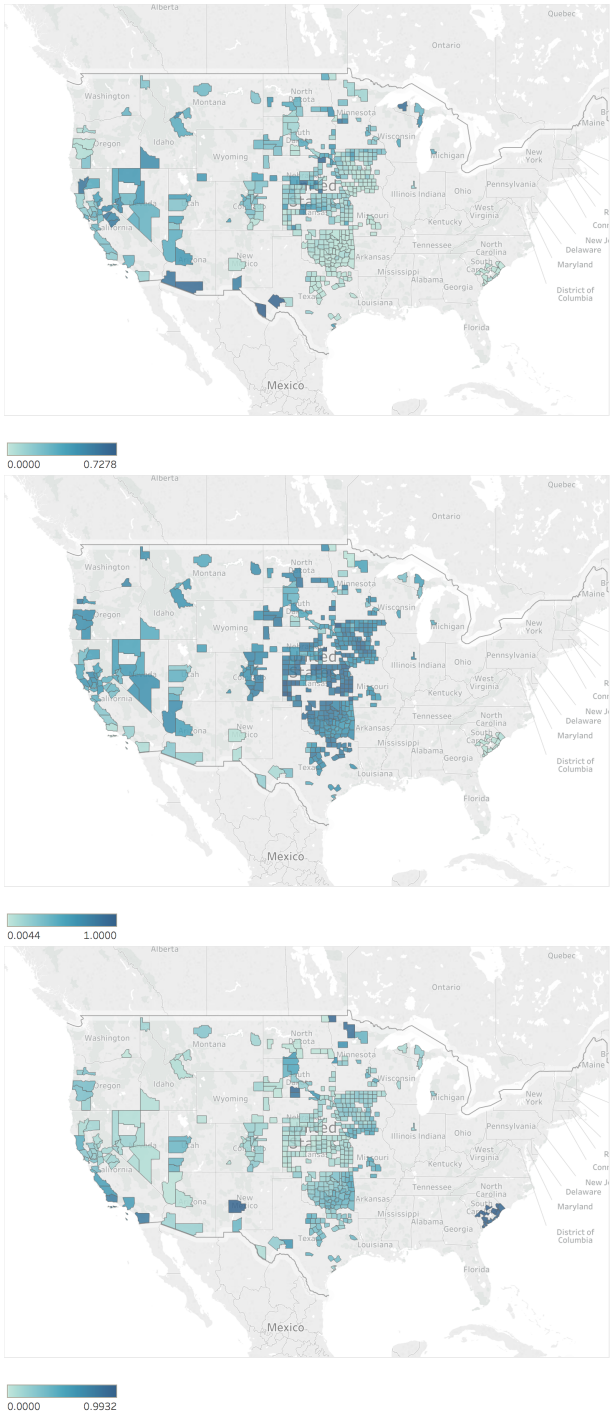
Notes: Sample of U.S. counties created between 1840 and 1940. Orange indicates that a county is included in my analysis while grey areas indicate counties that are excluded from my analysis either because they were created before 1840, between 1880 and 1889 or after 1940. *Source*: Author's compilation based on the ATLAS of Historical County Boundaries data.

Figure II: Main sample of "new" counties



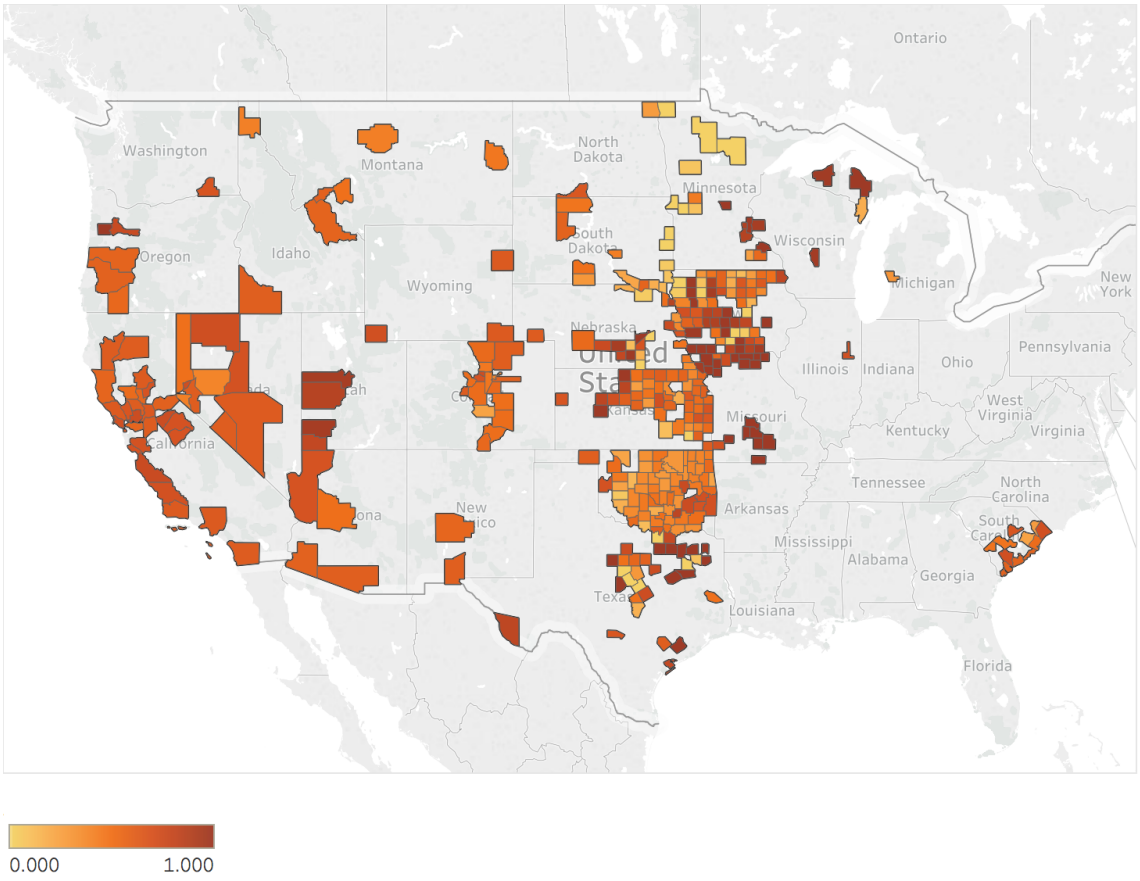
Notes: Main sample of "new" counties which includes counties that were not subdivisioned or partitioned from previously formed counties. Orange indicates that a county is included in my *main* sample because it was created between 1840–1940 and was not subdivisioned or partioned from previously created counties but formed from non-county areas. Grey areas indicate counties that are excluded from my *main* sample. *Source*: Author's compilation based on the ATLAS of Historical County Boundaries data.

Figure III: Settler population by origin: Sample of "new" counties



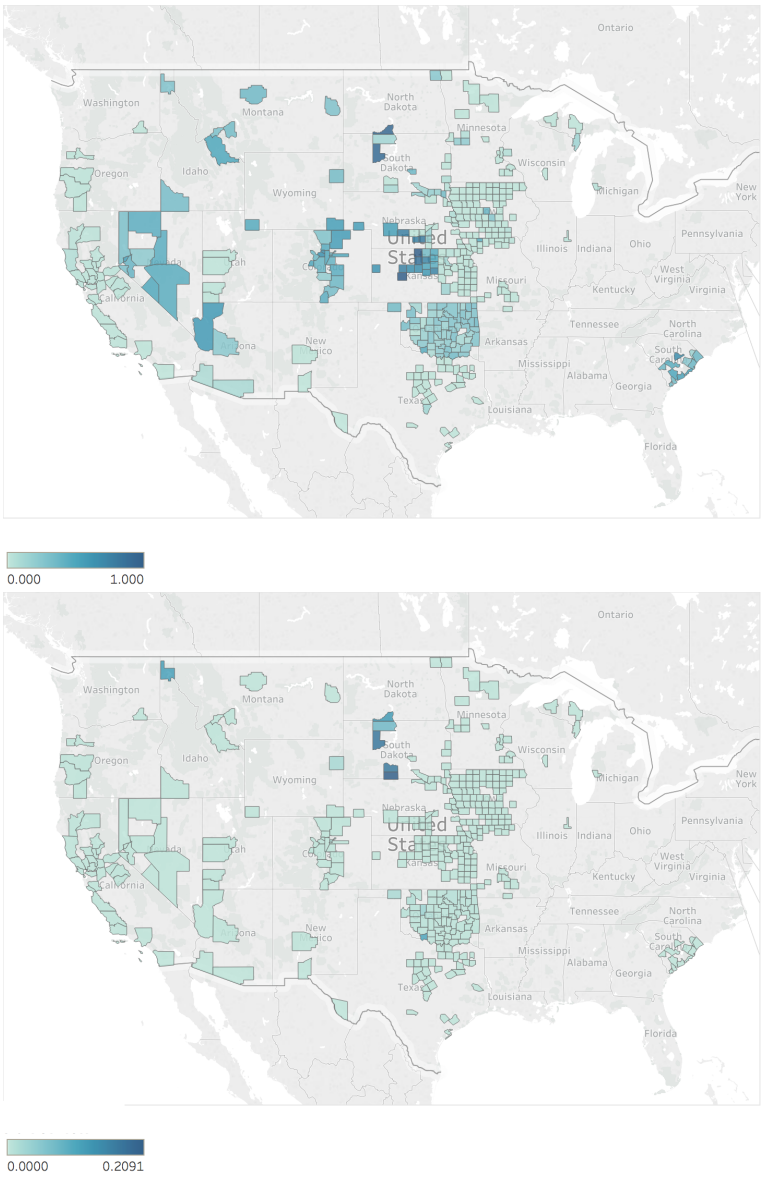
Notes: Shares of foreign born, out-of-state and in-state born individuals out of the total population are displayed respectively. Foreign born individuals are those who are born in a country different from the United States. Out-of-state born individuals are those who are born in a U.S. state that is different from the state in which the household is located when the Census enumerator conducted the interview. In-state born individuals are those born in the same state as the one where the household is located. Shares of foreign borns settlers out of the total population range between 0 and 1 with 0 indicating no foreign born settlers in the county and 1 indicating that all individuals living in the county are foreign born. Light blue indicates lower shares and dark blue greater shares. Grey areas indicate counties that are excluded from my sample.

Figure IV: Map of foreign born settlers from countries with high FLFP: Sample of "new" counties



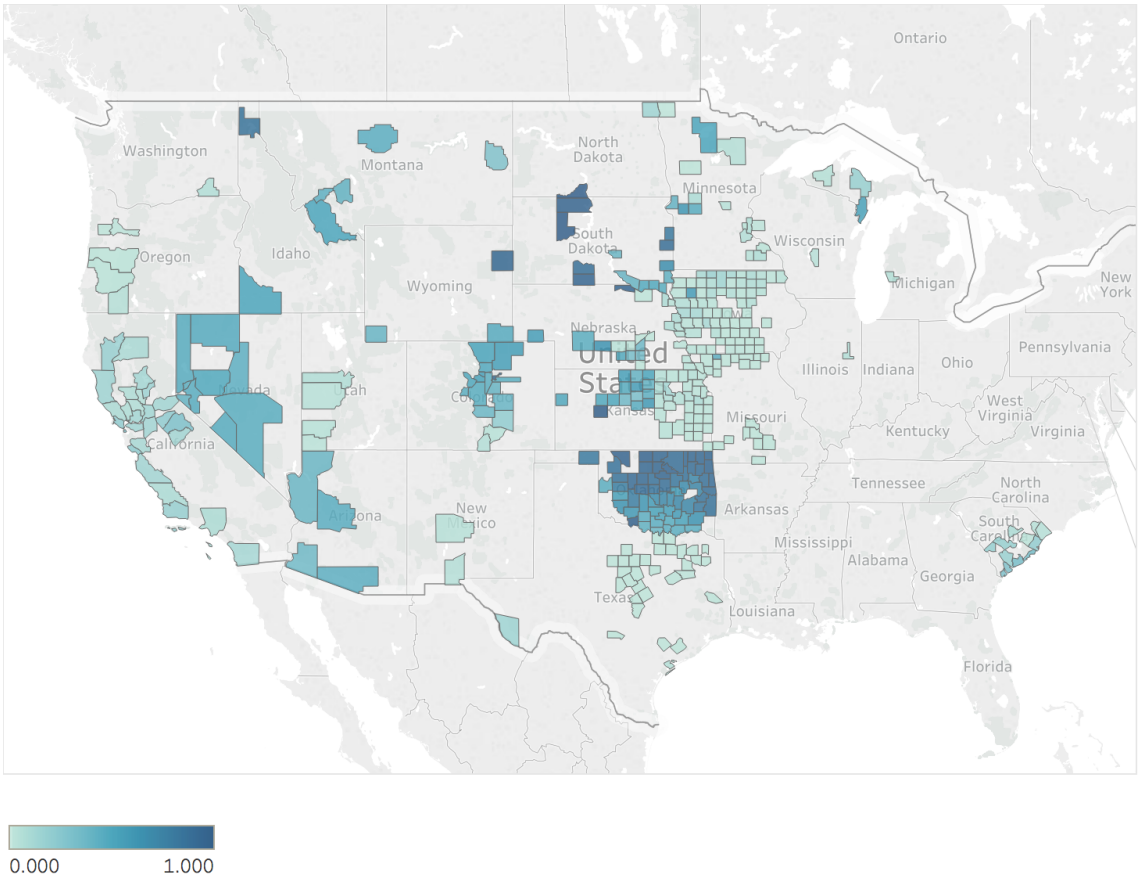
Notes: Map showing the share of foreign born settlers from countries *known* to have *above* median female labor force participation. Grey areas indicate counties that are excluded from my sample. Light yellow indicates a small share of foreign born settlers coming from counties with *above* median female labor force participation and dark orange indicates a high share. *Source*: Author's compilation.

Figure V: Foreign and out-of-state settlers who could vote: Sample of "new" counties



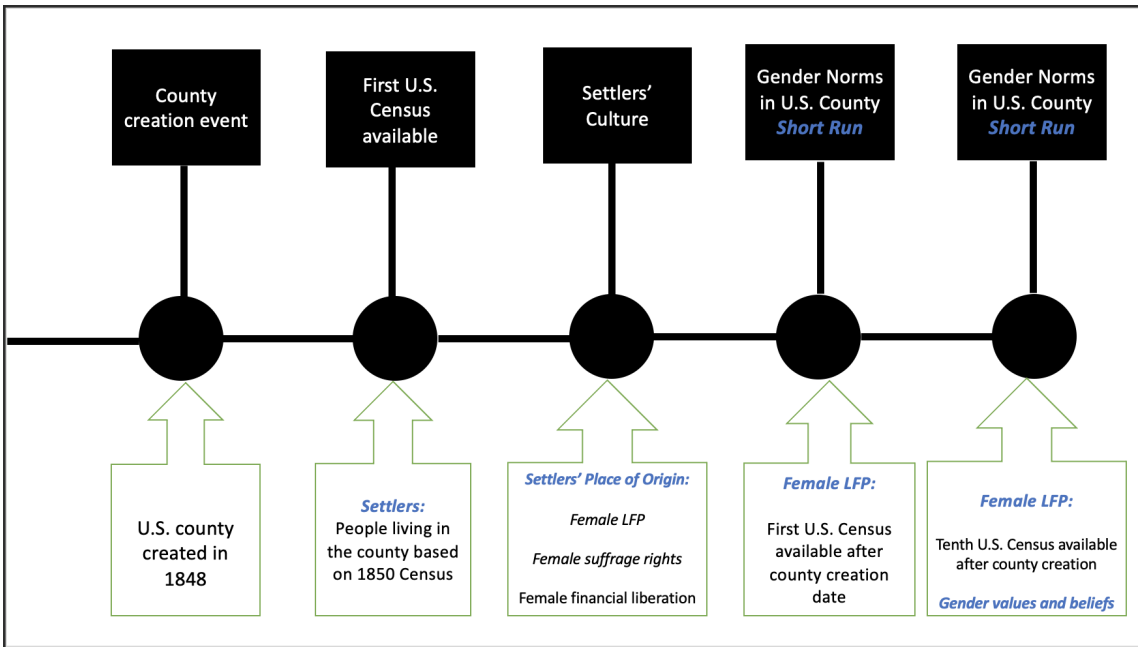
Note: Map showing the share of foreign born settlers out of the total foreign born settler population and out-of-state born settlers out of the total out-of-state settler population coming from countries/U.S. states where partial or full suffrage rights were granted to women anytime before the time when settlers are observed. Grey areas indicate counties that are excluded from my sample. Light blue indicates a small share of foreign born settlers/out-of-state born settlers coming from countries/U.S. states where women could vote and dark blue indicates a high share. *Source*: Author's compilation.

Figure VI: Out-of-state settlers from states granting women's financial liberation: Sample of "new" counties



Notes: Map showing the share of out-of-state born settlers out of the total out-of-state settler population coming from U.S. states where women's financial liberation was granted anytime before the time when settlers are observed. Grey areas indicate counties that are excluded from my sample. Light blue indicates a small share of out-of-state born settlers coming from U.S. states where women had property and earning rights and blue indicates a high share. *Source*: Author's compilation.

Figure VII: Strategy visualization



Notes: Figure showing a visual display of the methodology used in this paper. *Source*: Author's compilation.

Tables

Table I: Descriptive statistics

		By Gender	
	Entire population	Male population	Female population
	(1)	(2)	(3)
Demographic Characteristics			
Share male population	0.60		
	(0.11)		
Share prime age population	0.57	0.59	0.50
	(0.13)	(0.15)	(0.08)
Share literate population	0.55	0.59	0.47
	(0.20)	(0.20)	(0.19)
Share single population	0.44	0.53	0.24
	(0.18)	(0.18)	(0.10)
Average number of children	1.88		
	(0.54)		
Child to women ratio	692.23		
	(226.85)		
Settlers' Population			
Share foreign born	0.15	0.16	0.12
	(0.16)	(0.16)	(0.14)
Share out-of-state born	0.62	0.48	0.60
	(0.19)	(0.19)	(0.21)
Share in-state born	0.22	0.20	0.26
	(0.19)	(0.19)	(0.21)

Notes: Based on complete count Census data from the Integrated Public Use Microdata Series (IPUMS). My sample is restricted to "new" counties. Settlers' population is based on the first U.S. Census available after the county creation date. Foreign born individuals are those who are born in a country different from the United States. Out-of-state born individuals are those who are born in a U.S. state that is different from the state in which the household is located when the Census enumerator conducted the interview. In-state born individuals are those born in the same state as the one where the household is located. All shares range between 0 and 1. In column (1), shares are displayed out of the total settler population. In columns (2) and (3), summary statistics are displayed by gender. Shares in columns (2) and (3) are displayed out of the male settler population and the female settler population respectively. Prime age refers to ages 15 to 49. The child to women ratio is computed as the ratio of the number of children under 5 years of age over the number of women in their childbearing age times 1000. Standard deviations are reported in parentheses.

Table II: Settlers' culture: Descriptive statistics

	Mean (1)	SD (2)	(N) (3)
Settlers' culture			
Female labor force participation			
Share foreign born with *known* FLFP	0.77	0.24	426
Share foreign born with *unknown* FLFP	0.23	0.24	426
Share foreign born : *Above* median FLFP	0.54	0.28	436
Share foreign born : *Below* median FLFP	0.46	0.28	436
Suffrage			
Share foreign born: Women suffrage rights	0.16	0.21	431
Share out-of-state born: Women suffrage rights	0.003	0.01	436
Foreign born: suffrage intensity	5.46	9.24	436
Out-of-state born: suffrage intensity	0.07	0.50	436
Financial liberation			
Share out-of-state born: Women's financial liberation	0.33	0.35	436
Out-of-state born: financial liberation intensity	6.70	10.08	436
FLFP in U.S. counties			
FLFP in the short run	0.11	0.11	368
FLFP in the long run	0.28	0.13	334

Notes: My sample is restricted to "new" counties. Shares of foreign born settlers from countries *known* to have *above* and *below* median FLFP add up to 1. Shares of foreign born settlers from countries with *known* and *unknown* FLFP add up to the entire foreign born settler population. *Share foreign born: Women suffrage rights* and *Share out-of-state born: Women suffrage rights* are the share of foreign born settlers out of the total foreign born settlers population and the share of out-of-state born settlers out of the total out-of-state born settlers population coming from countries/U.S. states where partial or full suffrage rights were granted to women anytime before the time when settlers are observed. Women's suffrage *intensity* is measured as a weighted share of settlers coming from places were partial/full voting rights were granted to women weighted by the number of years between suffrage laws' passage and county creation. *Share out-of-state born: Women's financial liberation* is the share of out-of-state born settlers out of the total out-of-state born settlers population coming from U.S. states where women's financial liberation was granted anytime before the time when settlers are observed. Women's financial liberation *intensity* is measured as a weighted share of out-of-state born settlers coming from U.S. states where property rights and earnings rights were granted to women weighted by the number of years between women's financial liberation laws' passage and county creation.

Table III: Settlers' culture: Female labor force participation in sending countries

	Female labor force participation			
	"New" counties			*"Partitioned/Other"*
	(1)	(2)	(3)	(4)
Settlers' population				
Share foreign born	0.101*	0.105*	0.106	0.00579
	(0.057)	(0.057)	(0.066)	(0.049)
Share out-of-state born	0.0235	0.0287	0.0369	0.0589
	(0.067)	(0.070)	(0.077)	(0.038)
Settlers' culture				
Share foreign born:*Above* median FLFP	0.0549**	0.0527**	0.0596**	0.00698
	(0.026)	(0.026)	(0.027)	(0.022)
State FE	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes	Yes
Additional Controls			Yes	Yes
N	**368**	**368**	**368**	**762**

Notes: The dependent variable in columns (1)–(4) is female labor force participation in U.S. counties in the short run. Data on labor force participation is based on the first U.S. Census available after county creation. My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In column (4), the sample is restricted to "partitioned" and "other" counties. Settler population is based on the first U.S. Census available after the county creation date. Settlers' culture is proxied for using female labor force participation from sending countries to reflect gender norms at the place of origin. Female labor force participation from sending countries is extracted from the same decade, or a decade or two earlier, depending on data availability, from when I observe the foreign born settler population. State and decade of county creation fixed effects are included in columns (1)–(4). The set of geographic controls are included in columns (1)–(4). The set of demographic controls are included in columns (2)–(4). The set of additional controls are included in columns (3) and (4). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table IV: Settlers' culture: Women's suffrage rights

	Female labor force participation			
	"New" counties			*"Partitioned/Other"*
	(1)	(2)	(3)	(4)
Settlers' population				
Share foreign born	0.105*	0.105*	0.0828	0.00828
	(0.063)	(0.062)	(0.079)	(0.050)
Share out-of-state born	0.0253	0.0264	0.0186	0.0622
	(0.071)	(0.072)	(0.081)	(0.039)
Settlers' culture				
Share foreign born: Suffrage rights	-0.00266	-0.00726	-0.0215	-0.0118
	(0.028)	(0.032)	(0.034)	(0.019)
Share out-of-state born: Suffrage rights	-0.958	-0.384	-0.376	0.0649
	(0.597)	(0.668)	(0.648)	(0.043)
State FE	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes	Yes
Additional Controls			Yes	Yes
N	**367**	**367**	**367**	**761**

Notes: The dependent variable in columns (1)–(4) is female labor force participation in U.S. counties in the short run. Data on labor force participation is based on the first U.S. Census available after county creation. My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In column (4), the sample is restricted to "partitioned" and "other" counties. Settlers' population is based on the first U.S. Census available after the county creation date. Settlers' culture is proxied for using women's suffrage rights to reflect gender norms at the place of origin. The omitted categories are share out-of-state born: Women *No* suffrage rights and Share foreign born: Women *No* suffrage rights, i.e. settlers from countries/U.S. states were women were not granted neither partial nor full suffrage rights. State and decade of creation fixed effects are included in columns (1)–(4). Geographic controls are included across columns (1)–(4), demographic controls are introduced starting column (2) to (4) and lastly additional county level controls for geography and isolation are introduced in columns (3) and (4). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table V: Settlers' culture: Women's financial liberation

	Female labor force participation			
	"New" counties			*"Partitioned/Other"*
	(1)	(2)	(3)	(4)
Settlers' population				
Share foreign born	0.0961	0.101*	0.111	0.00757
	(0.059)	(0.058)	(0.067)	(0.049)
Share out-of-state born	0.0272	0.0309	0.0459	0.0644*
	(0.070)	(0.072)	(0.078)	(0.039)
Settlers' culture				
Share out-of-state born: Financial liberation	0.0751**	0.0672*	0.0683*	0.0358
	(0.034)	(0.034)	(0.038)	(0.030)
State FE	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes	Yes
Additional Controls			Yes	Yes
N	**368**	**368**	**368**	**762**

Notes: The dependent variable in columns (1)–(4) is female labor force participation in U.S. counties in the short run. Data on labor force participation is based on the first U.S. Census available after county creation. My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In column (4), the sample is restricted to "partitioned" and "other" counties. Settlers' population is based on the first U.S. Census available after the county creation date. Settlers' culture is proxied for using women's financial liberation to reflect gender norms at the place of origin. The omitted category is the share out-of-state born: Women *No* women's financial liberation, i.e. settlers from U.S. states where women were not yet granted financial liberation. State and decade of creation fixed effects are included in columns (1)–(4). Geographic controls are included across columns (1)–(4), demographic controls are introduced starting column (2) to (4) and lastly additional county level controls for geography and isolation are introduced in columns (3) and (4). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table VI: Analysis in the long run: Settlers' culture (FLFP)

	Female labor force participation			
	"New" counties			*"Partitioned/Other"*
	(1)	(2)	(3)	(4)
Settlers' population				
Share foreign born	0.0646**	0.0443*	0.0241	0.0542*
	(0.028)	(0.026)	(0.034)	(0.029)
Share out-of-state born	0.00127	-0.0101	-0.0294	0.0215
	(0.028)	(0.029)	(0.038)	(0.020)
Settlers' culture				
Share foreign born: *Above* median FLFP	0.0179*	0.0163*	0.0185*	0.0141*
	(0.009)	(0.009)	(0.010)	(0.008)
State FE	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes	Yes
Additional Controls			Yes	Yes
N	**331**	**331**	**331**	**723**

Notes: The dependent variable in columns (1)–(4) is female labor force participation in U.S. counties in the long run. Data on labor force participation is based on the tenth U.S. Census available after county creation (100 years later). My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In column (4), the sample is restricted to "partitioned" and "other" counties. Settlers' population is based on the first U.S. Census available after county creation date. Settlers' culture is proxied for using female labor force participation from sending countries to reflect gender norms at the place of origin. Female labor force participation from sending countries is extracted from the same decade, or a decade or two earlier, depending on data availability, from when I observe my foreign born settlers' population. Share of foreign born settlers from countries *known* to have *below* median female labor force is the omitted category. State and decade of creation fixed effects are included in columns (1)–(4). The set of geographic controls are included in columns (1)–(4). The set of demographic controls are included in columns (2)–(4). The set of additional controls are included in columns (3) and (4). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table VII: Analysis in the long run: Settlers' culture (suffrage)

	Female labor force participation			
	"New" counties			*"Partitioned/Other"*
	(1)	(2)	(3)	(4)
Settlers' population				
Share foreign born	0.0726**	0.0505*	0.0245	0.0595*
	(0.029)	(0.027)	(0.033)	(0.030)
Share out-of-state born	-0.00496	-0.0178	-0.0450	0.0250
	(0.030)	(0.029)	(0.037)	(0.020)
Settlers' culture				
Share foreign born: Suffrage rights	0.0763*	0.0769*	0.0817*	0.00528
	(0.044)	(0.043)	(0.045)	(0.018)
Share out-of-state born: Suffrage rights	-0.382	-0.281	-0.233	0.0325
	(1.292)	(1.345)	(1.285)	(0.064)
State FE	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes	Yes
Additional Controls			Yes	Yes
N	**330**	**330**	**330**	**716**

Notes: The dependent variable in columns (1)–(4) is female labor force participation in U.S. counties in the long run. Data on labor force participation is based on the tenth U.S. Census available after county creation (100 years later). My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In column (4), the sample is restricted to "partitioned" and "other" counties. Settlers' population is based on the first U.S. Census available after the county creation date. Settlers' culture is proxied for using women's suffrage rights to reflect gender norms at the place of origin. The omitted categories are share out-of-state born: Women *No* suffrage rights and Share foreign born: Women *No* suffrage rights, i.e. settlers from countries/U.S. states where women were not granted neither partial nor full suffrage rights. State and decade of creation fixed effects are included in columns (1)–(4). Geographic controls are included across columns (1)–(4), demographic controls are introduced starting column (2) to (4) and lastly additional county level controls for geography and isolation are introduced in columns (3) and (4). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table VIII: Analysis in the long run: Settlers' culture (financial liberation)

	Female labor force participation			
	"New" counties			*"Partitioned/Other"*
	(1)	(2)	(3)	(4)
Settlers' population				
Share foreign born	0.0445	0.0283	0.0147	0.0577**
	(0.030)	(0.028)	(0.033)	(0.028)
Share out-of-state born	-0.0115	-0.0179	-0.0314	0.0283
	(0.029)	(0.029)	(0.037)	(0.019)
Settlers' culture				
Share out-of-state born: Financial liberation	0.0994***	0.0935***	0.0909**	0.0318
	(0.032)	(0.033)	(0.036)	(0.023)
State FE	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes	Yes
Additional Controls			Yes	Yes
N	**331**	**331**	**331**	**723**

Notes: The dependent variable in columns (1)–(4) is female labor force participation in U.S. counties in the long run. Data on labor force participation is based on the tenth U.S. Census available after county creation (100 years later). My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In column (4), the sample is restricted to "partitioned" and "other" counties. Settlers' population is based on the first U.S. Census available after the county creation date. Settlers' culture is proxied for using women's financial liberation to reflect gender norms at the place of origin. The omitted category is the share out-of-state born: Women *No* women's financial liberation, i.e. settlers from U.S. states where women were not yet granted financial liberation. State and decade of creation fixed effects are included in columns (1)–(4). Geographic controls are included across columns (1)–(4), demographic controls are introduced starting column (2) to (4) and lastly additional county level controls for geography and isolation are introduced in columns (3) and (4). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table IX: Later settlers' culture: FLFP

	Female labor force participation			
	"New" counties			*"Partitioned/Other"*
	(1)	(2)	(3)	(4)
Settlers' population				
Share foreign born	0.0829**	0.0525	0.0571	0.0659**
	(0.041)	(0.048)	(0.050)	(0.029)
Share out-of-state born	0.0596	0.0452	0.0423	0.0135
	(0.040)	(0.047)	(0.048)	(0.022)
Settlers' culture				
Share foreign born: *Above* median FLFP	0.0236*	0.0235*	0.0224*	0.00660
	(0.013)	(0.012)	(0.012)	(0.009)
Later settlers' culture				
In 1920: *Above* median FLFP			0.00351	-0.00798
			(0.016)	(0.009)
In 1930: *Above* median FLFP			0.0258	0.0121
			(0.030)	(0.010)
In 1940: *Above* median FLFP			-0.000359	0.0325***
			(0.022)	(0.010)
In 1950: *Above* median FLFP			-0.0349	-0.0119
			(0.031)	(0.030)
In 1970: *Above* median FLFP			0.0248**	0.0326***
			(0.012)	(0.008)
In 1980: *Above* median FLFP			-0.0120	0.0119*
			(0.011)	(0.007)
In 1990: *Above* median FLFP			0.00680	0.00833
			(0.015)	(0.011)
State FE	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes	Yes
N	**409**	**409**	**409**	**802**

Notes: The dependent variable in columns (1)–(4) is female labor force participation in U.S. counties in the long run. Data on labor force participation is based on the 1990 U.S. Census. My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In column (4), the sample is restricted to "partitioned" and "other" counties. Settlers' population is based on the first U.S. Census available after county creation date. Settlers' culture is proxied for using female labor force participation from sending countries to reflect gender norms at the place of origin. Female labor force participation from sending countries is extracted from the same decade, or a decade or two earlier, depending on data availability, from when I observe my foreign born settlers' population. Share of foreign born settlers from countries *known* to have *below* median female labor force is the omitted category. Later settlers' culture is measured using the share of foreign born settlers from countries *known* to have above median female labor force participation in 1920 to 1990. State and decade of creation fixed effects are included in columns (1)–(4). The set of geographic controls are included in columns (1)–(4). The set of demographic controls are included in columns (2)–(4). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table X: Attitudes regarding women's roles: GSS

	Women Work	Women Country	Women Work	Women Country	Women Work	Women Country
	(1)	(2)	(3)	(4)	(5)	(6)
Settlers' population						
Share foreign born	-1.137***	-0.0401	0.958***	1.006***	-0.136	-0.00597
	(0.189)	(0.170)	(0.262)	(0.184)	(0.126)	(0.115)
Share out-of-state born	2.885***	1.012***	-5.684***	-2.378**	0.0686	0.190**
	(0.226)	(0.126)	(1.095)	(0.827)	(0.090)	(0.082)
Settlers' culture						
Foreign born: *Above* median FLFP	7.422***	3.238***				
	(1.152)	(0.844)				
Foreign born: Suffrage rights			6.795***	1.228***		
			(0.744)	(0.365)		
Out-of-state born: Suffrage rights			159.6***	57.03***		
			(16.445)	(8.955)		
Out-of-state born: Financial liberation					0.229*	0.156
					(0.130)	(0.118)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes	Yes	Yes
Survey year FE	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	Yes	Yes	Yes	Yes	Yes	Yes
N	**959**	**952**	**959**	**952**	**2384**	**2342**

Notes: The unit of observation is a respondent. The period covered from the General Social Survey (GSS) is 1993–1998. Attitudes toward women's roles in societies is assessed through the following two questions: "Do you approve or disapprove of a married woman earning money in business or industry if she has a husband capable of supporting her?" where respondents choices are recoded as follows (1=approve, 0=disapprove) and "Do you agree or disagree with this statement? Women should take care of running their homes and leave running the country up to men?" where respondents choices are recoded as follows (1=disagree, 0=agree). My sample of U.S. counties is restricted to "new" counties. **Settlers' Culture$_{cs}$** is the independent variable of interest. It is proxied for using the share of foreign born settlers from countries *known* to have above median female labor force participation in columns (1) and (2). In columns (3) and (4), **Settlers' Culture$_{cs}$** is measured using the share of foreign born settlers out of the total foreign born settlers population and the share of out-of-state born settlers out of the total out-of-state born settlers population coming from countries/U.S. states where partial or full suffrage rights were granted to women anytime before the time when settlers are observed. Lastly, in columns (5) and (6), **Settlers' Culture$_{cs}$** is proxied for using the share of out-of-state born settlers out of the total out-of-state born settlers population coming from U.S. states where women's financial liberation was granted anytime before the time when settlers are observed. Settlers' population is based on the first U.S. Census available after the county creation date. State, decade of county creation and GSS survey year fixed effects are included in columns (1) to (6). The set of geographic controls is included in columns (1)–(6). The set of demographic controls is included in columns (1)–(6). The set of additional controls is included in columns (1)–(6). Individual's characteristics include the individual's gender, age, age squared, six education dummies, three race dummies and five marital status dummies. These are included in columns (1)–(6). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table XI: Selective ex post migration

	Share foreign born$_{ocsd}$ in U.S. counties						
	1860	1870	1880	1900	1910	1920	1930
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Share foreign born$_{ocs1850}$	0.729***	0.646***	0.600***	0.431***	0.337***	0.249***	0.218***
	(0.016)	(0.016)	(0.016)	(0.019)	(0.018)	(0.016)	(0.015)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	**11018**	**11053**	**11060**	**11067**	**11074**	**11074**	**11074**

Notes: The dependent variable in columns (1) to (7) is the share of foreign born settlers from a given country of origin o out of total foreign born settlers residing in county c in state s in 1860, 1870, 1880, 1900, 1910, 1920 and 1930 respectively. The independent variable of interest is the share of foreign born settlers from a given country of origin o out of total foreign born settlers residing in county c in state s in 1850. State fixed effects are included in columns (1)–(7). Geographic controls and additional county level controls for geography and isolation are included across columns (1)–(7). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table XII: Cultural correspondence assumption: Selective migration of settlers?

	$\mathbf{FLFP}^{Movers}_{ocsd}$			
	"New" counties			
	(1)	(2)	(3)	(4)
$FLFP^{Stayers}_{ocsd}$	0.051**	0.047**	0.046**	0.045**
	(0.022)	(0.022)	(0.022)	(0.022)
State FE	No	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	No	No	Yes	Yes
Additional Controls	No	No	No	Yes
N	13353	13353	13353	13205

Notes: The sample is restricted to foreign born women i.e. women who are born in a country different from the United States. The dependent variable in columns (1)–(6) is FLFP of foreign born women in U.S. counties (movers- i.e., observed in the U.S.). The independent varaible is FLFP in their sending country (stayers). FLFP in sending countries is the female labor force participation in the country of birth of the foreign born woman and it is extracted from the same decade, or a decade or two earlier, depending on data availability, from when I observe my foreign born women settler population. Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Appendix

7.1 Data on U.S. Counties

ATLAS of Historical County Boundaries provides detailed information about each county event. Events are dated and any change is stated along with the start and end date. Each U.S. county has a unique identifier, however, many versions exist depending on the number of changes to either the size or the shape of the U.S. county. The focus of this paper is on the first event for each county identifier which is the creation of a given county. Subsequent changes in the size, shape, location or administrative status of counties are disregarded.

7.2 Data on FLFP in U.S. Counties

Data on female labor force participation in U.S. counties is obtained from the complete count United States Census data (1860–1940) from the Integrated Public Use Microdata Series (IPUMS). I rely on a labor force status dichotomous variable that indicates whether a person participated in the labor force to compute female labor force participation.

It must be noted that official Census accounts of female labor force participation before 1890 may be subject to under-reporting.[19]

7.3 Descriptive Statistics: Entire Sample of Counties Created

In Appendix Table A9, I provide summary statistics of the characteristics of settlers living in U.S. counties created between 1840–1940. This sample combines "new", "partitioned" and "other" counties. I present statistics for my entire sample of settlers in column (1) of Appendix Table I. I also report statistics by gender in columns (2) and (3). Men constitute 57% of the settler population, and more than half of the entire settler population are men and women of prime age (15–49). The literacy rate is equal to 52%, 41% of settlers are single and lastly the average number of children is close to 2. Foreign born individuals constitute 13% of settlers, 48% were born out-of-state and the remaining 39% were born in-state. Columns (2) and (3) of Appendix Table A9 show that male settlers are more likely to be in their prime age, literate and single in comparison to female settlers. While out-of-state born individuals are equally distributed between men and women, the share of foreign born individuals is higher for male settlers than for female settlers.

Appendix Table A10 repeats these descriptive statistics by gender for foreign born, out-of-state and in-state born settlers seperately in columns (1) and (2), (3) and (4), and (5) and (6) respectively. This table shows that among the population of foreign born settlers, close to 70% are men; and that male foreign borns are more likely to be in their prime age, literate and single. Appendix Table A10 also shows that male individuals constitute a slightly smaller share out of the out-of-state born settlers' population in

[19]See Chiswick and Robinson (2020) for a discussion of the nineteenth century Census female labor force participation measurement problems.

comparison to the male share of foreign born individuals. Of those born out-of-state, men are more likely to be in their prime age, literate and single in comparison to women. However, the shares of prime age, literate and single migrants are higher for male foreign born individuals than for male out-of-state born individuals (comparing column (1) to (3)). Comparing statistics for women between those born abroad and out-of-state (i.e. comparing column (2) to (4)), I find that the shares of foreign born women who are in their prime age and literate are significantly larger than for women born out-of-state. Foreign born women are less likely to be single. Columns (5) and (6) of Appendix Table A10 report summary statistics for in-state born individuals by gender. Interestingly, in-state born individuals are equally distributed between men and women. The prime age and literacy shares are also the same among the male and female in-state born populations, but men are more likely to be single. Finally, doing an across place of origin comparison reveals that in-state born individuals (both men and women) are less likely to be in their prime age and to be literate, whereas men and women born in-state are more likely to be single in comparison to those not born in-state.

In Appendix Table A11, I report summary statistics related to settlers' culture for my entire sample of U.S. counties created between 1840–1940. This sample combines "new", "partitioned" and "other" counties. The share of foreign born settlers with known female labor force participation constitute more than 70% of the entire population of foreign born settlers. This figure is obtained by dividing the total number of foreign born settlers from countries where data on labor force participation for women is available by the total foreign born settler population. Appendix Table II shows that 56% of foreign born individuals from countries with known female labor force participation are from countries with *above* decade specific median female labor force participation.

Appendix Table A11 shows descriptive statistics related to share of settlers coming from countries/states where women could vote. I document that 23% and 4% of the foreign born settler and out-of state settler population respectively came from places where women could vote. Lastly, Appendix Table A11 shows that almost 40% of out-of-state born settlers came from U.S. states where women had property and earnings rights.

7.4 Settlers' Culture

The share of foreign born settlers from countries known to have *above* decade specific median female labor force participation is obtained by computing first the median female labor force participation in a given decade based on data availability on labor force participation for women for sending countries. The next step is to generate the total number of foreign born migrants coming from countries with above decade specific median FLFP. The last step is to divide this by the total foreign born settler population with known female labor force participation.

To examine the share of settlers coming from places where women could vote, I construct a country/state of origin variable set equal to 1 if partial or full suffrage rights

were granted to women. I then calculate the share of foreign born settlers out of the total foreign born settler population and the share of out-of-state born settlers out of the total out-of-state born settler population coming from countries/U.S. states where partial or full suffrage rights were granted to women anytime before the time when settlers are observed by me. Similarly, I compute the share of out-of-state born settlers, out of the total out-of-state born settler population, coming from U.S. states were women's financial liberation was granted anytime before the time when settlers are observed by me.

7.5 A Snapshot of Top Sending Countries/States

I compute an overview of the number of U.S. counties created between 1840–1940 and provide a list of settlers' top five sending countries/states. I also provide a snapshot of female labor force participation, women's suffrage and financial rights for these countries/states. Appendix Figure A10 also reveals the classification of newly created counties across "new" and "partitioned" and "other" counties.

7.6 Case Study Illustrating Short and Long Run Effects

To help fix ideas, I consider two adjacent newly created counties as a case study. I choose two counties, that are located within the same state and created at the same time but that differ in the composition of settlers, particularly their cultural characteristics. Cherokee and Sioux county were both created in 1851 in Iowa state. Both belong to the sample of "new" counties, i.e. they were created from non-county areas. Examining the culture of settlers that inhabited these counties reveals that Cherokee, which hosted a large share of settlers coming from places with high female labor force participation and where women had financial rights has higher female labor force participation both historically and nowadays in comparison to Sioux county.

About 56% of out-of-state born settlers residing in Cherokee county come from U.S. states that grant financial liberation to women. All foreign born settlers, with known female labor force participation data, come from countries with high FLFP. As an opposing extreme case, Sioux county had non of its foreign and out-of-state born population originating from places with high FLFP and from places that granted women financial rights. These historical differences in settlers' culture translate into substantial differences in FLFP that persist over time. See Appendix Figures A11 and A12 for a visualization of this case study analysis.

7.7 Pre-County Creation Population

To infer the "time-at-move", I rely on two key variables in the full count Census data. First, I use household identifiers and second, I rely on a variable which indicates the relationship to the head of the household of each member of the household to remove single person households or households without at least one child. I also impose that the country/state of birth of children of households with only one child must be different

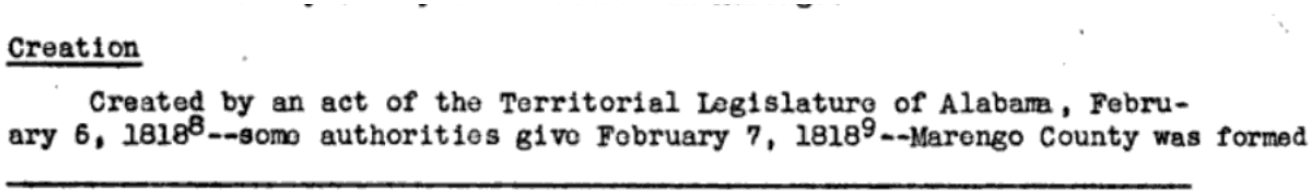
from the state where the Census enumerator conducted the interview (i.e. the state of residence of the household). Otherwise, I would be capturing some households that never moved/migrated. If the household is composed of more than one child, at least one should be born in a place that is different from the current place of residence.

I follow the method that Bazzi et al. (2020) adopt in their analysis and that is similar to Collins and Zimran (2019) to infer the timing of migration as the difference between the current Census year and the child birth year for families with one child born before the move and zero children born after migration, divided by two. For families with one child born in the current state of residence and one child born earlier in a different country/state, I infer the move time as the difference between child birth years, divided by two.

Figure A1: Territorial expansion events

Notes: Map showing the five largest territorial expansion events after the Thirteen original colonies which constituted the United States. These include the Louisiana Purchase (1803); the Adams-Onis Treaty (1819); the Texas Annexation (1845); the Mexican Cession (1848) and the Alaska Purchase (1867). *Source*: https://www.visualcapitalist.com/us-territorial-expansion/

Figure A2: Sample Act for county creation

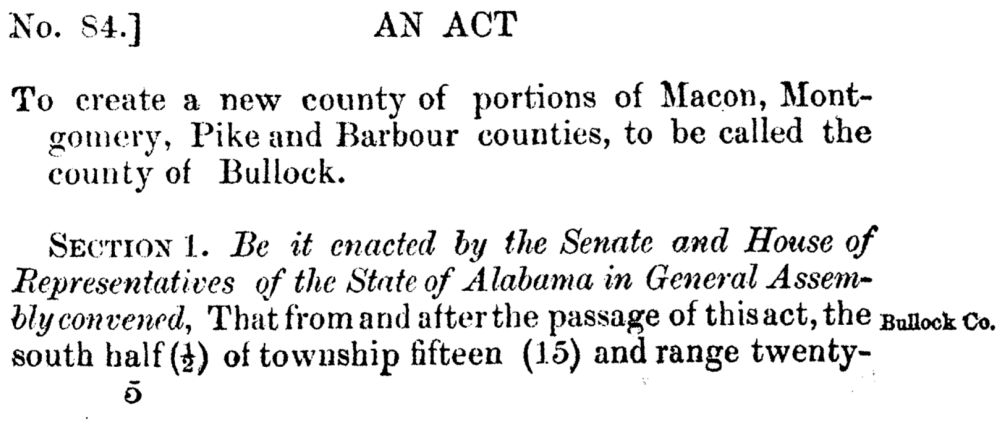


Creation

Created by an act of the Territorial Legislature of Alabama, February 6, 1818[8]--some authorities give February 7, 1818[9]--Marengo County was formed

Notes: Archived information from "Inventory of the County Archives of Alabama", Issue 46 showing the territorial act enacted in 1818 by the Territorial Legislature of Alabama which established Morengo county. *Source*: Inventory of the County Archives.

Figure A3: Sample Act for county creation as a subdivision



No. 84.] AN ACT

To create a new county of portions of Macon, Montgomery, Pike and Barbour counties, to be called the county of Bullock.

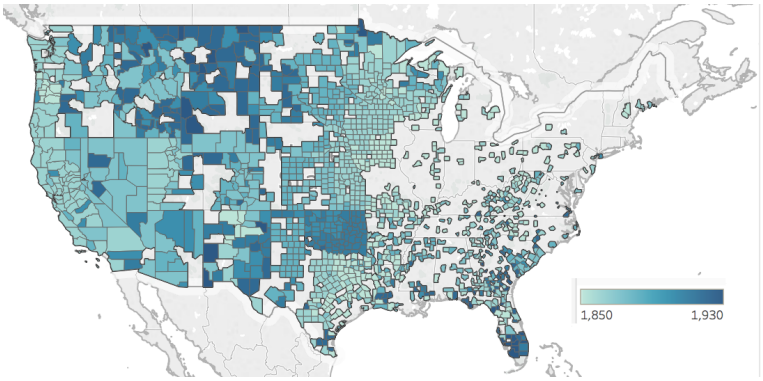
SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Alabama in General Assembly convened*, That from and after the passage of this act, the south half ($\frac{1}{2}$) of township fifteen (15) and range twenty-

Bullock Co.

5

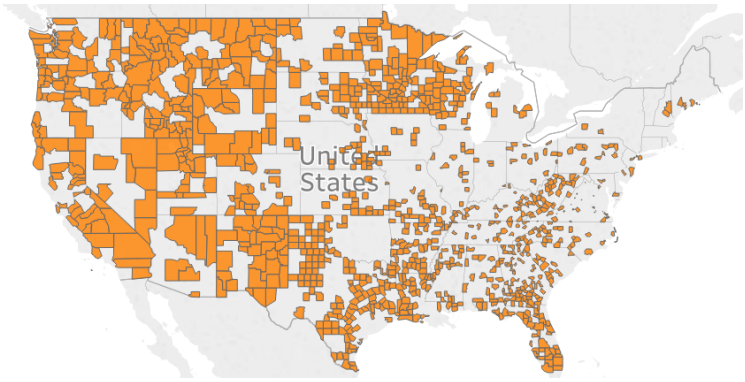
Notes: Extract from the "General Assembly of Alabama", showing an act enabled by Alabama state to establish a new county as a subdivision of previously formed counties. *Source*: U.S. state constitution for Alabama.

Figure A4: Timing of U.S. counties' creation



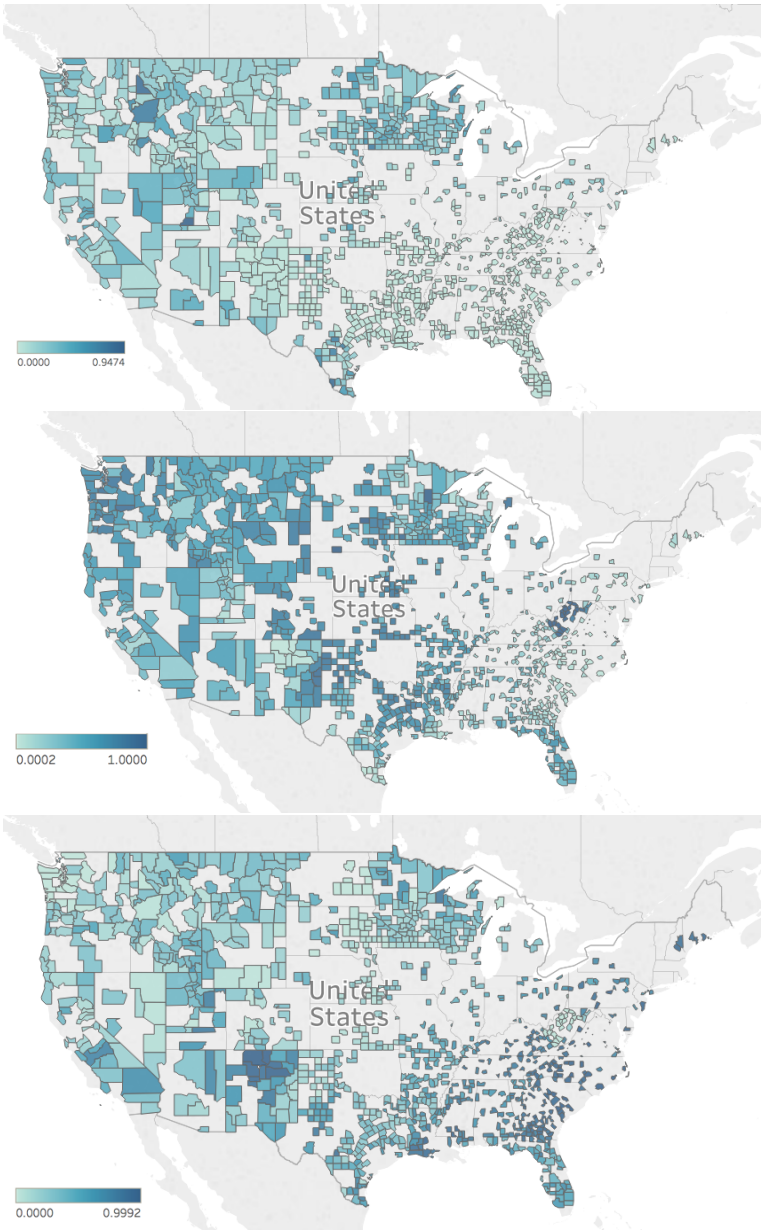
Notes: Chronological timing of 1,494 U.S. counties created between 1840 and 1940. Light blue refers to counties created early on and darker blue refers to counties created later on. Grey areas indicate counties that are excluded from my analysis either because they were created before 1840, between 1880 and 1889 or after 1940. *Source*: Author's compilation based on the ATLAS of Historical County Boundaries data.

Figure A5: Sample of "partitioned" and "other" counties



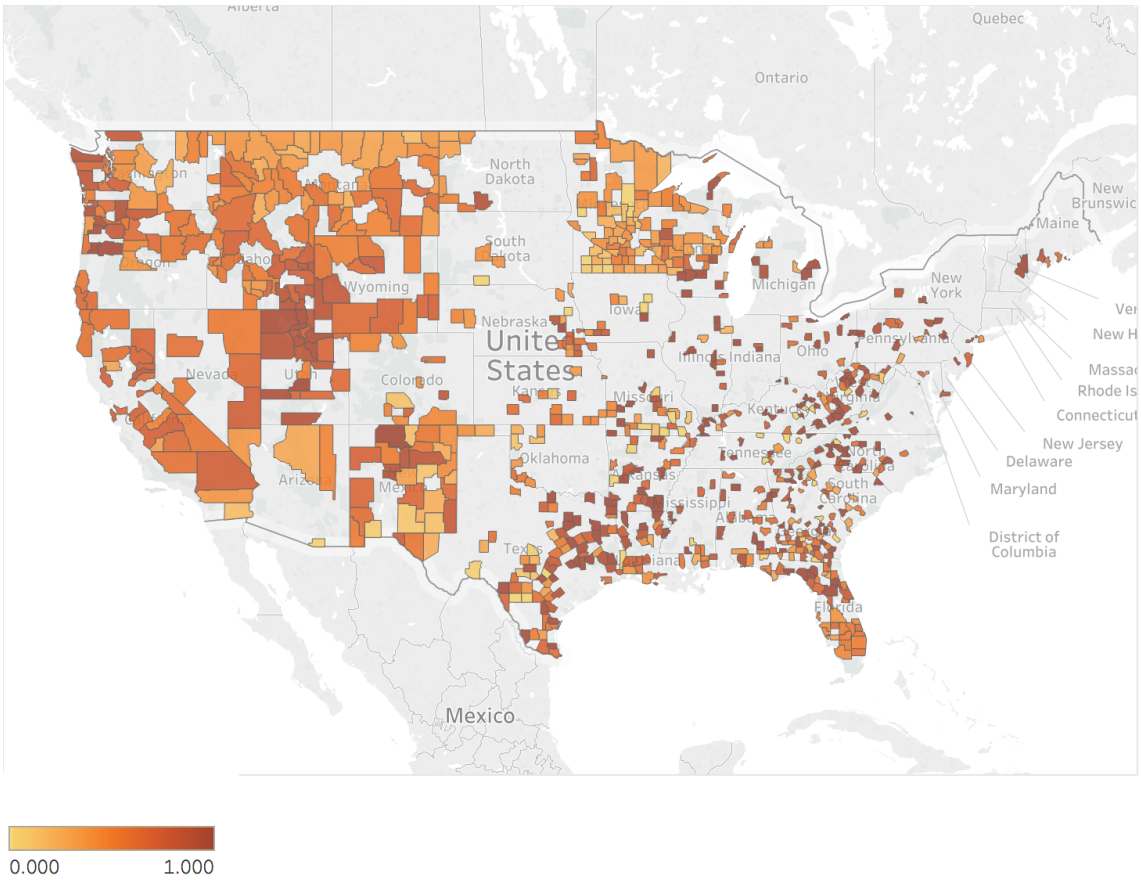
Notes: Alternative sample of "partitioned" and "other" counties which were subdivisioned or partitioned from previously created counties or that were created from a combination of districts and non-county areas, those already created under territorial juridistriction which then changed from an organized incorporated territory to a U.S. state, those created under a given territorial juridistriction which then came under another territorial juridistriction and counties created as a result of the passage of a new constitution converting all judicial districts to counties. Orange indicates that a county is included in my *alternative* sample. Grey areas indicate counties that are excluded from this sample. *Source*: Author's compilation based on the ATLAS of Historical County Boundaries data.

Figure A6: Settler population by origin: Sample of "partitioned" and "other" counties



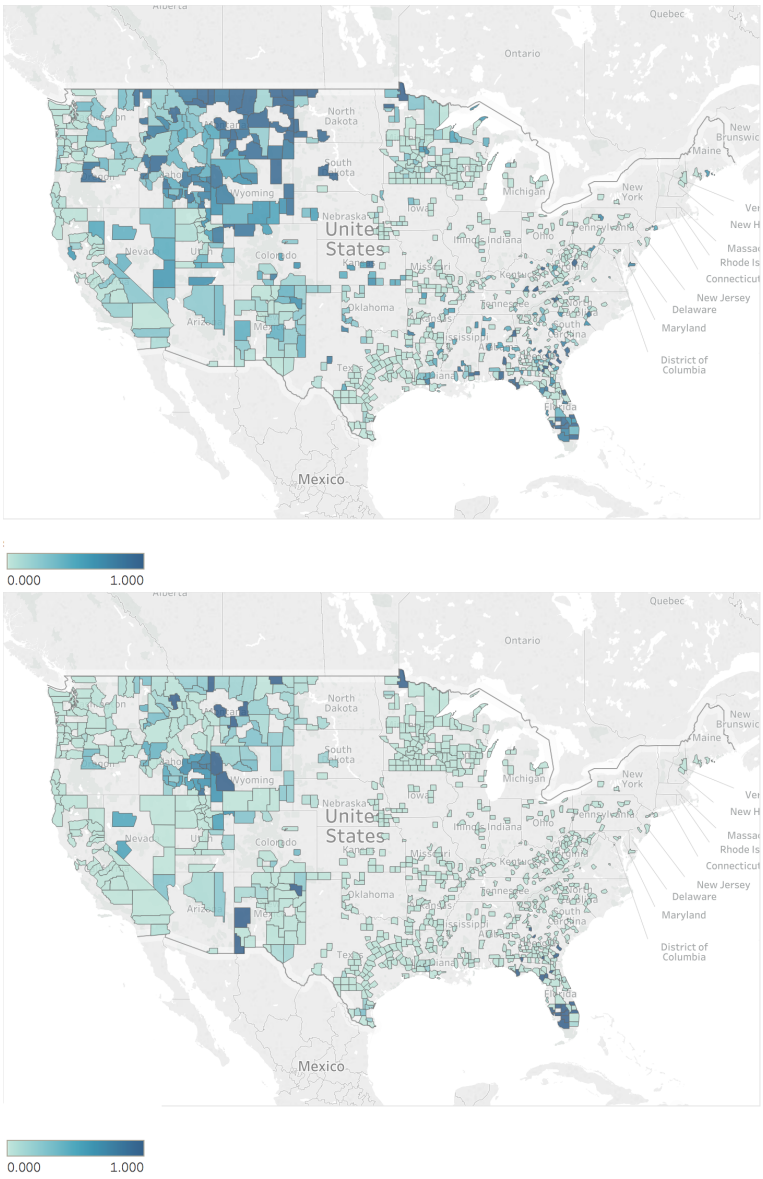
Notes: Shares of foreign born, out-of-state and in-state born individuals out of the total population are displayed respectively. Light blue indicates lower shares and dark blue greater shares. Grey areas indicate counties that are excluded from my sample. *Source*: Author's compilation.

Figure A7: Map of foreign born settlers from countries with high FLFP: Sample of "partitioned" and "other" counties



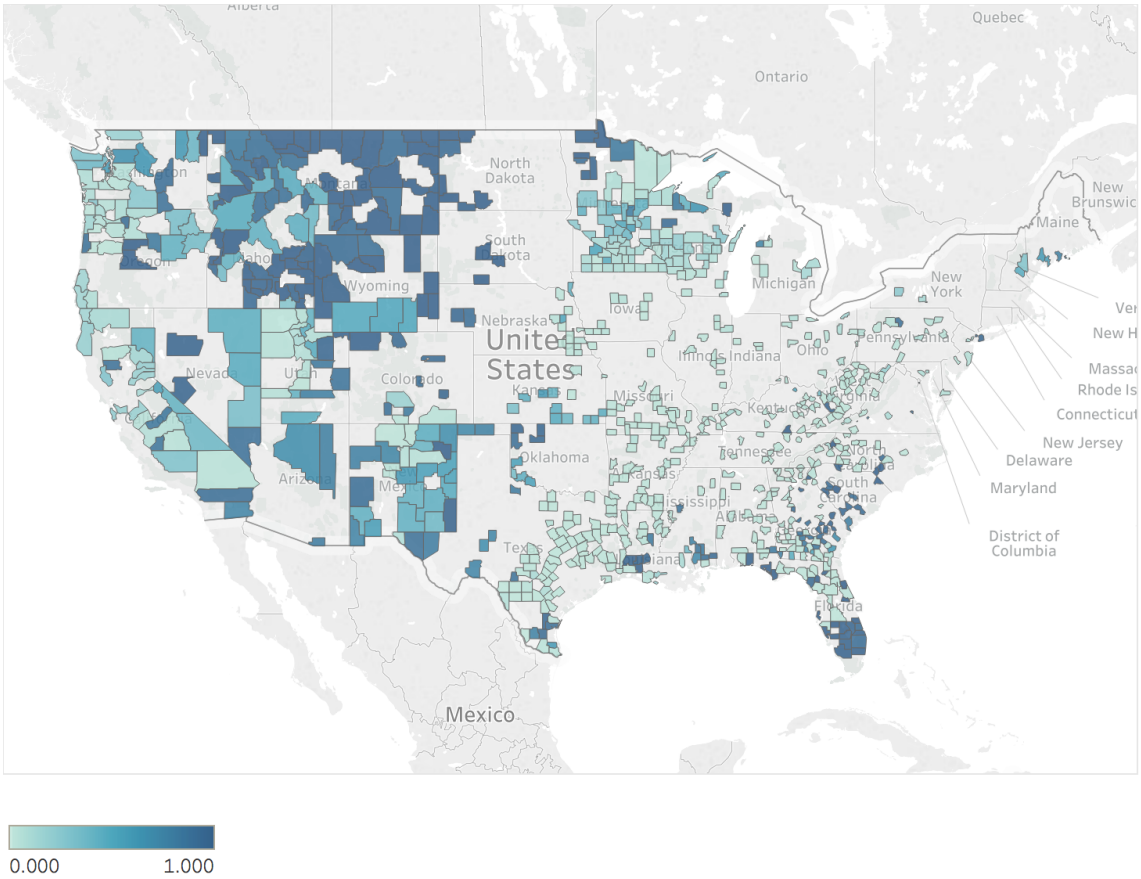
Notes: Map showing the share of foreign born settlers from countries *known* to have *above* median female labor force participation. Grey areas indicate counties that are excluded from my sample. Light yellow indicates a small share of foreign born settlers coming from counties with *above* median female labor force participation and dark orange indicates a high share. *Source*: Author's compilation.

Figure A8: Foreign and out-of-state settlers who could vote: Sample of "partitioned" and "other" counties



Note: Map showing the share of foreign born settlers out of the total foreign born settler population and out-of-state born settlers out of the total out-of-state settler population coming from countries/U.S. states where partial or full suffrage rights were granted to women anytime before the time when settlers are observed. Grey areas indicate counties that are excluded from my sample. Light blue indicates a small share of foreign born settlers/out-of-state born settlers coming from countries/U.S. states where women could vote and dark blue indicates a high share. *Source*: Author's compilation.

Figure A9: Out-of-state settlers from countries with women's financial liberation: Sample of "partitioned" and "other" counties



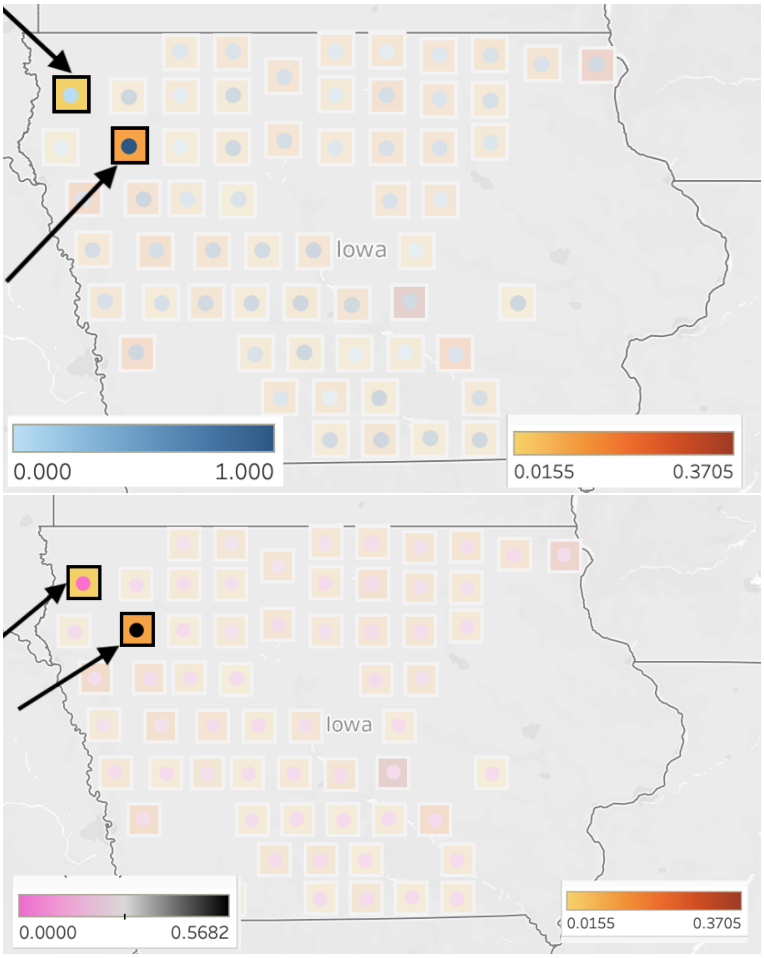
Notes: Map showing the share of out-of-state born settlers out of the total out-of-state settler population coming from U.S. states where women's financial liberation was granted anytime before the time when settlers are observed. Grey areas indicate counties that are excluded from my sample. Light blue indicates a small share of out-of-state born settlers coming from U.S. states where women had property and earning rights and blue indicates a high share. *Source*: Author's compilation.

Figure A10: A snapshot of the number of counties created and settlers' top sending countries/states

Date of county creation	Next U.S. Census available	Number of counties created	``New'' counties	``Partitioned and other'' counties	Top 5 sending countries for FB settlers (for the entire sample of counties created)	Percent out of total FB settlers (for the entire sample of counties created)	Female LFP in sending country for FB settlers	Timeline of women's suffrage (partial or full): Sending Country	Top 5 sending states for OSB settlers (for the entire sample of counties created)	Percent out of total OSB settlers (for the entire sample of counties created)	Timeline of women's suffrage (partial or full): Sending State	Timeline of women's financial liberation: Sending State
1840–1849	**1850**	261	72	189	Ireland	29.53	0.56	1869	Virginia	18.04	1920	1878
1840–1849	**1850**	261	72	189	Germany	28.83	0.30	1918	Tennessee	10.35	1919	1918
1840–1849	**1850**	261	72	189	England	16.49	0.41	1869	New York	9.26	1917	1860
1840–1849	**1850**	261	72	189	Canada	5.36	0.05	1917	Pennsylvania	9.17	1920	1872
1840–1849	**1850**	261	72	189	Mexico	4.88	XX	1947	Kentucky	6.89	1920	1873
1850–1859	**1860**	431	148	283	Germany	23.75	0.30	1918	New York	16.00	1917	1860
1850–1859	**1860**	431	148	283	Ireland	23.68	0.40	1869	Ohio	8.39	1917	1861
1850–1859	**1860**	431	148	283	England	10.44	0.43	1869	Virginia	7.76	1920	1878
1850–1859	**1860**	431	148	283	China	9.42	XX	1947	Pennsylvania	7.30	1920	1872
1850–1859	**1860**	431	148	283	Canada	6.92	0.05	1917	Illinois	5.89	1913	1869
1860–1869	**1870**	201	86	115	Ireland	21.84	0.42	1869	Georgia	11.83	1920	1873
1860–1869	**1870**	201	86	115	Germany	14.76	0.30	1918	Virginia	11.06	1920	1878
1860–1869	**1870**	201	86	115	England	11.96	0.40	1869	New York	7.18	1917	1860
1860–1869	**1870**	201	86	115	China	11.93	XX	1947	Ohio	6.27	1917	1861
1860–1869	**1870**	201	86	115	Canada	10.47	0.05	1917	Illinois	5.70	1913	1869
1870–1879	**1880**	248	55	193	Germany	33.18	0.30	1918	Virginia	9.77	1920	1878
1870–1879	**1880**	248	55	193	Ireland	24.07	0.41	1869	New York	7.54	1917	1860
1870–1879	**1880**	248	55	193	England	7.62	0.40	1869	Illinois	7.18	1913	1869
1870–1879	**1880**	248	55	193	Canada	7.29	0.10	1917	Tennessee	6.59	1919	1918
1870–1879	**1880**	248	55	193	Norway	5.95	0.30	1913	Alabama	5.81	1920	1887
1890–1899	**1900**	74	23	51	Germany	15.69	0.30	1918	Kansas	15.24	1912	1858
1890–1899	**1900**	74	23	51	Canada	14.27	0.14	1917	Missouri	13.05	1919	1875
1890–1899	**1900**	74	23	51	England	9.81	0.36	1869	Illinois	8.68	1913	1869
1890–1899	**1900**	74	23	51	Sweden	9.05	0.34	1718	Texas	7.33	1920	1913
1890–1899	**1900**	74	23	51	Ireland	8.86	0.31	1869	Iowa	6.78	1919	1873
1900-1909	**1910**	132	49	83	Japan	30.71	XX	1945	Texas	16.90	1920	1913
1900-1909	**1910**	132	49	83	Germany	8.52	0.47	1918	Missouri	11.86	1919	1875
1900-1909	**1910**	132	49	83	China	7.48	XX	1947	Arkansas	11.22	1920	1873
1900-1909	**1910**	132	49	83	Russia	6.69	0.31	1917	Illinois	5.88	1913	1869
1900-1909	**1910**	132	49	83	Canada	5.38	0.17	1917	Kansas	5.65	1912	1858
1910–1919	**1920**	116	3	113	Russia	28.79	0.38	1917	Minnesota	7.28	1919	1869
1910–1919	**1920**	116	3	113	Italy	12.34	0.39	1925	Iowa	7.27	1919	1873
1910–1919	**1920**	116	3	113	Germany	10.57	0.47	1918	Illinois	6.14	1913	1869
1910–1919	**1920**	116	3	113	Austria	8.59	0.60	1918	Missouri	5.70	1919	1875
1910–1919	**1920**	116	3	113	Ireland	6.13	0.30	1869	Utah	5.51	1870	1897
1920–1929	**1930**	31	0	31	Canada	19.35	0.20	1917	Georgia	22.37	1920	1873
1920–1929	**1930**	31	0	31	Mexico	14.24	0.20	1947	Alabama	7.97	1920	1887
1920–1929	**1930**	31	0	31	Norway	11.91	0.30	1913	South Carolina	5.13	1920	1887
1920–1929	**1930**	31	0	31	Sweden	9.75	0.38	1718	Illinois	4.21	1913	1869
1920–1929	**1930**	31	0	31	Germany	8.24	0.45	1918	Minnesota	3.96	1919	1869

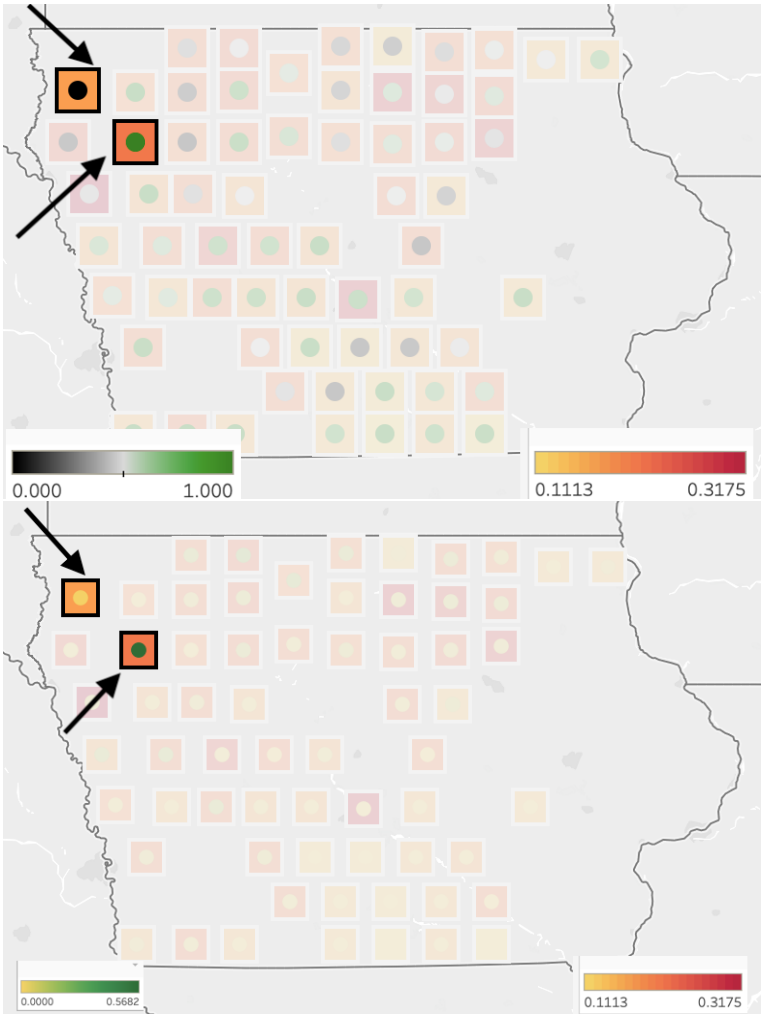
Notes: Table showing the decade specific number of counties created between 1840–1940 and whether the counties created were subdivisioned or partioned from previously created counties or formed from non-county areas. The table also provides a description of top five sending countries/states for settlers as well as their cultural characteristics including female labor force participation, women's partial and/or full suffrage and women's financial liberation timeline. *Source*: Author's compilation.

Figure A11: Case Study Illustrating Short Run Effects



Notes: Maps showing short run effects on FLFP in U.S. counties. Sioux and Cherokee counties are considered in this analysis. The two counties were created in Iowa state in 1851 from non-county areas. Color coded squares refer to FLFP in U.S. counties and color coded circles refer to the particular measure of settlers' culture: FLFP in the place of origin (share of foreign born settlers from places with high FLFP); financial liberation (share of out-of-state born settlers from states that granted financial liberation to women). The two maps capture the short run analysis, i.e. observing FLFP in U.S. counties using the first census available after county creation date. *Source*: Author's compilation.

Figure A12: Case Study Illustrating Long Run Effects



Notes: Maps showing short and long run effects on FLFP in U.S. counties. Sioux and Cherokee counties are considered in this analysis. The two counties were created in Iowa state in 1851 from non-county areas. Color coded squares refer to FLFP in U.S. counties and color coded circles refer to the particular measure of settlers' culture: FLFP in the place of origin (share of foreign born settlers from places with high FLFP); financial liberation (share of out-of-state born settlers from states that granted financial liberation to women). The two maps capture the long run analysis, i.e. observing FLFP in U.S. counties about 100 years later. *Source*: Author's compilation.

Table A1: Descriptive statistics by settlers' origin and gender

	Foreign born		**Out-of-state born**		**In-state born**	
	Male Population	Female Population	Male Population	Female Population	Male Population	Female Population
	(1)	(2)	(3)	(4)	(5)	(6)
Share prime age population	0.77	0.74	0.67	0.59	0.11	0.11
	(0.16)	(0.15)	(0.13)	(0.11)	(0.15)	(0.14)
Share literate population	0.82	0.74	0.68	0.57	0.10	0.09
	(0.17)	(0.21)	(0.18)	(0.20)	(0.15)	(0.12)
Share single population	0.50	0.16	0.52	0.22	0.70	0.44
	(0.25)	(0.15)	(0.19)	(0.11)	(0.24)	(0.27)
Average number of children		2.52		2.00		0.77
		(2.82)		(1.33)		(0.77)
Child to women ratio		948.85		738.15		351.70
		(1120.14)		(492.21)		(347.54)

Notes: Based on complete count Census data from the Integrated Public Use Microdata Series (IPUMS). My sample is restricted to "new" counties. All shares range between 0 and 1. The share of male population: *foreign born* is 0.70 (0.13); the share of male population: *out-of-state born* is 0.61 (0.11) and the share of male population: *in-state born* is 0.51 (0.09). Standard deviations are reported in parentheses.

Table A2: Analysis in the short run: Settlers' population

	Female labor force participation					
	"New" counties			*"Partitioned/Other"*		
	(1)	(2)	(3)	(4)	(5)	(6)
Share foreign born	0.112*	0.0960	0.111	0.0213	0.00341	0.00546
	(0.060)	(0.071)	(0.067)	(0.035)	(0.046)	(0.049)
Share out-of-state born	0.0265	0.0209	0.0334	0.0408	0.0494	0.0592
	(0.070)	(0.078)	(0.077)	(0.035)	(0.039)	(0.038)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes		Yes	Yes
Additional Controls			Yes			Yes
N	**368**	**368**	**368**	**762**	**762**	**762**

Notes: My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In columns (4)–(6), the sample is restricted to "partitioned" and "other" counties. The dependent variable is female labor force participation in U.S. counties in the short run. Data on labor force participation is based on the first U.S. Census available after county creation. Settlers' population is based on the first U.S. Census available after the county creation date. State and decade of county creation fixed effects are included in columns (1) to (6). The set of geographic controls include latitude, longitude, mean county temperature and rainfall, elevation, distance to lakes and rivers from the county centroid and average potential agricultural yield. These are included in columns (1)–(6). The set of demographic controls include the share of prime age population, share of literate population, the sex ratio computed as the ratio of the male over the female population, the share of single population and the child to women ratio computed as the ratio of the number of children under 5 years of age over the number of women in their childbearing age times 1000. These are included in columns (2)–(3) and (5)–(6). The set of additional controls includes terrain ruggedness, rainfall risk, the distance to the nearest portage site, the distance to the nearest Indian battle site, the distance to the coast, the number of years that the county has been intersected by railroads since its creation date and the distance to the nearest mineral discovery site. These are included in columns (3) and (6). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table A3: Settlers' culture: Suffrage intensity

	Female labor force participation			
	"New" counties			*"Partitioned/Other"*
	(1)	(2)	(3)	(4)
Place of origin				
Share foreign born	0.112*	0.114*	0.111	0.00621
	(0.061)	(0.059)	(0.068)	(0.050)
Share out-of-state born	0.0262	0.0290	0.0333	0.0617
	(0.070)	(0.072)	(0.078)	(0.039)
Norms at the place of origin				
Foreign born: Suffrage intensity	-0.0000349	-0.0000379	-0.0000226	0.000172
	(0.000)	(0.000)	(0.000)	(0.000)
Out-of-state born: Suffrage intensity	-0.0149	-0.00360	-0.00351	0.00108
	(0.026)	(0.025)	(0.025)	(0.001)
State FE	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes	Yes
Additional Controls			Yes	Yes
N	**368**	**368**	**368**	**762**

Notes: The dependent variable in columns (1)–(4) is female labor force participation in U.S. counties in the short run. Data on labor force participation is based on the first U.S. Census available after county creation. My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In column (4), the sample is restricted to "partitioned" and "other" counties. Settler population is based on the first U.S. Census available after the county creation date. Settlers' culture is proxied for using women's suffrage rights *intensity* to reflect gender norms at the place of origin. Women's suffrage intensity is measured as a weighted share of settlers coming from places where partial/full voting rights were granted to women weighted by the number of years between suffrage laws' passage and county creation time. If suffrage rights were not yet granted, the negative difference between decade of county creation and year of passage of suffrage rights is replaced by *zero*. State and decade of county creation fixed effects are included in columns (1)–(4). Geographic controls are included across columns (1)–(4), demographic controls are introduced starting column (2) to (4) and lastly additional county level controls for geography and isolation are introduced in columns (3) and (4). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table A4: Settlers' culture: Financial liberation intensity

	Female labor force participation			
	"New" counties			*"Partitioned/Other"*
	(1)	(2)	(3)	(4)
Settlers' population				
Share foreign born	0.105*	0.110*	0.117*	0.00790
	(0.058)	(0.057)	(0.067)	(0.049)
Share out-of-state born	0.0343	0.0391	0.0527	0.0650*
	(0.069)	(0.072)	(0.079)	(0.039)
Settlers' culture				
Out-of-state born: Financial liberation intensity	0.00321**	0.00300**	0.00320**	0.00186*
	(0.001)	(0.001)	(0.002)	(0.001)
State FE	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes	Yes
Additional Controls			Yes	Yes
N	**368**	**368**	**368**	**762**

Notes: The dependent variable in columns (1)–(4) is female labor force participation in U.S. counties in the short run. Data on labor force participation is based on the first U.S. Census available after county creation. My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In column (4), the sample is restricted to "partitioned" and "other" counties. Settlers' population is based on the first U.S. Census available after the county creation date. Settlers' culture is proxied for using women's financial liberation *intensity* to reflect gender norms at the place of origin. Women's financial liberation intensity is measured as a weighted share of out-of-state born settlers coming from U.S. states where property rights and earnings rights were granted to women weighted by the number of years between women's financial liberation laws' passage and county creation. If women's financial liberation laws were not yet granted, the negative difference between decade of county creation and year of passage of financial liberation is replaced by *zero*. State and decade of creation fixed effects are included in columns (1)–(4). Geographic controls are included across columns (1)–(4), demographic controls are introduced starting column (2) to (4) and lastly additional county level controls for geography and isolation are introduced in columns (3) and (4). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table A5: Analysis in the long run: Settlers' population

	Female labor force participation					
	"New" counties			*"Partitioned/Other"*		
	(1)	(2)	(3)	(4)	(5)	(6)
Share foreign born	0.0676**	0.0473	0.0274	0.0714***	0.0657**	0.0553*
	(0.028)	(0.035)	(0.034)	(0.026)	(0.028)	(0.029)
Share out-of-state born	0.00106	-0.0182	-0.0292	0.0174	0.0169	0.0233
	(0.028)	(0.038)	(0.037)	(0.018)	(0.020)	(0.020)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Demographic Controls		Yes	Yes		Yes	Yes
Additional Controls			Yes			Yes
N	**331**	**331**	**331**	**723**	**723**	**723**

Notes: My sample of U.S. counties includes those created between 1840–1940. In columns (1)–(3) the sample is restricted to "new" counties. In columns (4)–(6), the sample is restricted to "partitioned" and "other" counties. The dependent variable is female labor force participation in U.S. counties in the long run. Data on labor force participation is based on the tenth U.S. Census available after county creation (100 years later). Settlers' population is based on the first U.S. Census available after the county creation date. State and decade of county creation fixed effects are included in columns (1) to (6). The set of geographic controls include latitude, longitude, mean county temperature and rainfall, elevation, distance to lakes and rivers from the county centroid and average potential agricultural yield. These are included in columns (1)–(6). The set of demographic controls include the share of prime age population, share of literate population, the sex ratio computed as the ratio of the male over the female population, the share of single population and the child to women ratio computed as the ratio of the number of children under 5 years of age over the number of women in their childbearing age times 1000. These are included in columns (2)–(3) and (5)–(6). The set of additional controls includes terrain ruggedness, rainfall risk, the distance to the nearest portage site, the distance to the nearest Indian battle site, the distance to the coast, the number of years that the county has been intersected by railroads since its creation date and the distance to the nearest mineral discovery site. These are included in columns (3) and (6). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table A6: Alternative Definition: Attitudes regarding women's roles: LSS

	*Men are **not** naturally better leaders than Women*					
	(1)	(2)	(3)	(4)	(5)	(6)
Settlers' population						
Share foreign born	0.288*	0.332**	0.380**	0.412***	0.307**	0.349**
	(0.152)	(0.149)	(0.158)	(0.151)	(0.152)	(0.148)
Share out-of-state born	0.135	0.145	0.175	0.183	0.154	0.155
	(0.108)	(0.112)	(0.110)	(0.113)	(0.107)	(0.112)
Settlers' culture						
Foreign born: *Above* median FLFP	0.099*	0.080				
	(0.056)	(0.055)				
Foreign born: Suffrage right			0.159*	0.131		
			(0.088)	(0.095)		
Out-of-state born: Suffrage right			6.839*	7.269**		
			(3.483)	(3.436)		
Out-of-state born: Financial liberation					-0.020	-0.041
					(0.118)	(0.132)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes	Yes	Yes
Survey year FE	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	No	Yes	No	Yes	No	Yes
N	**4708**	**4708**	**4708**	**4708**	**4708**	**4708**

Notes: The unit of observation is a respondent. The period covered from the LifeStyle Survey (LSS) is 1989–1998. Attitudes toward women's roles in societies is assessed through the following question: "Men are naturally better leaders than women" where respondents choices vary between definitely disagree and definitely agree. For ease of interpretation, I rephrase this to become a gender liberal statement to interpret answers as respondents believing that men are *not* naturally better leaders than women. Respondents answers are thus recoded as follows (1=agree, 0 0=disagree). **Settlers' Culture$_{cs}$** is the independent variable of interest. It is proxied for using the share of foreign born settlers from countries *known* to have above median female labor force participation in columns (1) and (2). In columns (3) and (4), **Settlers' Culture$_{cs}$** is measured using the share of foreign born settlers out of the total foreign born settlers population and the share of out-of-state born settlers out of the total out-of-state born settlers population coming from countries/U.S. states where partial or full suffrage rights were granted to women anytime before the time when settlers are observed. Lastly, in columns (5) and (6), **Settlers' Culture$_{cs}$** is proxied for using the share of out-of-state born settlers out of the total out-of-state born settlers population coming from U.S. states where women's financial liberation was granted anytime before the time when settlers are observed. Settlers' population is based on the first U.S. Census available after the county creation date. State, decade of county creation and GSS survey year fixed effects are included in columns (1) to (6). The set of geographic controls is included in columns (1)–(6). The set of demographic controls is included in columns (1)–(6). The set of additional controls is included in columns (1)–(6). Individual's characteristics include the individual's gender, age, age squared, six education dummies, three race dummies and five marital status dummies. These are included in columns (1)–(6). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table A7: Settlers culture: All three measures

	Female labor force participation			
	Short Run		*Long Run*	
	(1)	(2)	(3)	(4)
Place of origin				
Share foreign born	0.0822	0.0846	0.0483	0.0315
	(0.058)	(0.059)	(0.031)	(0.029)
Share out-of-state born	0.0272	0.0299	-0.0137	-0.0223
	(0.067)	(0.070)	(0.030)	(0.030)
Norms at the place of origin				
Share foreign born: *Above* median FLFP	0.0582**	0.0557*	0.0128	0.0123
	(0.028)	(0.028)	(0.009)	(0.009)
Share foreign born: Suffrage rights	-0.0575*	-0.0548	0.0549	0.0572
	(0.034)	(0.038)	(0.042)	(0.042)
Share out-of-state born: Suffrage rights	-0.936	-0.496	-0.697	-0.617
	(0.655)	(0.706)	(1.251)	(1.303)
Share out-of-state born: Financial liberation	0.0687*	0.0634*	0.0912***	0.0838**
	(0.037)	(0.037)	(0.034)	(0.035)
State FE	Yes	Yes	Yes	Yes
Decade of creation FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Additional Controls		Yea		Yes
N	**367**	**367**	**360**	**360**

Notes: The dependent variable in columns (1) and (2) is female labor force participation in U.S. counties in the short run and in columns (3) and (4), the dependent variable is female labor force participation in U.S. counties in the long run. Data on labor force participation is based on the first (tenth) U.S. Census available after county creation for the short (long) run analysis. My sample of U.S. counties is restricted to "new" counties. Settler population is based on the first U.S. Census available after the county creation date. Settlers' culture is proxied for using female labor force participation, women's suffrage rights and women's financial rights to reflect gender norms at the place of origin. State and decade of county creation fixed effects are included in columns (1)–(4). Geographic controls are included across columns (1)–(4), and additional county level controls for geography and isolation are introduced in columns (2) and (4). Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table A8: Determinants of county creation date

	(1)	(2)	(3)	(4)
Settlers' population				
Share foreign born	-46.19***	-49.75***	-37.90***	-36.97***
	(7.541)	(6.953)	(5.300)	(5.316)
Share out-of-state born	-45.79***	-39.86***	-25.90***	-24.88***
	(8.672)	(7.224)	(6.192)	(6.018)
Geographic controls				
Latitude		1.992**	1.574**	1.455**
		(0.964)	(0.720)	(0.697)
Longitude		1.378***	0.705**	0.616**
		(0.381)	(0.278)	(0.276)
Mean county temperature		2.368**	1.506*	1.511**
		(1.016)	(0.770)	(0.742)
Mean county rainfall		-0.0000861	-0.000417	0.000134
		(0.005)	(0.004)	(0.004)
Elevation		0.00413	0.00605*	0.00661**
		(0.004)	(0.003)	(0.003)
Distance to rivers		0.0000168	0.0000143	0.0000138
		(0.000)	(0.000)	(0.000)
Distance to lakes		-0.00000965	-0.00000957*	-0.00000896
		(0.000)	(0.000)	(0.000)
Average potential agricultural yield		-69.51***	-51.45***	-46.00***
		(11.255)	(10.559)	(10.561)
Geography and Isolation				
Terrain ruggedness			2.956	1.484
			(8.881)	(8.582)
Rainfall risk			11.41	10.48
			(9.594)	(8.970)
Distance to the nearest portage site			-2.237	-1.279
			(3.065)	(2.903)
Distance to the nearest Indian battle site			0.00000589	0.00000783
			(0.000)	(0.000)
Distance to coast			-0.00000221	-0.00000131
			(0.000)	(0.000)
Years connected to railroad since county creation			1.056***	1.042***
			(0.061)	(0.060)
Distance to the nearest mineral discovery site			0.000153***	0.000154***
			(0.000)	(0.000)
Settlers' culture				
Share foreign born: *Above* median FLFP				-7.997***
				(1.572)
State FE	Yes	Yes	Yes	Yes
N	1,362	1,362	1,362	1,362
Adjusted R-squared	0.522	0.575	0.739	0.747

Notes: The dependent variable in columns (1)–(4) is the date at which a given land was first politically organized into a county (county creation date). My sample of U.S. counties includes those created between 1840–1940. Settlers' population is based on the first U.S. Census available after the county creation date. Settlers' culture is proxied for using the share of out-of-state born settlers from countries known to have *above* median FLFP. Standard errors clustered on 60-square-mile grid cells are reported between parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table A9: Descriptive statistics: Entire sample of counties created between 1840–1940

		By Gender	
	Entire population	Male population	Female population
	(1)	(2)	(3)
Demographic Characteristics			
Share male population	0.57		
	(0.10)		
Share prime age population	0.54	0.56	0.49
	(0.11)	(0.13)	(0.07)
Share literate population	0.52	0.55	0.46
	(0.20)	(0.20)	(0.18)
Share single population	0.41	0.49	0.24
	(0.15)	(0.16)	(0.09)
Average number of children	1.9		
	(0.58)		
Child women ratio	677.02		
	(226.17)		
Settlers' Population			
Share foreign born	0.13	0.15	0.11
	(0.16)	(0.16)	(0.14)
Share out-of-state born	0.48	0.48	0.47
	(0.25)	(0.25)	(0.26)
Share in-state born	0.38	0.36	0.41
	(0.28)	(0.28)	(0.28)

Notes: My sample of U.S. counties includes those created between 1840–1940. Settlers' population is based on the first U.S. Census available after the county creation date. In column (1), shares are displayed out of the total settler population. In columns (2) and (3), summary statistics are displayed by gender. Shares in columns (2) and (3) are displayed out of the male settler population and the female settler population respectively. Prime age refers to ages 15 to 49. The child to women ratio is computed as the ratio of the number of children under 5 years of age over the number of women in their childbearing age times 1000. Standard deviations are reported in parentheses.

Table A10: Descriptive statistics by settlers' origin and gender: Entire sample of counties created between 1840–1940

	Foreign born		**Out-of-state born**		**In-state born**	
	Male Population	Female Population	Male Population	Female Population	Male Population	Female Population
	(1)	(2)	(3)	(4)	(5)	(6)
Share prime age population	0.74	0.71	0.65	0.60	0.22	0.22
	(0.17)	(0.19)	(0.12)	(0.11)	(0.19)	(0.18)
Share literate population	0.81	0.74	0.68	0.58	0.21	0.19
	(0.18)	(0.23)	(0.19)	(0.21)	(0.21)	(0.19)
Share single population	0.46	0.15	0.45	0.21	0.64	0.41
	(0.46)	(0.15)	(0.19)	(0.09)	(0.22)	(0.20)
Average number of children		2.68		2.09		1.03
		(2.87)		(1.06)		(0.76)
Child women ratio		954.82		733.30		421.21
		(1021.86)		(408.92)		(306.53)

Notes: My sample of U.S. counties includes those created between 1840–1940. Settlers' population is based on the first U.S. Census available after the county creation date. The share of male population: *foreign born* is 0.69 (0.14); the share of male population: *out-of-state born* is 0.59 (0.10) and the share of male population: *in-state born* is 0.51 (0.09). Standard deviations are reported in parentheses.

Table A11: Settlers' culture: Descriptive statistics: Entire sample of counties created between 1840–1940

	Mean (1)	SD (2)	(N) (3)
Settlers' culture			
Female labor force participation			
Share foreign born with *known* FLFP	0.76	0.25	1,444
Share foreign born with *unknown* FLFP	0.24	0.25	1,444
Share foreign born : *Above* median FLFP	0.56	0.29	1,486
Share foreign born : *Below* median FLFP	0.44	0.29	1,486
Suffrage			
Share foreign born: Women suffrage rights	0.23	0.28	1,464
Share out-of-state born: Women suffrage rights	0.04	0.16	1,486
Foreign born: suffrage intensity	7.75	13.31	1,486
Out-of-state born: suffrage intensity	0.87	3.6	1,486
Financial liberation			
Share out-of-state born: Women's financial liberation	0.39	0.39	1,486
Out-of-state born: financial liberation intensity	8.75	12.32	1,486

Notes: Shares of foreign born settlers from countries *known* to have *above* and *below* median FLFP add up to 1. Shares of foreign born settlers from countries with *known* and *unknown* FLFP add up to the entire foreign born settler population. *Share foreign born: Women suffrage rights* and *Share out-of-state born: Women suffrage rights* are the share of foreign born settlers out of the total foreign born settlers population and the share of out-of-state born settlers out of the total out-of-state born settlers population coming from countries/U.S. states where partial or full suffrage rights were granted to women anytime before the time when settlers are observed. Women's suffrage *intensity* is measured as a weighted share of settlers coming from places were partial/full voting rights were granted to women weighted by the number of years between suffrage laws' passage and county creation. *Share out-of-state born: Women's financial liberation* is the share of out-of-state born settlers out of the total out-of-state born settlers population coming from U.S. states where women's financial liberation was granted anytime before the time when settlers are observed. Women's financial liberation *intensity* is measured as a weighted share of out-of-state born settlers coming from U.S. states where property rights and earnings rights were granted to women weighted by the number of years between women's financial liberation laws' passage and county creation.