



Women's Civil Rights and the Worldwide Liberalization of Abortion on Demand and for Socio-Economic Reasons

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ABSTRACT

Many independent states liberalized induced abortion statutes between 1950 and 2011, while many others retained repressive ones. This project attributes these reforms to the legal recognition of civil rights for women – i.e. freedom of mobility, their rights to paid employment, property ownership and justice. By broadening available life choices, civil rights recognition increases the opportunity cost of unwanted maternity thereby expanding women's resources for mobilizing support for abortion reform. Using a database of 195 independent states and event-history models, the study shows that countries where women enjoy more civil rights are significantly more likely to pass socioeconomic and on demand liberalizations.

KEYWORDS

Sex and gender; law; globalization; abortion; civil rights

Comparative political analysis has paid increasing attention to the legal regulation of sexuality and human reproduction in recent decades. In explaining legal reforms that expand individual choice, the literature stresses the role of global cultural scripts (Boyle, Kim, and Longhofer 2015), political ideologies (Blofield 2006; Hildebrandt 2015), the power resources of women (Asal, Brown, and Figueroa 2008; Forman-Rabinovici and Sommer 2018a), international institutions (Hunt and Gruszczynski 2018) and religious conflicts (Forman-Rabinovici and Sommer 2018b; Kulczycki 1999). Despite its findings, however, the literature has overlooked the direct consequences resulting from legal recognition of women's civil rights. Following Marshall's (1992 [1950]) classic formulation, I understand civil rights as those essential for individual, economic and legal freedom affecting personal mobility, employment, and property ownership. Strikingly, prior research has failed to assess whether recognition of these rights impacts national abortion statutes. This article resolves that omission through a quantitative analysis of whether the legal status of women's civil rights helps explain the worldwide liberalization of abortion on socioeconomic and on demand grounds since 1950. Abortion is here conceptualized as the deliberate interruption of a pregnancy by medical or surgical means.

Abortion policy provides an excellent means to assess the institutional effect of women's civil rights. Civil rights and abortion policy address different spheres of a woman's life – i.e. socio-economic as opposed to reproductive autonomy. This differentiation is supported by the fact that the index of women's civil rights, used below, does not capture any aspect of reproductive autonomy. Yet, despite this conceptual difference, both spheres contribute to the legal empowerment of women and strengthen their capabilities to achieve personal goals (Bloom et al. 2009; Khan et al. 2006; Nussbaum

1999; Sen 1999). In the broader legal context in which women enjoy all basic rights, civil rights facilitate abortion liberalization.

This article combines principles of the historical institutionalism and gender & politics literatures to theorize about the mechanisms linking women's civil rights and abortion reform. To facilitate the empirical analysis, I created an original dataset of abortion policies in 195 countries from 1950 to 2011. Based thereon, I focus on the liberalization of two concrete grounds for abortion liberalization – *socioeconomic* and *on demand* – because of their rather substantial, public health implications (World Health Organization 2008). *Socio-economic grounds* refer to the situation in which a pregnant woman has social characteristics (e.g. number of children) or an individual environment (e.g. poverty) that prevents her from adequate child raising. *On demand* grounds refer instead to the situation in which the woman's decision is a sole condition for having an abortion.

I argue that women's civil rights revolutionize domestic, abortion politics by reshaping the life chances and capacities of women. Civil rights increase the opportunity cost of unwanted pregnancies and foster interest in access to legal abortion, thereby expanding women's civic skills and emboldening their self-confidence. Consequently, women increase their demand for legal reproductive control and are more likely to organize women's movements, which tend to catalyze abortion reform. In fact, countries that provide women with higher levels of basic civil rights are significantly more likely to liberalize abortion for *socio-economic* and *on demand* conditions.

Previous Research

Scholarly work on abortion politics and policy-making primarily includes single country case studies or limited comparisons of a few, salient countries (Frankowski and Cole 1987; Htun 2003; Kulczycki 1999; Yishai 1993), along with a recent wave of quantitative studies worldwide in scope (e.g. Asal, Brown, and Figueroa 2008; Boyle, Kim, and Longhofer 2015; Elias et al. 2017; Forman-Rabinovici and Sommer 2018a, 2018b; Hildebrandt 2015; Hunt and Gruszczynski 2018). The corresponding literature concurs that since position-takings on abortion are mainly determined by moral conceptions, interpretive frames play a critical role in this policy area. Two ideal-type frames, commonly mobilized in support of abortion liberalization, are the *public health* and *reproductive rights* frames.

The *public health* frame acknowledges the persistent use of safe – and unsafe – abortion practices, emphasizing that, when criminalized, unskilled professionals often perform the procedure under unsanitary conditions, increasing maternal mortality and endangering family stability (Suitters 1973; Tietze and Henshaw 1986). Alternatively, the *reproductive rights* frame interprets access to legal abortion as an inalienable human right, freeing women from coercion regarding their reproductive functions and preconditioning women's autonomy and self-direction (Dixon-Mueller 1993). Since the end of World War II, licensed physicians and women's rights activists have championed the *public health* and *reproductive rights* frames.

Women have a vested interest in the liberalization of induced abortion since they bear all the biological challenges of pregnancy and, through patriarchal gender ideologies, shoulder most costs of unwanted child raising. In reaction to these facts, women's rights organizations have commonly led reform efforts to liberalize abortion policy (e.g. Blofield 2006; Luker 1984; Outshoorn 1996). The literature agrees that when women gain direct

legislative leverage they maximize the chances for reforms. Countries with more female MPs have more liberal abortion regimes (Asal, Brown, and Figueroa 2008; Forman-Rabinovici and Sommer 2018a; Hildebrandt 2015).

Licensed physicians are another key, collective actor in abortion policies. Having experienced the consequences of botched abortions, physicians in many countries have agreed on the public health cost of these illegal practices. A liberal abortion regime also increases physician control over pregnancy-related, medical decisions (Petersen 1993). These factors have led physician organizations in countries as varied as Russia and the United States to embrace the *public health* frame, making them instrumental in liberalizing abortion (Joffe, Weitz, and Stacey 2004; McBride Stetson 1996). Boyle, Kim, and Longhofer (2015) show that countries having more licensed physicians are more likely to liberalize abortion under conditions of rape.

International non-governmental organizations (INGOs) have also been increasingly engaged in global debates on abortion policy (Ramirez and McEneaney 1997). Health INGOs (e.g. the International Planned Parenthood Federation) and women's rights INGOs (e.g. Women's Global Network for Reproductive Rights) have decisively contributed to awareness raising about the public health costs of mishandled abortions (Joachim 2007). International institutions like international treaties have also facilitated abortion reform. Women's rights treaties, in particular, contribute to abortion reform by generating forums for cross-national, policy learning that expand the political leverage of national-level, pro-choice activists (Forman-Rabinovici and Sommer 2018a). In fact, countries that, without reservations, ratified the 1979 Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) have more liberal abortion policies (Hunt and Gruszczynski 2018).

Pro-reform frames and movements commonly have faced the strongest opposition from religious leaders. The Catholic Church has stood out in the abortion policy arena under the key belief that human life begins at fertilization, which implies that abortion is an act of killing (Kulczycki 1999). Following this principle, the Church marshaled its multiple spiritual and organizational resources, during John Paul II's papacy, to halt a wave of liberalizations (Blofield 2006). Islamic principles could also impinge on the chances of reform. As Shapiro (2013: 487) documents, this is because most Islamic schools classify abortion as "blameworthy", and most Islamic theologians discourage the practice under fears of moral decay. Moreover, several Protestant denominations, especially Evangelical churches, condemn abortion under most circumstances and have mobilized their adherents against several abortion liberalization projects (Kane 2008). Supporting the role of religious doctrines, countries with larger proportions of Catholic (Boyle, Kim, and Longhofer 2015; Hildebrandt 2015) and Muslim (Forman-Rabinovici and Sommer 2018b) populations display less liberal abortion policies.

Notwithstanding its major contributions, the literature of abortion policy research displays two main limitations. First, no study has yet examined longitudinally the conditions that facilitate legalization of abortion *on demand* and for *socio-economic* reasons. This is striking because these two abortion reforms should produce the strongest improvement in public health outcomes (World Health Organization 2008). Second, previous comparative work has yet to theorize or assess the causal role of basic civil rights for women – i.e. the broad legal environment determining their everyday autonomy – on these reforms. As shown in the next Section, these rights increase the incentives and resources available for women to actively mobilize for *and* support abortion liberalizations.

Women's Legal Empowerment and Experiences of Choice

According to a growing literature on women's rights and gender equality policies, issues of especial concern to women are discussed and legislated in separate policy fields that evolve through field-specific discourses and struggles (for a review, Valiente 2018). Htun and Laurel Weldon (2012), for instance, argue that the type of national women's movement determines legislation concerning violence against women, whereas elite projects of social transformation determine legislation on contraception. Since extant work considers that policy fields on women's rights are separate and different, it has overlooked the possibility of identifying causal relations across these policy fields.

There are strong reasons, however, to believe that the recognition of certain women's rights does indeed affect the evolution of other policies of concern to women – especially regarding abortion policy. As I elaborate below, the formal, legal institutions that constitute women's civil rights trigger a chain of events that reshape abortion politics (Figure 1). Sustained enjoyment of civil rights increases women's economic resources and civic skills, expands their self-confidence and incentivizes full control over their own reproduction choices through contraception and/or access to abortion. Through the combination of these newly acquired skills and incentives, women become more likely to organize women's movements that prioritize reproductive rights; gain influence over key, political decision-makers; and promote public opinion shifts that decisively contribute to abortion liberalization (Htun 2003; Mazur 2002; McBride Stetson 2001). Women's civil rights, therefore, are the necessary prerequisites for initiating the political processes that lead to these reforms.

Civil rights are here conceptualized following the classic formulation of T.H. Marshall (1992 [1950]) who, in discussing the meaning of citizenship in contemporary societies, distinguishes between “civil”, “political” and “social” rights. T.H. Marshall (1992 [1950]:10) defines “civil” rights as those “necessary for individual freedom – liberty of the person, freedom of speech, thought and faith, the right to own property and to conclude valid contracts, and the right of justice”. “Political” rights involve participation

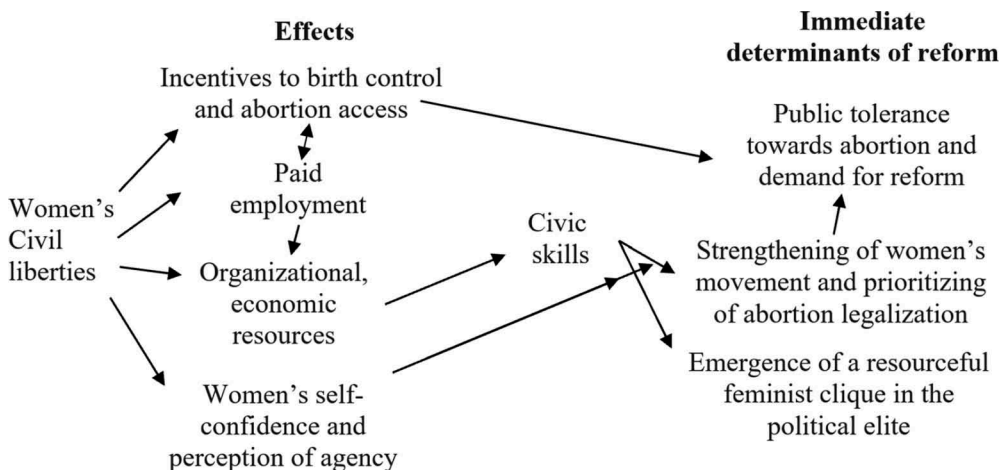


Figure 1. Theoretical links between women's civil liberties and abortion liberalization.

in organized politics; “social” rights embody economic entitlements enabling a fulfilling life.

Marshall argues that the principle of citizenship for men was gradually institutionalized through incremental increases in their rights. The process for women, however, proved less linear. Civil rights were commonly granted later to women than to men (Wang et al. 2017); and they routinely varied by marital status (Miller 1991). Contrary to men, they expanded in many cases simultaneously with – or even after – the attainment of women’s suffrage or other social rights (Deere and León 2001; Smith 2008). In many countries, women by 1950 still had not attained even minimal civil rights, with substantial, cross-national differences persisting since then.

The recognition of women’s civil rights, however, radically transforms their life chances – ultimately, through their actions, revolutionizing the gender order (Connel 2002; Mackay, Kenny, and Chappell 2010). Indeed, these basic rights constitute integral elements of what Amartya Sen (1999) calls “human functional capabilities”. Civil rights equip women with tools necessary to make their own decisions and provide them realistic probabilities of achieving their own personal goals (Nussbaum 1999; Wang et al. 2017). This legal context undermines gender inequalities by increasing the agency and resources of women (Coleman 2004; Kabeer 1999) and redirecting the locus of control to their own (England 2000). The resulting micro-experiences reshape women’s incentives in regarding reproductive control and their capacity to advance their self-interests. Considering the role of four, specific rights helps clarify this process (Sundström et al. 2015).

Freedom of movement facilitates physical mobility that allows women to familiarize themselves with the struggles faced by other women. It also preconditions the enjoyment and use of other rights, like women’s employability (Fraser 1999). Freedom to own property – another enabling right – broadens the range of potential income sources (Peterman 2011), expands financial choice, and boosts rewards for productivity increases. Property ownership also fosters women’s self-direction and self-confidence (Burroway 2012) and their decision-making power in the household (Ashraf, Karlan, and Yin 2010).

Freedom to engage in paid labor facilitates paid employment that provides liquidity, which enhances choices and habituates women to autonomous decision-making. The now-attained potential for autonomous income also offers women better bargaining capacity vis-à-vis their partners and incentivizes their involvement in major family and household decisions (Blumberg 1984; Collins et al. 1993). Access to justice – equal to that of men – allows women to challenge threats to their basic freedoms from other actors including the government itself.

Women’s lives are, therefore, deeply transformed when their civil rights are fully recognized. With these rights obtained, women have more chances of gaining employment (Gonzales et al. 2015), more economic and organizational assets (England 2000) and increasing their self-confidence. With more life options, their incentives in reproductive control also change. In that context women have higher opportunity costs of unplanned and unwanted pregnancies that can disrupt their – now possible – long-term personal plans (Branisa, Klasen, and Ziegler 2013; Sen and Batliwala 2000). As a consequence, matters of contraception and legal, safe abortion become highly relevant to women’s personal decisions about their increased life choices.

Women can then utilize their expanded assets and capacities to pursue their political self-interests. When women attain more economic and organizational resources, they garner more civic and political skills that facilitate a host of group-specific mobilizations. Empowered by added economic and political resources, women are better able to formulate their own political demands and advance those demands through vibrant consciousness-raising and lobbying activities (Paxton, Hughes, and Painter 2010; Wang et al. 2017; Welzel 2013).

By transforming women's resources and incentives, women's civil rights recognition has a profound transformative impact on domestic, abortion politics. Empowered by more civic skills and enhanced interest in abortion access, women are better able to organize social movements that lead the struggle for legal abortion. In fact, the attainment of women's civil rights undergirded the second wave of the feminist movement that in many countries brought the abortion issue into the public agenda (Kaplan 1992; Lovenduski 1986). The activism of cohesive, pro-choice, women's movements and the additional incentives to reproductive control initiate gradual shifts in public opinion – first among women and later among men – thereby increasing tolerance toward abortion and public support for its legalization (Francome 2015; Mazur 2002). Alternatively, in countries with more insulated policy-making, women can still engender effective policy change by developing feminist cliques inside the top, decision-making echelons.¹ Additionally, attaining civil rights may also enhance women's social rights (e.g. universal healthcare, early childhood education and financial support for working mothers).

To summarize: With their civil rights recognized and intact, women attain more economic resources and civic skills, higher self-confidence and more incentives vis à vis reproductive control. Women thereby have more chances to develop pro-choice movements, establish influential feminist groups within political elites and increase their public demand for abortion liberalization thus setting the abortion issue firmly into the public agenda of policy reforms. I therefore hypothesize that countries with enhanced women's civil rights are more likely to pass substantive abortion liberalizations (H1).

The Database of Abortion Policy Reforms

To elucidate the contemporary history of this policy field, I have created an original, cross-national dataset of abortion laws and policies implemented in 195 countries between 1950 and 2011. Specifically, the database concerns the legal treatment of induced abortion, the latter referring to the termination of a human pregnancy by medical or surgical methods.

Abortion regulation is multidimensional in its need to establish personal requirements; the pregnancy stage in which the procedure is legal; the authorization procedures; and punishments for breaking the law. Of these, the most consequential for individual choices are the grounds for having and performing an abortion (United Nations 2001). Given the centrality of this factor and the significant public health impact of legalizing abortion *on demand* and for *socio-economic reasons* (World Health Organization 2008), I focus on these two types of liberalization.

To obtain information on the maximum possible reforms, I combined multiple sources: (a) five major, cross-national reviews of abortion policy (Harvard School of Public Health 2013; Rowlands 2012; United Nations 2001; World Health Organization 2019; World Health Organization Several years); (b) concrete statutes; and (c)

whenever possible, three case studies of abortion policy history or specific reforms in each country (e.g. Frankowski and Cole 1987). Together, these sources allowed me to construct a database covering most countries in the world and possessing a high degree of reliability in the codification of legal events. I entered legal articles – either verbatim or as summarized in the original source – into a 330-page master file.

Reforms discussed in the master file were coded following specific principles. As a general criterion, each ground is considered legal only if expressly enshrined in the law. This avoids the imprecision associated with identifying the point in time at which a particular ground was consensually accepted by the legal profession. I also define liberalizations and recriminalizations based on changes in the number of legal grounds for an abortion. Liberalizations are here understood as legal reforms that increase the number of grounds under which abortion is legal. Recriminalizations are legal reforms that reduce at least one of the above-mentioned grounds. Following Frank, Camp, and Boutcher (2010), for countries where abortion policy is determined at the subnational level, I take the statute of the state or province with the largest population.

Socio-economic grounds refer to the situation in which the pregnant woman has social characteristics (e.g. marital status or number of children) or either an actual or foreseeable environment (e.g. poverty) that prevents adequate child raising. In some statutes these socio-economic circumstances suffice to justify pregnancy termination, whereas endangerment to the pregnant woman's health serves as justification in others. In both instances specific socio-economic circumstances are required to warrant an abortion.² The 1971 Indian "Medical Termination and Pregnancy Act" is commonly interpreted as establishing abortion for socio-economic reasons (United Nations 2001). It determines that one, concrete, social situation – i.e. being a married woman with children, who becomes pregnant through failed contraception – produces special harm to the woman's mental health and thus unequivocally justifies pregnancy termination. Without that concrete personal situation, the abortion may not be deemed justified:

"Where any pregnancy occurs as a result of failure of any device or method used by any married woman or her husband for the purpose of limiting the number of children, the anguish caused by such unwanted pregnancy may be presumed to constitute a grave injury to the mental health of the pregnant woman" (Universal Law Publishing 2011: 4).

On demand grounds are commonly determined in a more straightforward way. It differs from all other grounds, which require a medical committee's approval that the abortion application fulfills the conditions prescribed by the law. In contrast, *on demand* grounds occur when the woman's decision to have an abortion is itself sufficient enough and requires no approval from a medical committee to access this surgical practice.³ Additionally, in accordance with United Nations (2001) review of abortion policy, since by definition abortion *on demand* encompasses all other grounds, I code *on demand* laws as also legalizing abortion for *socio-economic* reasons. A paradigmatic case of an on demand liberalization is the 1955 Russian reform – an early and important reform during this period. According to United Nation's *Global Abortion Policies* (United Nations 2001: 56):

In its Decree of 23 November 1955, the Government of the former USSR repealed the general prohibition on the performance of abortions contained in the 1936 Decree. Other regulations

issued in 1955 specified that abortions could be performed freely during the first twelve weeks of pregnancy if no contraindication existed.

The dataset provides full coverage for 175 countries and – due to the lack of information regarding abortion policy in the 1950s or immediately following independence – only partial coverage of 20 countries and no information for an additional seven.⁴ To address the possibility of causal heterogeneity across the grounds for abortion (Boehmke 2009), the following analysis considers separately the determinants of whether abortion is legal for *socio-economic* or *on demand* grounds in that particular country-year.

Additional Hypotheses and Independent Variables

This Section formulates hypotheses drawn from the “Previous Research” Section (see Pg. 4) and describes the independent variables used in the analysis. The study’s main expectation that countries with increased women’s civil rights are more likely to liberalize abortion on these two grounds is captured through a *women’s civil liberties index* recently published by Sundström et al. (2015). The index was created as part of the Varieties of Democracy Project and based on the ratings of “over 2,500 local and cross-national experts” (Sundström et al. 2015: 11). The *women’s civil liberties index* combines four indicators: (a) “freedom of domestic movement for women” (e.g. ability to move about freely); (b) “freedom from forced labor for women” (e.g. involuntary servitude); (c) “property rights for women” (e.g. right to acquire property); and (d) “access to justice for women” (i.e. ability to bring cases before a court). Index authors combined these four factors through Bayesian factor analysis, and the resulting index is the underlying latent factor. It bears mentioning that none of these four dimensions includes information regarding reproductive rights of any form – including contraception or abortion. I opt for the Varieties of Democracy Project’s *women’s civil rights index* rather than the *indexes of women’s rights* included in the CIRI database (Cingranelli, Richards, and Chad Clay 2014). While the CIRI indicator for “women’s economic rights” is closest to the notion of women’s civil rights, its variable for women’s economic rights doesn’t capture three critical women’s civil rights that are indeed included in the Varieties of Democracy indicator – freedom of movement, freedom to own property and access to justice. The alternative CIRI indicator capturing “women’s social rights” is endogenous to women’s sexual and reproductive rights and doesn’t capture two critical civic rights included in the Varieties of Democracy indicator: freedom to own property and access to justice. Additionally, the CIRI database covers a much shorter period than that of the Varieties of Democracy Project.

In isolation, the *women’s civil liberties index* could capture the effect of other general legal or institutional conditions, like the political system. The models, therefore, control for three other, legal-institutional conditions. *Electoral democracy index* (Coppedge et al. 2019) responds to this possibility through an index of the extent to which rulers are responsive to citizens. It combines the degree of freedom of association, suffrage, clean elections, elected executive, and freedom of expression. Younger nations may have fewer administrative resources to reform criminal and healthcare law, affecting abortion policy. In response, I control for *year of independence* (Hensel 2018). To ensure that the *women’s civil liberties index* does not reflect the political power of women to advance the *public health* and *reproductive rights* frames stressed by previous work, the analysis includes the variable *women’s political participation index* as a control (H2). This combines two

indicators: the percentage of women in the legislature's lower chamber; and "an expert-coded assessment of the extent to which political power is distributed according to gender" (Sundström et al. 2015: 14).

Regarding collective political actors, the literature stresses the role of Communism and having a Social-Democratic government. Communist regimes have long been associated with liberal abortion policies either through explicit commitment to the individual empowerment of women (Zielinska 1987) or because they deactivate domestic, religious opposition to abortion reform (Hildebrandt 2015). *Marxist-Leninist government* is, hence, a time-changing, dummy variable that identifies communist countries. Additionally, although cross-national policy diffusion research rarely controls for the ideological orientation of democratic governments, I control for having a *social-democratic head of government* (HoG) because case studies found it relevant for abortion policy outcomes (Blofield 2006). This variable indicates the percentage of days in a given year that the HoG governed in a democratic country and was a member of a political party that is itself a full member in the Socialist International (2015) or the Progressive Alliance (2017) – two INGOs that represent Social-Democratic and Labor parties, worldwide. I use the percentage of days instead of a dichotomous variable because of the substantial rotation in HoG and to avoid overestimating durations of social-democratic tenure. Since previous work shows that the legalization of rape grounds increases chances for legalization on mental health grounds (Boyle, Kim, and Longhofer 2015), the dichotomous variable *abortion due to rape already adopted* is included as a control variable.

The models address the role of demographic conditions through the variable *total population* (World Bank 2016). According to modernization theory, affluence reduces the economic value of having children (Parsons and Bales 1956) and boosts the perception of existential security. This heightened sense of security reduces popular commitment to traditional norms (like condemnation of abortion) and enhances the drive for individual self-expression that is sustained through birth control methods, broadly understood (Inglehart and Welzel 2005) (H3). I measure the level of modernization through the *GDP per capita* in constant \$US from 2005 (James et al. 2012). Regarding religious and social factors, as noted above, the political theologies of Catholicism and Islam oppose abortion under some circumstances and previous comparative work has proven these two religions relevant in this policy field. Therefore, the models include control variables for the *Percentage Catholic* and *Percentage Muslim* (H4 and H5) (Johnson and Zurlo 2018). For professional and normative reasons, licensed physicians could carry the *public health* frame domestically and a higher rate of *physicians per capita* could increase the chances of abortion liberalization (United Nations Several years; World Bank 2016) (H6).

Regarding supra-national factors, given that the United Nations' 1979 Convention on the Elimination of Discrimination against Women (CEDAW) "can be a catalyst for advancing women's reproductive rights" (Cook 1995:270; also Hunt and Gruszczynski 2018), I include the variable of *CEDAW ratification without reservations* which identifies the percentage of days in a given year wherein that country had status as a country that ratified the Convention without either reservation or special declaration (H7). According to world society scholars, two types of INGOs could be relevant in the abortion policy field: *health INGOs* are expected to carry the public health frame and *women's INGOs* the reproductive rights frame (Boyle, Kim, and Longhofer 2015; Ramirez and McEneaney 1997). The models capture exposure to these frames through total country *health INGO*

memberships and *women INGO memberships* (H8 and H9).⁵ Due to the high correlation between both variables ($r = .742, p < .05$) in [Tables 2](#) and [3](#), they are included in separate models.

Widespread awareness of “abortion tourism” to proximate countries with more permissive legislation could have eliminated resistance toward reforms (Linders 2004). Moreover, contiguous countries tend to have strong socio-economic and cultural ties, making them more likely models of cross-national policy learning. The models include the variable *spatial lag*, which represents, for each country in a given year, the percentage of contiguous countries that had already legalized that ground. Contiguity is defined as neighboring countries bordered by land, river, or less than 400 miles of water (Stinnett et al. 2002).⁶ Due to heavy right- or left-hand skews, *total population*, *GDP per capita*, *physicians per capita*, the INGO membership and *spatial lag* variables have been logged to reduce the influence of outliers. Descriptive statistics are included in [Table A2](#).

Analytical Approach

Since a central objective of this study is to determine the conditions that hasten or delay legal, induced abortion reforms, the appropriate analytical strategy involves event history models. Event history (EH) methods analyze changes in the hazard rate or probability that an event will occur in a particular interval if it did not occur in the previous interval. Here the events are only abortion liberalizations because the number of abortion recriminalizations (11) is insufficient for a multivariate analysis. By identifying factors affecting changes in the hazard rate, EH models reveal the determinants of the timing until abortion liberalizations (Cleves, Gould, and Gutierrez 2008).

Most previous, cross-national, policy diffusion studies use EH methods to predict either a once-only event or a first event. Yet the database of abortion liberalizations, constructed for this project, indicates that as a result of recriminalizations some countries could undergo yet another liberalization – i.e., some countries had several periods in which they were “at-risk” of a liberalization. Hungary, for instance, first adopted abortion *on demand* in 1956 and recriminalized it in 1973, leading to a second at-risk period until it decriminalized it again in 1992. It recriminalized it again in 1998 and decriminalized it yet again in 2000. Ignoring these second and third, at-risk periods could bias the results and/or provide incomplete information. To capture all liberalizations and at-risk periods, I estimate Cox models for repeated events with a gap time structure, Efron’s method for simultaneous events and standard errors adjusted to allow for intragroup correlation.

Cox models are chosen over other EH models because they do not require identifying the shape of the baseline hazard beforehand, which makes them amenable to analyses of abortion policy reform (Box-Steffensmeier and Jones 2004). Moreover, the analysis considers the period until the first event of legalization and the period following any recriminalization. In other words, a country is at-risk for all years since 1950 or when it became independent until that ground is legalized or right-censored (Box-Steffensmeier, De Boef, and Joyce 2007). If after legalization the ground becomes recriminalized, it returns to an at-risk status until the ground is legalized again or right-censored.

In practical terms, this means that the variables *socio-economic* and *on demand* grounds have a value of 0 during the entire period prior to being legalized. The year a ground

becomes legal, the value changes to 1. If after decriminalization, the ground is recriminalized, the country may have an event again and the value returns to 0 until another event actually occurs. Hungary, for example, could pass an *on demand* liberalization in three periods: 1950–1955, 1973–1991 and 1998–1999. The *on demand* variable is therefore designated as 0 for these three periods, and 1 for 1956, 1992 and 2000 when the ground was legalized. Since I define abortion liberalizations as explicit legal reforms that reduce restrictions to pregnancy termination, former colonies that preserve their metropole’s previous legislation which legalized abortions for a specific ground (e.g. post-Soviet countries) are not considered at-risk.

In EH models for repeated events, it is also necessary to determine the data’s time structure. Conforming to most previous research, I use a “gap time” structure, where “time at-risk of reform” is restarted after each event, rather than a “time from entry” structure. I do so because abortion reform projects occur sequentially – not simultaneously – where a reform project j is only launched after enactment or failure of project j_{-1} has occurred (Box-Steffensmeier, De Boef, and Joyce 2007). All models are estimated with Efron’s method for simultaneous events, which produces the most accurate approximation of the conditional probability (Cleves, Gould, and Gutierrez 2008). Because the analysis is based on panel data, the models adjust the standard errors to allow for intra-group correlation.⁷

Descriptive Statistics

Descriptive results reveal a trend largely consistent with the consensus in public healthcare scholarship (Table 1). Overall, 76 reforms have been passed either legalizing or recriminalizing abortion for *on demand* or *socio-economic* reasons in the 195 countries considered between 1950 and 2011. Of this total number, 66 of these reforms (86.84%) constitute liberalizations and only ten recriminalizations (Table 1).

It is important to note that abortion reforms should not be construed as systematic deregulations of reproductive choices. Although many countries now allow pregnancy termination under broad conditions, they do so under explicitly stated, highly restricted conditions – e.g. delimiting the pregnancy stages for legal abortions. It can therefore hardly be argued that the law has ceased regulating induced abortion. Throughout the twentieth century, the government has remained a central actor in the normative definition of permissible pregnancy interruptions.

The percentage of countries where abortion *on demand* or for *socioeconomic* reasons is legal has increased during most of the period. This trend is partially due to the combination of numerous liberalizations and few recriminalizations, noted above, as well as the collapse of the USSR, which generated 15 new countries that maintained the abortion-related statutes adopted in the 1950s (Figure 2). Still, the global liberalization of abortion policy remains very much globally unfinished. By 2011, only 37.0% of all countries considered it lawful to conduct abortions on grounds of *socioeconomic conditions*, while only 29.35%, respectively, considered it lawful *on demand*. In addition to being globally incomplete, the diffusion process appears regionally clustered (Figure 3). How can we explain this incomplete but nonetheless substantial wave of abortion liberalizations?

Table 1. Liberalizations and recriminalizations of abortion under socio-economic conditions and on demand in 195 countries, 1950–2011.

Albania: 1991: OD	Italy: 1978: OD
Australia: 1971: S	Luxembourg: 1978: S
Austria: 1974: OD	Mexico: 2007: OD
Bahrain: 1976: OD; 1989: OD*	Mongolia: 1985: S; 1989: OD
Barbados: 1983: S	Nepal: 2002: OD
Belgium: 1990: OD	Netherlands: 1981: OD
Bulgaria: 1956: OD; 1968*: OD; 1990: OD	Norway: 1960: S; 1978: OD
Cambodia: 1997: OD	Poland: 1956: S; 1959: OD; 1990*: OD; 1993*: S; 1996: S; 1997*: S
Canada: 1988: OD	Portugal: 2007: OD
Cape Verde: 1986: OD	Romania: 1957: OD; 1966*: OD; 1989: OD
China: 1957: OD	Russia: 1955: OD
Cuba: 1965: OD	Serbia: 1952: S; 1969: OD
Czechoslovakia: 1957: S; 1986: OD	Singapore: 1970: S; 1974: OD
German Democratic Republic: 1965: S; 1972: OD	South Africa: 1996: OD
Denmark: 1956: S; 1973: OD	Spain: 2010: OD
Finland: 1950: S	St. Vincent: 1988: S
France: 1975: OD	Sweden: 1974: OD
Federal Republic of Germany: 1974: OD; 1975*: OD; 1976: S	Switzerland: 2002: OD
Germany: 1992: OD	Tunisia: 1965: S; 1973: OD
Greece: 1986: OD	Turkey: 1983: S
Guyana: 1995: OD	United Kingdom: 1967: S
Hungary: 1953: S; 1956: OD; 1973*: OD; 1992: OD; 1998: OD*; 2000: OD	United States: 1973: OD
India: 1971: S	Vietnam: 1989: OD
Iran: 1976: S; 1982*: S	Zambia: 1972: S
Israel: 1977: S; 1979*: S	

* = recriminalizations; S: Socio-economic conditions; OD: On demand.

Multivariate Analysis

Table 2 displays the results from four Cox models. Models 1 and 3 show the findings on liberalization for *socioeconomic conditions*, while Models 2 and 4 show the results for abortion liberalization for *on demand* reasons. Models 1 and 2 indicate that political factors *do* shape the risk of these types of reforms. Consistent with case studies, the ideological orientation of government does affect them. Having a Marxist-Leninist government multiplies the likelihood of legalizing abortion on *socioeconomic* and *on demand* conditions by as much as 88.94 ($\exp(4.488) = 89.03$) and 20.27 ($\exp(3.009) = 20.27$), respectively. The political ideology of democratic governments is also relevant. Based on Tables 2 and 3, having a *social-democratic HoG* increases significantly the likelihood of socio-economic and on demand liberalizations. A standard deviation increase in the percentage of days with *social-democratic HoG* increases the likelihood of a socio-economic liberalization 31.32%. *Electoral democracy index* has a negative, significant effect in several Models of Tables 2 and 3. Yet the sensitivity models included in the Appendix (Tables A3-A9) indicate that this effect is not robust.

Regarding demographic and conditions, *total population* and *GDP per capita* do not have a positive and significant impact on *socio-economic* or *on demand* liberalizations.⁸ In contrast, domestic cultural factors, especially a country's religious composition, affect liberalizations. Consistent with previous work (Boyle, Kim, and Longhofer 2015; Forman-Rabinovici and Sommer 2018b), a larger Catholic community reduces the likelihood of *socio-economic* liberalizations. A standard deviation increase in the percentage of Catholics reduces the likelihood of this type of reform 44.70%. H4 is thus partially supported. Yet the proportional

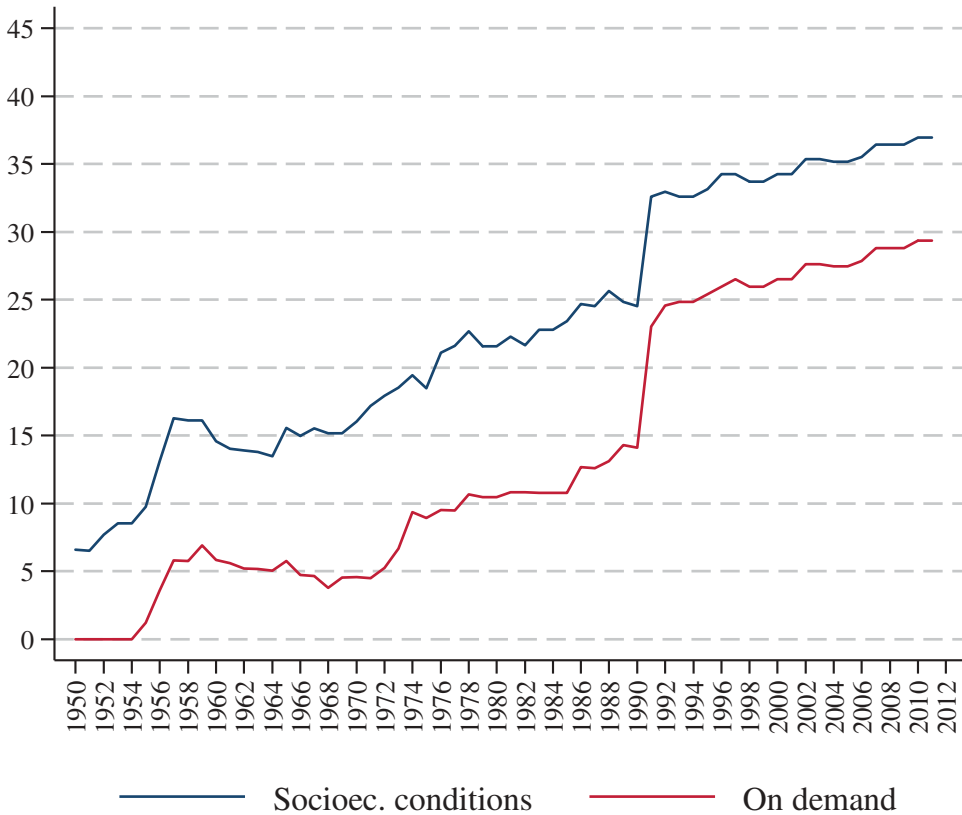


Figure 2. Percentage of countries where induced abortion is legal under conditions of socioeconomic circumstances and on demand, 1950–2011.

size of the Muslim community does not affect the risk of reform. In additional Models, neither does the percentage of Buddhist, Hinduist or Protestant adherents included in [Table A3](#) have a significant effect on either reform. Moreover, Models in which the 1950–1969 values were estimated using multiple imputation techniques include the proportions of Evangelicals and show it does not have a significant impact on either of these reforms ([Table A3](#)). Similarly, physicians per capita log has a positive and significant impact on *on demand* reforms. The evidence is inconsistent with H5 and partially consistent with H6.

Legal-institutional conditions, the main focus of this study, also affect the probability of these legal reforms. In Models 1 and 2, the degree of women’s civil rights has a strong and positive effect on both dependent variables, thus supporting this study’s hypothesis. The effect of *women’s civil liberties index* is rather substantial, as well. A standard deviation change in this variable multiplies the probability of an *on demand* liberalization and a *socioeconomic* liberalization by 3.29 and 4.29, respectively. This evidence provides strong indication that legal gender equality shapes restrictions to induced abortion. H1 is clearly consistent with the data.

In sum, concrete country-level conditions provide a critical background to understanding the least restrictive types of abortion liberalizations. *Socioeconomic* and *on*

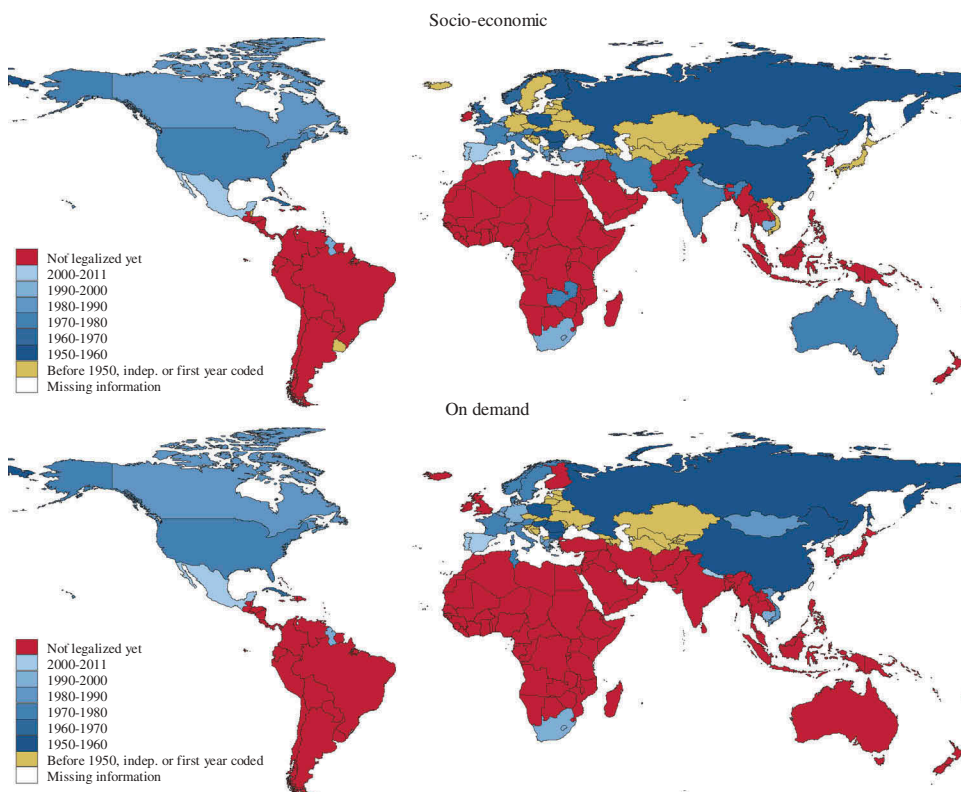


Figure 3. Decade of liberalization of two abortion policy exceptions since 1950 or independence, 1950–2011.

demand liberalizations are more likely to occur under conditions of increased civil rights for women and Marxist-Leninist governments.

Likewise, important findings emerge if we consider supranational and cross-national factors. Countries bordering other countries that already adopted the reform are significantly more likely to liberalize abortion on demand. A 2.718 times increase in the spatial lag variable multiplies the likelihood of this type of reform 1.37. Moreover, *CEDAW without reservations* has a significant and positive effect in Tables 2 and 3 (at the 10% level). Yet the sensitivity models included in the Appendix (Tables A3-A9) indicate that this effect is not robust. The evidence is thus inconsistent with H7.

A stronger connection to the *public health* frame, measured by the total memberships in *health INGOs*, does shape socioeconomic reforms. A 2.718 times increase in memberships multiplies the likelihood of this type of reform 3.14. Table 3 displays the effect of *women's INGOs* on these two reforms and, in contrast, reveals non-significant effects. H8 is partially supported – and H9 is not supported – by the data. The lack of substantial and robust effects of connections to women INGOs may result from the fact that women's INGOs began paying close attention to abortion access only in recent decades. Strong evidence exists, for instance, that abortion first became a widespread, galvanizing issue among women INGOs in the early 1990s (Fraser 1999), and that subsequently this alliance

Table 2. Determinants of abortion policy liberalization for estimated with cox models for repeated events and an index of health INGO memberships, 1950–2011.

	Model 1	Model 2	Model 3	Model 4
	Socio-economic	On demand	Socio-economic	On demand
<i>Domestic factors</i>				
<i>Legal-institutional</i>				
Women's civil liberties index _(t-1)	5.666*** (1.613)	4.629** (1.626)	5.725*** (1.635)	5.167** (1.793)
Electoral democracy index _(t-1)	-3.372** (1.213)	-1.904 (1.235)	-4.161*** (1.243)	-3.154* (1.394)
Year of independence _(t-1)	-.001 (.001)	-.001 (.001)	-.001 (.001)	-.001 ⁺ (.001)
Abortion due to rape already adopted _(t-1)	-.781* (.374)	-.530 (.408)	-.760* (.381)	-.531 (.399)
<i>Political</i>				
Women's political participation index _(t-1)			1.594 ⁺ (.882)	2.136 (1.313)
Marxist-Leninist government _(t-1)	4.488*** (.791)	3.009*** (.712)	4.079*** (.852)	2.393** (.807)
Social-democratic head of government _(t-1)	.010** (.004)	.008* (.004)	.010* (.004)	.008 ⁺ (.004)
<i>Demographic</i>				
Total population log _(t-1)	.086 (.149)	.120 (.185)	.140 (.153)	.234 (.201)
<i>Economic</i>				
GDP per capita log _(t-1)	.127 (.159)	-.388 ⁺ (.236)	.261 (.167)	-.273 (.224)
<i>Cultural and social</i>				
Percent Catholic _(t-1)	-1.641*** (.476)	-.366 (.483)	-1.607** (.489)	-.353 (.494)
Percent Muslim _(t-1)	-.148 (.817)	.228 (1.009)	.050 (.885)	.590 (1.047)
Physicians per capita log _(t-1)	.317 (.218)	.828* (.331)	.278 (.217)	.907* (.358)
<i>Supranational factors</i>				
CEDAW without reservations _(t-1)	.010 ⁺ (.005)	.010 ⁺ (.006)	.010 ⁺ (.005)	.010 ⁺ (.006)
Health INGO memberships log _(t-1)	1.145** (.398)	.452 (.411)	.999* (.411)	.117 (.441)
Spatial lag log _(t-1)	.163 ⁺ (.092)	.313** (.119)	.108 (.104)	.276* (.125)
Log pseudo-likelihood	-149.066	-140.372	-148.034	-139.014
Countries at risk/events	140/46	148/41	140/46	140/41
Observations	5,535	6,274	5,535	6,274

⁺ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test); Standard errors in brackets.

may have since weakened because women from the Global South prioritized other issues such as violence against women (Tripp 2006).

Models 1 and 2 (in Tables 2 and 3) strongly support the main hypothesis. Countries where women have increased civil liberties are more likely to liberalize abortion for *socioeconomic* reasons and *on demand*. Yet a case could be made, as well, that this variable captures the influence of women's political power. To isolate the effect of this possible confounder, Models 3 and 4 (in Tables 2 and 3) include the variable *women's political participation index* – which, as a reminder, captures the degree of female representation in Parliament and the perceptions of experts regarding the extent of gender equality in political power. These additional Models reveal that the impact of *women's civil liberties index* (WCLI) does not simply reflect the degree of female political participation. Based on Tables 2 and 3, once controlling for *women's political participation index* (WPPI), WCLI

Table 3. Determinants of abortion policy liberalization for estimated with cox models for repeated events and an index of women INGO memberships, 1950–2011.

	Model 1	Model 2	Model 3	Model 4
	Socio-economic	On demand	Socio-economic	On demand
<i>Domestic factors</i>				
<i>Legal-institutional</i>				
Women's civil liberties index _(t-1)	6.079*** (1.768)	4.572** (1.611)	6.181*** (1.757)	5.280** (1.795)
Electoral democracy index _(t-1)	-2.902* (1.245)	-1.712 (1.210)	-4.047** (1.269)	-3.189* (1.389)
Year of independence _(t-1)	-.001 ⁺ (.000)	-.001 (.001)	-.001 ⁺ (.000)	-.001 ⁺ (.001)
Abortion due to rape already adopted _(t-1)	-.468 (.347)	-.373 (.388)	-.494 (.348)	-.465 (.385)
<i>Political</i>				
Women's political participation index _(t-1)			2.155* (.842)	2.390* (1.185)
Marxist-Leninist government _(t-1)	4.105*** (.818)	2.786*** (.804)	3.718*** (.894)	2.105* (.936)
Social-democratic head government _(t-1)	.010** (.004)	.009* (.004)	.010* (.004)	.008 ⁺ (.004)
<i>Demographic</i>				
Total population log _(t-1)	.304* (.130)	.241 (.162)	.336** (.127)	.314 ⁺ (.162)
<i>Economic</i>				
GDP per capita log _(t-1)	.238 (.158)	-.272 (.217)	.375* (.162)	-.208 (.216)
<i>Cultural and social</i>				
Percent Catholic _(t-1)	-1.318** (.451)	-.267 (.483)	-1.344** (.465)	-.396 (.506)
Percent Muslim _(t-1)	.422 (.787)	.403 (.999)	.637 (.864)	.619 (1.049)
Physicians per capita log _(t-1)	.641** (.208)	.971** (.310)	.541** (.208)	.962** (.320)
<i>Supranational factors</i>				
CEDAW without reservations _(t-1)	.011* (.005)	.010 (.006)	.010 ⁺ (.005)	.010 ⁺ (.006)
Women INGO memberships log _(t-1)	-.023 (.337)	-.148 (.405)	.020 (.343)	-.264 (.397)
Spatial lag log _(t-1)	.209* (.093)	.343** (.121)	.129 (.109)	.285* (.128)
Log pseudo-likelihood	-152.744	-140.862	-150.619	-138.845
Countries at risk/events	140/46	148/41	141/47	148/41
Observations	5,535	6,274	5,535	6,274

⁺ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test); Standard errors in brackets.

remains having a positive and significant effect. Moreover, WPPI has no robust impact on either of these two reforms. Once controlling for WPPI, a standard deviation change in WCLI multiplies the risks of reform 4.36 and 3.77, respectively. Nevertheless, the evidence is inconsistent with H2.

Since the concept of civil rights and the index used in this study encapsulate several types of basic freedoms, it is informative to replicate the analysis by disaggregating the *women's civil liberties index* into its four, integral elements. Table A4 includes the results of this exercise.⁹ The Models indicate that there is no single freedom driving the results in Tables 2 and 3, because several individual freedoms have a positive and significant impact (at the 5% or 10% level). In conjunction, the evidence in Table 2, 3 and A4 suggest that the combined level of women's liberties has a more consistent impact on these to reforms than do each of the individual freedoms taken separately.

A series of robustness checks were conducted (Technical Appendix) to examine the stability of the results in Tables 2 and 3. Models 1–4 in Table A5 replicate the models without the *electoral democracy index* (which is positively correlated with *civil liberties index*, $r = .821$; $p < .01$) and using the *percent women in total labor force* instead of the *women's political participation index*. Models 1–2 in Table A6 control for ICPD ratification and Models 3–4 use random-effects logit models with three time variables, t , t^2 and t^3 , to account for time dependence (Carter and Signorino 2010).¹⁰ Models in Table A7 add an index of women's participation in any voluntary organization as a control (Models 1 and 2) and a control for total fertility rate (Models 3 and 4). Models in Table A8 control for economic inequality and use stratification by event number.¹¹ The main results do not vary substantively. In all of these Models, *women's civil liberties index* remains significant at the 5% level and maintains the same positive sign as that in Tables 2 and 3. A *general civil liberties index* also predicts these two forms of liberalization (Table A9).¹² Moreover, in a replication of Models 3 and 4 in Table 2 without *women's civil liberties index*, *Marxist-Leninist government*, *Social-democratic HoG*, *physicians per capita* and *health INGO memberships* are significant in at least one of the Models (Table A10).

Discussion

This article examines the conditions that shape global abortion liberalization. I draw on a newly created database of international abortion laws between 1950 and 2011 and focus on liberalizations that allow pregnancy interruption on *socioeconomic* and *on demand* grounds. The results of this study demonstrate the profound multidimensionality of abortion policy reform. Demographic, political, social and institutional factors are critical in explaining the two liberalizations considered. Four main findings emerge from the evidence presented above.

First, regarding political conditions, the type of government and women's political power also prove consequential for the abortion policy reforms considered. Countries with Marxist-Leninist governments are many times more likely to pass *socio-economic* and *on demand* liberalizations than other types of governments. Several factors can account for this strong effect. Communist governments deactivate historical, religious opposition to abortion reform (Hildebrandt 2015). They also try to avert economic crises and stimulate economic growth by increasing women's participation in the labor force, which requires birth control (Githens 1996). Moreover, in accordance with previous research based on case studies stressing the role of social-democratic governments (Blofield 2006), countries with social-democratic HoG are significantly more likely to liberalize abortion for *socio-economic* reasons.

While previous work reports that countries in which women attain more political power vis-à-vis men display more liberal abortion policies (Asal, Brown, and Figueroa 2008; Hildebrandt 2015), this study can't confirm that the overall political power of women has an autonomous impact on *socio-economic* and *on demand* liberalizations. This inconsistency in the results may owe to the fact that (unlike this study) previous quantitative work does not consider the role of *women's civil rights index* or *social-democratic HoG* that are actually positively correlated with the *women's political participation*. Thus in previous studies the indicators of women's political power may have only partially captured the impact of those other autonomous factors. In broader terms, this

finding suggests that the recognition of women's civil rights doesn't contribute to abortion liberalization by expanding the presence of women in official political institutions. Future work may examine if it enables these reforms by increasing public tolerance toward abortion, or by strengthening the feminist movement or a feminist clique within the political elite.

Second, international factors also prove consequential for these two policy events. Countries with more neighboring countries that already legalized abortion *on demand* are more likely to legalize as well. This finding suggests that many countries take notice of abortion reforms in their geographical region and, based on a positive assessment of the consequences of liberalizations passed in neighboring nations, have themselves commonly decided to enact a liberalization. Moreover, countries with stronger connections to healthcare related INGOs are more likely to legalize abortion for *socio-economic* reasons. In line with Boyle, Kim, and Longhofer (2015), embeddedness in the global scientific network and the resulting constant exposure to the public health frame may facilitate support for abortion reform by raising domestic awareness on the risks of illegal, unsafe abortions.

Third, national legal-institutional conditions that hadn't been examined or theorized in previous comparative research on abortion politics also affect the likelihood of liberalizations. Previous work, for instance, stresses the role of democratization (Forman-Rabinovici and Sommer 2018a) but has yet to assess the influence of basic civil rights enjoyed by women, which actually have a robust and positive impact on the risk of reform. As this manuscript shows, countries where women have more civil rights are significantly more likely to pass *socio-economic* and *on demand* liberalizations.

This evidence strongly supports the novel, institutionalist theoretical approach presented in this study. Women's basic legal rights are key, formal, legal institutions in modern countries. Modern countries, furthermore, differ substantially in their degree of recognizing that fact. While largely overlooked in the abortion politics literature, the full recognition of women's rights is enormously consequential for abortion policy reform. Having full freedom of movement, the right to own property, the right to engage in paid work and access to justice over several decades triggers a chain of events that facilitates the emergence of three central conditions for abortion policy reform. When women acquire civil rights, they attain more economic resources and civic skills, thereby gaining more incentives to secure control of their own reproductive rights – including access to safe abortion. In combination, reinforced incentives for reproductive control and civic skills promote the emergence of strong, women's movements that prioritize abortion and, in many countries, have led the pro-choice camp. A strong, women's movement combined with higher desire for birth control also fosters public tolerance toward abortion that, in turn, has also eased the path to reform in many countries. Alternatively, the political empowerment of women may provide a feminist clique with direct influence within the top circles of political decision-making. In other words, women's civil rights expand the political capacities of women and transform their preferences in ways that expedite bottom-up pressures for abortion policy reform. Women's civil rights are, therefore, necessary prerequisites for abortion liberalization. For this reason, they should be acknowledged as critical dimensions in the global wave of abortion liberalizations. In fact, the robust impact of women's civil rights found in this study has a critical implication for global abortion politics in the decades to come. If the global trend of women's civil

rights recognition continues unabated, it will likely facilitate additional abortion liberalizations.

One limitation of this study bears mentioning. A sizable gap may exist in abortion policy between “law on the books” and “law in action”. This may shed doubts on the importance of the abortion policy regime. Yet legal regimes are also relevant because they shape the cultural value tied to that practice. Laws grant meaning to social practices, marking their moral acceptability. Even if abortion law does not strongly affect abortion rates, it may still reduce the cultural stigma attached to this surgical practice and increase the self-worth of women who chose to make use of it (Cook 2014).

On a broader scale, this study has relevant theoretical implications for the historical institutionalist – as well as gender and politics – literatures. Most comparative historical institutionalist work attributes a major structuring capacity in political behavior to either macro-political institutions (e.g. political regime or electoral system) or field specific rules (e.g. welfare regime) (Fioretos 2016). Universality of basic civil rights, as a result, has been largely overlooked in the quantitative and qualitative literature.¹³ When universalized, however, civil rights constitute empowering capabilities that can radically transform individual experiences and social relationships in any given society. Most important, they facilitate the advancement of individual interest in policies that maximize self-realization. In light of persistent, cross-national differences regarding access to civil rights and its subsequent impact on abortion liberalizations, future research could assess the institutional effects of civil rights universalization on the legalization of political or social rights.

The neglect of civil rights conditions can also be extended to comparative work on gender equality policies (e.g. reproductive rights, work-family balance). This work has mainly been concerned with the influence of global cultural scripts (Boyle, Kim, and Longhofer 2015; Frank, Camp, and Boutcher 2010; Paxton and Hughes 2014) or the domestic power resources of women, including mainstreaming agencies (Asal, Brown, and Figueroa 2008; Forman-Rabinovici and Sommer 2018a). Since the gender and politics literature has left the role of civil rights under-examined, additional research could assess its impact on other gendered policies and socio-economic gender inequalities.

Finally, the conclusions of this study also have implications for the emerging feminist institutionalism. Feminist theory has increasingly turned to institutionalist principles to account for both the persistence of male dominance in several fields and the causes of female empowerment. In drawing from the new institutionalism, feminist theory has incorporated central institutionalist insights – concepts like the logic of appropriateness and informal institutions – that elucidate undisclosed elements of the gender order and gender regimes (Mackay, Kenny, and Chappell 2010). Feminist institutionalism could also enhance the role of incentives. By incorporating the insight that formal legal rules mold incentives of women and men, feminist institutionalism could shed new light on the institutional foundations of gender regimes. Further research on the influence of women’s civil rights – and civil rights in general – would greatly improve our understanding of policy-making and political change in contemporary societies.

Notes

1. Case studies provide prima facie evidence that women's civil rights contribute to abortion reform even in the absence of full democratization. Asman (2004) states that in Tunisia a series of gender-equality, civil rights reforms in the fifties contributed decisively to the enactment of the 1973 abortion on demand law. In Nepal women's civil rights expanded significantly in the 1990s, legitimating civil society participation in general and pro-choice activism in particular. Nepalese pro-choice organization then launched a public awareness campaign about unsafe abortion with arguments that persuaded key MP before the 2002 *on demand* liberalization (Shakya, Kishore, Bird, and Barak 2004).
2. Most statues discussing the *socio-economic* grounds for pregnancy termination do not indicate what social programs could allow women to keep unplanned but wanted pregnancies.
3. Given this definition of abortion *on demand*, reforms eliminating the need of a physicians' committee approval but establishing the need of spousal consent of the pregnancy termination – like Turkey's 1983 reform – are not coded as *on demand* liberalizations.
4. Table A1 in the Appendix describes the data coverage by country. In addition, following Coppedge et al. (2019), I treat the reunified Germany as a new country. Yet since the process of reunification occurred formally through the legal accession of the GDR to the Federal Republic, I code the abortion policy of 1990 Germany as continuing the policy of the Federal Republic.
5. Data on women INGOs was kindly provided by David John Frank. The author expanded this series by using Union of International Associations (several years). Raw data on health INGOs was kindly provided by Noland E. Phillips and Kristen Shorette. The author calculated the number of health INGO memberships.
6. To ensure that Iceland and New Zealand are included in the analysis, they were defined as neighboring countries of Denmark (its former metropole) and Australia, respectively.
7. The models were estimated with Stata's "stcox" command with the "cluster" and "efron" options.
8. Despite the non-significant average effect of *total population*, case-studies indicate that the cornerstone liberalizations of 1948 (Japan), 1957 (China) and 1972 (India) were passed as part of ambitious governmental plans to reduce the birth rate and population growth (Connelly 2008; Hemminki, Wu, Cao, and Viisainen 2005; Muramatsu 1988). Concerning another highly populated Asian country – China –, it has been proven that the unrestrictive abortion law was used to enforce the one-child policy by forcing large numbers of women to terminate their pregnancies (Connelly 2008). The use of forced abortions has also been documented in North Korea (United Nations Human Rights Council 2014).
9. To reduce table size, the Models only provide the estimates for the four indicators in the *women's civil liberties index*.
10. These models were estimated using Stata's "xtlogit" command. *t* represents the number of years the country has been at risk of a reform since 1950, the country became independent or the previous decriminalization.
11. Due to the large percentage of missing values of the raw *Gini index* variable (Solt 2019), missing values of this variable were estimated using multiple imputation techniques (Honaker, King, and Blackwell 2018).
12. The *women's civil liberties index* and a general *civil liberties index* (using the same four rights) are highly correlated ($r=.898, p<.05$). This suggests that the *women's civil liberties index* reveals the general civil rights in that country-year and that it is not appropriate to differentiate the effects of women and men's civil liberties on abortion reform. Yet, as noted by gender theory, since only women bear children and shoulder most costs of unwanted child raising, a country's civil liberties affect abortion politics mainly by shaping the incentives and capabilities of women themselves.
13. For an exception, see Wang et al. (2017).

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Appendix

Table A1. Data coverage of the abortion legislation dataset, 1950–2011.

Full coverage countries: Afghanistan, Algeria, Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Comoros, Congo Dem. Rep., Congo Rep., Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Czechoslovakia, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Finland, France, German Democratic Republic, Gabon, Gambia, Georgia, Federal Republic of Germany, Germany, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, Ivory Coast, Jamaica, Japan, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyz Republic, Lao Popular Democratic Republic, Latvia, Lebanon, Lesotho, Liechtenstein, Lithuania, Luxembourg, Macedonia Former Yugoslav Republic, Madagascar, Malawi, Malaysia, Mali, Malta, Mauritania, Mauritius, Mexico, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russia, Rwanda, Samoa, Sao Tome and Principe, Senegal, Serbia, Sierra Leone, Singapore, Slovak Republic, Slovenia, Solomon Islands, Somalia, South Africa, Spain, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syrian Arab Republic, Tajikistan, Tanzania, Thailand, Timor-Leste, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine, United Kingdom, United States, Uruguay, Uzbekistan, Vanuatu, Venezuela, Yemen North, Yemen South, Yemen Rep., Zambia, Zimbabwe.

Partial coverage countries (missing years): Albania (1950–1951), Andorra (1950–1993), Bhutan (1950–2004), Fiji (1970–1975), Iraq (1970–2011), Jordan (2002–2011), Republic of Korea (1950–1952), Liberia (1950–1955), Libya (1951–1952), Liechtenstein (1950–1986), Monaco (1950–1967), Morocco (1950–1955), Oman (1950–1965), San Marino (1950–1973) Saudi Arabia (1950–1988), Seychelles (1976–1980), Togo (1960–2006), Tonga (1971–1987), United Arab Emirates (1971–1973), Vietnam (1950–1989)

Countries with no coverage due to missing or insufficient information: Maldives*, Marshall Islands*, Micronesia*, Palau*, Democratic Republic of Korea, Republic of Vietnam, Taiwan.

*= no statute regulating abortion.

Table A2. Descriptive statistics of all variables.

	Mean	St. Dev.	Minimum	Maximum
<i>Dependent variables</i>				
Socio-economic conditions	.008	.091	.000	1.000
On demand	.005	.069	.000	1.000
<i>Independent variables</i>				
Women's civil liberties index	.530	.257	.001	.975
Electoral democracy index	.369	.257	.014	.920
Year of independence	1877.012	163.127	943.000	2002.000
Abortion due to rape already adopted	.184	.388	.000	1.000
Women's political participation index	.546	.265	.056	1.000
Marxist-Leninist government	.047	.212	.000	1.000
Social-democratic head of government	8.478	27.248	.000	100.000
Total population log	8.861	1.527	4.209	13.317
GDP per capita log	7.287	1.483	4.308	11.356
Percent Catholic	.327	.361	.000	.993
Percent Muslim	.282	.376	.000	.998
Physicians per capita log	3.332	1.366	.087	6.188
CEDAW without reservations	22.851	41.745	.000	100.000
Health INGO memberships log	3.910	.908	1.386	6.170
Women INGO memberships log	1.047	.739	.000	2.833
Spatial lag log – socio-economic conditions	1.432	1.775	.000	4.615
Spatial lag log – on demand	.853	1.483	.000	4.615

Table A3. Determinants of abortion policy liberalization for estimated with Cox models for repeated events controlling for the percentage of adherents to five religions (Models 1 and 2) and with multiple imputation and a control variable for evangelical protestants (Model 3 and 4), 1950–2011.

	Model 1	Model 2	Model 3	Model 4
	Socio-economic	On demand	Socio-economic	On demand
<i>Domestic factors</i>				
<i>Legal-institutional</i>				
Women's civil liberties index _(t-1)	6.039*** (1.549)	5.065** (1.791)	5.901*** (1.449)	5.000** (1.651)
Electoral democracy index _(t-1)	-4.649*** (1.115)	-3.243* (1.444)	-4.120*** (1.193)	-3.369* (1.427)
Year of independence _(t-1)	-.001 (.001)	-.001+ (.001)	-.001+ (.000)	-.001* (.001)
Abortion due to rape already adopted _(t-1)	-.650 (.426)	-.573 (.434)	-.653+ (.379)	-.514 (.411)
<i>Political</i>				
Women's political participation index _(t-1)	1.471+ (.873)	2.370+ (1.315)	1.862* (.846)	2.660* (1.256)
Marxist-Leninist government _(t-1)	4.655*** (.924)	2.299** (.850)	4.012*** (.803)	2.329** (.814)
Social-democratic head of government _(t-1)	.009* (.004)	.008+ (.005)	.009* (.004)	.008+ (.005)
<i>Demographics</i>				
Total population log _(t-1)	.105 (.158)	.146 (.256)	.200+ (.109)	.240+ (.122)
<i>Economic</i>				
GDP per capita log _(t-1)	.387* (.164)	-.130 (.267)	.335+ (.169)	-.176 (.222)
<i>Cultural and social</i>				
Percent Catholic _(t-1)	-1.473** (.560)	-.648 (.607)	-1.875*** (.449)	-.820+ (.480)
Percent Muslim _(t-1)	.445 (1.045)	.352 (1.212)	-.133 (.956)	.010 (1.067)
Percent Protestant _(t-1)	.428 (1.047)	-1.126 (.978)		
Percent Buddhist _(t-1)	.393 (1.641)	.016 (1.882)		
Percent Hindu _(t-1)	4.256** (1.339)	1.010 (2.086)		
Percent Evangelical Protestant _(t-1)	.317 (.256)	.764* (.388)	-2.123 (4.345)	-7.744 (5.089)
Physicians per capita log _(t-1)	.316 (.256)	.763* (.389)	.285 (.218)	.725* (.291)
<i>Supranational factors</i>				
CEDAW without reservations _(t-1)	.012* (.005)	.011+ (.006)	.011* (.005)	.010+ (.006)
Health INGO memberships log _(t-1)	1.132** (.439)	.198 (.500)	.768*** (.191)	.293+ (.152)
Spatial lag log _(t-1)	.113 (.110)	.286* (.128)	.119 (.093)	.212+ (.125)
Log pseudo-likelihood	-144.708	-138.154		
Countries at risk/events	140/46	148/41	162	170
Observations	5,535	6,274	6,708	7,552

+ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test); Standard errors in brackets.

Table A4. Determinants of abortion policy liberalization for estimated with Cox models for repeated events (replication of Table 2) disaggregating the women civil liberties index, 1950–2011.

	Socio-economic			
	Model 1	Model 2	Model 3	Model 4
Freedom of movement for women _(t-1)	.424* (.171)			
Freedom from force labor for women _(t-1)		.557** (.189)		
Property rights for women _(t-1)			.691* (.274)	
Access to justice to women _(t-1)				.703** (.217)
(...)				
Log pseudo-likelihood	-152.274	-15.870	-150.360	-151.026
Countries at risk/events	140/46	140/46	140/46	140/46
Observations	5,535	5,535	5,535	5,535
	On demand			
	Model 5	Model 6	Model 7	Model 8
Freedom of movement for women _(t-1)	.528 ⁺ (.270)			
Freedom from force labor for women _(t-1)		.450 ⁺ (.246)		
Property rights for women _(t-1)			.401 (.369)	
Access to justice to women _(t-1)				.317 (.285)
(...)				
Log pseudo-likelihood	-140.852	-141.607	-143.192	-143.545
Countries at risk/events	148/41	148/41	148/41	148/41
Observations	6,274	6,274	6,274	6,274

[^]p = .104, ⁺p < .1, *p < .05, **p < .01, ***p < .001 (two-tailed test); Standard errors in brackets.

Table A5. Determinants of abortion policy liberalization for estimated with Cox models for repeated events without the electoral democracy index (Models 1 and 2) and controlling for the percentage of women in the total labor force (Models 2 and 3), 1950–2011.

	Model 1	Model 2	Model 3	Model 4
	Socio-economic	On demand	Socio-economic	On demand
<i>Domestic factors</i>				
<i>Legal-institutional</i>				
Women's civil liberties index _(t-1)	3.206* (1.331)	3.262* (1.450)	5.736*** (1.652)	4.697** (1.660)
Electoral democracy index _(t-1)			-3.395** (1.251)	-1.997 (1.298)
Year of independence _(t-1)	-.001 (.000)	-.001 (.001)	-.001 (.001)	-.001 (.001)
Abortion due to rape already adopted _(t-1)	-.579 (.383)	-.402 (.378)	-.786* (.380)	-.530 (.411)
<i>Political</i>				
Women's political participation index _(t-1)	.499 (.869)	1.069 (1.184)		
Marxist-Leninist government _(t-1)	4.340*** (.974)	3.095** (.963)	4.495*** (.828)	2.942*** (.740)
Social-democratic head of government _(t-1)	.008* (.004)	.006 (.004)	.011** (.004)	.009* (.004)
<i>Demographics</i>				
Total population log _(t-1)	.131 (.139)	.183 (.196)	.088 (.150)	.132 (.199)
<i>Economic</i>				
GDP per capita log _(t-1)	.146 (.163)	-.275 (.231)	.124 (.162)	-.377 (.240)
<i>Cultural and social</i>				
Percent Catholic _(t-1)	-1.497** (.499)	-.189 (.484)	-1.635*** (.478)	-.334 (.490)
Percent Muslim _(t-1)	.289 (.872)	.733 (1.038)	-.135 (.819)	.317 (1.031)
Physicians per capita log _(t-1)	.176 (.183)	.682* (.325)	.325 (.232)	.853* (.349)
Perc. women in total labor force _(t-1)			.002 (.020)	.008 (.030)
<i>Supranational factors</i>				
CEDAW without reservations _(t-1)	.008 (.006)	.009 (.006)	.010 ⁺ (.005)	.010 (.006)
Health INGO memberships log _(t-1)	.920* (.425)	.218 (.454)	1.136** (.441)	.409 (.460)
Spatial lag log _(t-1)	.108 (.094)	.274* (.122)	.162 ⁺ (.096)	.305* (.120)
Log pseudo-likelihood	-152.305	-140.881	-149.184	-140.391
Countries at risk/events	140/46	148/41	140/46	148/41
Observations	5,549	6,288	5,617	6,356

⁺ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test); Standard errors in brackets.

Table A6. Determinants of abortion policy liberalization for estimated with Cox models controlling for having signed the ICPD Plan of Action (Models 1 and 2) and logit models for repeated events (Models 3 and 4), 1950–2011.

	Model 1	Model 2	Model 3	Model 4
	Socio-economic	On demand	Socio-economic	On demand
<i>Domestic factors</i>				
<i>Legal-institutional</i>				
Women's civil liberties index _(t-1)	5.587*** (1.552)	5.196** (1.938)	5.986*** (1.721)	3.666* (1.509)
Electoral democracy index _(t-1)	-4.043*** (1.223)	-3.173* (1.444)	-4.550*** (1.248)	-2.676* (1.325)
Year of independence log _(t-1)	-.001* (.001)	-.001 (.001)	-.001 (.001)	-.001 (.001)
Abortion due to rape already adopted _(t-1)	-.635 (.406)	-.531 (.399)	-.846* (.407)	-.474 (.415)
<i>Political</i>				
Women's political participation index _(t-1)	1.569+ (.873)	2.134 (1.317)	1.901* (.896)	2.514+ (1.309)
Marxist-Leninist government _(t-1)	3.795*** (.826)	2.419* (.987)	4.406*** (.963)	1.793* (.912)
Social-democratic head of government _(t-1)	.009* (.004)	.008+ (.004)	.012** (.004)	.007 (.005)
<i>Demographic</i>				
Total population log _(t-1)	.051 (.167)	.237 (.211)	.137 (.154)	.243 (.185)
<i>Economic</i>				
GDP per capita log _(t-1)	.116 (.189)	-.267 (.252)	.266 (.173)	-.127 (.203)
<i>Cultural and social</i>				
Percent Catholic _(t-1)	-1.650*** (.500)	-.349 (.493)	-1.623*** (.545)	-.315 (.512)
Percent Muslim _(t-1)	-.000 (.867)	.598 (1.073)	.006 (.925)	.212 (.985)
Physicians per capita log _(t-1)	.307 (.215)	.906* (.356)	.273 (.228)	.789* (.321)
<i>Supranational factors</i>				
CEDAW without reservations _(t-1)	.010+ (.005)	.010+ (.006)	.010+ (.005)	.006 (.005)
Health INGO memberships log _(t-1)	1.057* (.417)	.112 (.459)	1.123** (.425)	-.041 (.421)
Spatial lag log _(t-1)	.134 (.104)	.276* (.125)	.098 (.106)	.233+ (.123)
Country signed the ICPD Plan of Action _(t-1)	-1.182** (.434)	.051 (.727)		
t			.035 (.088)	.034 (.087)
t ²			-.004 (.004)	-.001 (.003)
t ³			.000 (.000)	.000 (.000)
Constant			-15.292*** (3.726)	-11.047*** (3.313)
Log pseudo-likelihood	-146.415	-139.011	-198.880	-197.536
Countries at risk/events	140/46	148/41	140	148
Observations	5,535	6,274	5,535	6,274

+ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test); Standard errors in brackets.

Table A7. Determinants of abortion policy liberalization for estimated with Cox models for repeated events with control variables for women's civil society participation index (Models 1 and 2) and total fertility rate (Models 3 and 4), 1950–2011.

	Model 1	Model 2	Model 3	Model 4
	Socio-economic	On demand	Socio-economic	On demand
<i>Domestic factors</i>				
<i>Legal-institutional</i>				
Women's civil liberties index _(t-1)	6.302*** (1.899)	4.616* (2.100)	5.536** (1.691)	4.561* (1.887)
Electoral democracy index _(t-1)	-4.063** (1.237)	-3.256* (1.367)	-4.040** (1.259)	-2.807* (1.358)
Year of independence log _(t-1)	-.001 (.001)	-.001 (.001)	-.001 (.001)	-.001 ⁺ (.001)
Abortion due to rape already adopted _(t-1)	-.762* (.380)	-.514 (.403)	-.740 ⁺ (.378)	-.627 (.395)
<i>Political</i>				
Women's political participation index _(t-1)	1.909* (.916)	1.927 (1.324)	1.438 (.908)	1.377 (1.305)
Women's civil society participation index _(t-1)	-1.195 (1.236)	1.034 (1.059)		
Marxist-Leninist government _(t-1)	4.305*** (.958)	2.226** (.844)	4.051*** (.859)	2.221* (.871)
Social-democratic head of government _(t-1)	.010* (.004)	.008 ⁺ (.004)	.010* (.004)	.008 ⁺ (.004)
<i>Demographic</i>				
Total population log _(t-1)	.119 (.151)	.261 (.208)	.119 (.160)	.155 (.205)
Total fertility rate _(t-1)			-.099 (.165)	-.399 ⁺ (.232)
<i>Economic</i>				
GDP per capita log _(t-1)	.235 (.172)	-.224 (.238)	.211 (.198)	-.538 ⁺ (.304)
<i>Cultural and social</i>				
Percent Catholic _(t-1)	-1.700*** (.516)	-.298 (.505)	-1.571** (.490)	-.262 (.509)
Percent Muslim _(t-1)	.014 (.886)	.643 (1.039)	.099 (.869)	.558 (1.077)
Physicians per capita log _(t-1)	.288 (.222)	.876* (.359)	.230 (.228)	.788* (.369)
<i>Supranational factors</i>				
CEDAW without reservations _(t-1)	.011* (.005)	.010 ⁺ (.006)	.010 ⁺ (.005)	.009 (.006)
Health INGO memberships log _(t-1)	1.116* (.437)	.037 (.451)	.984* (.410)	.067 (.462)
Spatial lag log _(t-1)	.091 (.106)	.286* (.125)	.104 (.103)	.315* (.135)
Log pseudo-likelihood	-147.667	-138.762	-147.888	-137.270
Countries at risk/events	140/46	148/41	140/46	148/41
Observations	5,535	6,274	5,535	6,274

⁺ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test); Standard errors in brackets.

Table A8. Determinants of abortion policy liberalization for estimated with Cox models for repeated events with stratification by event number (Models 1 and 2) and controlling for Gini index (Models 3 and 4), 1950–2011.

	Model 1	Model 2	Model 3	Model 4
	Socio-economic	On demand	Socio-economic	On demand
<i>Domestic factors</i>				
<i>Legal-institutional</i>				
Women's civil liberties index _(t-1)	5.732** (1.753)	4.331* (1.714)	5.824*** (1.532)	4.946** (1.789)
Electoral democracy index _(t-1)	-4.386*** (1.296)	-3.032* (1.442)	-4.203*** (1.173)	-2.983* (1.397)
Year of independence log _(t-1)	-.001 (.001)	-.001 ⁺ (.001)	-.001 ⁺ (.000)	-.001 ⁺ (.001)
Abortion due to rape already adopted _(t-1)	-.594 (.370)	-.405 (.391)	-.601 (.381)	-.400 (.413)
<i>Political</i>				
Women's political participation index _(t-1)	1.989* (.965)	2.050 (1.372)	1.899* (.830)	1.984 ⁺ (1.163)
Marxist-Leninist government _(t-1)	4.247*** (.951)	2.152** (.766)	3.970*** (.878)	2.547** (.929)
Social-democratic of head government _(t-1)	.011** (.004)	.008 ⁺ (.005)	.009* (.004)	.008 ⁺ (.005)
<i>Demographic</i>				
Total population log _(t-1)	.181 (.155)	.138 (.214)	.199 ⁺ (.109)	.246* (.123)
<i>Economic</i>				
GDP per capita log _(t-1)	.323 ⁺ (.170)	-.393 ⁺ (.233)	.304 ⁺ (.175)	-.318 (.237)
Gini index _(t-1)			-.007 (.034)	-.003 (.038)
<i>Cultural and social</i>				
Percent Catholic _(t-1)	-1.856*** (.517)	-.273 (.539)	-1.785*** (.459)	-.522 (.499)
Percent Muslim _(t-1)	.269 (.926)	.630 (1.035)	.031 (.843)	.449 (1.008)
Physicians per capita log _(t-1)	.330 (.220)	.885** (.329)	.321 ⁺ (.188)	.854** (.282)
<i>Supranational factors</i>				
CEDAW without reservations _(t-1)	.011* (.004)	.013* (.006)	.011* (.005)	.010 (.006)
Health INGO memberships log _(t-1)	1.039* (.461)	.571 (.571)	.781*** (.200)	.312 ⁺ (.163)
Spatial lag log _(t-1)	.042 (.102)	.309* (.149)	.112 (.086)	.239* (.114)
Log pseudo-likelihood	-138.621	-124.134		
Countries at risk/events	140/46	148/41	162	170
Observations	5,535	6,274	6,708	7,552

⁺ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test); Standard errors in brackets.

Table A9. Determinants of abortion policy liberalization for estimated with Cox models for repeated events with an index of civil liberties for men and women, 1950–2011.

	Model 1	Model 2
	Socio-economic	On demand
<i>Domestic factors</i>		
<i>Legal-institutional</i>		
Civil liberties index _(t-1)	4.609** (1.495)	6.173* (2.403)
Electoral democracy index _(t-1)	-4.538** (1.444)	-4.836* (2.221)
Year of independence log _(t-1)	-.001 (.001)	-.001* (.001)
Abortion due to rape already adopted _(t-1)	-.595 (.414)	-.459 (.383)
<i>Political</i>		
Women's political participation index _(t-1)	1.566+ (.898)	1.561 (1.202)
Marxist-Leninist government _(t-1)	3.579*** (.882)	2.471** (.926)
Social-democratic head of government _(t-1)	.009* (.004)	.006 (.004)
<i>Demographic</i>		
Total population log _(t-1)	.080 (.124)	.225 (.172)
<i>Economic</i>		
GDP per capita log _(t-1)	.298+ (.156)	-.205 (.193)
<i>Cultural and social</i>		
Percent Catholic _(t-1)	-1.658** (.529)	-.530 (.540)
Percent Muslim _(t-1)	-.513 (.760)	.200 (.926)
Physicians per capita log _(t-1)	.101 (.186)	.828** (.299)
<i>Supranational factors</i>		
CEDAW without reservations _(t-1)	.008 (.006)	.010+ (.006)
Health INGO memberships log _(t-1)	1.258** (.416)	.238 (.404)
Spatial lag log _(t-1)	.130 (.095)	.279* (.121)
Log pseudo-likelihood	-151.722	-139.589
Countries at risk/events	140/46	148/41
Observations	5,535	6,274

+ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test); Standard errors in brackets.

Table A10. Determinants of abortion policy liberalization for estimated with Cox models for repeated events without the index of women's civil liberties, 1950–2011.

	Model 1 Socio-economic	Model 2 On demand
<i>Domestic factors</i>		
<i>Legal-institutional</i>		
Electoral democracy index _(t-1)	-1.019 (.851)	-.316 (.963)
Year of independence log _(t-1)	-.001 (.001)	-.001 (.001)
Abortion due to rape already adopted _(t-1)	-.556 (.435)	-.283 (.381)
<i>Political</i>		
Women's political participation index _(t-1)	1.685 ⁺ (.986)	1.745 (1.393)
Marxist-Leninist government _(t-1)	2.381** (.825)	1.331 (.875)
Social-democratic head of government _(t-1)	.009* (.004)	.007 (.004)
<i>Demographic</i>		
Total population log _(t-1)	.082 (.129)	.202 (.171)
<i>Economic</i>		
GDP per capita log _(t-1)	.398* (.160)	-.020 (.214)
<i>Cultural and social</i>		
Percent Catholic _(t-1)	-1.417** (.507)	-.200 (.475)
Percent Muslim _(t-1)	-.695 (.662)	-.022 (.861)
Physicians per capita log _(t-1)	-.005 (.195)	.599* (.303)
<i>Supranational factors</i>		
CEDAW without reservations _(t-1)	.009 (.006)	.010 ⁺ (.006)
Health INGO memberships log _(t-1)	1.113** (.407)	.210 (.390)
Spatial lag log _(t-1)	.101 (.096)	.259* (.122)
Log pseudo-likelihood	-154.539	-143.207
Countries at risk/events	140/46	148/41
Observations	5,535	6,274

⁺ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test); Standard errors in brackets.