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Conceptualizing and measuring state regulation of reproductive processes: The international reproduction policy database

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Conceptualizing and measuring state regulation of reproductive processes: The international reproduction policy database

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Abstract

This article critically reviews existing concepts and measurements of how states regulate reproductive processes such as contraceptive use, abortion and pregnancy, and introduces a new conceptually-grounded international policy database on reproduction policies. With regulating reproduction, states get involved in whether, when and how people enter or avert, carry out or end pregnancy and procreation; and who is supported in their reproductive pathways in the first place. Building on comparative welfare state scholarship, we suggest that state regulation of reproduction is best understood multi-dimensionally, distinguishing regulatory levels, regulatory types, permissiveness, in-kind generosity, and in-cash generosity. Not least due to a lack of data, previous research has mostly been limited to case studies or to individual policy fields, such as abortion policy. This review summarizes the state of comparative perspectives in this policy domain, and presents the International Reproduction Policy Database (IRPD), which proposes a novel and comprehensive way to measure and compare reproduction policies. IRPD covers the regulative structure, permissiveness, and generosity of state-provided reproduction policies in 33 middle- and high-income countries from 1980 to

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2020, across five policy fields: sex education, contraception, abortion, medically assisted reproduction and pregnancy care. The review closes with an empirical example from the new database and gives an outlook on its research potentials.

Keywords

reproduction policy, policy data, reproductive rights, permissiveness, generosity, abortion

Introduction

How states regulate reproduction is a morally charged subject that has been the focus of much public and political debate for many decades (Hussein et al., 2018). Reproduction concerns processes around planning, avoiding, starting, carrying or ending pregnancy and procreation, and its regulation encompasses a wide range of issues, including among others the regulation of abortion, medically assisted reproduction (MAR), and sexuality education. For example, states define the conditions under which pregnancies may be terminated (Johnson et al., 2018), decide who may access infertility treatments (Rothmayr Allison and L'Espérance, 2017), and define how knowledge on reproduction is provided (Brockschmidt et al., 2019). With regulation across these different policy fields, the state shapes individuals' reproductive trajectories across the life course. Regulating reproduction is strongly embedded in norms around family and procreation, but also contributes to shaping norms of whose procreation and family formation is desired and whose is not. So far, owing to a lack of systematic conceptualization and policy measurement, we know little about the cross-national regulatory patterns and trends over time in this policy domain. This is in stark contrast to most other areas of state involvement in individuals' welfare, such as family policy, which have been extensively studied (Daly et al., 2023).

Welfare state research has mostly overlooked policies that directly intervene in reproduction (but see (O'Connor, 1993; O'Connor et al., 1999a, 1999b)). Broadly speaking, all welfare state policies shape the context in which individuals make decisions about their reproductive lives, but only selected policies address the processes of reproduction directly. Even family policy, which is often regarded as

a tool for changing fertility behaviours (Cook et al., 2022; e.g. Inglot et al., 2022; Schultz, 2015), is limited to incentivising reproductive decisions by changing the social and economic implications of care relationships once children are born (Strohmeier, 2002).

By contrast, reproduction policies directly intervene in the biological and social processes simultaneously involved in reproduction (Almeling, 2015). Reproduction policies can be defined as institutionalized statements (laws, regulations, guidelines) about what the state or its executive organs explicitly intend to enable or obstruct in regards to the processes of whether, when and how people enter or avert, carry out or end pregnancy and procreation, including decisions on who is supported in their reproductive pathways in the first place. Evaluating how states support people differently in pursuing their reproductive preferences requires acknowledging this policy domain conceptually, and systematically map it empirically.

Current knowledge about state regulation of reproduction, its drivers, and individual-level outcomes is fragmented across various research fields, often focusing on specific aspects. For example, studies have explored how public attitudes impact the regulation of abortion and MAR (Sommer and Forman-Rabinovici, 2021). Relatedly, research has looked at the role of medical organizations and social movements in the policy-making process of MAR and abortion policy (Engeli et al., 2013; Griessler et al., 2022). In contrast, pregnancy care policy is studied mostly as a public health issue for pregnancy outcomes, with few exceptions focusing on understanding the policy landscape (Wrede et al., 2021).

Welfare state scholarship offers valuable insights for studying reproduction policy systematically. For example, it suggests that policy domains are

multidimensional, and vary in terms of target groups, eligibility rules or level of generosity. It also demonstrates that regulatory domains may comprise policies that are coherent or contradicting in their goals; and that understanding policy effects on individuals often requires considering policy configurations rather than single policies (Yerkes et al., 2022). The extensive empirical literature on various policy domains of the welfare state emphasizes the fruitfulness of comparative designs in identifying multidimensional variations, explaining policy changes, and evaluating policy impacts (Clasen, 2013). This article has three aims. First, we critically review existing approaches in light of their potential to inform systematic cross-country comparison of reproduction as a policy domain. Second, we introduce our own conceptually-grounded measurement approach in the new International Reproduction Policy Database (IRPD), which covers regulations in the fields of sex education, contraception, abortion, medically assisted reproduction and pregnancy care for 33 high- and middle-income countries between 1980 and 2020. Third, we give an outlook on how the database may be used to complement existing policy and welfare state scholarship.

Review of concepts: state regulation of reproduction

How reproduction is regulated by the welfare state is rarely explicitly conceptualised (O'Connor et al., 1999a). This is a major shortcoming in that reproductive welfare is closely related to many other welfare dimensions. Processes of planning, avoiding, starting, carrying or ending pregnancy and procreation directly affect people's health status, emerging family needs, and the potential to engage in paid work (Joffe and Reich, 2015). It is hence important to understand state regulation of reproduction both as a separate policy domain and in its interaction with other policy domains.

The regulation of reproduction has featured in different research fields, which have substantially contributed to understanding reproduction as a politicised area with strong historical and current state involvement. Yet, existing approaches have not

offered conceptual tools to systematically analyse this area as a policy domain of the welfare state both in its own right and in relation to other domains. This section reviews three conceptual approaches to state regulation of reproduction: a) selected policies regulating reproduction are subsumed under a broader category of policies, such as population policy; b) state policies are treated as but one structural component of how reproduction is 'governed', including e.g. activities of the church; c) institutional aspects of policies regulating reproduction are conceptually conflated with potential outcomes of those policies, such as reproductive health. In the following, we discuss strengths and weaknesses of these existing approaches.

Reproduction policies as a subcategory

Population policy and morality policy are two umbrella concepts describing a particular class of policy under which reproduction policies are subsumed. Population policy is often loosely defined but strongly connotated with population control; it has been broadly used to describe various policies including sterilization laws and China's one-child policy, but also family policies that incentivize childbearing (Sacksofsky, 2017; Schultz, 2015; Solinger and Nakachi, 2016). The concept of population policy is often employed in critical analyses of the state's instrumental involvement in reproductive lives for pursuing natalist and frequently also nationalist agendas. It is particularly useful for describing governments' broader programmatic approaches towards demographic issues, but it does not provide a clear-cut conceptual framework for analysing the narrower domain of reproduction policy.

The morality policy literature also takes a wider angle, focusing on policy-making for public issues that provoke value-loaded conflicts (Euchner, 2019). Accordingly, policies that directly regulate reproduction such as abortion and MAR policies are considered morality policy (Engeli et al., 2013), but also other policies, such as prostitution and drug policy (Knill et al., 2015). Viewing reproduction policy as a subcategory of morality policy is useful to understand the nature of politics that bring about policy change in these fields. However, besides

mainly providing a perspective on policy change, by focusing on normative conflicts, morality policy scholarship does not account for other fields of regulating reproduction, which seem to follow different rationales, for example contraception policy.

Reproduction policies as components in governance structure

Another class of concepts explicitly discussing the regulation of reproduction applies a much broader idea of regulation than is common in comparative welfare state and policy research. Two prominent concepts are reproductive governance and reproductive citizenship. The concept of reproductive governance, developed in medical anthropology, refers to mechanisms through which historical configurations of (state and non-state) actors produce and control reproductive processes and population practices (Morgan and Roberts, 2012). Reproductive governance scholars trace changes in political rationalities directed towards reproduction and population by analysing dominant discourses building on Foucauldian theory (Morgan and Roberts, 2012). Analyses applying the concept provide rich descriptions of historical configurations of how reproduction is regulated and framed by different actors. With its wide angle on actor constellations, it goes much beyond understanding just the policy level. The conceptual boundaries of reproductive governance also tend to be rather loose, which makes it difficult to discern which social, cultural, and institutional factors are important for how reproduction is governed and which ones fall outside its scope.

The concept of reproductive citizenship has emerged from a branch of citizenship studies focused on the social and legal conditions of reproduction (Richardson and Turner, 2001), and hence also directly informs knowledge on state regulation of reproduction. The concept reveals the centrality of reproduction for what states normatively promote as 'good citizens' (Roseneil et al., 2013), assuming that state regulation of reproduction together with individual practices shape national membership and belonging. This literature forks into several strands, employing a range of different but related citizenship concepts (e.g. sexual citizenship, intimate

citizenship, gendered citizenship). One key insight from these studies is that the mechanisms of exclusion of people groups are often inherent to the regulation of reproduction based on bodies, sexuality and intimate relationships (e.g. Richardson, 2017). Beyond their theoretical value for understanding the regulation of reproduction as a multilevel process, both concepts are particularly useful for case-study approaches interested in discursive patterns around policy processes including politics, media and public. Their intellectual genealogies render them less suitable for operationalisation into comparative indicators to map cross-country patterns and trends in policies regulating reproduction.

Reproduction policies fused with outcomes

A third type of concept used to describe country variations in the regulation of reproduction emerged from advocacy research and reproductive rights activism. Here, concepts are designed to reflect ideal-typical desired outcomes for individuals such as rights, health and justice, and research reveals barriers to reaching such outcomes across different countries or within countries over time. Prominent concepts are sexual and reproductive health and rights (SRHR) and reproductive justice. SRHR is a widely used framework in international political advocacy and advocacy research (Starrs et al., 2018). Since the International Conference on Population and Development in Cairo (1994), SRHR have guided family planning policy stakeholders and international agreements, emphasizing freedom of reproductive choice more explicitly than during the era of population control (Starrs et al., 2018). Consequently, the SRHR concept often serves as a basis for cross-country comparisons of selected indicators used as benchmarks of the state of SRHR and need for action in different regions. Because it conceptually includes both policies (rights) and outcomes (health), its use for empirically analysing policies separately from its effects is limited.

Reproductive justice is not only a theoretical concept, but also a powerful activist approach and an analytical framework increasingly used in research. It is used for understanding intersecting inequalities of race, class and gender in the reproductive realm,

and for advocating against such inequalities (Luna and Luker, 2013). Introduced in 1994 by a collective of women of colour in the United States, not least in response to the women's rights movement being dominated by (a choice-focused agenda of) white middle-class women (Ross et al., 2017), reproductive justice comprises the demands to the right to have children, the right not to have children, and the right to parent one's children in safe and sustainable communities (Ross and Solinger, 2017). A key assumption is that reproductive 'choice' is often not possible when the circumstances in which reproduction takes place are detrimental, for example in terms of housing or social welfare. With this, the concept of reproductive justice addresses the complex dynamics between individual reproductive experiences and contextual factors such as community, politics and regulations. It has become an important framework in reproductive rights advocacy and research and is useful for formulating normatively desirable 'just' outcomes to which the status quo can be empirically compared. Conceptually, reproductive justice refers to a status on both ends, the individual and the regulatory level. That means, similar to SRHR, determining the degree to which reproductive justice is granted in certain contexts necessitates analysis of policies as well as individual reproductive experiences. Because analysis of the latter tends to be small-scale, a comprehensive overview of reproductive justice for whole countries or comparatively is difficult to attain.

Conceptualising reproduction policy

Our own conceptual approach of reproduction policy builds on the rich insights of these previous conceptualizations. Contrary to previous approaches and in line with comparative welfare state and policy research, we propose a focus on the institutional level of statutory policies. We focus on policies by which states directly intervene in the biological and social processes simultaneously involved in reproduction up until birth, thereby excluding policies that only relate to either social or biological processes or to those that occur after birth. First, we exclude regulations on partnership, marriage and divorce because, while shaping social contexts of relationships,

these policies affect biological reproduction only indirectly. Similarly, we exclude custody law and adoption policy, which regulate the possibility to have children without own bodily material. Second, family policy is often considered relevant for whether people procreate (Neyer and Andersson, 2008), but may merely have an indirect effect on reproduction by setting incentives for having children, which also applies to social policies more broadly. Third, we exclude several health aspects that are included under the umbrella of SRHR (e.g., cancer in the reproductive system) (Starrs et al., 2018), because they primarily concern biological conditions for but not the processes involved in reproduction. Finally, our concept of reproduction policy excludes neonatal care, because it concerns post-birth processes and hence is beyond our focused phase of reproduction.

In a nutshell, we define reproduction policy as institutionalized statements (including laws, regulations, guidelines) about what the state or its executive organs intend to enable or obstruct in regards to the processes of whether, when and how people enter or avert, carry out or end pregnancy and procreation, including who is supported in their reproductive pathways in the first place. We contend that reproduction policy produces different levels of reproductive welfare by using different regulatory techniques such as setting legal boundaries and providing medical and financial resources for individuals to pursue their desired reproductive pathways. Optimal reproductive welfare can be understood as full access to reproductive options and resources that contribute to individuals' reproductive wellbeing in terms of physical, emotional and social aspects, regardless of membership in particular social groups defined, for example, by gender, sexuality, ethnicity, race, age, or socio-economic status.

Paralleling a historical institutionalist approach (Palier, 2010) and factoring in previous conceptualisations of policies regulating reproduction (Engeli and Rothmayr, 2016), we describe differences in welfare states' provision of reproductive welfare on five dimensions: *regulatory levels*, *regulatory types*, *permissiveness*, *in-kind generosity* and *in-cash generosity*. First, the dimension of *regulatory levels* describes differences in whether regulation is

national, subnational, regional or organisation-based. Second, the dimension of *regulatory types* captures whether regulation is through laws, curricula, medical guidelines, and so on. Both dimensions are intertwined with the degree to which reproduction policy making is centralised within a country, and with which policy-making procedures and actors are involved.

Third, *permissiveness* of reproduction policy is defined as access to services and procedures that are conducive to reproductive wellbeing. Access results from both: the degree to which states allow different procedures and technologies for reproduction, and the restrictions they impose on accessing them.¹ This means, access restrictions depend on whether something is legalized (like abortion), made routine (like pregnancy screenings) or compulsory (like sex education) in the first place. Permissiveness furthermore concerns whether access is restricted along eligibility criteria such as age, marital status or other social conditions.

Fourth, *in-kind generosity* is defined as the degree to which states provide different reproductive services. Fifth, *in-cash generosity* is defined as the degree to which states cover costs for services and reproductive technologies. In comparison to permissiveness, generosity refers to available options rather than eligibility. That also means, that restrictive reproduction policy can still be generous, e.g. in providing many different options to some social groups or coverage of costs for a particular service or technology; and permissive reproduction policy may well show low degrees of generosity.

Welfare states provide reproductive welfare through a range of different policies, addressing individuals' reproductive processes at different life course stages. We define reproduction policy as covering five policy fields, which directly intervene in the biological and social processes of reproduction, and are the most relevant in terms of regulatory scope.² States regulate: 1) the knowledge based on which reproductive planning and decisions are made (sex education), 2) the means of averting or planning pregnancy and procreation (contraception), 3) the possibility of terminating pregnancies (abortion), 4) the use of and access to reproduction technologies as infertility

treatment or means of procreation for singles or same-sex partners (medically assisted reproduction), and 5) maintaining pregnancy and giving birth (pregnancy care).

Measuring reproduction policy

There are two types of existing measurement approaches of state regulation of reproduction. The first one consists of datasets benchmarking a large number of countries in specific fields of regulating reproduction (EPF, 2021, 2023; EPF and IPPF, 2021; Johnson et al., 2018). This approach provides a snapshot overview of differences in reproduction policies, but does not allow to compare different policy fields or analyse trends over time. The second measurement approach is implemented in empirical studies focusing on the development of particular regulatory fields (e.g., Engeli and Rothmayr, 2016; Johnson et al., 2018; Sommer and Forman-Rabinovici, 2021). This approach captures longer-term trajectories of reproduction policies, but does not provide larger cross-country comparisons nor comprehensive analyses across different fields of reproduction regulation based on large-scale data.

Our proposed approach for measuring reproduction policy in the International Reproduction Policy Database (IRPD) accounts for the multidimensionality and time-dependent nature of the policy domain, and considers the different policy fields in which states regulate reproduction across different stages of the life course. The database is conceptually anchored in the above-outlined approach, measuring the five dimensions of regulatory level and types, permissiveness, in-kind and in-cash generosity, which allows for cross-field comparison. For each of the conceptual dimensions IRPD provides national-level indicators that can be used to measure regulations in the policy fields across countries over time (for a summary of the measured regulations see Table A1 in Appendix). The focus on national-level regulation has two main implications. First, it puts emphasis on policy responsibility of central governments for reproductive welfare (rather than subnational administrative levels or organisations). Second, it allows for more coherent cross-national

comparison, but disregards potential sub-national variation.

Data collection

We collected data on national policies in 33 middle- and high-income countries,³ spanning over 41 years, from 1980 to 2020. Data collection was through a standardised online questionnaire asking about the design of reproduction policies that were in place in each year. The questionnaire was pre-tested with international academic experts in the five respective policy fields. Feedback by the field experts regarding the relevance and clarity of included items was implemented to improve the instrument, and additional items were added where considered necessary. For the task of filling out the final questionnaire, we recruited one expert per country, mainly from academia or reproductive rights organisations, who was responsible for gathering national policy information. Country experts were selected based on their extensive expertise in at least one of the policy fields, and good connections to potential data sources such as ministries. Expert recruitment was through our own network, online searches and snowballing. For maximal transparency and replicability, and to ensure the focus on state regulation, the experts were required to rely on policy documents such as legal texts, official guidelines or court decisions, and to provide said sources as links or files. The data was thoroughly checked by our research team, and although it was not possible to verify the policy data provided by the experts in detail due to the large scope in time, regions and languages, inconsistencies were detected and clarified in close communication with the experts. Source documents are stored with the dataset for potential follow-up investigations. After data preparation and coding, we provide the novel and detailed dataset including hundreds of indicators through an online data archive to the research community (Zagel et al., 2025).

Operationalisation

IRPD includes a wide range of indicators, which may be used for various types of research questions and for operationalising the five conceptual dimensions of reproduction policy introduced above. Table 1 gives an overview of the categories of indicators

measured in each policy field, ordered by dimension (see Table A1 in the Appendix for a more detailed overview).

First, the dimension of regulatory level is operationalized with indicators on whether each field is regulated on the national or sub-national level. Second, the dimension of regulatory types is operationalized with indicators on which kinds of regulations, such as laws, curricula and medical guidelines, are used to regulate each field. Third, the dimension of permissiveness is operationalized with indicators on whether different reproductive procedures and technologies are legal, such as abortion, surrogacy and contraceptive counselling. Furthermore, this dimension captures whether the state declares specific reproductive services mandatory for individuals, for example school-based sex education or routine checks in pregnancy care. It also contains indicators whether there are constraining measures on access to available services, and whether there are eligibility criteria that restrict the access only among certain groups. Fourth, the dimension of in-kind generosity is operationalized with indicators for the extent of available options for reproductive services; it is measured, for example, by the comprehensibility of sex education curricula, various types of contraceptives and methods of MAR treatment that are available, and access to information on abortion. Finally, the dimension of in-cash generosity is operationalized with indicators whether costs for these services are covered by public health insurance, except for the field of school-based sex education, for which the cost coverage does not apply.

Empirical example and research avenues

The International Reproduction Policy Database (IRPD) (Zagel et al., 2025) for the first time allows to map the domain of reproduction policy comprehensively in terms of international patterns and trends. As with any dataset, IRPD has limitations. It was not possible to address all issues of validity and reliability (Adcock and Collier, 2001) because resources for data collection were limited. Further, assessing the validity of the measures is difficult

Table 1. Measured categories in IRPD across conceptual dimensions and policy fields.

	Sex education	Contraception	Abortion	MAR	Pregnancy care
Regulatory level	National or subnational	National or subnational	National or subnational	National or subnational	National or subnational
Regulatory types	Curricula	Laws, medical guidelines	Laws, medical guidelines	Laws, medical guidelines	Laws, medical guidelines
Permissiveness	Stipulation of school-based sexuality education	Legality of contraceptives	Legality of abortion methods	Legality and restrictions of MAR methods	Stipulation of preventive care
	Opt-out options	Access conditions to contraceptives, and prescription	Grounds and conditions to access abortion	Access conditions for MAR methods	Access to routine- and birth care
In-kind generosity	Topics covered in (compulsory) curriculum and teacher training	Availability of contraceptive methods and counselling	Facilities for abortion, availability of medication abortion and information provision	Availability of different MAR methods	Routine- and birth care provision
In-cash generosity	—	Extent of and conditions for public health care coverage of contraception	Extent of and conditions for public health care coverage of abortion services	Extent of and conditions for public health care coverage of MAR	Extent of and conditions for public health care coverage of pregnancy care

Note: own conceptualization.

because the field of comparative reproduction policy is not very advanced and other comprehensive datasets needed for comparison are not available (Helbling et al., 2017). Comparisons with measures from datasets that partly overlap with IRPD by measuring specific aspects of reproduction policy, such as abortion policy (Johnson et al., 2018), give us confidence that our indicators are valid measurements. Overall, we are convinced that providing IRPD to the research community significantly advances the research field, and that we have laid the basis for various research avenues by which to extend the current body of knowledge, deepen prior evidence, and pioneer new realms of inquiry. In this section, we showcase an empirical example that underscores the utility of IRPD.

To illuminate the potential of the database, we provide an exemplary figure that plots one conceptual dimension of reproduction policy. We picked in-kind generosity, the degree to which states provide different reproductive services, to give a first insight into country

differences and time trends in what may be considered an infrastructural aspect of reproduction policy. Figure 1 shows field-specific time trends in in-kind generosity by country 1980–2020.⁴ For each individual policy field, we created additive indices composed of multiple indicators for in-kind generosity: topics covered in sex education curricula; available contraceptive methods; facilities, prescription provider and information provision for abortion; available MAR treatments with different biological materials; and pregnancy care services included in the preventive care programme.⁵ We normalize our indices to a range between 0 and one employing min-max normalization, in order to make them comparable. Due to our focus on national regulation, we coded indicators as 0 where policies were subnationally regulated. The shown in-kind generosity hence effectively reflects the responsibility that central governments take on in providing reproductive welfare. Potential differences in subnational in-kind generosity are not captured.

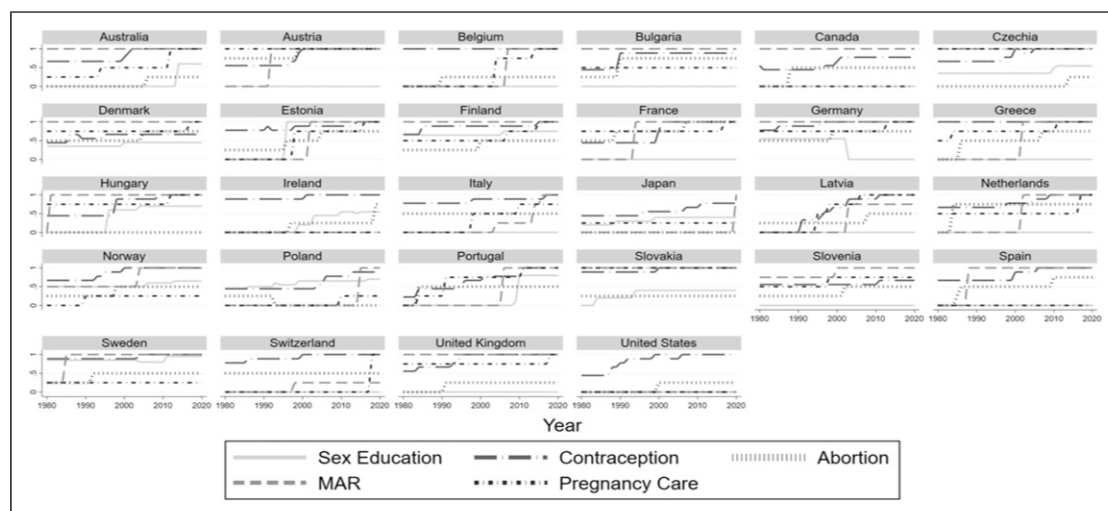


Figure 1. Trends in in-kind generosity of reproduction policy in 28 countries. Source: IRPD, 1980–2020. Indicators: *Sex education*: whether each topic was covered in curricula in primary and secondary school (male development, female development, menstrual cycle, conception to birth, prevention of pregnancy, prevention of sexual transmitted infections, contraception, online media, sexual consent, sexual orientation); *Contraception*: whether each contraceptive was available (tubal ligation, vasectomy, copper IUD, hormonal IUD, implant, injection, contraceptive pill, condoms, emergency contraceptive pill); *Abortion*: whether abortion provision was legal in different facilities (hospitals, community-based clinics and in doctor's office), whether prescription of abortion medication was possible by healthcare professionals other than doctors, whether medication abortion was available via telemedicine, and whether the government/public authorities were legally required to provide medically accurate information on abortion; *MAR*: whether treatments with different biological materials were available for different sex couples (artificial insemination with donated sperm (AID), IVF with own gametes, donated sperm, and donated eggs); *Pregnancy care*: whether each service was part of the preventive care programme (routine examinations, prenatal screening, amniocentesis, non-invasive prenatal testing (NIPT)).

Figure 1 indicates that in-kind generosity tended to increase or remain stable between 1980 to 2020 in all reproduction policy fields.⁶ Comparing across fields, in-kind generosity levels differ strongly in many countries with some tendency to converge over time in several but far from all countries. As for the nature of reform trajectories, change tended to be sudden in some fields (MAR), and gradual in other (contraception, pregnancy care). In terms of the sequencing of reforms across policy fields, two main patterns are that in-kind generosity changes, first, in a condensed time period like in Estonia, Latvia and Slovenia, and second, over a prolonged time span, as for example in Australia, the Netherlands and Portugal.

Several follow-up research questions emerge from this snap-shot of the data that may be addressed with IRPD: What drives in-kind generosity? Does in-kind generosity systematically align with permissiveness

and/or in-cash generosity of reproduction policy? And what are international trends, such as divergence or convergence? By covering five policy fields, IRPD allows looking beyond single regulatory issues and enables to examine policy interrelationships in terms of complementary and substitution effects. Furthermore, the long time period covered by IRPD allows to study the impact of political institutions (e.g. party-system) or actors (e.g. interest groups) on the policy-making process of reproduction policy.

Another avenue for research with IRPD is to investigate the impact of reproduction policy on individuals' lives. How does reproduction policy shape individual reproductive trajectories in terms of sexual behaviour, timing and number of births? And how does reproduction policy affect social norms regarding gender, sexuality and family? By covering regulations of different medical procedures, e.g. in MAR and

pregnancy care, IRPD also allows to investigate health, well-being and pregnancy outcomes. With this, IRPD may be a useful source for research in demography, social stratification and public health, as well as on policies and politics in the welfare state.

Conclusion

States' regulation of reproduction has been an issue of heated social and political debates for many decades. Research on the topic has been extensive, demonstrating the different approaches taken by states across regions and historical periods to govern reproductive processes. Yet, the broader patterns and trends in this domain have not been systematically described in a comparative perspective. Reviewing prominent approaches to conceptualising and measuring the regulation of reproduction, we find that a) existing concepts are insufficiently specified for a sound measurement approach or mix policy and outcomes; and b) there is a lack of empirical data that captures over-time trends and the multiple fields of reproduction policy. Both limit the scope for cross-country and over-time comparisons of how states regulate reproduction across individual life courses.

We provide a coherent conceptualisation and measurement of reproduction policy, building on previous research and measurements in related areas. We contend that reproduction policy is a multidimensional policy domain with five interrelated policy fields: sex education, contraception, abortion, medically assisted reproduction and pregnancy care. Reproduction policy is distinct from family policy and other social policy fields in marking the state's involvement in whether, when and how people pursue which reproductive pathways, and whose reproductive pathways are supported in the first place.

In the novel International Reproduction Policy Database (IRPD) we propose a thorough empirical measurement of reproduction policy across the dimensions of regulatory level, regulatory types, permissiveness, in-kind generosity and in-cash generosity for the five reproduction policy fields. With a focus on comparability, we measure all three dimensions across the five policy fields in 33 high-income countries over 41 years between 1980 and 2020. Thus, IRPD allows to compare policies and policy configurations between countries and over time, and adds to the growing number of policy datasets for

comparative policy analysis with a new policy domain. The scope and thoroughness of both our concept and dataset gives a multitude of options for future research in diverse fields such as comparative governance, demography and public health.

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Supplemental Material

Supplemental material for this article is available online.

Notes

1. Our conceptualization of permissiveness diverges from previous research (Engeli, 2009 [[not in references]]; Engeli and Rothmayr, 2016) in that we separate out access and financing (here: in-cash generosity) into different dimensions.
2. We acknowledge that a broader definition of reproduction policy would also include other policies such as adoption regulation. We view this article as an invitation

to further academic discussion on the markers of the field of reproduction policy.

3. Australia, Austria, Belgium, Bulgaria, Canada, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom, Ukraine, United States. IRPD also includes data on the former German Democratic Republic GDR 1980–1990.
4. We excluded the German Democratic Republic (1980–1990), Lithuania, Romania, South Korea and Turkey from the figure, because the data from these countries were not fully processed at the timing of writing.
5. Description in Figure notes.
6. The 2002 drop in sexuality education in-kind generosity in Germany captures the abolishment of the national framework in place since 1968, referring responsibility back to federal states (Länder).

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