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The impact of gynecologists' conscientious objection on abortion access

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ABSTRACT

Although abortion in Italy is free of charge and legal in a broad set of circumstances, 71% of gynecologists are registered as conscientious objectors, i.e. they are exempted from performing abortions for reasons of religious or moral beliefs. To assess whether this practice limits abortion access, we analyze aggregate regional data on abortion and a dataset of over one million clinical records of single interventions performed between 2002 and 2016. Results, from both cross-regional panel data and microdata analysis, suggest that conscientious objection hampers abortion access at the local level, being a significant driver of a woman's decision of having an abortion out of the region of residence and leading to longer waiting times to have one. Conscientious objection appears to have a stronger impact on women living in lower-income regions or experiencing other forms of economic disadvantage.

1. Introduction

Abortion regulation is a contentious issue for policy makers, a topic that continues to make the headlines and that often polarizes opinions. While restrictions remain in some legal systems, most European countries have laws that permit the interruption of pregnancy in a broad set of circumstances. However, despite their liberal stance on the issue, some European states also allow healthcare personnel to abstain from performing abortions on the grounds of conscientious objection. The prevalence of conscientious objection varies a great deal across countries. Italy is one of the most extreme examples in this respect. In 2016, 71% of Italian gynecologists – even more than 85% in some regions – were objectors, and only 60% of hospitals with an obstetrics and gynecology ward offered abortions.

The Italian Ministry of Health states that the number of non-objectors is sufficient to give adequate access to abortion, and that any difficulty in terms of access to the service is due to organizational shortcomings at the local level. However, Italian and international human rights and family planning associations, as well as a number of international human rights authorities, argue that conscientious objection is so pervasive that it hinders women's access to abortion in the country.

The [United Nations Human Rights Committee \(2017\)](#) expressed concerns regarding difficulties in accessing legal abortions in Italy due to the high number of conscientious objectors and their distribution across the country, and on two separate occasions the European Committee of Social Rights ([ECSR, 2014](#) and [2016](#)) found Italy to be in breach of international treaties for failing to ensure the right to healthcare, owing to the deficiencies in service provision caused by health personnel invoking conscientious objection. The ECSR also noted that as a result of the lack of abortion providers, pregnant women are in some cases forced to travel to another region

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or abroad.

However, aside from the position of these authorities, there is not much empirical evidence for, or against, a clear relationship between conscientious objection and access to abortion. In fact, the literature tends to focus on the legal and ethical aspects of conscientious objection, but provides little quantitative analysis of its impact. Italy offers an ideal setting for such an analysis, being one of the countries where the phenomenon is most widespread and best documented. Not only the Ministry of Health publishes every year aggregate figures on conscientious objection and abortion at the regional level, but there is even data on abortion at the individual level, as Istat (the Italian National Statistical Office) records every abortion performed in the country, collecting information about the woman and the abortion itself.

This study exploits these two data sources to assess whether conscientious objection hampers access to abortion. Focusing on the period between 2002 and 2016, we analyze data on travel and waiting times for abortions, exploring how these variables relate to the prevalence of conscientious objection, while controlling for the economic, demographic and cultural characteristics of regions, and for individual characteristics of women having an abortion.

2. Abortion in Italy¹

2.1. Legal status and regulation

Abortion in Italy is regulated by Law 194 of 1978 on “the social protection of motherhood and the voluntary termination of pregnancy”. In the first ninety days of pregnancy, abortion is permitted whenever childbearing, birth or motherhood could undermine the mother’s physical or mental health given her health, economic, social or familial state, the circumstances of conception, and the presence of fetal malformations. After the first trimester, abortion is only allowed when childbearing severely endangers the woman’s health. A woman seeking an abortion must first consult with her regular doctor, or with a practitioner of a family counselling or another healthcare facility, who has to perform the relevant medical examinations and consider the reasons for the request. After informing the woman of possible alternatives for the difficulties that might have led to her decision, the doctor issues a document that certifies the pregnancy and requests its termination. Seven days after the certificate is issued – or immediately afterwards in cases of an urgent certificate – the woman can demand an abortion in any authorized healthcare facility that provides the service. The same legislation applies in all regions of Italy, and women can have an abortion in any region, regardless of where they live or where the certificate was issued.

The Law also grants healthcare personnel the right to refuse to partake in procedures specifically directed at the termination of pregnancy, on grounds of conscientious objection. To be exempt from performing abortions, practitioners must declare their conscientious objection formally to the local healthcare authority and to the director of the facility where they work. The declaration becomes effective after one month. The Law mandates that Regions grant adequate access to abortion at the local level, if necessary, by bringing in staff from elsewhere.

The Law does not require conscientious objectors to refer women to non-objecting practitioners and the code of conduct of the Italian Federation of Medical Associations ([Federazione Nazionale degli Ordini dei Medici Chirurghi e degli Odontoiatri, 2014](#)) does not set out any obligation in this sense. The code of conduct merely states that conscientious objection does not exempt healthcare practitioners from the duty of care. The code also discusses refusal of care more broadly, i.e. not specifically in relation to abortion, noting that doctors, who are entitled to refuse services which are in contrast with their conscience, should nevertheless provide any useful information to allow the fruition of such services.

However, according to Law 194 conscientious objection also extends to the issuance of the document that certifies the pregnancy and refers the woman to an authorized facility for its termination. This is in contrast with other jurisdictions, such as England, Norway and Portugal, where practitioners can invoke conscientious objection but the law explicitly requires that they refer patients to another provider ([Chavkin et al., 2017](#)), and with the recommendations of the [World Health Organization \(2012\)](#) and the [International Federation of Gynecology and Obstetrics \(2012\)](#), which consider the refusal to refer to a non-objecting practitioner an additional barrier to accessing abortion services.

Abortion data collected in synergy by Istat and by the Italian Institute of Health, within the Surveillance System on Induced Abortion, and disseminated by the Ministry of Health includes both surgical and medical abortions. Medical abortions, induced with either prostaglandins or mifepristone pills, or both, account for approximately 18% of abortions performed in Italy. Both surgical and medical abortions must be carried out in an authorized healthcare facility by a doctor specialized in gynecology and obstetrics. Only 6% of abortions nationwide take place in private authorized hospitals, and in most regions the service is only provided by public facilities. Emergency contraception² is not considered a form of abortion and is not included in abortion data.

2.2. Abortion rates and interregional mobility

Following the legalization in 1978, the use of abortion services in Italy progressively declined ([Loghi et al., 2013](#)). The abortion rate peaked at 17.2 cases per 1000 women of childbearing age (15–49) in 1982, then dropped, reaching 6.5 in 2016. The abortion ratio

¹ Data, from the Annual Report of the Italian Minister of Health on the implementation of Law 194 ([Ministry of Health, 2017b](#)), refers to 2016

² Emergency contraceptive pills, effective up to five days after intercourse, are available to the public in pharmacies, and since 2015 they can be purchased by women over 18 without a medical prescription. In 2016, over 400,000 packages of emergency contraceptive pills were sold.

sharply declined over time as well, from 380.2 voluntary abortions per 1000 live births in 1982 to 182.4 in 2016. On the contrary, abortions from non-Italian women residing in Italy, as a percentage of all abortions, have increased constantly overtime, especially in regions where non-Italian citizens tend to be prevalent (Loghi et al., 2013). According to the last data, in 2015 there were 15.7 abortions per 1000 non-Italian women versus 5.7 per 1000 Italian women. This triple the rate for women from abroad is related to different reproductive habits (Loghi et al., 2013) and higher incidence of repeated abortion (Spinelli et al., 2006), although their contraceptive and reproductive behavior is quickly converging to that of Italian women (Ministry of Health, 2017b).

According to the figures reported by the Ministry of Health, in the 15–44 age group, the abortion rate in Italy stands at 8 cases per 1000 women, higher than in Switzerland (6.3) and Germany (6.8) but lower than in Spain (10.4), the U.S. (14.6), England and Wales (16.0) and France (18.1).

In Italy, there is considerable heterogeneity in terms of abortion rates at the regional level (Fig. 1). In 2016, abortion rates ranged from 4.5 cases per 1000 women of childbearing age in Basilicata to 8.8 in Liguria. These figures refer only to legal abortions, and

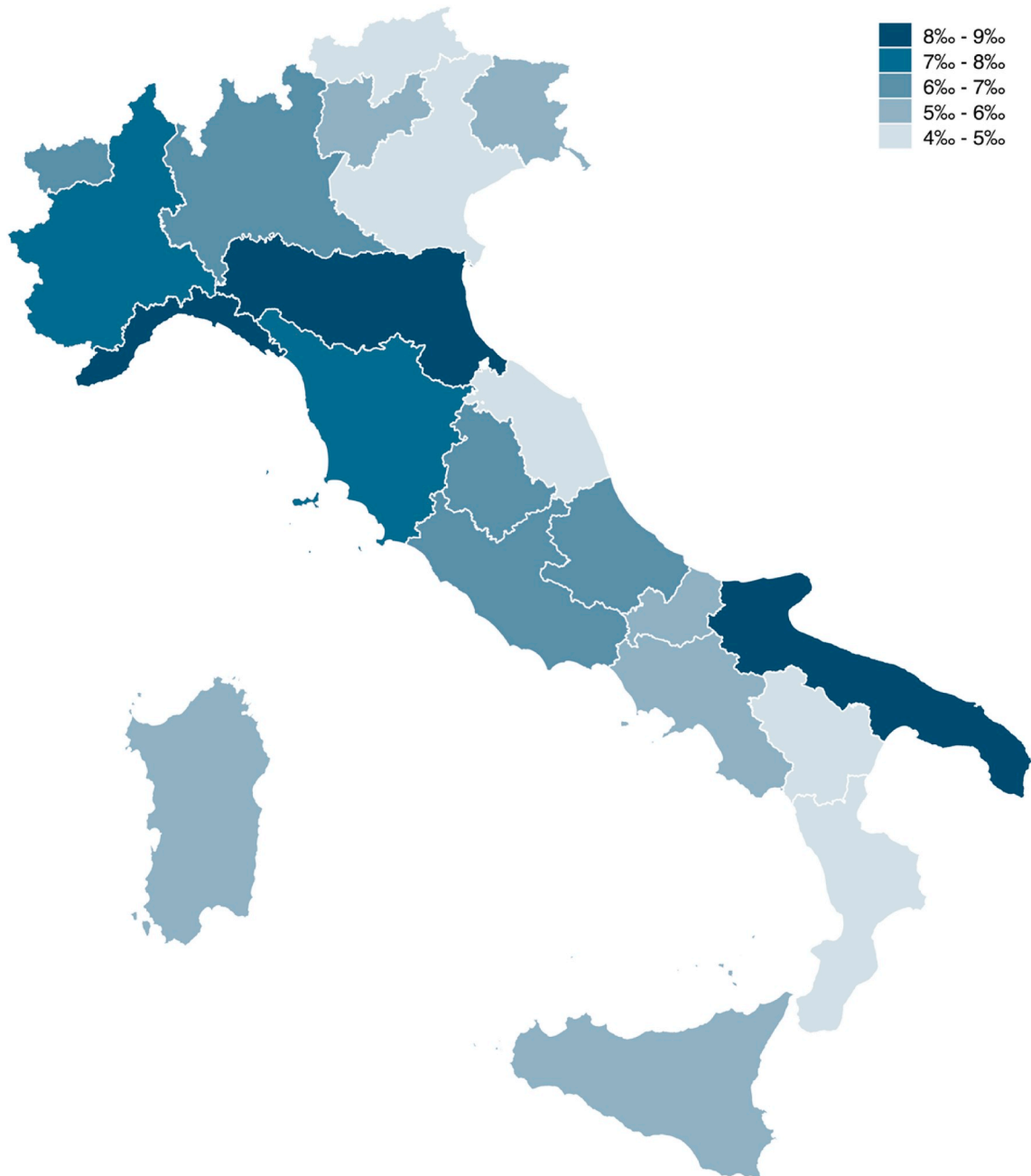


Fig. 1. Abortion rates in Italian regions, 2016 (number of abortions in a region per 1000 women aged 15–49). Source: Ministry of Health (2017b).

exclude clandestine interventions (between 10,000 and 13,000, according to the most recent official estimates), which are, of course, unreported.

The regional abortion rate presented above, counting abortions on the basis of the region where they occur, might be a misleading indicator of abortion demand from a region's population, since women can obtain an abortion outside their home region (Ministry of Health, 2017b; D'Errico et al., 2018). In fact, in 2016 more than 4000 women had an abortion outside their home region, accounting for over 5% of all abortions. An alternative measure of regional abortion demand counts abortions based on the woman's place of residence, rather than on the basis of where the abortion takes place. The difference between abortions by region of occurrence and by region of residence provides an indicator of the net inflow of women seeking an abortion in a given region. For some regions, particularly in the South, the abortion rate by place of occurrence is substantially lower than the rate by place of residence (for example, 14% lower in Molise and 20% lower in Basilicata), and this may signal difficulties in finding abortion providers there. Conversely, other regions seem to attract women in search of an abortion. In Emilia-Romagna for instance, the net inflow is close to 10% (Fig. 2).

Nonetheless, this inter-regional mobility may not only be a consequence of conscientious objection and provider availability. In fact, women's trajectories towards abortion are shaped by a variety of macro and micro-level forces (Coast et al., 2018), and other factors – which we will take into consideration in our analysis – may induce women to travel to have an abortion.

The first one is the fact that the Italian healthcare system is articulated in local facilities differing in terms of area of specialization, service quality and reputation. This, naturally, results in a certain degree of mobility across regions, which varies according to the health service considered. Abortion-related mobility might be mirroring that for other services, in particular mobility for births, given that births and abortions have in common the need for a good obstetrical and gynecological ward, and that the demand for both services comes from women of childbearing age. However, the mobility patterns for birth and abortion provision are only moderately correlated. Analyses (available on demand) based on data from the Annual Report on Hospitalization Activities (Ministry of Health, 2017a), show opposite signs in half of the regions, suggesting that something other than considerations related to hospital quality drives a woman's decision about where to abort as opposed to where to give birth.

The second factor is the social stigma related to local attitudes towards abortion. Such attitudes are geographically clustered and mirror the prevalent cultural and religious heterogeneity (Agostino and Whalberg, 1991). Local religious culture can be a major determinant of attitudes towards abortion, as Catholicism is highly critical of the decision to terminate a pregnancy (Steinberg et al., 2016). Women who intend to have an abortion and wish to keep this choice private may want to avoid the local hospital, where there is a greater risk that they will be recognized, and cross regional borders to access a more distant facility.

The third factor is the fact that women who are reported having an abortion out of their own region may have already left that region to study or work elsewhere, without having changed their official place of residence.

Finally, moving to abort might also be a question of convenience related to the proximity of women's place of residence to healthcare facilities located in other regions. Women living close to regional borders would be particularly open to this kind of mobility, given that the hospital closest to their homes could actually be located in a neighboring region.

2.3. Prevalence of conscientious objection

Conscientious objection is not unique to Italy. In many countries, healthcare facilities or the single practitioners can refuse to perform abortions. According to the Global Abortion Policies Database (World Health Organization and Human Reproduction Programme, 2019) conscientious objection to abortion is permitted in most European countries and in several state jurisdictions in the United States, Canada, and Australia. There are also (fewer) examples of countries where conscientious objection is not permitted, such as Bulgaria, Finland, and Sweden (Heino et al., 2013).

However, Italy is one of the countries where conscientious objection is best documented, as the legal obligation for conscientious objectors to declare their stance formally allows the Ministry of Health to disseminate accurate data on this phenomenon. The lack of official data for other countries prevents comprehensive international comparisons. Heino et al. (2013) report that conscientious objection is quite prevalent also in Austria, Poland, and the Slovak Republic, but do not provide figures, except an estimate of 80% of gynecologists who refuse to carry out induced abortions in Portugal. Chavkin et al. (2013) cite Italy as having one of the highest percentages of conscientious objectors.

The percentage of objectors in Italy has increased overtime, from below 60% in 2002 to over 70% in recent years. In 2016, 71% of Italian gynecologists were objectors, with a considerable heterogeneity across regions, ranging from 18% in Aosta Valley to 97% in Molise (Fig. 3). Anesthetists and non-medical gynecological staff can also refuse abortions. In 2016, the national percentage of objectors in these categories was, respectively, 49% and 44%. At the regional level, the share of objectors is highly correlated across professional categories.

Objection is widespread in all parts of the country but is particularly strong in the South, where lower-income regions are concentrated,³ giving rise to concerns that conscientious objection may affect disproportionately women who live in disadvantaged areas. Indeed, the claim that conscientious objection may introduce geographical inequities was addressed by the ECSR in their two

³ In 2016, eight out of the nine lowest GDP per capita regions were in the South. There is a negative correlation between gynecologists' conscientious objection and GDP per capita (-0.45 in 2016). However, there are some exceptions to this general relationship. In 2016, 69.5% of gynecologists were objectors in the poorest Italian region (Calabria), a figure slightly below the national average, whereas the richest Italian region (the autonomous province of Bolzano) had an above-average share of objectors of 84.4%.

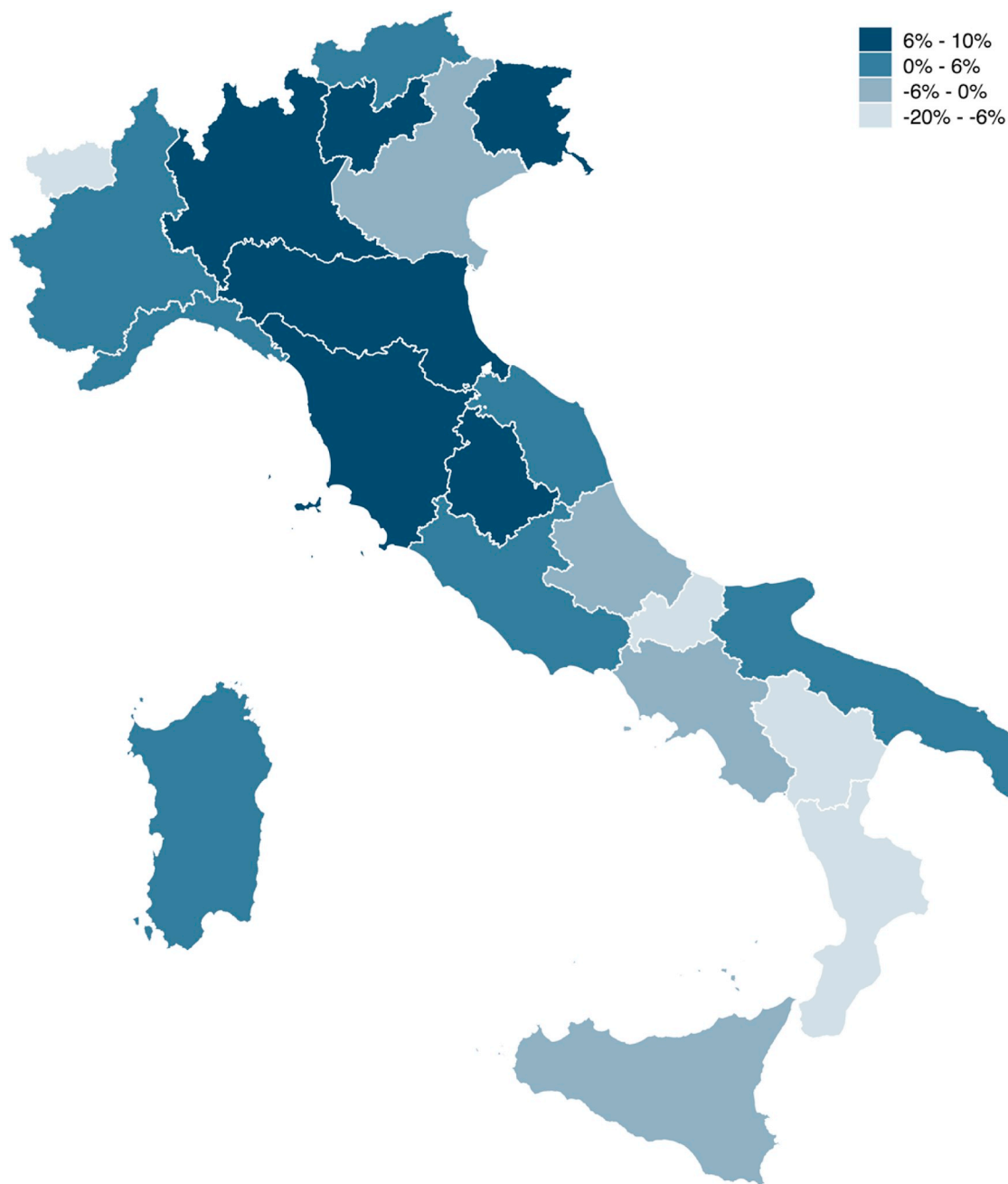


Fig. 2. Net inflow mobility for abortions in Italian regions, 2016 (difference between the number of abortions occurring in a region and the number of abortions obtained anywhere in Italy by the region's residents, expressed as a percentage of the former). Source: [Ministry of Health \(2017b\)](#).

decisions on access to abortion in Italy. The ECSR found that Italian public authorities fail to ensure an effective distribution of abortion services across the country, resulting in territorial discrimination. The ECSR also noted that this may have an adverse impact on women in lower income groups, who may be less able to travel to other regions or abroad in order to access abortion services (ECSR, 2016).

Objectors are so widespread that in 2016 only 60% of healthcare facilities with wards specialized in gynecology and obstetrics provided abortions. In some regions, such as Liguria and Tuscany, nearly all hospitals with specialized wards offer the service. In others, coverage is very low, i.e. only 25% of hospitals in Campania and in the Autonomous Province of Bolzano.

The prevalence of conscientious objection is often associated with religious beliefs, as the majority of the Italian population is Catholic and the critical stance of the Catholic Church against abortion may influence physicians' attitudes. Indeed, there is some correlation at the regional level between the percentage of objectors and how religious the population is (measured as the share of people who attend a place of worship at least once a week). But the prevalence of objection appears disproportionately high,

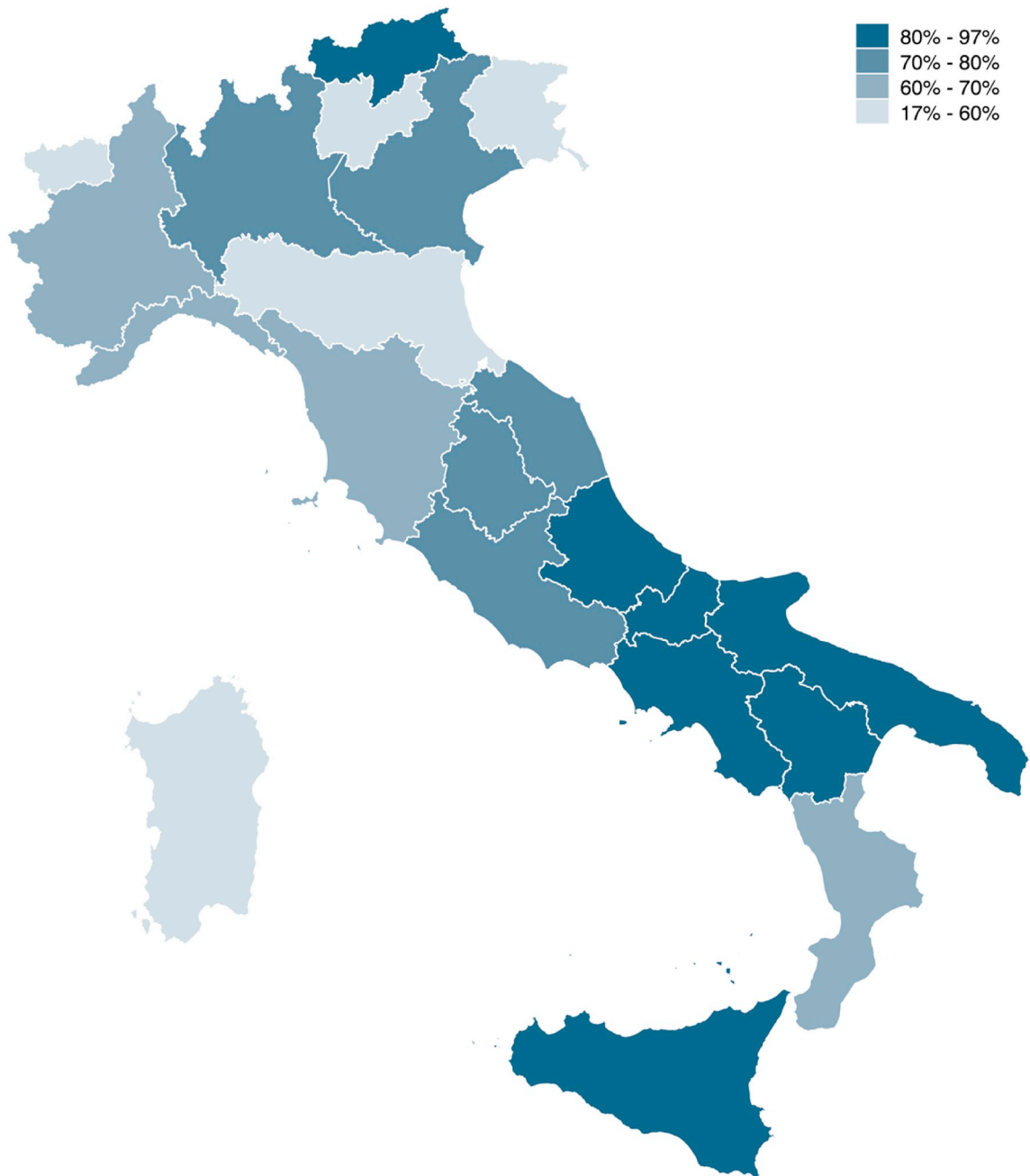


Fig. 3. Percentage of objecting gynecologists in Italian regions, 2016. Source: [Ministry of Health \(2017b\)](#).

considering that in 2016 only 27.5% of the Italian population aged six or above attended a place of worship weekly.

To some extent, conscientious objection might be a career choice dictated by the perception that non-objecting gynecologists are professionally disadvantaged because they end up doing mostly abortions ([Minerva, 2015](#)). It might also be the consequence of a nuanced stigmatization surrounding abortion providers during training, in and out of the workplace ([Lazarus, 1997](#); [Roe et al., 1999](#); [Harris et al., 2011](#); [O' Donnell et al., 2011](#); [Smith et al., 2018](#)). Indeed, the [ECSR \(2016\)](#) found that in Italy non-objecting practitioners suffer from disadvantages in terms of workload, distribution of tasks and career development opportunities compared to conscientious objectors.

The Ministry of Health argues that the number of objectors in each region is low enough to let non-objectors engage in activities other than abortion. The average number of abortions performed weekly by a non-objector is one or less in some regions, but substantially higher in others, with a maximum of nine in Molise. There are also single facilities where the weekly workload significantly exceeds the regional average, with over ten weekly abortions per practitioner in some cases.

3. Conscientious objection and abortion in previous studies

The issue of conscientious objection arises when healthcare providers and clinicians refuse to provide certain services due to their religious, moral or philosophical beliefs. It is commonly invoked with regards to abortion. Conscience-based refusal is often claimed as a right of freedom of religion, conscience and thought, i.e. a basic human right (Heino et al., 2013). This is also the position of the Italian Committee for Bioethics (ICB – *Comitato Nazionale per la Bioetica*, 2012), a body established in 1990 with the aim of advising the Government and the Parliament on the ethical and legal problems that may arise as a result of the progress in scientific research and technological applications on life. The ICB considers that conscientious objection is founded on the protection of human rights recognized by the Italian Constitution.

The ICB itself and various international authorities, including the *World Health Organization* (2012), have argued that conscientious objection should not impair other legally recognized human rights, such as the right to the fruition of healthcare. United Nations human rights treaty-monitoring bodies have recognized the right to freedom of conscience, but raised concerns about the insufficient regulation of conscientious objection to abortion. They recommend that the practice should be well-defined and regulated in order to avoid limiting women's access to reproductive healthcare (Chavkin et al., 2013; Zampas, 2013).

However, the legitimacy of conscientious objection to abortion is sometimes called into question. In relation to the position of the ICB, Flamigni (2012) considers that allowing healthcare practitioners to refuse services which are explicitly required by the law is against the public interest and in contradiction with democratic principles. Fiala and Arthur (2017) argue that conscientious objection in reproductive healthcare should not be regarded as a right, but an unethical refusal to treat, as the introduction of non-verifiable personal beliefs in healthcare undermines best practice based on scientific evidence and medical ethics, resulting in an abandonment of professional obligations to patients.

There are several studies dealing with conscientious objection and abortion from a legal and ethical perspective (e.g., for Italy, Minerva, 2015), and some authors have named conscientious objection, or, more in general, the availability of abortion services, as a possible explanation for the heterogeneity in abortion rates across the Italian regions. For instance, Figà-Talamanca et al. (1986) argue that regional differences in availability and access to abortion services might explain why, in Italy, higher abortion rates, similar to those observed in other developed countries, can be observed only in regions where health services are more easily accessible and efficient. According to Spinelli et al. (2006), as a consequence of the non-homogeneous distribution of abortion services across regions, women looking for an abortion provider travel out of regions where access to abortion is problematic. Grandolfo et al. (1991) claim that the insufficient availability of abortion services in parts of the country (in the form of prevalent conscientious objection and long waiting times), rather than the search for privacy, explains abortion-related migration.

Empirical studies on conscientious objection are rare, partly because of the limited availability of data in most countries, and almost none addresses the question of how conscientious objection affects access to abortion. For Italy, Bo et al. (2015) find a correlation at the regional level between the workload of non-objecting gynecologists and the waiting times needed to obtain an abortion. Meier et al. (1996), analyzing how twenty-three different U.S. state-level abortion restrictions affected abortion rates, found the conscience clause that allows physicians to refuse to perform abortions to be irrelevant. However, the model incorporated only a dummy variable indicating the existence of this clause, and not a measure of physicians' actual invocation of the clause.

Most economic literature on abortion focuses on the direct cost of abortion and its effect on demand, consistently indicating that demand for abortions is sensitive to service costs, particularly among the low-income population (Levine et al., 1996), and that restrictive abortion policies increasing costs can price some women with unwanted pregnancies out of the market (Medoff, 2008). However, the focus on the price of abortion is relevant in the case of a private healthcare system, such as that in the U.S., but it is not applicable in Italy, where almost the totality of abortions are performed free of charge in public and private hospitals.

Other authors have focused more on the supply of abortions and its impact on indirect costs, adopting a different perspective where abortion rates are interpreted as a measure of the availability of abortion, rather than a measure of demand (Gober, 1994). In this respect, some studies analyze the impact of travel costs devoted to finding an abortion provider (for example: Brown et al., 1996; and Brown et al., 2001). They conclude that travel costs affect local abortion rates: women who live further from an abortion provider are less likely to abort. Scarce abortion supply may be associated with other inconveniences beyond travel costs, such as overnight lodging, days off work, privacy concerns and difficulties in obtaining information and post-abortion care (Haas-Wilson, 1993). Henry and Harvey (1982) state that abortion facility location, accessibility in home and neighboring states, women's inclination to travel and distance to be travelled are responsible for the heterogeneity in abortion rates within the U.S., together with socio-political community norms. By means of spatial analysis they find that abortions obtained outside the state of residence significantly explain such heterogeneity, as much as the ratio of abortion does, and conclude that "if abortion facilities exist they will be utilized and if they do not exist in a given locale, they will be found elsewhere" (Henry and Harvey, 1982: 996).

Provider availability may also affect abortion rates through other channels, for example, signaling social acceptance of abortion and discouraging the use of other means of contraception (Brown et al., 1996). To assess the broader impact of provider availability, some models incorporate a direct measure of abortion supply, rather than one of travel costs. For example, Haas-Wilson (1997) finds that the number of abortion providers per 1000 women of childbearing age is positively associated with abortion rates and concludes that women travel to obtain an abortion in states with greater supply. Similarly, Henshaw (1991) and Henshaw and Finer (2003) highlight how the shortage of provider availability and access-related factors impose barriers forcing women to travel in order to obtain an abortion. Matthews et al. (1997) find that reduced provider availability helps explain the decline of abortion rates in the U.S. between 1988 and 1992. Gius (2007) combines individual-level data on pregnancies, abortions and socioeconomic status with state-level data on abortion providers and legal restrictions on abortion, concluding that provider availability has a statistically significant effect on abortion rates. On a different note, Medoff (2010) finds no relationship between the number of providers and

abortion rates.

Finally, Blank et al. (1996), again for the U.S., make a relevant distinction between two alternative measures of abortion demand at the state level: the abortion rate by state of occurrence, based on the number of abortions taking place in each state, which underestimates resident women's propensity to obtain abortions in states characterized by important out-of-state patterns of abortion travel (Gober, 1997); and the abortion rate by state of residence, which, instead, counts abortions from women residing in each state. Their results indicate that provider availability is a significant determinant of the first measure alone, suggesting that abortion supply does not determine whether a woman will have an abortion, but only where. Gober (1997) finds that where a woman lives matters for abortion access, not only as a consequence of state regulations with a varying degree of strictness, but also because of the indirect role played by the local setting (e.g. percent of Catholic population) imposing de facto an undue burden on abortion-seeking women.

4. Data

After the Law on the voluntary termination of pregnancy came into force in 1978, the Surveillance System on Induced Abortion was launched. Within this framework, Istat started to collect data on induced abortions, in coordination with the Italian Regions, the Italian Ministry of Health and the Italian Institute of Health. For forty years, detailed information about each episode of induced abortion taking place in any Italian authorized healthcare facility has been collected. As the aim of collecting this data is to gain better knowledge of the phenomenon, and to understand how to prevent it, the collection focuses on socio-demographic information about women, on pregnancies details, on the services involved in authorizing and conducting abortions, and on the technical details of the operations. Detailed characteristics are gathered through an individual and anonymous form filled out by the physician who performs the operation. Single forms are transmitted to healthcare facilities, then to the regional offices that monitor the collection process and finally to Istat, which is responsible for the data management. Once aggregated, Istat publishes the data on its online data warehouse, while making individual data available on request for research and statistical purposes, with due regard to the protection of sensitive personal information. Istat also elaborates the data, annually, and creates tables showing regional figures on abortion and abortion rates, on the basis of which every year the Minister of Health presents to the Italian Parliament a report that addresses the enforcement status of the Law 194/78 and highlights the trends of voluntary abortion in Italy. In parallel, the Italian Institute of Health collects statistics on conscientious objectors among gynecologists, anesthetists and non-medical personnel. The ministerial reports are publicly available and provide the regional figures on conscientious objection used in the analysis of this paper.

For our study, in addition to this aggregate data,⁴ we obtained access to the Istat dataset, comprising anonymized information on over 1 million individual abortions recorded in Italy between 2002 and 2016. This last dataset provided the basis for our individual-level analysis of abortion-related mobility.⁵

5. Empirical analysis

5.1. Conscientious objection and mobility for abortion with regional data

We first estimate how conscientious objection relates to the inter-regional mobility of women having an abortion, employing a region-level panel data model. The dependent variable is the difference between the number of abortions by the region's residents (regardless of where they occur) and the number of abortions that take place in the region, expressed as a percentage of the latter. This variable measures the net outflow of women seeking an abortion and is negative for regions where more women have come to have an abortion than have left, and positive for regions where instead the outflow exceeds the inflow.⁶

The main independent variable is the percentage of gynecologists registered in the region as conscientious objectors. We also control for the average weekly workload of non-objectors in terms of abortions per capita, to account for the possibility that a bigger workload for non-objectors counteracts a higher prevalence of objectors. In order to account for possible sources of endogeneity that may affect abortion demand and our measure of abortion-related mobility, we insert a number of other covariates, with data sourced from the Istat online data warehouse. GDP per capita at current market prices and the female unemployment rate are measures of economic context normally included in economic models of abortion demand. These variables also serve as proxies for inter-regional migration, thus controlling for mobility dictated by economic reasons rather than by the need to obtain an abortion. The share of the regional population which has not attended a place of worship in the past year accounts for local religiously-motivated attitudes towards abortion. Religiosity may also be associated with abortion-related travel, as women living in a context that is more

⁴ We consider data for 19 Italian regions plus the two autonomous provinces of Bolzano and Trento in the special status region of Trentino Alto-Adige, observed for 14 years (excluding 2004 for lack of data on religiosity).

⁵ Data analysis for this work was conducted at the Laboratory for Elementary Data Analysis of Istat, and was carried out in compliance with the law concerning the protection of statistical secrecy and personal data. Results and opinions reported in this study are the exclusive responsibility of the authors and do not constitute official statistics.

⁶ We drop observations where information on the woman's place of residence is unavailable for more than 10% of abortions recorded in the region. We did not include abortions obtained in Italy by women who are resident abroad, as these women might be in Italy just to have an abortion or might live in Italy without being registered as residents. In neither case is it possible to determine whether they have travelled across regions in order to abort. The robustness of results is unaffected if all regional observations are included and if abortions from women residing abroad are considered.

culturally averse to abortion perhaps travel to another region to protect their privacy and to avoid social stigma. The share of non-Italian citizens among women of childbearing age is included in the model to control for the fact that women from abroad, who reside in Italy but distributed unequally across regions, rely on abortion services more frequently than Italian women do (Ministry of Health, 2017b). We also control for the general fertility rate, i.e. the number of live births per 1000 women of childbearing age, accounting for fertility patterns that might be related to abortion trends.

In an alternative specification of the model, we include, as a covariate, the difference between the number of births from region's residents (regardless of where they occur), and the number of births that take place in the region, expressed as a percentage of the latter. This variable is an indicator of birth-related mobility and controls for the possibility that some out-of-region abortions are motivated not by scarce provider availability, but by the better reputation of gynecology and obstetrics services or, more generally, healthcare services elsewhere. For both specifications of the model, we also run estimates replacing the share of objecting gynecologists and the workload of non-objecting gynecologists with the corresponding measures for the two other professional categories entitled to conscientious objection: anesthetists and non-medical personnel. As the share of objectors in the three categories is highly correlated, we measure the aggregate impact of conscientious objection in the healthcare environment with a composite indicator derived from the first principal component of the three variables,⁷ and run separate estimates using this indicator. We estimate the models with OLS regressions including regional and year-fixed effects to account for unobserved time-invariant regional characteristics and for trends overtime that are common to all regions. The estimated standard errors are robust to heteroscedasticity and allow for arbitrary intra-region correlation.

Table 1 summarizes the various estimates for the regional model of abortion-related mobility. Columns 1 to 4 suggest that widespread conscientious objection is positively associated with a net outflow of women seeking an abortion. The percentages of objectors in each professional category, as well as the composite indicator of conscientious objection, appear to have a significant impact on abortion-related mobility and are associated to larger outflows of women seeking an abortion. The effect is considerable. A ten percentage points increase in the share of objecting gynecologists – e.g. from the mean value of 65.8% to 75.8% – would be associated with a 2.1 percentage points increase in the net outflow, from the mean value of 3% to 5.1%, an increase of 69%. In standardized terms, a one standard deviation (17.4 percentage points) increase in the share of objecting gynecologists would be associated with a 0.25 standard deviations (3.6 percentage points) increase in the net outflow of women seeking an abortion, which would be an increase of 121%.

As expected, the workload of non-objectors is always negatively related to out-of-region abortions, as non-objectors who conduct more abortions absorb more demand in the region where they operate. GDP per capita is strongly associated to lower (possibly negative) net outflows. This suggests that richer regions attract more immigrants, including women of childbearing age, resulting in more abortions occurring inside the region. A higher share of non-Italian citizens among women of childbearing age is associated with more out-of-region abortions, though this does not necessarily imply that women from abroad are more likely to have an out-of-region abortion. The fertility rate has a positive and significant association with the dependent variable, while other socioeconomic control variables do not show any statistically significant impact.

Columns 5 to 8 include the indicator of inter-regional mobility for births. Not surprisingly, the outflow of women giving birth is positively associated to the outflow of women having an abortion, indicating that part of abortion-related travel corresponds to a more general interregional mobility for healthcare services. With the inclusion of this variable, the impact of conscientious objection by gynecologists and anesthetists on out-of-region abortions becomes smaller in magnitude, but remains statistically significant. The effect of objection by non-medical personnel and the impact of the composite indicator of conscientious objection also become smaller, but gain significance. Overall, the impact of conscientious objection on out-of-region abortions is confirmed even after controlling for general healthcare-related mobility. Interestingly, GDP per capita loses some significance in these specifications, suggesting that this variable is related to the quality of regional healthcare systems and that it has previously picked up part of the interregional mobility now controlled for with the inclusion of out-of-region births. GDP might thus act as a mediator of the impact of conscientious objection on abortion access. To study this hypothesis we re-estimate the model in Column 1 of Table 1 by interacting our measure of conscientious objection with GDP per capita. Fig. 4 plots the resulting average marginal effects of the share of objecting gynecologists on net outflow mobility estimated over the range of values that GDP per capita has in Italian regions. The effect of conscientious objection shows substantial heterogeneity depending on the level of GDP per capita: where GDP per capita lies at its minimum a one percentage point increase in the share of objectors raises net outflow mobility by 0.3 percentage points, almost doubling the effect occurring in regions with median GDP (28,000 euro). By contrast, in regions where the average income per person exceeds 31,000 euro the effect can't be distinguished from zero with a 95% level of confidence.⁸ This evidence suggests that the detrimental impact of conscientious objection on abortion access tends to be clustered in lower-income regions, this way imposing a further strain on access to health services on individuals who tend to have fewer resources to afford out-of-region travel.

⁷ The composite indicator is highly reliable, as the value of Cronbach's alpha is 0.84.

⁸ We report statistics estimated under a regional fixed effects model for consistency with other analyses in the paper, despite the low variation occurring in GDP per capita within Italian regions over the observed period (more and less wealthy regions at the beginning of the period tend to remain so at the end). A more thorough estimation of slow-moving variables might require removing fixed effects from the specification so as to grasp the heterogeneity between regions. A random effects model provides larger and more significant coefficients, suggesting that the effects reported could be, if anything, downward biased. Using the other measures of conscientious objection provides similar results.

Table 1

Net outflow mobility for abortions in Italian regions and conscientious objection (2002–16). Fixed-effects regressions.

| | Net Outflow Mobility for Abortion | | | | | | | |
|--|-----------------------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|-----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Share of objecting gynecologists | 0.209** (0.0573) | | | | 0.152* (0.0544) | | | |
| Workload by non-objecting gynecologists | -0.0352* (0.0153) | | | | -0.0348* (0.0129) | | | |
| Share of objecting anesthetists | | 0.243** (0.0763) | | | | 0.175* (0.0704) | | |
| Workload by non-objecting anesthetists | | -0.0979* (0.0350) | | | | -0.0883** (0.0273) | | |
| Share of objecting non-med. personnel | | | 0.189 (0.0973) | | | | 0.162* (0.0649) | |
| Workload by non-objecting non-med. pers. | | | -0.0581* (0.0267) | | | | -0.0622* (0.0222) | |
| Indicator of conscientious objection | | | | 0.334* (0.136) | | | | 0.285** (0.0977) |
| Indicator of workload by non-objectors | | | | -0.0689* (0.0284) | | | | -0.0687** (0.0230) |
| Net outflow mobility for births | | | | | 1.070* (0.491) | 1.016 (0.519) | 1.149* (0.537) | 1.134* (0.510) |
| GDP per capita (€ thousand) | -2.237* (0.883) | -2.244* (0.915) | -2.038* (0.850) | -2.149* (0.906) | -1.419 (0.720) | -1.425 (0.816) | -1.254 (0.726) | -1.346 (0.755) |
| Female unemployment rate | 0.606 (0.558) | 0.557 (0.594) | 0.462 (0.591) | 0.669 (0.629) | 0.476 (0.411) | 0.407 (0.447) | 0.297 (0.411) | 0.471 (0.415) |
| Lack of religiosity | 0.462 (0.325) | 0.507 (0.319) | 0.451 (0.322) | 0.538 (0.324) | 0.453 (0.278) | 0.477 (0.267) | 0.429 (0.273) | 0.507 (0.268) |
| Share of non-Italian women 15-49 | 0.853 (0.845) | 0.939 (0.805) | 0.704 (0.689) | 0.898 (0.784) | 0.725 (0.624) | 0.808 (0.575) | 0.706 (0.495) | 0.861 (0.544) |
| General fertility rate | 0.927 (0.467) | 1.050* (0.432) | 0.890 (0.461) | 0.888 (0.447) | 0.644 (0.418) | 0.752 (0.372) | 0.592 (0.427) | 0.595 (0.412) |
| Observations | 268 | 268 | 261 | 261 | 268 | 268 | 261 | 261 |
| Adjusted R ² | 0.78 | 0.79 | 0.78 | 0.79 | 0.76 | 0.77 | 0.77 | 0.77 |
| Region and Year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Note: Robust standard errors in parentheses, clustered by region. ***p < 0.001, **p < 0.01, *p < 0.05.

5.2. Conscientious objection and mobility for abortion with individual data

Regional-level data used in the previous model does not allow taking into account individual heterogeneity. However, women differing in terms of intrinsic characteristics might be more or less inclined to travel across regions in order to find an abortion provider. Accounting for individual heterogeneity is necessary both for drawing a socio-demographic profile of those women who abort out of their region, and for assessing whether the relationship between conscientious objection and out-of-region abortions is driven by such characteristics.

Istat's survey on induced abortion is our source of data for individual-level analysis, with more than 1 million observations, i.e. all abortions from 2002 to 2016. To the best of our knowledge, we are the first to present a quantitative individual-level analysis of abortion mobility in Italy.

In order to provide a profile of women who travel from their home region to abort, we model the probability that a woman travels to a different region to obtain an abortion as a function of the urgency of the operation and of her individual characteristics: age, citizenship, marital status, education, employment status, number of previous live births and voluntary abortions. As for estimating the existence and strength of a relationship between region-wide conscientious objection and the individual decision to travel to other regions in order to abort, we introduce a set of regional covariates: the prevalence of conscientious objection, measured as the percentage of objecting gynecologists in the region, and other regressors accounting for all the potential sources of endogeneity described in the previous paragraph (economic context, religiousness, fertility, and the share of non-Italian citizens among women of child-bearing age). By adding year fixed effects, we are able to isolate time patterns affecting conscientious objection and inter-regional mobility. Moreover, we add three sets of regional fixed effects capturing: the time-invariant characteristics of women's region of birth (e.g. cultural factors, or the tendency to move out of the region of origin); of the region of residence (e.g. local attitudes towards abortion⁹); and of the region where the operation takes place (e.g. student inflows in regions with more universities). Furthermore, running the analysis on the subset of women who travelled to a province (i.e., a smaller administrative division of Italian regions) not bordering the one of their residence region makes it possible to focus on longer journeys. Within this subset, we can partially rule out

⁹ Although not shown here, we estimated specifications inclusive of the percentage of 'Yes' votes in the 1981 referendum on the abrogation of Law 194/78 promoted by the Pro-life Movement. This was included as a measure of anti-abortion sentiments in the recent past. The results remain unaffected.

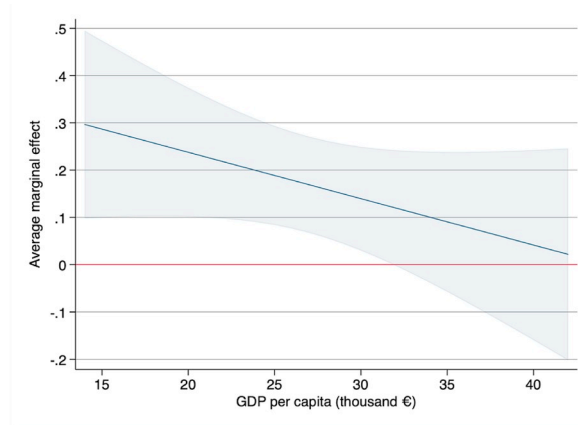


Fig. 4. Average marginal effects of the share of objecting gynecologists on net outflow migration (the shaded area represents the 95% confidence interval).

the hypothesis that mobility is driven by women choosing out-of-region abortion locations for their proximity to the regional border or for the fear of social stigma arising from having an abortion at the local hospital.

The results previously found through regional panel data analysis are fully confirmed at the individual level. Table 2 shows that a higher share of objecting gynecologists is significantly associated with a higher probability that women travel to another region to have an abortion (Column 1).

This relationship holds as we control for the socio-demographic characteristics of women looking for an abortion. The probability of abortion-related migration increases with age, but less so at the later stages of childbearing age. Non-Italian citizens migrate significantly less than their Italian counterparts, the latter being probably more concerned about social stigma or having more economic resources to travel. Compared to single women, married women are significantly less likely to seek an out-of-region abortion, while no difference appears with divorced, separated or widowed women. Women with higher levels of education (especially those who have attended university) are more likely to travel to other regions than those with only primary or with no education. These findings are consistent with those in Spinelli et al. (2006).

As for employment status, employed women are the least likely to obtain an abortion outside their region of residence. The most likely to leave their home regions are women outside the labor force and students. This probably reflects the fact that young women who change region to attend university rarely change their official place of residence, so that they are formally residing in a different region than the one where they have an abortion. Unemployed women, housewives and women searching for their first job are slightly more likely to have an out-of-region abortion, possibly because they are not bound to the workplace and have more freedom to move. To the extent that women in paid work rely on higher own income, these results also indicate that out-of-region abortions are sought more frequently by women with lower income (unemployed, seeking first time job, students, and housewives), who are likely to have fewer resources to travel.

The probability of going to another region for an abortion decreases as the number of women's children rises; also, women who have already had an abortion in the past are less likely to travel to terminate a pregnancy than those who are about to do so for the first time, suggesting that women repeating the experience might have an advantage in terms of information as to where to obtain an abortion within the region. Looking at regional covariates, the individual-level analysis confirms most of the results from the regional model.

As Column 2 shows, accounting for inter-regional birth-related mobility does not affect the significant relationship between conscientious objection and the individual probability of travelling to other regions to abort, although the effect is moderately reduced in magnitude. In Column 3, we include a composite indicator of objection across all categories of medical and auxiliary personnel, and still find a significant association with women's tendency to travel outside their home region for an abortion. Columns 4 and 5 remove from the sample those women aborting in a different region, yet in a province neighboring the one where they reside. In so doing, we reduce the scope for the hypothesis that women travel to other regions to abort for reasons other than the prevalence of conscientious objection among medical personnel, such as proximity to healthcare facilities in other regions or avoidance of local hospitals where they can be recognized. Results suggest that conscientious objection is also a relevant concern for this subset of women, whether or not we account for inter-regional mobility for births.

While the previous Table includes citizenship as a control, when we run separate models for Italian and non-Italian citizens (results available on demand), regional conscientious objection is a significant determinant of inter-regional mobility for both Italian and non-Italian women, but its effect is larger for the latter. This suggests that, while non-Italian citizens are in general less likely to travel out of region than their Italian counterparts (according to the findings from the whole sample estimate), their decision to do so appears to be more strongly associated with conscientious objection, suggesting that this group, who may also have fewer economic resources to travel, is particularly affected by limitations in abortion provision.

Table 2

Out-of-region abortions and conscientious objection. Probit regressions of individual abortions occurred outside or within the region of residence (2002–16).

| | All women in the sample | | | Women aborting in non-neighboring regions | |
|---|----------------------------|----------------------------|----------------------------|---|----------------------------|
| | (1) | (2) | (3) | (4) | (5) |
| Share of objecting gynecologists | 0.00545*** (0.00159) | 0.00536*** (0.00155) | | 0.00538* (0.00216) | 0.00551* (0.00218) |
| Indicator of conscientious objection | | | 0.00303* (0.00146) | | |
| Age | 0.0719*** (0.00565) | 0.0718*** (0.00565) | 0.0721*** (0.00559) | 0.105*** (0.00633) | 0.105*** (0.00632) |
| Age squared | -0.00111*** (0.0000889) | -0.00111*** (0.0000889) | -0.00111*** (0.0000877) | -0.00168*** (0.0000984) | -0.00169*** (0.0000979) |
| Italian | Ref. | Ref. | Ref. | Ref. | Ref. |
| Non-Italian | -0.183*** (0.0170) | -0.183*** (0.0170) | -0.185*** (0.0173) | -0.177*** (0.0204) | -0.178*** (0.0195) |
| Single | Ref. | Ref. | Ref. | Ref. | Ref. |
| Married | -0.113*** (0.0104) | -0.113*** (0.0104) | -0.112*** (0.0105) | -0.144*** (0.0115) | -0.143*** (0.0116) |
| Divorced/Separated/Widowed | -0.0149 (0.0124) | -0.015 (0.0124) | -0.0138 (0.0126) | -0.0134 (0.0139) | -0.0116 (0.0141) |
| Not educated/primary education | Ref. | Ref. | Ref. | Ref. | Ref. |
| Lower secondary education | -0.096*** (0.0219) | -0.0956*** (0.0220) | -0.0927*** (0.0216) | -0.145*** (0.0153) | -0.143*** (0.0151) |
| Upper secondary education | 0.0264 (0.0318) | 0.0267 (0.0319) | 0.0298 (0.0315) | 0.007 (0.0230) | 0.00946 (0.0229) |
| Tertiary education | 0.248*** (0.0466) | 0.248*** (0.0466) | 0.25*** (0.0468) | 0.304*** (0.0432) | 0.304*** (0.0435) |
| Employed | Ref. | Ref. | Ref. | Ref. | Ref. |
| Unemployed | 0.0541*** (0.00858) | 0.0544*** (0.00859) | 0.0579*** (0.00870) | 0.102*** (0.00961) | 0.103*** (0.0102) |
| Seeking first-time job | 0.00496 (0.0177) | 0.00451 (0.0176) | 0.0085 (0.0189) | 0.021 (0.0193) | 0.0226 (0.0197) |
| Housewife | 0.0611*** (0.0148) | 0.061*** (0.0149) | 0.0633*** (0.0148) | 0.076*** (0.0149) | 0.079*** (0.0144) |
| Student | 0.204*** (0.0226) | 0.204*** (0.0226) | 0.207*** (0.0226) | 0.267*** (0.0272) | 0.269*** (0.0273) |
| Other | 0.272* (0.111) | 0.272* (0.111) | 0.273* (0.112) | 0.0251 (0.0496) | 0.0218 (0.0498) |
| Childless | Ref. | Ref. | Ref. | Ref. | Ref. |
| One child | -0.196*** (0.0101) | -0.196*** (0.0101) | -0.196*** (0.0107) | -0.241*** (0.0125) | -0.242*** (0.0127) |
| Two children or more | -0.244*** (0.0146) | -0.244*** (0.0146) | -0.243*** (0.0148) | -0.306*** (0.0174) | -0.308*** (0.0179) |
| No previous voluntary abortion | Ref. | Ref. | Ref. | Ref. | Ref. |
| One previous abortion or more | -0.0172*** (0.00519) | -0.0174*** (0.00516) | -0.0194*** (0.00549) | -0.000721 (0.00765) | -0.00144 (0.00804) |
| Urgent | Ref. | Ref. | Ref. | Ref. | Ref. |
| Not urgent | -0.0165 (0.0220) | -0.0163 (0.0221) | -0.0134 (0.0232) | -0.0712*** (0.0212) | -0.0701** (0.0222) |
| Non-objector gynecologists' workload | -0.000657*** (0.000164) | -0.000661*** (0.000166) | 0.00152*** (0.000419) | -0.000631** (0.000192) | -0.000642*** (0.000190) |
| Non-objector anesthetists' workload | | | -0.00366*** (0.000876) | | |
| Non-objector non-medical staff workload | | | -0.00164 (0.00102) | | |
| Lack of religiosity | 0.0276*** (0.00582) | 0.0275*** (0.00584) | 0.0268*** (0.00621) | 0.0276*** (0.00436) | 0.0278*** (0.00446) |
| Female unemployment rate | 0.0325*** (0.00858) | 0.032*** (0.00836) | 0.0193* (0.00783) | 0.0358*** (0.00953) | 0.0352*** (0.00958) |
| GDP per capita (€ thousand) | -0.0387** (0.0130) | -0.0387** (0.0129) | -0.0408** (0.0125) | -0.02** (0.00776) | -0.0213** (0.00781) |
| Share of non-Italian women | | | | | |

(continued on next page)

Table 2 (continued)

| | All women in the sample | | | Women aborting in non-neighboring regions | |
|------------------------|-------------------------|-----------------------|------------------------|---|------------------------|
| | (1) | (2) | (3) | (4) | (5) |
| General fertility rate | 0.0245* (0.0102) | 0.02425* (0.01016) | 0.03349** (0.01192) | 0.03694** (0.01302) | 0.03756** (0.01303) |
| Net outflow for births | -0.00457 (0.00824) | -0.00514 (0.00802) | 0.00318 (0.00872) | -0.0125 (0.00749) | -0.0122 (0.00733) |
| Constant | -2.614*** (0.355) | -2.589*** (0.357) | -2.465*** (0.406) | -3.459*** (0.359) | -3.393*** (0.356) |
| Observations | 1,000,702 | 1,000,702 | 986,657 | 865,598 | 856,216 |
| Pseudo R ² | 0.231 | 0.231 | 0.234 | 0.214 | 0.216 |
| Birth region FE | Yes | Yes | Yes | Yes | Yes |
| Residence region FE | Yes | Yes | Yes | Yes | Yes |
| Abortion region FE | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes |

Note: Robust standard errors in parentheses, clustered by region of residence. ***p < 0.001, **p < 0.01, *p < 0.05.

5.3. Conscientious objection and waiting time

A mandatory prerequisite for obtaining an abortion in Italy – save in urgent cases and for abortions in the second trimester of pregnancy – is to receive a document signed by a doctor who attests pregnancy and requests its termination. The annual ministerial reports on the implementation of Law 194 include regional data on the waiting time women experience between receiving this document and having an abortion. In the last report, the Ministry of Health warns that a high share of abortions occurring more than two weeks after the issuance of the document may signal difficulties in the implementation of the Law. Waiting time for abortion, as a

Table 3

Waiting time for abortion and conscientious objection in Italian regions (2002–16).

| | Percentage of abortions by number of weeks between issuance of certificate and operation | | | | | | | |
|--|--|-----------------------|---------------------|----------------------|-----------------------|-----------------------|----------------------|----------------------|
| | Less than 2 | | | | More than 4 | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Share of objecting gynecologists | -0.162 (0.0800) | | | | 0.0606** (0.0208) | | | |
| Workload by non-objecting gynecologists | 0.0314 (0.0157) | | | | -0.00252 (0.00342) | | | |
| Share of objecting anesthetists | | -0.311*** (0.0782) | | | | 0.0877** (0.0293) | | |
| Workload by non-objecting anesthetists | | 0.0568 (0.0402) | | | | -0.00501 (0.00963) | | |
| Share of objecting non-med. personnel | | | -0.180* (0.0640) | | | | 0.0687** (0.0223) | |
| Workload by non-objecting non-med. pers. | | | 0.0814 (0.0548) | | | | -0.0172 (0.0102) | |
| Indicator of conscientious objection | | | | -0.345** (0.0976) | | | | 0.126*** (0.0271) |
| Indicator of workload by non-objectors | | | | 0.0686* (0.0315) | | | | -0.0105 (0.00601) |
| GDP per capita (€ thousand) | 1.803* (0.863) | 1.997 (1.038) | 1.658* (0.793) | 1.766* (0.828) | -0.619** (0.213) | -0.703* (0.255) | -0.653** (0.189) | -0.681** (0.210) |
| Female unemployment rate | -0.609 (0.360) | -0.728* (0.341) | -0.433 (0.346) | -0.670 (0.348) | 0.245* (0.0982) | 0.275** (0.0912) | 0.177 (0.0878) | 0.269** (0.0890) |
| Lack of religiosity | 0.0244 (0.292) | -0.0417 (0.278) | 0.0163 (0.331) | -0.0690 (0.308) | 0.0427 (0.103) | 0.0639 (0.0931) | 0.0322 (0.0992) | 0.0499 (0.0933) |
| Share of non-Italian women 15–49 | 1.728* (0.660) | 1.632* (0.703) | 1.921* (0.746) | 1.773* (0.736) | -0.130 (0.201) | -0.129 (0.228) | -0.128 (0.208) | -0.0832 (0.195) |
| General fertility rate | 0.0637 (0.579) | 0.0486 (0.483) | 0.109 (0.566) | 0.140 (0.539) | 0.0709 (0.219) | 0.0666 (0.186) | 0.0880 (0.195) | 0.0873 (0.184) |
| Abortion rate | 0.929 (1.183) | 0.786 (1.313) | 1.496 (1.339) | 1.310 (1.295) | -0.460 (0.225) | -0.366 (0.229) | -0.411 (0.243) | -0.453 (0.251) |
| Observations | 245 | 245 | 240 | 240 | 245 | 245 | 240 | 240 |
| Adjusted R | 0.7 | 0.72 | 0.73 | 0.74 | 0.57 | 0.59 | 0.6 | 0.62 |
| Region and Year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Note: Robust standard errors in parentheses, clustered by region of residence. ***p < 0.001, **p < 0.01, *p < 0.05.

measure of timely access to the service, has been found to be inversely related to non-objectors' workload, leading to the rejection of the 'no correlation' argument between conscientious objection and waiting times for induced abortion in Italy (Bo et al., 2015, 2017). We test a regional panel data model where the dependent variable is waiting time, measured either as the share of abortions performed within two weeks after a doctor signs off the document, or as the share of abortions performed later than four weeks afterwards. Again, the main independent variable is the percentage of conscientious objectors in the region, and we control for non-objectors' workload, GDP per capita, female unemployment rate, religiousness, share of non-Italian citizens among women of childbearing age, general fertility rate and abortion rate.

Table 3 shows the results for waiting time by region. In Columns 1 to 4, waiting time is measured as the share of abortions performed within two weeks of the certificate being issued. Percentages of objectors in each professional category, as well as the composite indicator of conscientious objection, are negatively related to the percentage of abortions done within two weeks, and this is statistically significant. When waiting time is measured as the share of abortions performed four weeks or more after the certificate is issued (Columns 5 to 8), the impact of all indicators of conscientious objection becomes positive and significant.

Overall, results indicate that a higher prevalence of conscientious objection is indeed associated with longer waiting times. The non-objector's workload counteracts the effect of objection: a bigger workload is associated with more timely abortions and fewer abortions after four weeks. As for other control variables, higher GDP per capita and lower unemployment rates at the regional level are significantly related to lower percentages of abortions performed four weeks or more after the certificate is issued.

6. Conclusion

Italian statistics indicate a substantial gap between the abortion Law and the way this regulation is implemented. Abortion is free of charge within the national healthcare system and legally available in most circumstances to the extent that, for instance, the United Nations considers abortion in Italy fully available if requested (UN DESA, 2015). However, conscientious objection is so pervasive that a large percentage of hospitals do not provide it. Furthermore, abortion supply seems to be particularly scarce in some regions, and a substantial number of women travel across regions to have an abortion.

The aim of this study was to assess whether conscientious objection limits access to abortion in Italy. We estimated the relationship between the prevalence of objectors and two indicators of possible shortcomings in abortion availability at the regional level: abortion-related mobility and waiting time. An analysis of both aggregate and individual data shows that conscientious objection contributes to explaining why many women in Italy obtain an abortion outside of their home region. This holds true also while accounting for other possible mobility drivers, including avoidance of social stigma, geographical proximity of hospitals outside of the home region, general mobility for healthcare services, and interregional migration. The prevalence of conscientious objection is also significantly related to longer waiting times for an abortion.

This empirical evidence consistently suggests that conscientious objection hampers access to abortion at the local level. It imposes longer waiting times and travel distances, and thus greater costs, on women who intend to terminate pregnancy. The evidence provided also suggests that women from poorer regions or experiencing other forms of economic disadvantage face steeper barriers to abortion access.

Our study is not without caveats. First, our analysis does not explicitly account for regional differences in terms of contraceptive use and sexual behavior. However, this is unlikely to affect the validity of our results. Lower contraceptive use may result in greater demand for abortions in a certain region, and possibly more abortions sought out of the region. Nonetheless, we do not expect contraceptive use to be systematically and negatively correlated with conscientious objection, particularly after taking into account the religiosity of the local population. Indeed, the share of conscientious objectors increased in the observed period, while abortions declined both in absolute and relative terms to the female population of childbearing age. One may even argue that more widespread conscientious objection could be associated to safer contraceptive behavior, as people would consider obtaining an abortion to be more difficult.

Finally, further research will be necessary to establish whether limited abortion availability affects the decision to have an abortion or just the decision of where to do it. The dataset used in this analysis, which by construction includes only women who obtained an abortion and only abortions performed in Italy, does not allow us to derive any conclusion in terms of whether and to what extent conscientious objection causes pregnancies to be carried to term by women who would have otherwise had an abortion or, conversely, induces some Italian residents to have an abortion abroad. Therefore, we cannot argue the existence of an unmet demand for abortions in Italy, nor can we conclude that the observed inter-regional mobility of women having an abortion captures the full extent of the impact of conscientious objection on abortion access.

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