Mapping Global Dynamics
of Social Policy

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Contents

Mapping Global Dynamics of Social Policy

Introduction to the Atlas

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1.1 Introduction of social policy programs across the world

Number of adopting countries

Health Care Systems
Work Injury
Compulsory Education
Paid Maternity Leave
Adult Basic Education
Old Age Pension*
Workplace Childcare
Child Benefits
Unemployment
LGBTQ+ Antidiscrimination
Long-term Care

The figure shows the introduction of social policy programs in 164 countries with more than 500,000 inhabitants. The x-axis depicts the year in which the programs were introduced, the y-axis the cumulative number of countries that have introduced the respective program.

* The introduction of old-age provision refers to 118 countries.

In recent decades, social protection has made considerable progress in many countries of the Global South. However, this trend has not been universal and consistent. While many countries are still caught in a vicious circle of violence, corruption and poverty, there have also been setbacks in social policy. Most recently, the COVID-19 pandemic and the war in Ukraine have strikingly demonstrated that the world we live in is closely interconnected and interdependent. The political reactions to these events varied from country to country. Accordingly people were very differently affected by the consequences of these crises.

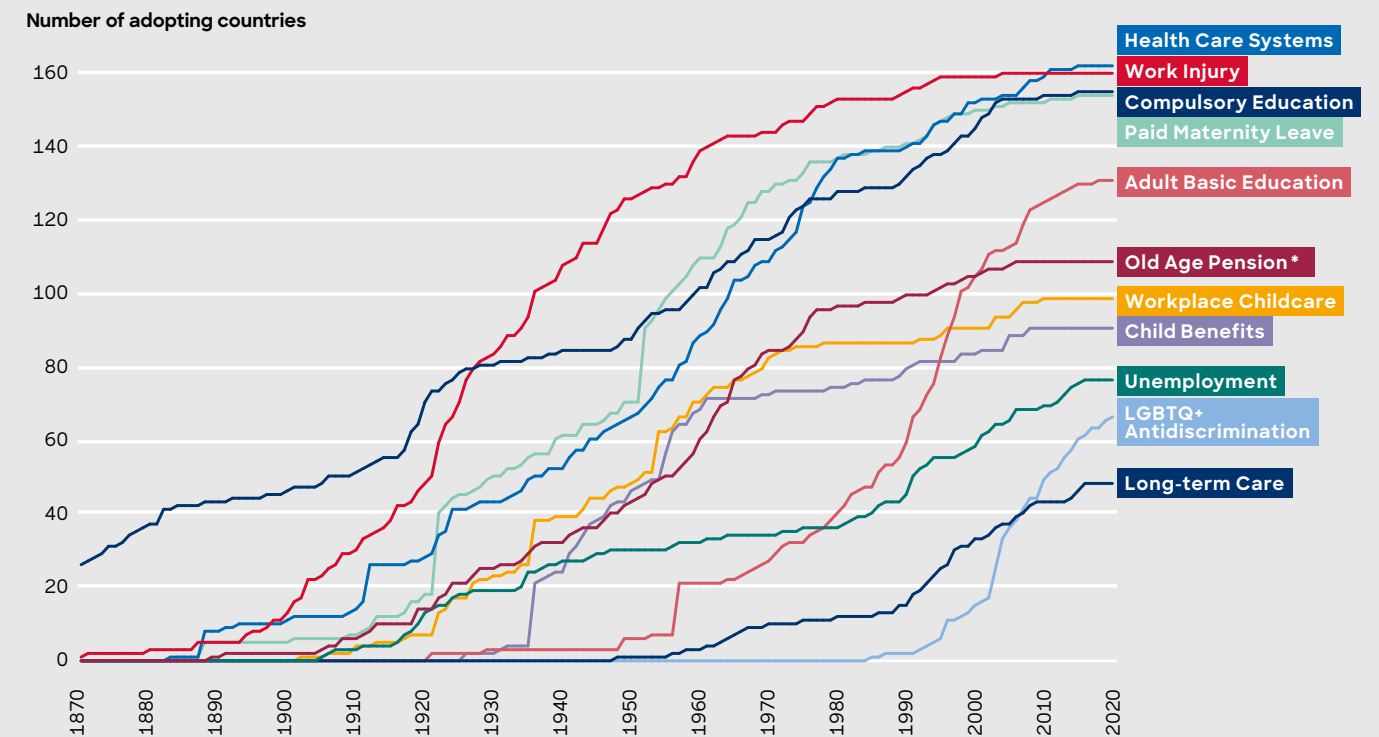#### Measuring and mapping the expansion of social Policy
The Collaborative Research Centre 1342 "Global Dynamics of Social Policy" (https://socialpolicy-dynamics.de/en) pursues the goal of empirically measuring the worldwide spread of social policy from 1880 until today and explaining this spread theoretically. An essential objective is the collection of data, especially for countries of the Global South. The data collected by this research network on the introduction and implementation of social policy programs with details concerning their coverage and scope of benefits are made publicly accessible via the Global Welfare State Information System (WeSIS) (https://wesis.org). WeSIS not only provides data on a range of social protection programs, but also contains a large number of indicators to explain the dynamics of social policy developments in a global and historical perspective.

Figure 1.1 uses WeSIS data to show the global introduction sequence of various social policy programs in 164 countries with more than 500,000 inhabitants since the late 19th century. The pattern shows great similarities with the development of the Western welfare state (Alber 1982; Béland et al. 2021). Compulsory education and work injury schemes were introduced relatively early, followed by health care systems, paid maternity leave and old-age security. These schemes are now almost universal. In contrast, unemployment insurance and family-related benefits e.g. child benefits or workplace childcare were legislated rather late and exist in only about half of the countries. Most recently, long-term care and anti-discrimination programs were established, but can only be found in a very small number of countries (Fig. 1).

At first glance, Figure 1.1 suggests that large parts of the world's population are now covered by social protection programs. However, this is not the case, as the extent of social expenditure, the number of people protected, and the scope of benefits provided by these programs vary significantly across countries. To illustrate this, the following map shows the share of public social expenditure relative to a country's gross domestic product (GDP). The size of the squares represents the population of each country, while the colouring of the squares indicates the social spending / GDP ratio. The example of India illustrates that the most populous country in the world spent only 2.4 % of its GDP on social security for its inhabitants in 2020. With this ratio, India ranks only 155th in the global ranking of social spending. In China, which also has a population of around 1.4 billion, the share of public social spending in GDP was 10.2 %, slightly above the global average of 9.3 %. We find the highest social spending ratios in Europe, namely in France (32.2 %), Finland (31.5 %), Denmark (30.6 %), Sweden (28 %), Germany (28.3 %) and Norway (28.8 %). When we add up the populations of the 20 countries that spend more than 20 % of their GDP on public social policies, these countries are home to less than one billion people, or only 12 % of the world's population. At the same time, it is evident that with a few exceptions (e.g., Algeria, Tunisia, Egypt, South Africa) almost all countries in Africa have a social spending ratio below the global average. Overall, almost 3 billion people or 38 % of the world's population live in a country that spends 3 % or less of its GDP on public social policy.

However, public social expenditure is also a problematic indicator. For example, high social spending by no means implies that all groups of a country's population are covered by social security. Similarly, high social expenditure does not necessarily equate to generous social benefits since high levels of social spending might be driven by socio-economic problem pressures such as mass unemployment or an ageing society. Challenges such as demographic ageing often require state intervention, as Chapter 6 on long-term care insurance and the case study on Bangladesh (Chapter 15) clearly demonstrate.

Better indicators of social protection are the inclusiveness and scope of benefits of social protection programs. However, these indicators can vary within countries and between social groups, as some contributions of this Atlas show. For example, there are discrepancies with regard to occupational health and safety provisions (Chapter 3), access to health care services (Chapter 5) or the de facto coverage of maternity protection schemes (Chapter 9). There are also differences

1.2 Population and social benefit ratio in 2020

The size of the squares corresponds to the population of the observed 157 countries with more than 500,000 inhabitants and available data. The colour of the squares represents the social benefit ratio, calculated as the share of public social expenditure relative to the gross domestic product (GDP).

Total SOEX / GDP
- >30 %
- 25–29,9 %
- 19–24,9 %
- 14–18,9 %
- 10–13,9 %
- 5–9,9 %
- <5 %
- No data

in the social rights of migrants (Chapter 11). The example of China in this Atlas (Chapter 14) also illustrates that social policies can vary across regions within a country.

The importance of economic wealth

A key indicator for explaining these differences is the economic development of a country (Wilensky 1975). Figure 1.3 shows the relationship between the level of economic development and public social expenditure per capita for the year 2020. The data are available in WeSIS. The greater the GDP per capita (x-axis), the higher is social expenditure (y-axis). The Pearson correlation coefficient (r = 0.83) indicates a very strong correlation. Two groups of countries deviate from the general pattern illustrated by the regression line. On the one

hand, there are countries such as Singapore (SGP), Qatar (QAT), the United Arab Emirates (ARE), Bahrain (BHR) or Saudi Arabia (SAU) which lie significantly below the regression line. In these countries, public social expenditure per capita is considerably lower than one would expect on the basis of their GDP per capita. The reason for this is either disproportionately high private social expenditure, as in Singapore, or they are rentier states that generate high government revenues from primary commodity exports. On the other hand, there are

countries with disproportionately high public social expenditure relative to the respective GDP per capita. These countries are located above the regression line and include the Scandinavian welfare states as well as France, Germany, Austria and the USA.

The global average of public social expenditure per capita was USD 2,733 in 2020. India, the country with the largest population, only spent USD 157, while social spending per capita in China, the second largest country in terms of population, amounted to USD 1,753. At the

upper end of the scale is Luxembourg, with public social expenditure of USD 26,869 per capita.

The graphic window at the top left of the figure shows the correlation for the poorest countries. The public social spending per inhabitant was lowest in the

African countries of Chad (TCD, USD 21), the Democratic Republic of Congo (COD, USD 26) and Togo (TGO, USD 27).

The significance of international interdependencies for social policy

The GDP and social expenditures are only crude indicators for mapping global differences in social policy. In consequence, and as the articles in this Atlas demonstrate, social expenditure figures cannot explain the enormous variation in social policy in different parts of the world. The same applies to theoretical approaches that only look at the domestic political and socio-economic conditions to explain the dynamics and patterns of social policy. The reason is that states are anything but independent entities. With its interdependence-centred analytical approach, the Collaborative Research Centre 1342 "Global Dynamics of Social Policy" complements the analysis of the domestic determinants of social policy with explanatory factors that emphasize inter- and transnational linkages between states and societies. What interdependencies exist between countries, how pronounced they are and whether they have an influence on social policy must be analysed more closely than before. One possibility is to conceptualise inter- and transnational interdependencies as networks in order

to examine whether these networks represent relevant diffusion channels for the global spread of social policy (Windzio et al. 2022).

Economic interdependencies, which became the focus of social policy research in the 1990s due to the globalisation discourse, play a central role. Figure 1.4 illustrates the global network of trade linkages between countries that have been continuously significant, meaning that countries have consistently been above-average important trading partners between 1995 and 2019. The size of the country nodes indicates that a country has many such stable trade partnerships (Lischka 2022). At first glance, the expected picture of intensive trade linkages emerges in the global North with the largest economies as the most significant nodes with the most linkages. Germany has the most stable trade relations with 24 links, followed by Italy (22), the USA (21), France and the UK (20 each). The Global South is much less integrated into this trade network. Nevertheless, a closer look reveals that some regional networks exist within which countries maintain lasting and important trade partnerships that are easily overlooked. These include, for example, the regional trade networks in South American and Central America, the West African network with Côte d'Ivoire as the central node,

or the East African network with Kenya, Uganda, Rwanda and Tanzania, which have been important trading partners for each other for 24 years.

The impact of globalisation on social policy is the subject of intense and controversial debates (Mossig & Lischka 2022; Zohlnhöfer 2023). The compensation hypothesis (Cameron 1978; Rieger & Leibfried 2003) argues that a high degree of integration into the world economy leads to an expansion of the welfare state, whereas the efficiency hypothesis (Strange 1995) postulates that increasing economic openness and world market integration drives states into competition for the lowest wages, the lowest production costs and the lowest tax rates and regulations. The result is declining social standards in the Global North, while countries in the Global South are able to benefit from the international division of labour. The best example in this respect is China, where export-driven economic growth not only lifted millions out of poverty, but also provided the fiscal means for the expansion of public social policy in the last two decades (ten Brink 2019).

In addition to economic linkages (Mossig et al. 2021; Lischka & Besche-Truthe 2022), WeSIS also features data on cultural spheres (Besche-Truthe et al. 2022), colonial dependencies (Becker 2019), and memberships of countries in international organisations (see also Chapter 8 in this Atlas). These other linkages can be referenced using features of geographical proximity such as the distances between capitals (Eiser et al. 2020) or direct neighbourhood with shared territorial borders, which are also included in WeSIS.

Outlook of the atlas contributions

Chapter 2 by **Nate Breznau and Felix Lanver**, *Communism and Enslaved Labour in the Global Development of Work Accident Insurance*, deals with one of the oldest and globally most widespread social protection schemes. It analyses the time span from the first, often still inadequate law, which mostly covered only parts of the labour force, to comprehensive coverage, usually in some form of social insurance, which distributes the high costs of work accidents among workers, employers, and the state. To explain the large cross-national variations in the duration of this transition, two aspects are empirically examined. While colonialism and forced labour delayed the establishment of comprehensive social insurance, communist revolutions accelerated the introduction of comprehensive workers' compensation insurance.

In Chapter 3 *Worker Protection Worldwide—But Universal?* **Heiner Fechner, Ulrich Mückenberger**

and Andrea Schäfer shed light on the differences between the Global North and South with regard to labour protection regulations. To this end, they distinguish between three types of regulation. First, they examine the setting of standards to protect workers. Second, they address the degree of privilege by examining whether the regulatory standards benefit all workers or only selected groups of them (e.g., civil servants or the military). Third, they analyse regulations to prevent labour market discrimination.

Chapter 4 *Non-discrimination in the labor market: global progress, growing gaps*, also written by **Heiner Fechner, Ulrich Mückenberger and Andrea Schäfer**, ties in with the third form of regulation addressed in the previous chapter. This chapter shows that, on the one hand, legislation on anti-discrimination and unfair treatment of workers was expanded in most countries of the world between 1970 and 2013. Despite this general progress, however, there are still major differences, as shown by the examples of the countries that stand out positively and negatively on the respective continents.

Alexander Polte, Gabriela de Carvalho, Achim Schmid, Heinz Rothgang, Sebastian Haunss and Lorraine Frisina Doetter examine the temporal sequence and regional trends in the introduction and design of healthcare systems in their contribution *Spatial and temporal distributions of healthcare system introductions* (Chapter 5). They map the introduction of healthcare systems in 165 countries and analyse key structural features of the systems in terms of financing, service provision and eligibility.

A relatively recent field of state intervention in social policy is analysed by **Johanna Fischer, Meika Sternkopf and Heinz Rothgang** in Chapter 6 *Covering a New Social Risk: The Introduction of Long-term Care Systems Around the World*. Due to an ageing population and changing family and gender roles, long-term care has become a new social risk. In their contribution, the authors analyse which countries have introduced long-term care systems to date and how they are designed in response to this new challenge of ageing societies.

In Chapter 7, **Fabian Besche-Truthe, Helen Seitzer and Michael Windzio** examine *Compulsory Education Around the World—First Institutionalisation and Policy Development*. The early introduction and global spread of compulsory education is related to the efforts of governments in all parts of the world to guarantee universal access to education and, in particular, to make schooling compulsory. However, a closer look reveals differences around

1.3 Public social expenditure per capita in 2020 versus GDP per capita in 2020
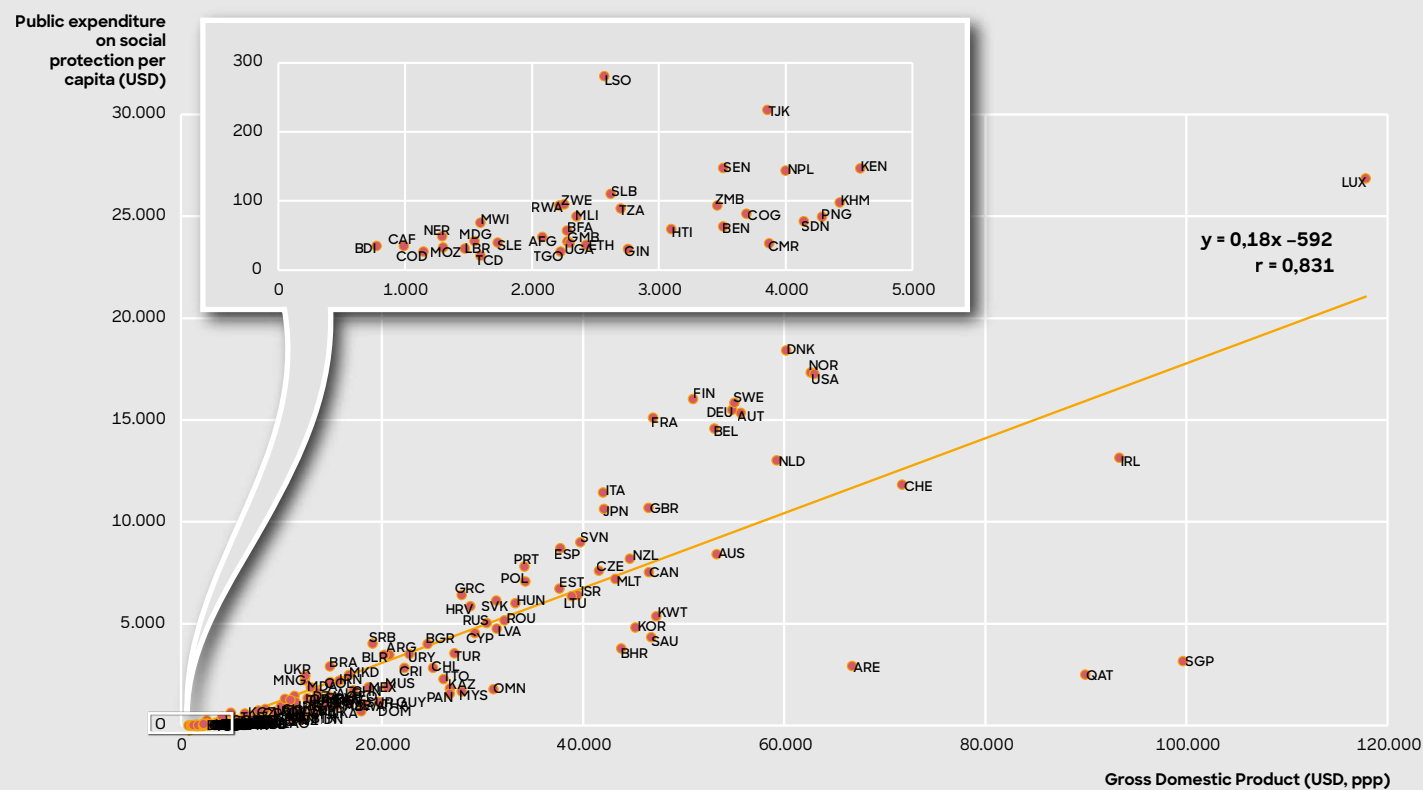
GDP per capita in USD at current prices and purchasing power parity (PPP) (x-axis) and public social expenditure per capita in USD (y-axis). Data for 151 countries.

the world both in terms of the initial forms of institutionalization and in the subsequent development of policies. In general, states with higher income extend compulsory education duration earlier and by a larger margin.

Chapter 8 *International Organizations in Education—Mapping the Regional Organizational Field* by **Dennis Niemann, David Krogmann, Kerstin Martens and Fabian Besche-Truthe** focuses on international organizations in the field of education. Since international organisations analyse, develop and redesign education policies, membership of countries in international organisations may facilitate policy diffusion in this field. Due to the growing number of international organisations in the field of education and the increasing number of countries with multiple memberships, a tight-knit and widely dispersed network emerged that is graphically illustrated and explained in the chapter.

Keonhi Son deals with family policy in Chapter 9, *Discrepancy of Paid Maternity Leave Between Laws and Practices in Low- and Middle-income Countries*. The article addresses the discrepancy between de jure paid maternity leave and de facto coverage in lower-income countries, which has been scarcely researched so far. The lack of access to social security in low- and middle-income countries often comes from failures in the implementation of the social security system rather than missing coverage of social security laws.

Tobias Böger highlights another field of family policy in Chapter 10, *Leave-Care Gaps Around the World*, by analyzing the gap between paid maternity or parental leave and the start of early childhood education and care. To encourage women's continuous participation in the labor market and enable them to combine parenthood with paid work, the gap needs to be closed. However, the contribution shows that substantial leave-care gaps remain in many countries of the world.

Friederike Römer and Jakob Henninger highlight in Chapter 11 *Social Protection—Immigrant Exclusion?* the major differences in social rights granted to migrants in different countries across the world. They show that legal status is a decisive factor, with migrants possessing permanent residency often granted relatively far-reaching rights, whereas temporary migrants are often excluded from social protection.

Migration plays an important role in Chapter 12 *Multidrug-resistant Tuberculosis in the Post-Soviet Region. A Tale of Vulnerability through Labor Migration* by **Andreas Heinrich and Gulnaz Isabekova**. The

1.4 Network of important stable trading partnerships

The edges of the network indicate trade partnership between two countries each that were consistently of above-average importance for the interconnected countries in the period 1995–2019. The larger the circle signature of each country node, the more such important stable trade linkages the respective country has.

article argues that labour migrants in the post-Soviet region are at particularly high risk of contracting multidrug-resistant tuberculosis due to restrictive migration laws. With these risks amplified by COVID-19, the global goal of eliminating this disease by 2030 seems to be unachievable.

Roy Karadag begins Chapter 13 *Healthcare Struggles in Contemporary Africa* with the statement that it is very expensive to be poor. Using the example of healthcare in Africa, he shows that poor people and societies have to invest disproportionately more resources and time to live a decent life. For Senegal, Tunisia and South Africa, the differences in health care funding are presented in detail.

Chapter 14 *Expansion and Dualization: Social Insurance in China* by **Tobias ten Brink, Armin Müller and Hao Chen** is a case study of what was until very recently the most populous country in the world. In the course of the transformation from a planned economy to a state-controlled version of capitalism, the social protection in the People's Republic of China was fundamentally restructured and expanded. However, not all segments of the population benefit equally from welfare state expansion. In addition, there are significant regional inequalities with regard to social security.

In Chapter 15, *Social Pensions in Bangladesh— and the Challenges of Targeting Social Transfers*,

Sebastian Fehrler and Heiner Salomon look at the challenges of ageing societies in South Asia. Most countries are responding by rapidly expanding their pension systems. However, the example of Bangladesh shows that the urgent requirement to target these systems towards those in greatest need is a challenge that can hardly be met.

Further information: Access data used in this chapter via the QR code. For more data on the dynamics of global social policy visit: https://wesis.org/QR/INF_Atlas01

2

Work-Injury Policy

Communism and Enslaved Labor Production in the Global Development of Work Accident Insurance

Nate Breznau and Felix Lanver

Colonial powers exported their social policy ideas to societies they subjected to militarily imposed governments. For example, the French colonies had standardized 'empire'-wide laws that brought forth early and similarly timed work-injury protections intended to reflect the strong French commitment to labor, social welfare and security. At the same time the British colonies autonomously decided on social welfare legislation, leading to later or more liberal-market-style outcomes. Although colonial-rule sometimes brought forth faster work-injury law introductions (Schmitt 2015), it ultimately blunted the development of effective social insurance. Colonialism imposed hierarchical systems of entitlement and political enfranchisement,

such as the social construction of racialized group differences (Leisering 2021). By forcefully creating and maintaining the idea that ethnically distinct or racialized portions of the native populations, were less deserving and otherwise inferior to those of the colonial power, the working-classes remained divided and had less opportunity to organize. Without class solidarity, the development of social policy remained precarious. Moreover, the extraction of resources, including labor power from chattel slavery exports, also restricted the potential for productivity and capital generation necessary to fund social policy development (Nunn 2008).

Although the political ideology of communism spread rapidly

across the globe in the mid and especially late stages of colonialism and despite it being a sometimes brutally imposed form of government, it ultimately hastened the development of social risk-pooling. Namely, it sought to create a 'total' welfare state, where the distribution of goods, services and insurance were centralized and provided for all workers as a singular 'proletariat'. For example, one of the first decrees of the Bolshevist government in Russia in 1917 was the institution of social insurance against any earning capacity loss, including sickness or work-injury (Abramson 1929). Socialist ideas and movements across the world were so powerful that governments made concessions to workers in order to abate the specter of

Work-injury protections were the first social security policies introduced globally. Industrialization brought new work risks, and governments introduced legislation in response. The first laws were often inadequate, requiring expensive proceedings or covering only segments of the formal labor force. Eventually many countries resorted to risk-pooling, ideally social insurance, that distributed the high costs of work accidents across workers, firms and sometimes all of society. The length of time it took to transition to risk-pooling varied greatly by country. Two features of world history often overlooked in previous theories of social policy development likely played key roles in this transition time. Colonialism led to the widespread use of enslaved and forced labor as a means of production, something that likely hindered the development of work-injury risk-pooling in the long-term. The rapid spread of communist ideology and thus revolutions promoted faster development of risk-pooling.

Enslaved labor and communism expanded existing knowledge on social policy development, in particular outside of the Global North.
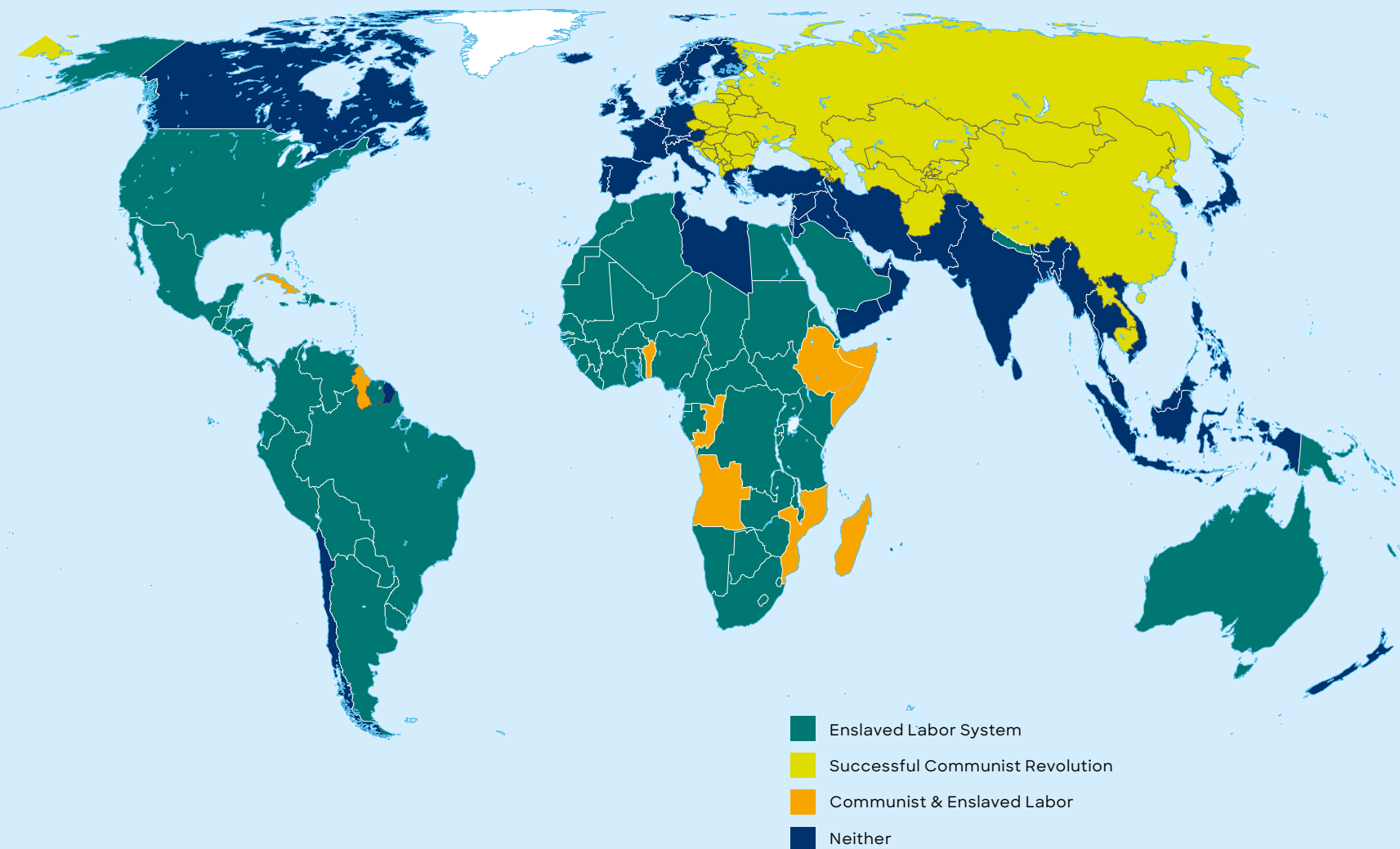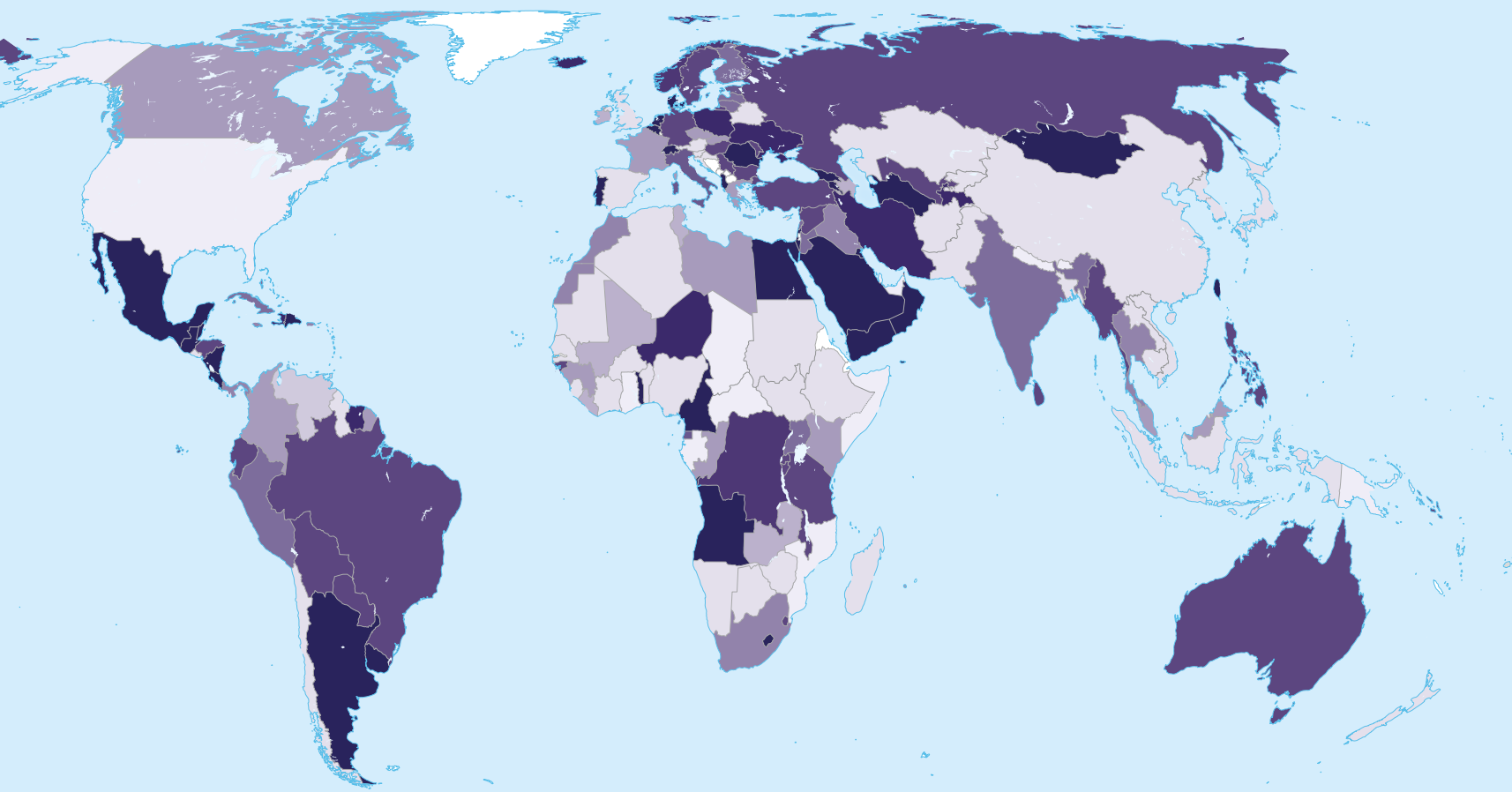
Work-injury policies were the first to arise globally, and marked the beginning of the modern welfare state. Their history, like most social policy history, is told through the lens of the Global North: Industrialization, modernization, bureaucratization and the political dynamics between social classes. Although these factors help explain the introduction and diffusion of the welfare state in Western Europe and the richer countries (Baldwin 1990; Moses 2018), they are less effective in explaining how the welfare state came to be in the Global South. Consideration of the role of production using enslaved labor and the spread of communist ideology helps extend historical knowledge regarding the global development of social security.

2.1 The legacies of communism and enslaved labor production

Current countries of the world, categorized by historical features. Enslaved Labor Production are societies with imposed colonial slavery with the intention of economic production or internal kidnapping and slave trading, mostly from the 18th century onward, are included (Solow 1987)[1]. Successful Communist Revolutions are those that had a communist revolution and at least four years of stable rule[2]. Ten countries have a history of both, and many have neither as they were the non-communist colonizing powers of the Global North profiting from imposed slave and forced labor systems abroad, without similar local ramifications or production practices.

[1] Excluded are systems of serfdom, often found in feudalist societies in the middle and early modern ages, which differ from slavery in the sense that they were not based on human trafficking and often still granted some minor rights such as access to (farm-)land. Also excluded are domestic servants.

[2] These countries are the same list as in Iliev and Putterman (2007) with the exception of Zimbabwe where the government did not control major production and Nicaragua where the government's sovereignty was significantly contested. Like Iliev and Putterman it also does not include Vietnam which was two countries during most of the historical period when work-injury policies were introduced.

- 🟩 Enslaved Labor System
- 🟨 Successful Communist Revolution
- 🟧 Communist & Enslaved Labor
- 🟦 Neither

2.2 The rate at which countries transitioned from a first law to work-injury insurance

The color coding reveals the time it took to transition from any first work-injury law to social risk-pooling—defined as either nationally mandated provident funds or social insurance systems. Looking at the time it took a country to reach a work-injury law with some type of risk-pooli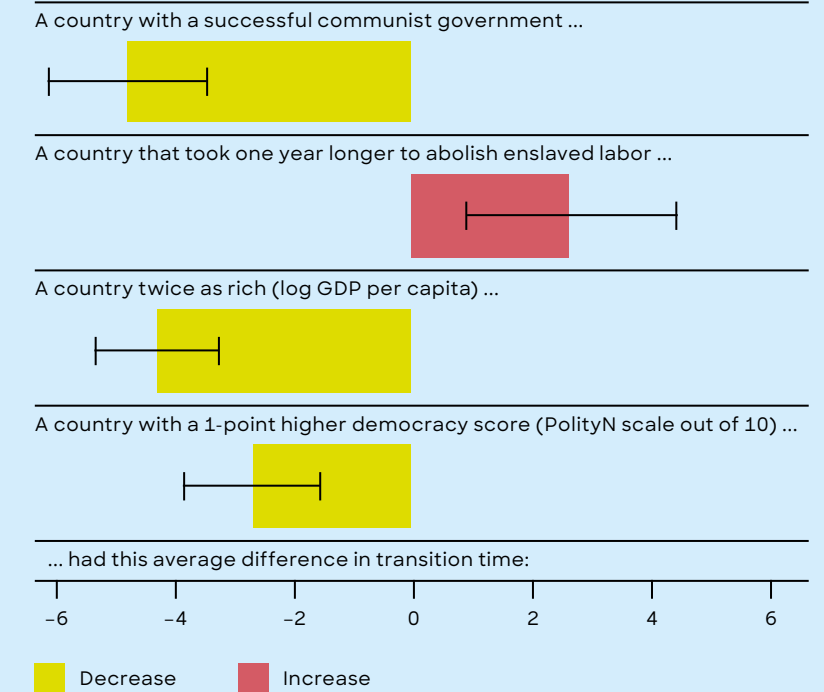ng that also covered all of the blue-collar formal labor force sheds light on the economic, social and welfare state development of a country.

0
10
20
30
40
50 years
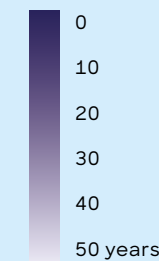
2.3 Predicted transition times from first law to work-injury insurance

A country with a successful communist government …

A country that took one year longer to abolish enslaved labor …

A country twice as rich (log GDP per capita) …

A country with a 1-point higher democracy score (PolityN scale out of 10) …

… had this average difference in transition time:

−6   −4   −2   0   2   4   6

Decrease   Increase

This figure shows results of regression to the mean predicting the transition time of a first work-injury law to a blue-collar full-coverage risk-pooling law—either national provident funds or social insurance. The bars represent the difference in years on average that it takes to transition.

revolution threatening their liberal-market/capitalist production systems, thus speeding up the installation of welfare state policies in the Global North (Rasmussen & Knutsen 2021). At the same time, many countries' communist movements were 'forced' into power with the help of external forces, in particular in the case of the Soviet Union and its satellite states.

Transition time to develop work-injury insurance
Looking at how long it took to transition from a first law to de jure full-coverage risk-pooling reveals how successful societies were at developing their welfare state social security systems, at least legally on paper. Critically, de jure coverage does not mean de facto coverage, and many countries have serious implementation problems in practice.

Factors explaining transition time
Our primary independent variables of interest are measured as the year enslaved and forced labor was abolished, where later years reflect a longer transition time, and whether a country had a successful communist government, stable for at least four years. The dependent variable is transition time (see map 2.2). By adding these variables into a regression, we observe statistical historical patterns with the advantage that we can adjust

for control variables and their associations with transition time, thus simulating counterfactually where a country would have been, had it had higher or lower levels of economic development (here measured as Gross Domestic Product per capita in 1900 logged) or democratization (which also measures modernization and bureaucratization to some extent using PolityIV scores in 1900). For example, Russia transitioned quite quickly to risk-pooling in work-injury, but because of relatively low GDP in 1900 this was not expected. Therefore, communism helps explain this rapid transition. At the same time South Africa had a higher GDP than many other former colonies, but transitioned somewhat slowly, this likely relates to a long history and late abolition of enslaved labor.

Explaining communism's effects
We explain the finding that Communism on average within a 95 % confidence interval predicts a 4-to-6-year faster transition period, by the inherent pro-welfare ideology underpinning communist regimes. These regimes fostered rapid catch-up industrialization strategies in their countries, e.g., in the Soviet Union which came with a high number of personal injuries (Gorecki 1970). Although socialism in practice did not pay too much attention to individual rights or personal loss, the idealization of

human labor was a core principle of social progress, thus on paper these countries implemented powerful 'total' social welfare laws, starting with the problem of industrial accidents.

Explaining enslaved labor's effects
We explain the effect of enslavement and forced labor along with slave trading on societies as the cause of time to abolition predicting a 1-to-5-year slower transition time to a risk-pooling law. The economic production systems (historically) based on enslaved workers, including forced labor, caused problems for social cohesion and thus the development of social policies such as work-injury laws. When certain segments of the working-classes are afforded no rights whatsoever, it is difficult or impossible to form class consciousness. These social fractures were not only between colonizers and colonized but often between different ethnic groups within countries; sometimes groups that were paid to raid other groups and kidnap workers as slaves. However, the working-classes were extremely subversive and resistant to oppression and enslavement, and this required great militaristic force to maintain. When slavery and colonialism ended, events not always coinciding, what was left in the wake was deeply institutionalized divisions in society that were

previous enforced with violence and continued to prevent effective class consciousness development and effective labor movements for decades, and the depth of these divisions were a function of the amount of time slavery was imposed (Williams 2003; Worger 1993).

In summary, the geography and indicators presented herein suggest that communism and the use of enslaved labor in economic production impacted the development of work-injury policy and likely welfare states in general. Communism and enslaved labor are parts of larger institutional processes that involve ideology, discrimination, identity formation, governance and global networks. Alone the variables of communism and enslaved labor should not be understood as precise causal forces, but parts of larger historical processes that help explain how welfare states developed, in particular outside of the Global North.

Worker Protection Worldwide— But Universal?

Heiner Fechner, Ulrich Mückenberger and Andrea Schäfer

Looking at government employment regulations, one finds both: many similarities as well as great diversity between the Global North and the Global South. Among workers, employment laws have a threefold function (Mückenberger & Dingeldey 2022). Firstly, they protect workers as the weaker part of the employment relationship via standard-setting. Secondly, these standards are often not beneficial to all workers, but only to selected groups of them—this is their privileging function. Thirdly, employment laws, particularly more recently, provide rules against discrimination and/ or precarization of work in an equalizing manner.

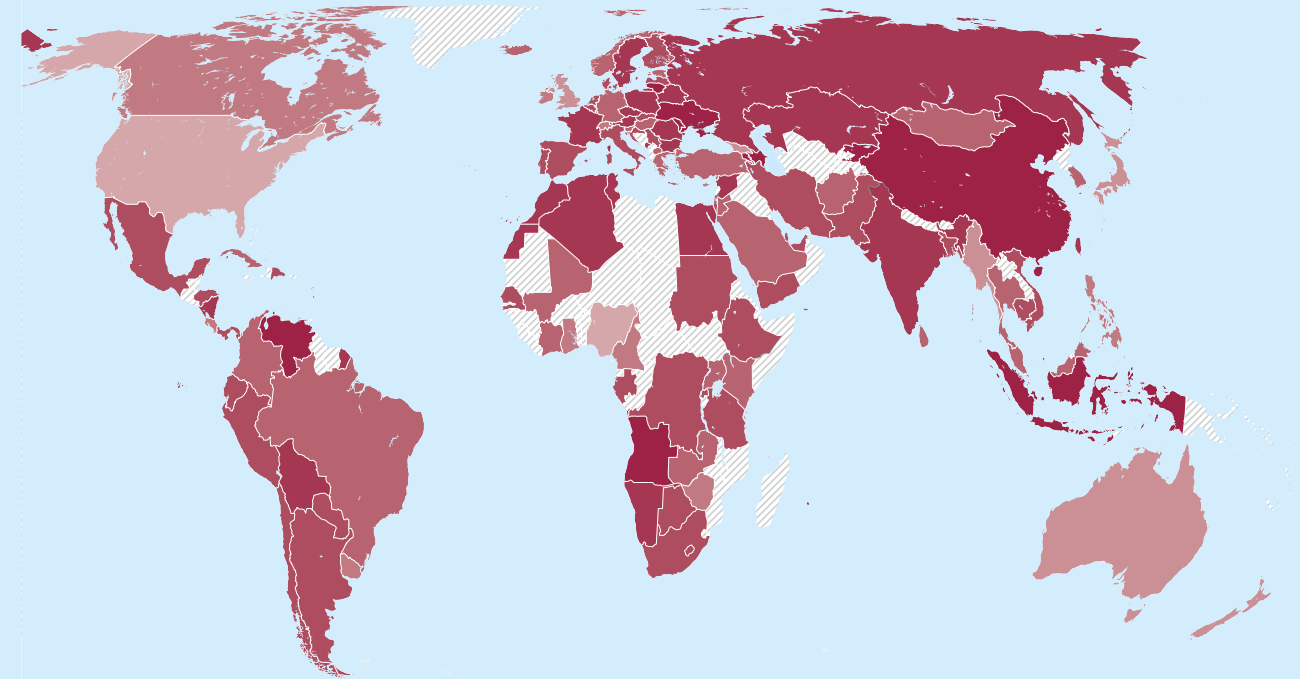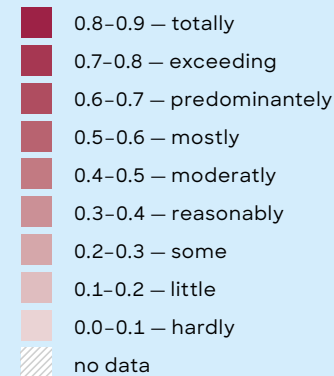## What do the maps tell us about legal segmentation?

The maps show that the grading of standard-setting, privileging and equalizing functions of labor law can be applied to employment regulation in countries all over the world. We start with the level of standard-setting concerning the existence and degree of dismissal protection and working time limitation in favor of workers. Map 1 (upper map) shows the **standard-setting** index for the 115 surveyed countries in 2013 (Dingeldey et al. 2022). A darker tone indicates a higher level of protection. Low levels can be observed for liberal welfare states or market

economies (Hall & Soskice 2001) such as the USA, the UK and Australia, but also for Japan or the former British colony Nigeria. In these states, labor law is regarded as a distortion of market competition and should hence be contained. Compared to that, most countries have high standard-setting values. On the European continent where the social embedding of labor markets prevails, this is true for Western European countries such as France, Italy, Spain and Portugal, most of the Scandinavian countries and almost all former communist countries in Central and Eastern Europe, including Russia. In the Russian orbit the state-socialist legacy plays a dominant role. In Asia, emerging economies such as India and China, Bangladesh, Pakistan and Malaysia belong to this group. Latin American countries and many African countries, possibly as an outcome of the liberation from colonialism, also show high protection standards. Surprisingly, Germany, Norway and Brazil display only medium levels of employment protection and working time regulation— similar to countries such as Saudi Arabia, South Korea, Singapore, Kenya or Uruguay.

The **privileging** function (map in the middle) exhibits to what extent specific groups of employees are favored by norms

3.1 Three functions of labor law around the world in 2013

Strength of standard function of labor law (index value)

- 0.8–0.9 — totally
- 0.7–0.8 — exceeding
- 0.6–0.7 — predominantely
- 0.5–0.6 — mostly
- 0.4–0.5 — moderatly
- 0.3–0.4 — reasonably
- 0.2–0.3 — some
- 0.1–0.2 — little
- 0.0–0.1 — hardly
- no data

Strength of privileging function of labor law (index value)

- 0.8–0.9 — totally
- 0.7–0.8 — exceeding
- 0.6–0.7 — predominantely
- 0.5–0.6 — mostly
- 0.4–0.5 — moderatly
- 0.3–0.4 — reasonably
- 0.2–0.3 — some
- 0.1–0.2 — little
- 0.0–0.1 — hardly
- no data

Strength of equalizing function of labor law (index value)

- 0.8–0.9 — totally
- 0.7–0.8 — exceeding
- 0.6–0.7 — predominantely
- 0.5–0.6 — mostly
- 0.4–0.5 — moderatly
- 0.3–0.4 — reasonably
- 0.2–0.3 — some
- 0.1–0.2 — little
- 0.0–0.1 — hardly
- no data
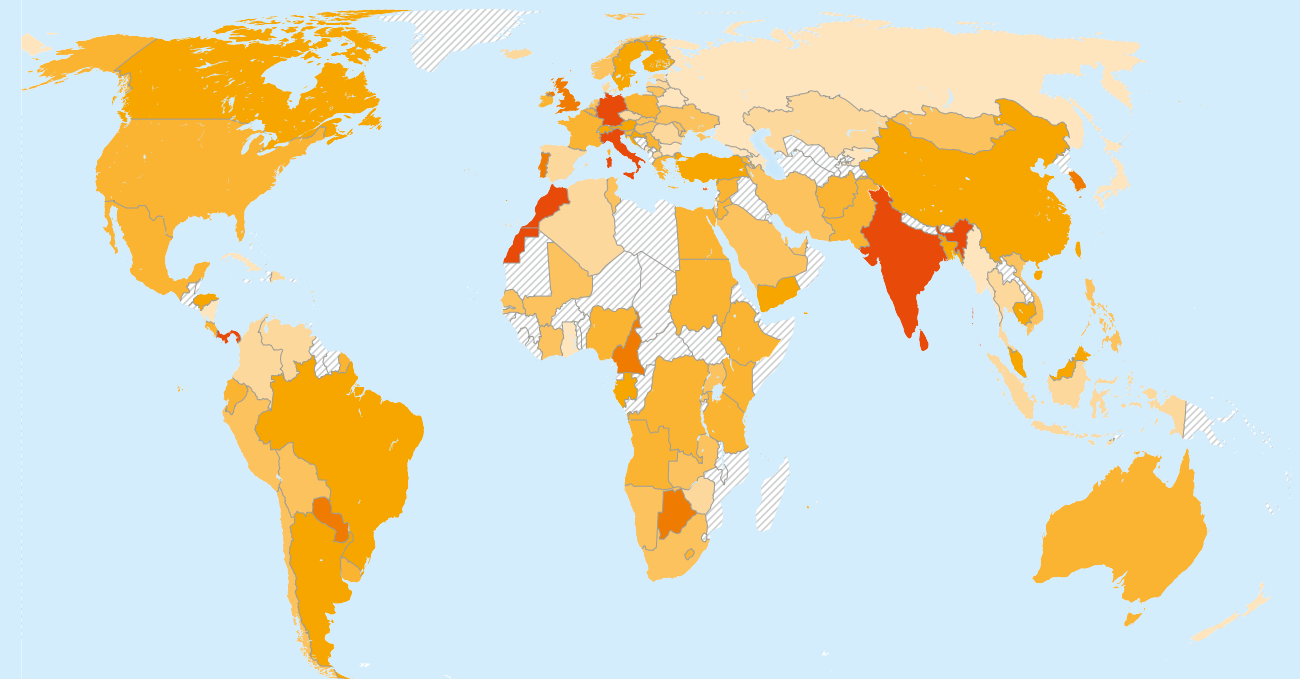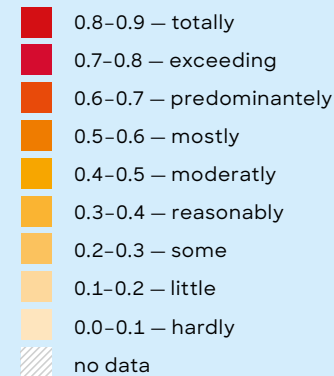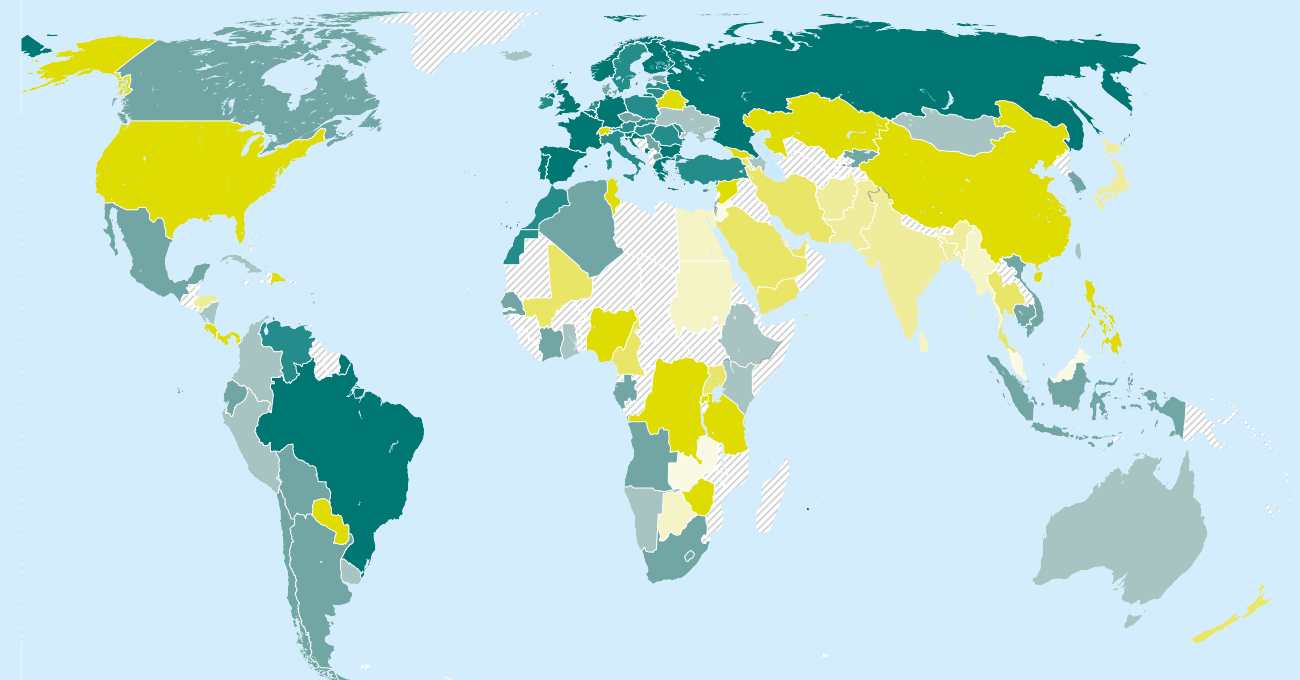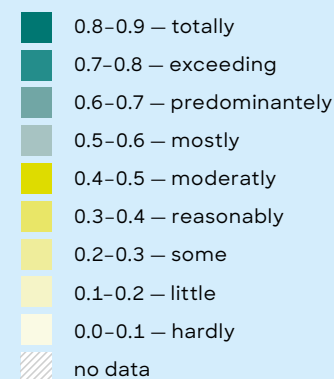
that emphasize seniority or selectivity in regard to employment protection, thus creating active legal segmentation. Often these privileges are linked to standard employment relationships (SER) whereas non-standard employment relationships (NSER) come off worst (Mückenberger & Deakin 1989). There are only a few countries with high privileging values. Among them are Western European countries favoring SER such as Germany, Belgium, Finland, Italy and Portugal, but also Brazil, India and China with particular social cleavages. Some more Asian countries such as Bangladesh and Pakistan, or Honduras and Paraguay in Latin America as well as Botswana and Tanzania in Africa, among others, are in this group. This group is complemented by some of the liberal market economies such as UK and Canada.

A medium level privileging function prevails in OECD countries such as USA, Australia and France, several African countries such as South Africa and Nigeria, and many Latin American countries such as Ecuador and Bolivia. Countries with low privileging values include Denmark and Spain, most Central and East Europe (CEE) and other former communist countries such as Russia, but also Japan, Chile, Venezuela, Algeria or Ghana. Low privileging values sometimes go in hand with low standard-setting. As in the case of standard-setting, there is neither a clear North-South divide, nor a differentiation according to continental proximities.

The lower map is dedicated to the worldwide extension of the **equalizing** function of employment law. Equalizing rules comprise both, those prohibiting sexual and / or racial discrimination in employment and those providing equal treatment of NSER (part-time, fixed term, agency) workers with SER employees. The 2013 index value of employment regulation with equalizing function is relatively high in all continents, however, in a very differentiated manner. The Russian Federation, large parts of the European Union, Brazil, Morocco and West-Sahara show highest values—some reasons for that have been mentioned earlier. We find high values also in other countries of Latin America, Canada, in a few African countries, in Turkey and other Asian countries and in Australia. In Africa, we find the lowest level of equalizing employment law (Egypt, Sudan) which equally dominates the Southern rim of Asia (eg. Myanmar, India, Pakistan, Afghanistan).

Notwithstanding these differences, we find a relatively high level of equalizing employment regulation all over the world. However, since the three maps are limited to the year 2013, they do

not provide an impression of the historical dynamics—neither of any of the three functions nor of their relationship to each another (s. chapter 4 for encompassing a time-span between 1970 and 2013). The equalizing function of employment law is the most recent one. It became increasingly common since the early 1970s and has started to compete with the other two functions, originating in international (UN; ILO) labor law developments as well as international, often feminist, movements and epistemic communities (Mückenberger 2022).

We have to bear in mind that the maps display existing norms but not their effectiveness. They do not provide information about the application of and compliance with these norms and whether they achieve their intended objective.

Summing up, the maps provide the entry gate to an understanding and to an analysis of worldwide legal segmentation in work-life. Legal segmentation is a form of regulation of work, which favors certain groups of workers while excluding others from these advantages. Legal segmentation can be direct—in that the law expressly covers selected groups only (eg. Apartheid or caste laws, working-time regulations for women only etc.). It can also be indirect—by creating a legal framework with requirements that can only be met by certain groups (e.g., the male breadwinner-oriented SER or benefits reserved for full-time employees or requiring long employment-related seniority).

Under capitalist conditions, legal segmentation seems to be systematically connected with the dominant type of market economy. To comparatively analyze legal segmentation in employment law, the standard-setting, the privileging and the equalizing functions of employment laws in the countries of the world have to be distinguished and observed over time—both, in their internal and in their relational role. Before drawing some conclusions, we briefly explain the methodology of "leximetrics" which our maps are based on.

Mapping laws
How is it possible to map legal norms—globally and over time? These norms are "ideational" facts and sometimes equivocal expressions of social justice. Coding laws as a method is called "leximetrics" (Adams et al. 2017). It means that we treat a legal norm as a data in WeSIS: We attribute to a given norm a quantitative value which we then agglomerate to country profiles allowing for both, synchronous and diachronous comparison, with other country profiles and over time. Our codebook determines our measurement scales for each legal norm (Dingeldey et al. 2022).
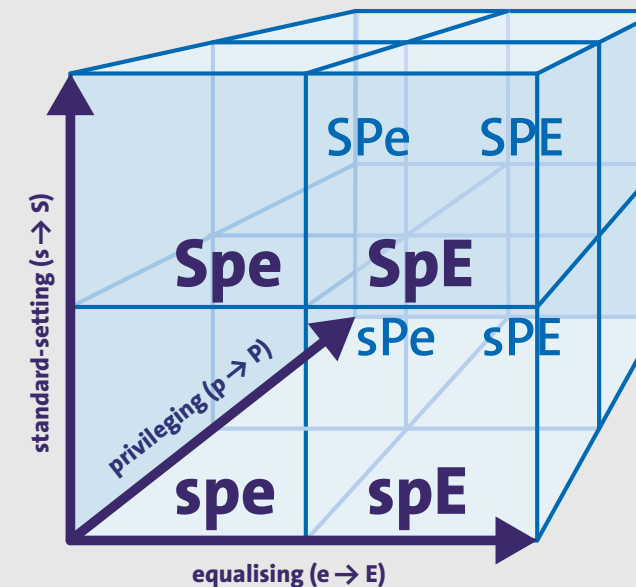
spe = laissez-faire
spE = market egalitarian
Spe = proto-socialist
SpE = universalist

sPe = elitist
sPE = individualising
SPe = paternalist
SPE = ordre public social

3.2 Our coding approach illustrated by the SPE-cube

The cube shows the previously mentioned three basic regulatory functions observed and their possible combinations. Statutory individual labor standards were collected and coded, worldwide, according to their coverage and their generosity (see the methodological considerations in Dingeldey et al. 2022). By differentiating between high and low strength of regulation of a given function, symbolizing strong legislation by the capital letters 'S', 'P' and 'E' and no or weak legislation by the small letters 's', 'p', and 'e' (e.g. high standard-setting = 'S'—low standard-setting = 's' etc.), we come up with a typology of employment law that differentiates between eight ideal types. Up to now, these ideal-types are hypothetical deductions. Some of them have empirical equivalents, however, rather than in a pure ideal-typical form, in a mixed manner. Whether they match with the existing employment laws in the countries of the world, empirically over time, will be investigated by further CRC work.

The SPE Ideal-Types
The ideal type with low regulation in all three functions of employment law (spe) is the laissez-faire model (see Kahn-Freund 1959). It was still widespread in 1970 (mainly anglo saxon and African countries), while in 2013 only Japan and Myanmar show this low development in labor regulation. The type with strong anti-discrimination legislation but neither strong standard-setting nor privileging function (spE) (to be found tentatively in New Zealand and Georgia) is named market-egalitarian model. Within the elitist model (sPe) (Ireland and Uganda in 1995, but with our data so far not detectable in 2013), rules of employment protection are highly selective and only apply to small groups of workers, possibly to be found in some states with strong authoritarian tradition. Where strong privileging and equalizing functions go hand in hand with a weak standard-setting function, the setting of generalized standards, valid for all, is hardly present—individualizing model (sPE). The UK is the only country showing clear signs, but Australia, Nigeria and the USA show a visible tendency towards sPE. Four ideal types (again rather in a mixed than in a pure form) with a strong standard-setting function can be contrasted. Where the norm-setting function alone is strongly developed (Spe), the proto-socialist model (in 1995 still present in Angola, Denmark and many ex-soviet republics, today only in weaker forms and outside the EU) early social aspirations are reflected in

labor legislation, with gender and racial discrimination of secondary importance and not taking into account the NSER. Contrary to that, there is the universalist model (SpE). This approach adds strong anti-discrimination legislation to the standard-setting function. It is found in some Scandinavian countries since the late 1970s, but also Russia, Algeria, and Latin American countries with progressive labor legislation. Both, the strong regulation in the standard-setting and privileging functions (SPe) can be found in the paternalist model. Here, the state does not only protect workers from exploitation by standard-setting but also provides incentives in a selective manner, aiming to promote paternalist male breadwinner family models. In 2013, eg. Bangladesh, Egypt and Honduras fulfilled these criteria. Finally, in the ordre public social model (SPE), strong worker protection is combined with anti-discrimination legislation on one side, and paternalistic incentive-based steering on the other. Mainly European and Latin American countries, eg. Austria and Mexico, figure in this group.

Further information: Access data used in this chapter via the QR code. For more data on the dynamics of global social policy visit: https://wesis.org/QR/INF_Atlas03

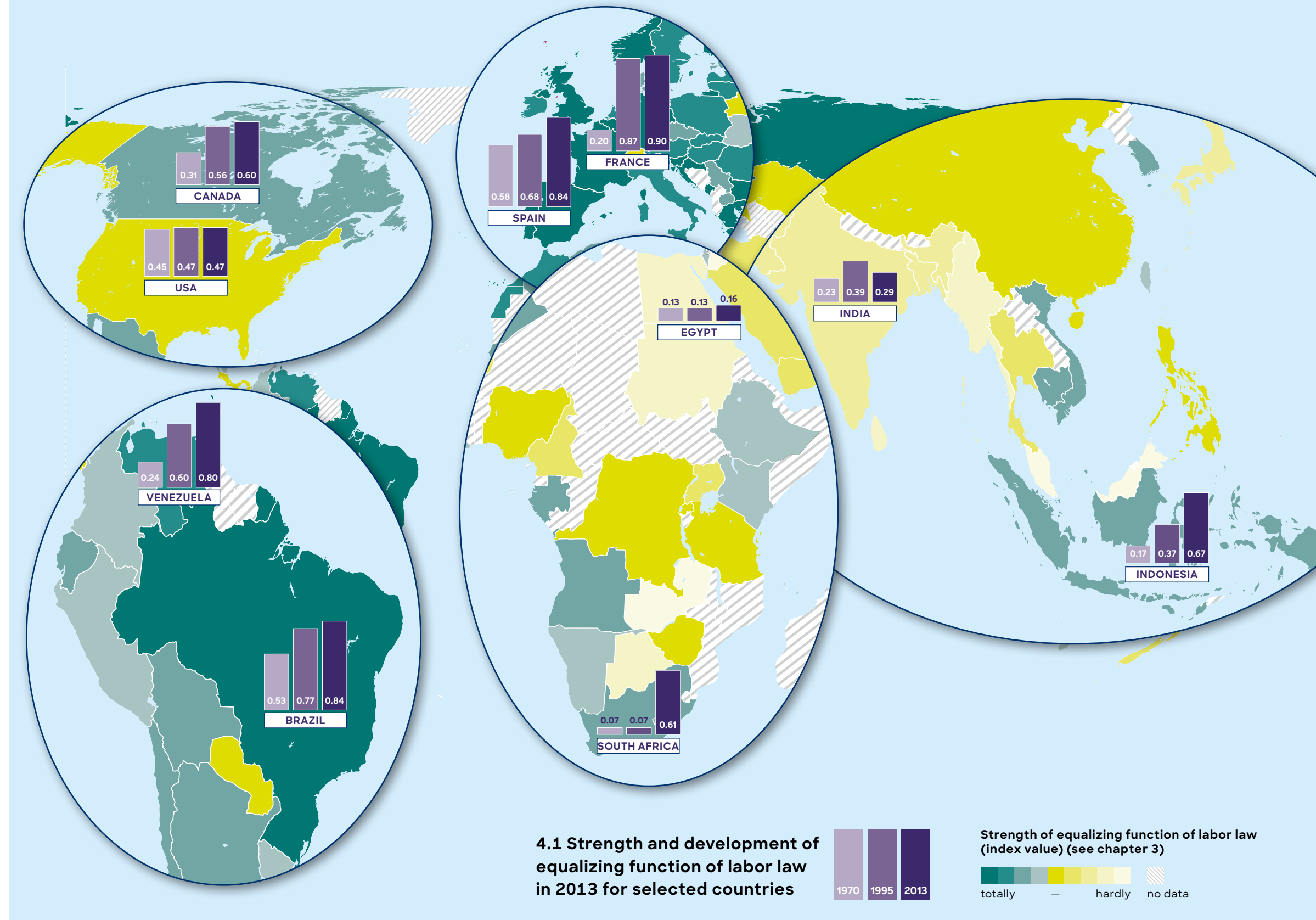# Non-Discrimination in the Labor Market: Global Progress, Growing Gaps

Heiner Fechner, Ulrich Mückenberger and Andrea Schäfer

Legislation destined to combat discrimination and unfair treatment of non-standard employees has been enacted on a worldwide scale. The Worlds of Labour database (WoL) in WeSIS on the evolution of legislation in the equalizing function of labor law shows that between 1970 and 2013 most countries in the world advanced in their equalizing legislation. A global comparison illustrates strong differences between continents, but also between the countries with least and highest changes in each continent (Mückenberger & Dingeldey 2022). The maps in focus show how equalizing legislation against discrimination and unfair treatment in the labor market advanced most and least between 1970 and 2013 on different (sub-)continents.

The maps on the evolution of equalizing legislation show the countries with the respective highest and lowest growth values in six (sub-) continents. Based on data collected in the Worlds of Labour database in WeSIS, reference data for 1970, 1995 and 2013 have been used (Dingeldey et al. 2022). The year 1970 marked a period of comprehensive labor reforms and the introduction of anti-discrimination laws, with several recent human rights treaties on the subject.

Developments from a continental perspective
On the **African continent**, Egypt and South Africa exhibit the poles of legislative development concerning the equalizing function of labor law. While Egypt is among the countries with consistently low

4.1 Strength and development of equalizing function of labor law in 2013 for selected countries

Bar chart legend: 1970 1995 2013

Strength of equalizing function of labor law (index value) (see chapter 3)
totally — hardly   no data

Map data values:

- CANADA: 0.31 / 0.56 / 0.60
- USA: 0.45 / 0.47 / 0.47
- SPAIN: 0.58 / 0.68 / 0.84
- FRANCE: 0.20 / 0.87 / 0.90
- EGYPT: 0.13 / 0.13 / 0.16
- INDIA: 0.23 / 0.39 / 0.29
- VENEZUELA: 0.24 / 0.60 / 0.80
- BRAZIL: 0.53 / 0.77 / 0.84
- SOUTH AFRICA: 0.07 / 0.07 / 0.61
- INDONESIA: 0.17 / 0.37 / 0.67

scores on anti-discrimination and non-standard worker protection laws, South Africa has taken a big step towards high standards.

In Egypt, apart from the universal minimum wage and the prohibition of wage discrimination on the basis of gender, origin, language, religion or creed, hardly any laws with an equality function

were passed until 2013, and there have been few changes since 1970. Egypt thus stays one of the countries with the lowest standards in legal protection of employees against unfair treatment in the world.

In South Africa, in contrast, a tremendous jump from 0.07 to an index value of 0.61 can be observed

for the time lapse between 1995 and 2013, with no changes between 1970 and 1995. The improvements were brought about by the introduction of three newly designed labor laws: the Labour Relations Act (1996), the Employment Equity Act and the Basic Conditions of Employment Act (both 1999). These laws were designed to terminate and counter racist Apartheid in South Africa, which

had characterized labor relations throughout the 20th century. While anti-discrimination legislation thus noted great changes between 1996 and 1999, the protection of non-standard employees against abusive treatment stayed mostly unchanged.

Looking at **Western Europe**, France has been the country with highest growth of equalizing legislation, whereas Spain shows the lowest growth values. Both countries have a similar end point, though, with an index value of 0.90 in France and 0.84 in Spain in 2013. Surprisingly, the starting points differ strongly, with France showing a value of 0.20 in 1970 and thus boasting with an increase of 0.7 index points, whereas Spain started at 0.58 and increased the equalizing function´s legislative index value by 0.26 only. Furthermore, data shows that France had realized its biggest progress by 1995, whereas Spain showed a stronger increase between 1995 and 2013. Spain could be considered a pioneer in 1970 with the highest value of the states compared in the graphs, while France could be considered the same for the second wave of equalizing legislation.

The results are surprising at first view, since Spain in 1970 was considered one of the least democratic states in Western Europe, with the Franco dictatorship ending only with free elections in 1977. However, it is not uncommon for dictatorships to seek participation in the global economy on the one hand and political recognition by other states on the other. They grant comparatively strong individual rights (at least on paper), while severely restricting recognition of collective rights such as unionization, collective bargaining and the right to strike. To guarantee anti-discrimination rights concerning gender and race, at least on paper, is not incompatible with a dictatorial regime (Albalate Lafita 1979).

In the case of France, on the other hand, further qualitative research could show how labor legislation concerning anti-discrimination and unfair treatment grew in the 1970s and 1980s, making France a forerunner in terms of European legislation.

In **Northern America**, the United States and Canada show the highest contrast. Whereas in the US labor standards on the national level concerning the equalizing function of labor law have stayed largely unchanged since the late 1960s, Canada has advanced to a legislative standard level comparable with that of South Africa and Indonesia, well above the USA.

The main labor law in the U.S. relevant to the equality function is Chapter VII of the Civil Rights Act of 1964. It prohibits discrimination against employees including their hiring because of their "race, color, religion, sex, or national origin". The predecessor legislation did not cover discrimination in employment; after 1964, relevant improvements in anti-discrimination law were achieved at the state level and through administrative action and court decisions rather than through national legislation. The introduction of a universal (uniform) minimum wage in 1978 marks the last progress noted. Unfair treatment of non-standard employment has not been regulated by law.

In the Canadian case, it is as well anti-discrimination legislation that has made most progress, whereas unfair treatment of non-standard employment has hardly been touched by the federal legislation. A continuous development of anti-discrimination legislation can be observed, for instance concerning racial discrimination or equal pay, with relevant legislation starting in 1953 with the Fair Employment Practices Act, followed in 1956 by the Female Employees Equal Pay Act and other laws concerning employment such as the Canadian Human Rights Acts or Code (1977, 1985, 1996), the Pay Equity Act (1990), the Employment Equity Act (1995) or the Employment Standards Act (2000).

South America counts with several states today offering a similar level of legislation as Europe concerning the equalizing function of labor law. At the same time, it is an example which shows that the standard of legislation viewed from an international perspective does not necessarily guarantee fair working conditions in daily life. These also depend upon the quality of institutions and especially the inclusiveness or fragmentation of the economy. In Latin America, as in the Global South in general, the informal economy plays a much more important role than in Western Europe (Bensusán 2022).

Concerning legislation in the equalizing function, Brazil exhibits a comparatively low increase by 0.31 index points, reaching a score of 0.84 in 2013, whereas Venezuela reaches an increase in the index value by 0.56 points to 0.80 in 2013. Brazil had one of the highest values worldwide in the 1970 WoL index on the equalizing function, only little behind Spain. Like Spain, it had an autocratic (military) dictatorship (1964–1985). It is especially the protection against unfair treatment of non-standard employment that had been high by 1970, being increased under the military government. A universal minimum wage and equal pay for work of equal value had already been introduced

in 1943, pioneering in these areas. Anti-discrimination legislation concerning race, on the other hand, was only introduced in 1989, although (or better: because) since colonization Brazil´s labor market was characterized by extreme inequality, with formally institutionalized slavery ending in 1888 only, and informal slavery-like practices to be observed until today. Gender discrimination in hiring and employment conditions only reached legislative prohibition in 1995.

Venezuelan labor legislation, in contrast, started later to develop its relatively strong equalizing protection. For instance, although equal pay for equal work had been introduced already in 1936, as well as sectoral minimum wages, a universal minimum wage was prescribed only in 2006. Anti-discrimination legislation, by contrast, was essentially introduced in 1990, with improvements in 2012 facilitating special measures to overcome historical discrimination and specifying employer duties.

The developments in **South and South East Asia** can be described as sharply contrasting. The point of departure in India and Indonesia is comparable —equalizing legislation is hardly present in 1970. While in India, though, there is hardly any change and in 2013 the law still shows little strength in equalizing norm-setting, Indonesian legislation is marked by great changes. Here, the level of the index value increases remarkably from 0.17 to 0.67.

India is not only one of the countries with the highest impact of informal economy, but also with a fragmentary and little protective labor legislation. Although racial discrimination plays a fundamental role especially in context of the historical caste system, there has not been a systematic approach to overcome historical racial segregation in employment. Certain progress concerning gender discrimination in recruitment and employment conditions is contrasted by setbacks for employees with fixed-term contracts due to fundamental court decisions in 2003.

Indonesia, in contrast, shows enormous progress in equalizing function legislation between 1970 and 2013. In 1993, governmental regulation improved the legal situation of fixed-term contract workers. Another factor is anti-discrimination legislation concerning labor which made a big step forward in 2003 with the Act No. 13 concerning Manpower.

Legislating against historical discrimination and more recent excluding tendencies

Overcoming discrimination and unfair treatment of employees is one of the major issues concerning the realization of fundamental human rights in the labor markets (International Labour Office 2012). Discrimination against women is rooted in millenary patriarchal orders and still forges the gendered distribution of paid and unpaid (care) work. Whether concerning the gender wage gap, the gendered distribution of jobs in standard and non-standard employment or between well and low-paid sectors: gender equality still is a major task in the whole world (Fudge and Mundlak 2022). The same is true for racial discrimination. Resulting from the millenary institution of slavery, epitomized in racist colonial exploitation, the social construction of races has left traces strongly visible in large parts of the world (Fechner 2022).

Legislation is one of the means to confront inequality concerning gender, race and other areas of discrimination. It can prohibit direct and indirect discrimination, order equal access and working conditions, and even facilitate affirmative action or introduce mandatory special measures to overcome historical discrimination. Beyond implementation and enforcement of the law, the importance of administrative and societal policies should not be underestimated.

International organizations have also made contributions to confront inequality: The ILO had adopted conventions on equal remuneration and against discrimination in employment and occupation, the UN had concretized the Universal Declaration on Human Rights (1948) in several fundamental conventions on social and economic rights (CESCR, 1966), against racism (CERD, 1965) and, some years later, on discrimination against women (CEDAW, 1979). These global developments were reflected in regional developments, e.g. in the EU, and in many cases influenced by national legislation of pioneering countries. In general, the maps illustrate that from the 1970s onwards egalitarian legal norm-setting has increasingly gained ground on a global scale—although going along with still continuing legal segmentation in employment laws (Hahs and Mückenberger 2022). A Europe-wide comparison would also show the strong impact of the European Union´s secondary legislation on equalizing legislation.

5

Spatial and Temporal Distributions of Healthcare System Introductions
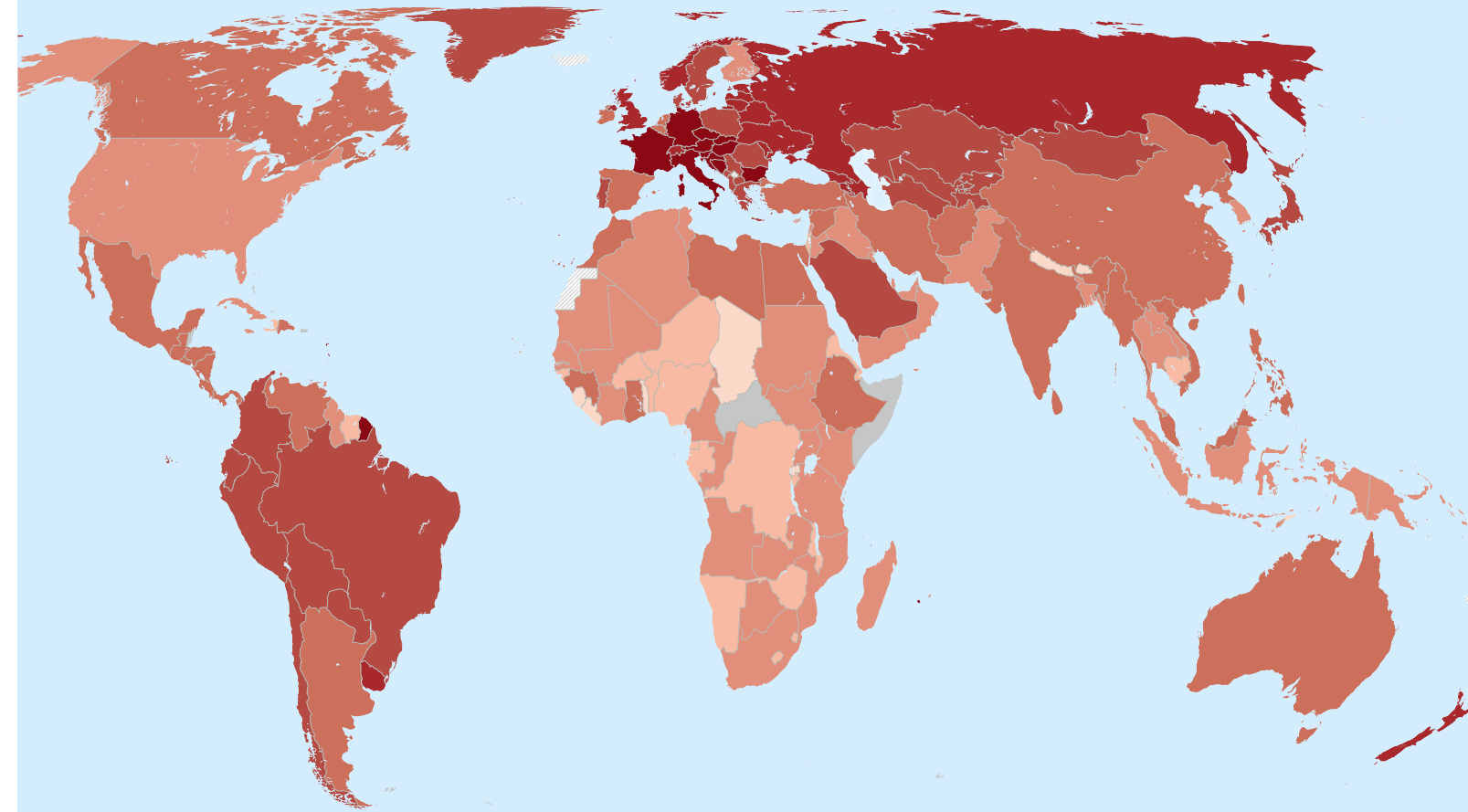
Timing and Regional Trends in Financing, Regulation, and Entitlement of Healthcare Systems in 165 Countries

Alexander Polte, Gabriela de Carvalho,
Achim Schmid, Lorraine Frisina Doetter,
Sebastian Haunss and Heinz Rothgang

5.1 World map of healthcare system introductions

Geographical distribution of healthcare system beginnings from 1880 to 2020 in 20-year intervals. Dark red indicates earlier introduction.

1880–1899	1940–1959	2000–2019
1900–1919	1960–1979	>2019
1920–1939	1980–1999	No data

When did statutory healthcare systems emerge? What were the main institutional features of said systems at birth? Which social groups were first granted access to medical care? Are there identifiable spatial and temporal trends with regard to healthcare system introductions? Thus far, academic research has failed to provide answers to these questions in a global and comparative way. The novel Global Historical Healthcare Systems Dataset (G2HSet), conceived as part of the project "Global Developments in Health Care Systems and Long-term Care as a New Social Risk," allows the scientific community to map, analyze, and explain statutory healthcare system beginnings, that is, when states take on accountability for people's healthcare. The dataset provides information on when statutory systems were born and the main

characteristics of systems at their introduction in terms of financing, service provision, and regulation in 165 countries. In summarizing worldwide patterns, this report presents main indicators available from the G2HSet in WeSIS.

Healthcare systems as an area of social protection can be defined as the sum of all formal arrangements concerning financing, regulation, and provision of qualified healthcare within a society. In comparison to data on specific healthcare policies and measures, the availability of global data on statutory healthcare systems has so far been scarce and incomplete. This is especially true when considering developments in the Global South, i.e. outside high-income countries. Moreover, global historical data on healthcare arrangements at their
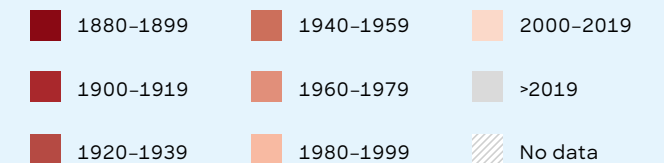
inception constitutes a major gap in the comparative healthcare systems literature (de Carvalho & Schmid 2023). By inception, we refer to the introduction of healthcare systems in terms of: (a) the first public healthcare initiative established by a national legislative body, (b) the integration of elements of the healthcare system, and (c) the enactment of entitlements to medical care benefits (de Carvalho & Fischer 2020; de Carvalho & Schmid 2023). In the following, we describe key findings derived from the novel G2HSet available in WeSIS, condensing the main results of de Carvalho et al. (forthcoming) and Schmid et al. (forthcoming).

When were healthcare systems introduced?
Among all 167 countries with more than 500,000 inhabitants in 2017, 165 introduced a statutory

healthcare system within the period of 1880 to 2020. Central African Republic and Somalia were the only countries in which no emergence of systems was observed by December 2021. Germany was the first country to introduce a healthcare system in 1883, whereas Togo was the most recent, introducing such a system as recent as 2011. Within this 128 year-span, temporal and geographical trends regarding the timing of healthcare system introductions can be identified.

Which historical and spatial patterns of this event can be observed?
Map 5.1 depicts the geographical distribution of healthcare system beginnings in 20-year intervals. The first two intervals, from 1880 to 1919, are mostly dominated by early industrialized and richer

European countries (26 cases). It was not until the second interval (1900–1919) when the first healthcare systems outside Europe were introduced in Asia (3) and South America (1). In the interwar period (1920–1939), arrangements were adopted in all regions of the world except Africa: five in South America, eight in Asia (mostly in Central Asia), 11 in Europe, and the first in Oceania. During World War II and in its aftermath (1940–1959), 37 countries from all continents introduced healthcare schemes, mostly in the (Central and South) Americas (13) and Asia (15). This period also saw the creation of the first arrangements in Africa (5). Decolonization processes that took place between 1960 and 1979 most likely contributed to the introduction of 48 schemes worldwide, particularly in Africa (23) and Asia (16). During the last two intervals (1980–2019), 28 states, mainly low-income countries in Africa (20), introduced healthcare systems.

Figure 5.2 depicts the historical evolution on a yearly basis, revealing periods of higher and lower activity. In this figure, the green line represents the percentage of countries with healthcare system introductions, while the yellow line represents the share of the world's population living in countries with introduced healthcare systems. Both lines grow more or less in parallel until the end of the 1940s, when the populous states of India (1948) and China (1951) introduced healthcare systems. Consequently, the yellow line makes a sharp upwards jump. Later on, the green line is steeper than the yellow one, as countries with smaller populations introduced healthcare systems.

By and large, we can distinguish three periods of healthcare system introductions: Until World War II, a modest growth rate with a peak in 1912 and in the years immediately after World War I can be observed. The first peak results from the introduction in the Russian Empire. As this empire

5.2 Healthcare system introductions per year
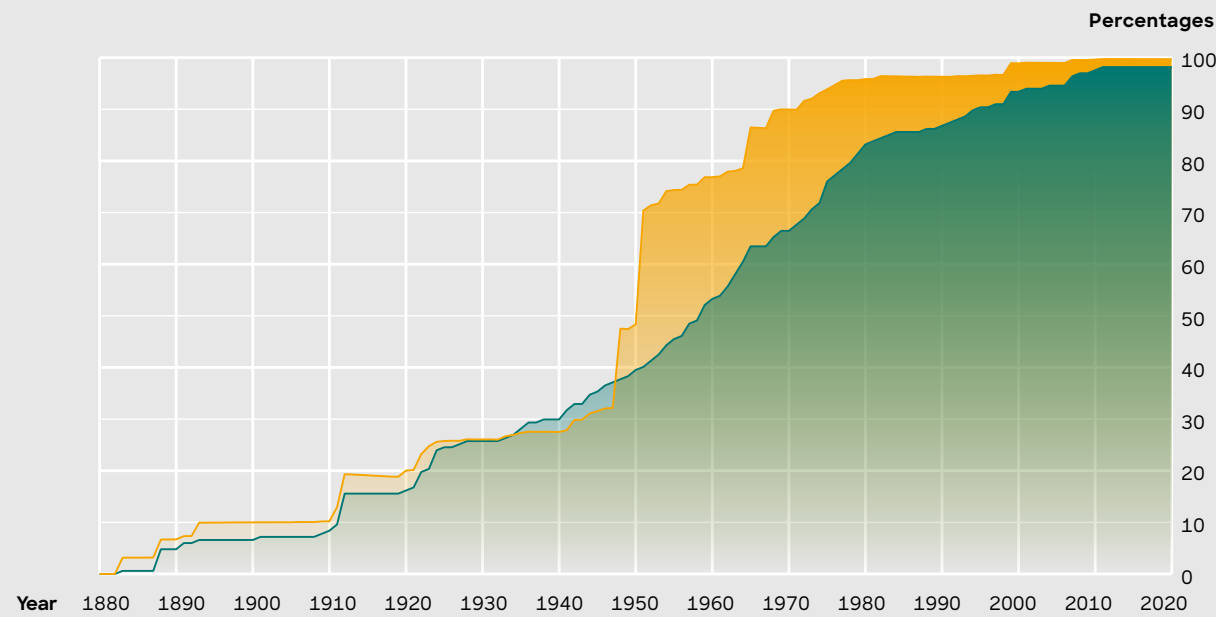
Percentages

- Percentage of global population in countries with healthcare system
- Percentage of countries with healthcare system

Historical evolution of healthcare systems across 167 countries from 1880 to 2020. The green line depicts the percentage of countries which have introduced a healthcare system. The yellow line shows the yearly percentage of the global population living in said countries.

5.3 Regional healthcare system introductions per year

Number of introductions per year
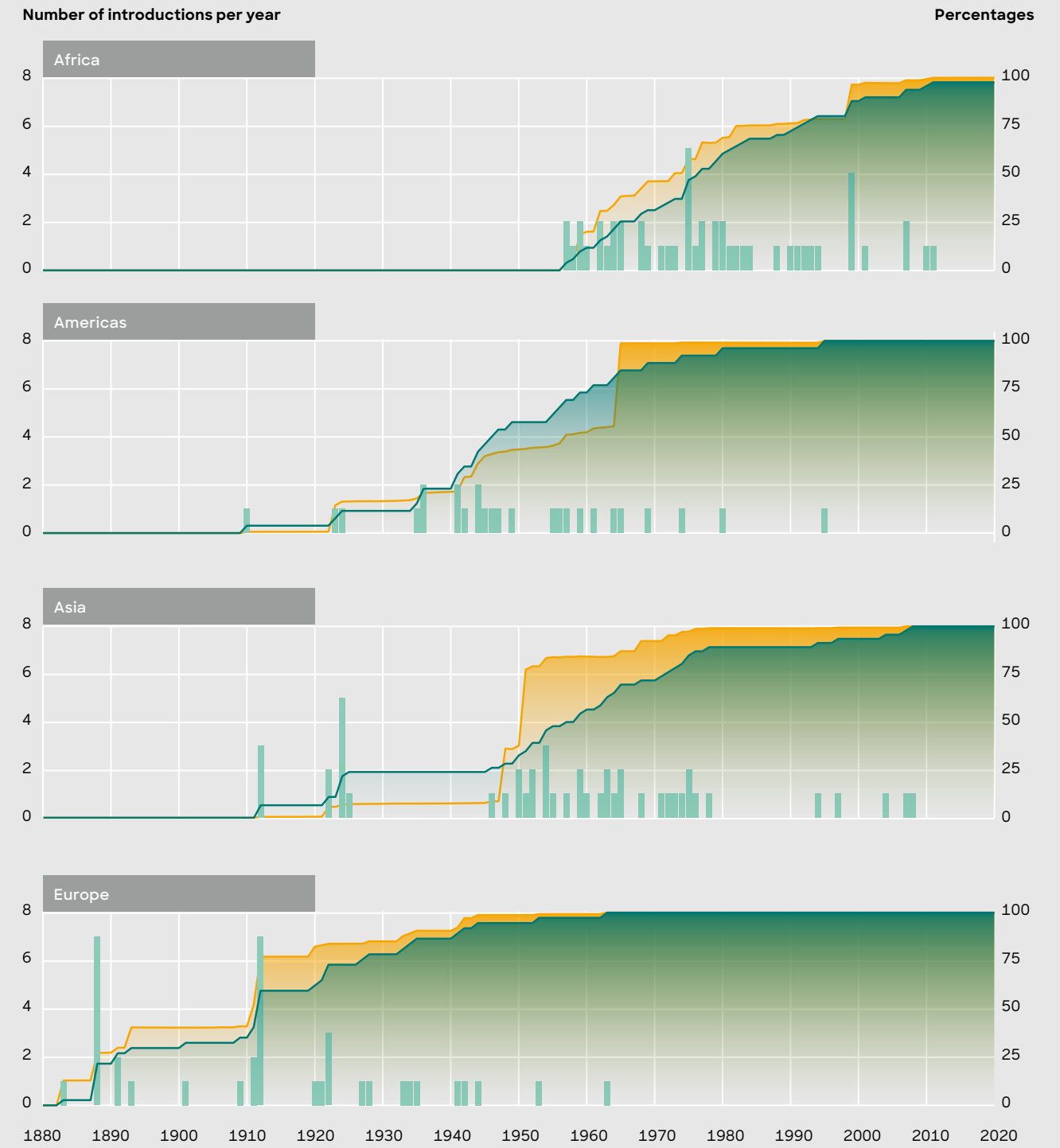
Percentages

- Percentage of regional population living in countries that introduced healthcare systems
- Percentage of regional countries that introduced healthcare systems
- Total number of healthcare systems introduced per year

Historical evolution of healthcare systems by world regions from 1880 to 2020. Green bars indicate the total number of healthcare systems introduced per year. The green line depicts the percentage of countries in the region which have introduced a healthcare system. The yellow line shows the yearly percentage of the regional population living in such countries.

was succeeded by the Soviet Union and later broke into several states the effect is multiplied by the number of successor countries. Between 1940 and 1980, the slope of the green line is steeper than in the preceding and following years. The period with most activity (1940–1980) included the creation of 89 arrangements. More than half of all the existing healthcare systems (54 %) were created during this period, increasing the global population living in countries with introduced healthcare systems from 68 % to 96 % in 1980. This may suggest a relationship between the phenomenon and important global events, such as World War II, its aftermath, decolonization processes, the establishment and subsequent expansion of the World Health Organization (WHO) from 1948. From 1980 onwards, the growth rates slow down.

Figure 5.3 depicts healthcare system introductions according to the United Nations' classification of world regions in which the green bars represent the number of arrangements established in a year, the green line shows the cumulative percentage

of countries that introduced healthcare systems, and the yellow line marks the percentage of the regional population living in countries that introduced schemes. Taking a closer look at each region, Europe and Africa stand out as the early- and late adopter regions. In fact, when Africa introduced its first system, all European states in the sample had already established schemes, with the exception of Finland, which introduced its system in 1963. Around 60 % of all European countries created arrangements between 1883 and 1912; this figure increases to 97 % when extending the period of consideration from 1883 to 1958. In the case of Africa, healthcare systems were first introduced in 1957 in Ghana and Libya, and the great majority of the arrangements (75 %) were adopted between 1960 and 1999. In Africa, the timespan between the first and the last adopter is 54 years, the shortest among all continents.

In 1910, Uruguay was the first country outside of Europe to create an arrangement. This was followed by other countries in South America, where

75 % of the schemes were introduced from 1923 to 1944. North and Central Americas' and the Caribbean's first systems were only born after the 1940s. Interestingly, the richest countries of the region, which are often the vanguard of social policy implementation, were among the last states of the Americas to create schemes: Canada in 1957 and the USA in 1965. The Asian continent has the greatest interval between first and last adoption, 96 years, with most activity taking place between 1948 and 1978.
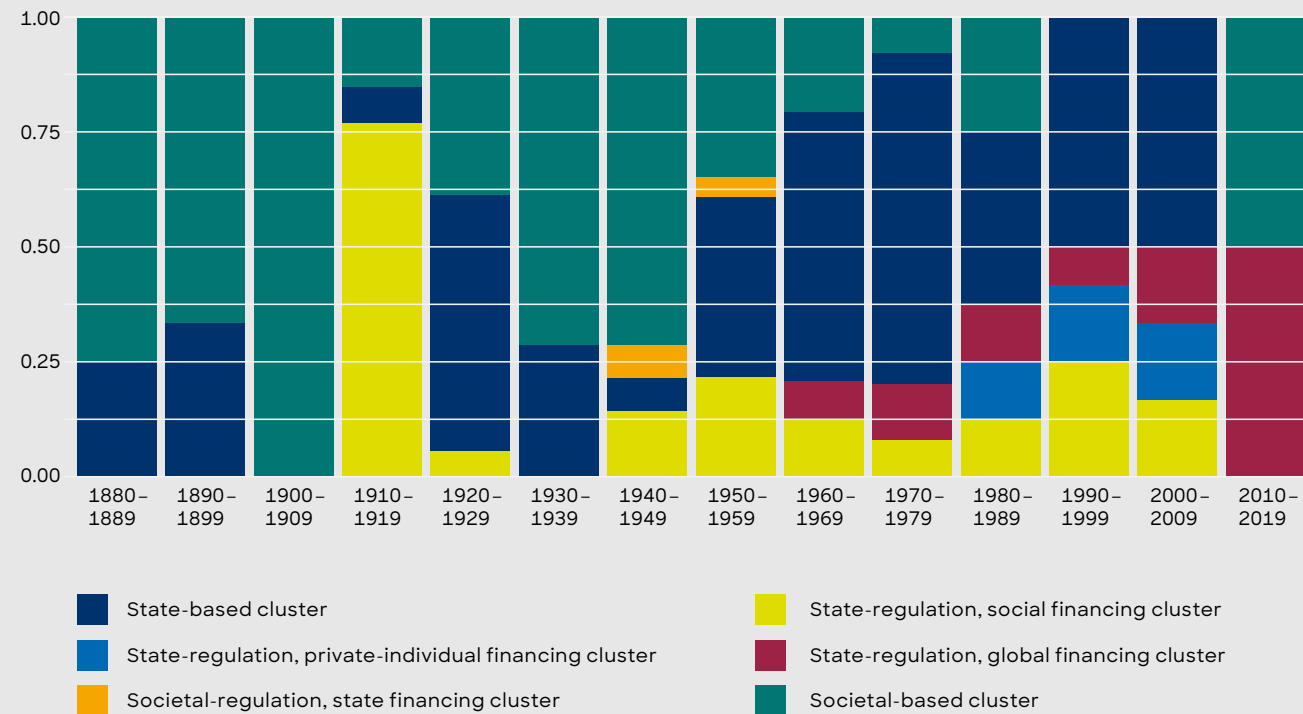
The regional view also yields interesting findings. As the majority of European countries introduced such systems before 1940, it can clearly be regarded as the early adopter region. During the period of the global spread of healthcare systems between 1940 and 1980, Asia and the Americas show a similar introduction trajectory despite a somewhat earlier increase of system introductions in the Americas. Looking at the share of the population living in countries with healthcare system introduction, however, reveals clear regional

differences: Already by 1951, about 75 % of the Asian population lived in such a country, while the Americas only reached the same level 14 years later. Also, a substantial portion of African countries introduced their healthcare systems during this period. Nevertheless, most African countries introduced healthcare systems after 1980.
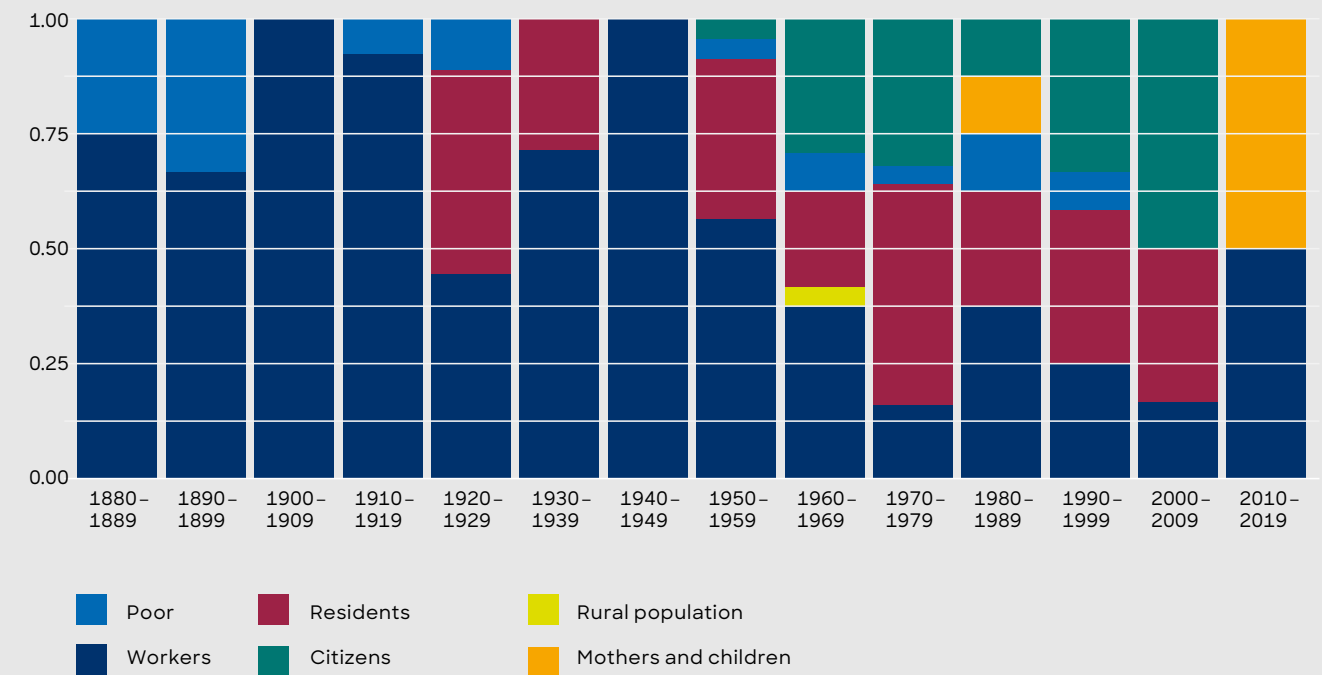
What were the main institutional features of healthcare systems at birth?
Alongside geographic and chronological patterns of healthcare system introduction, we are also interested in the shape of healthcare systems that have come into being. In order to characterize the diversity of healthcare systems emerging all over the world, we use an actor-centered typology proposed by Wendt et al. (2009) and elaborated by Frisina Doetter et al. (2021). In particular, we refer to the healthcare system clusters formed by the configuration of dominant actor types responsible for the regulation and financing of healthcare (Schmid et al. 2021). The range of actor types considered includes state, societal, private, and global

5.4 Healthcare system clusters as the share of healthcare systems introduced at inception

Legend:
- State-based cluster
- State-regulation, private-individual financing cluster
- Societal-regulation, state financing cluster
- State-regulation, social financing cluster
- State-regulation, global financing cluster
- Societal-based cluster

Distribution of main institutional features of healthcare systems at their inception. Areas indicate the share of healthcare system cluster based on financing and regulation features at introduction for each decade from 1880 to 2020.

5.5 Social groups granted healthcare coverage as the share of healthcare systems introduced

Legend:
- Poor
- Workers
- Residents
- Citizens
- Rural population
- Mothers and children

Distribution of entitled social groups covered by healthcare systems at their inception. Areas indicate the share of types at system introduction for each decade from 1880 to 2020.

actors. State actors refer to executive and / or legislative authorities responsible for healthcare. Societal actors include non-profit organizations, such as sickness funds or non-governmental regulatory bodies. Private actors comprise private health insurance companies organizing collective, yet voluntary, protection against health risks and individuals or households purchasing healthcare. Finally, global actors form an additional non-domestic layer of actors (Frisina et al. 2021). Figure 5.4 presents the healthcare system clusters as they were shaped at introduction as a share of all healthcare systems introduced in the respective decade.

Throughout the observation period, we find six different clusters of healthcare systems. There is a state-based cluster where the state assumes responsibility for regulation and financing of healthcare through taxes or other government revenue (dark blue colored boxes). Societal-based systems are characterized by societal self-regulation and healthcare financing through contributions to sickness funds (green boxes). Mixed actor combinations include state regulation and societal financing separated from the state budget (yellow boxes). Less frequent are combinations of state regulation and private, individual financing. Here, the state is accountable for defining, e.g., healthcare benefits and remuneration of providers, but patients still have to pay the majority of costs out-of-pocket or via voluntary health insurance (blue boxes). Further, there is a state-regulated global financing cluster where domestic state actors define the rules of healthcare, but the majority of health spending is credited to donations of foreign governments or international organizations (purple boxes). Finally, we find an actor combination where the state transfers regulation to societal actors while nevertheless bearing most of the health expenditure on state revenues (orange boxes).

Before World War I, newly introduced healthcare systems fell mainly into the societal-based systems cluster. This reflects the introduction of social insurance schemes in European industrializing economies. Inspired by Bismarck's social insurance legislation, countries such as the Austro-Hungarian Dual Monarchy with separate laws in 1888 and 1891, the UK, and Norway implemented mandatory health insurance. The sickness funds, as societal actors, were commissioned with regulatory tasks such as the contracting and remuneration of physicians and the collection of contributions to finance health services. In any case, 77% of all systems introduced in the 1910s were mixed; that is, the state maintained the regulation of healthcare while the collection of money was delegated to sickness funds or employers. Moreover, some early state-based healthcare systems with state regulation and state financing were introduced in Europe as shown in the dark blue boxes in the figure. These were, at times, related to the introduction of public health laws mainly concerned with the control of communicable diseases, but at the same time stipulated the responsibility of the state for regulating and financing healthcare for vulnerable groups in society. In the 1920s, societal-based insurance schemes were introduced in tandem with state-based systems stipulating free healthcare in publicly-owned facilities. The 1930s and 1940s saw another round of societal-based healthcare systems introduction, constituting 70% of the arrangements adopted. This round of introductions took place primarily in South America but also in a few European and Asian Countries.

By contrast, in the decades after World War II, the state-based healthcare systems cluster was the most frequent, and the four state-regulated clusters (i.e., state regulation and state, societal, global, or private individual financing) were the dominant arrangements making up 77% of all the introductions after 1945. These introductions primarily took place in countries of the Global South. Possible reasons for the predominance of state-based systems include the lack of a strong industry and formal employment which is a favorable condition to establish a viable risk pool for the societal-based insurance model. Moreover, for some countries, independence coincided with the establishment of a socialist regime involving strong ideological preferences for state-based healthcare. Since the 1960s, we also observe the presence of global actors in the introduction of healthcare systems of the Global South (e.g., Eritrea, Niger, Sierra Leone, Liberia, Ethiopia, Laos), as represented in the state-regulated, global financing cluster (purple boxes). While the national authorities take responsibility for the regulation of systems, they lack the resources to finance healthcare and remain dependent upon support from international organizations and / or foreign nations.

Which social groups were granted entitlement to medical care at the point of introduction?
Entitlement to medical services is directly tied to social inclusion processes which aim at enhancing individuals' participation in societies through improving and increasing opportunities, access to resources, and (social) rights (United Nations 2016). Analyzing the groups covered by each healthcare system at the point of introduction allows us to understand which groups governments deemed more "deserving" or in need of receiving medical benefits. Empirical evidence suggests six social groups were firstly granted access to healthcare systems: workers (49.7% of all healthcare arrangements introduced), residents (25.7%), citizens (14.3%), the poor (7.2%), mothers and children (1.2%), and rural populations (0.6%).

Figure 5.5 shows that the majority of systems introduced until 1960 focused on workers (dark blue boxes): 63 out of the 90 (70%) healthcare arrangements created from 1883 to 1960 targeted workers. In turn, almost 76% of all the arrangements focusing on workers were created before 1960. This is not surprising, as the "social question" addressed with newly founded healthcare systems relates to (industrial) workers. Because of increased social tensions related to industrialization and urbanization processes, it seems logical that nations in Europe and South America, which were the first regions to adopt medical care systems, favored workers in manufacturing industries, such as Germany, Norway, and Chile. The adoption of the first healthcare scheme in Brazil, for instance, was one of the government's responses to general strikes organized by railway workers (Batisch 2003).

Around the 1960s, residents (red boxes) and citizens (green boxes) became the primary target group, which demonstrates a trend toward more universal systems. The majority of countries that introduced arrangements in this period were located in Africa and the poorest sub-regions of Asia. Out of 75 arrangements introduced after 1960, 63% targeted citizens and residents. One possible explanation for this shift might be the dissemination of the Health for All paradigm by the WHO followed by the Alma Ata declaration and its focus on the universal provision of primary care services (Mahler 2016). Another explanation may be high informality and low industrialization levels in the Global South, and the tertiarization of the economy and the rise of new societal cleavages.

Bulgaria and Italy were the first countries that created means-tested arrangements for the poor (light blue boxes) in 1888, and no temporal trend can be observed. Eritrea and Sierra Leone first granted medical services to mothers and children (orange boxes), while Ethiopia targeted rural populations first (yellow box).

Healthcare system introductions: Trends and new research avenues
This brief overview of healthcare system introductions worldwide reveals interesting trends and points to a number of new descriptions to understand the phenomenon and its main characteristics. First, healthcare systems were introduced over a 128-year span, 1940 to 1980 being the period with the most activity. Second, the first countries to create systems were industrialized nations in Europe and South America, while Africa was the last continent to begin introducing schemes. Third, up to the aftermath of World War II, societal-based systems were dominant, while state-based clusters prevailed after the 1960s. In a similar vein, the development of targeted systems was mainly aimed at workers up to the end of the World War II, while after 1960s arrangements became more universal, focusing on citizens and residents.

These trends demand some explanation: The course of events may be related to global events and processes, in particular industrialization, Word War I and II, their aftermaths, and decolonization. It might also reflect changes in the global economy, e.g. the shrinking importance of (industrial) workers vis-à-vis the service industry and informal work, or the establishment and expansion of the WHO. The G2HSet in WeSIS allows future research to explain and explore the patterns of healthcare system introductions in terms of timing and geographical distribution, institutional features, and entitled social groups.

6

Covering a New Social Risk

The Introduction of Long-term Care Systems Around the World

Johanna Fischer, Meika Sternkopf and Heinz Rothgang

6.1 Global distribution of long-term care systems, 2020

Indistinct long-term care systems (blue) are defined as (i) nation-wide law establishing (ii) statutory entitlements to long-term care specific benefits which are (iii) integrated. **Distinct** long-term care systems are defined as above plus (iv) acknowledge long-term care as a specific social risk and field of social policy.

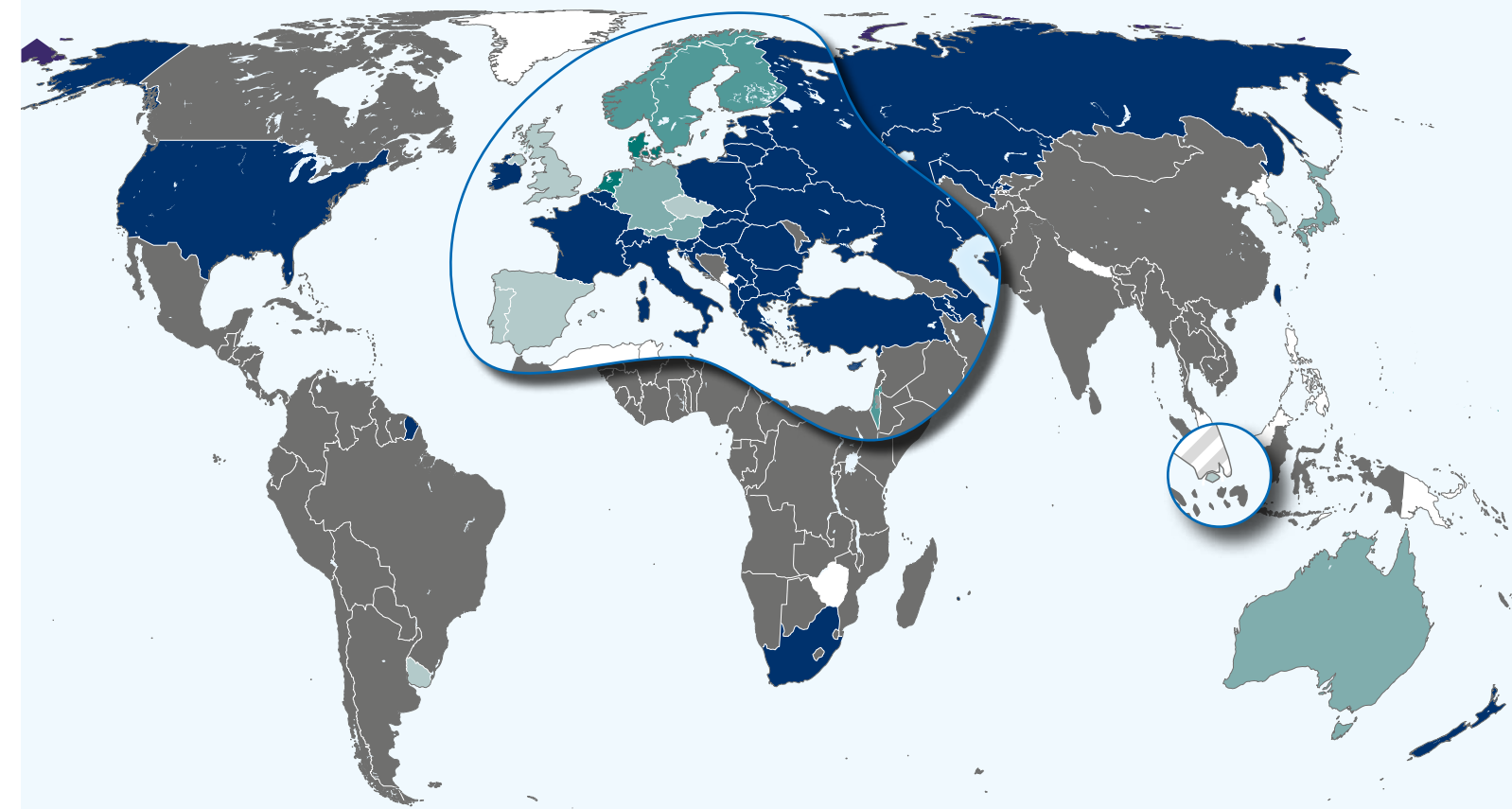| Distinct long-term care system	Indistinct long-term care system
1961–1975	(blue)
1976–1990	No long-term care system
1991–2005	No data
2006–2020	

Social protection schemes such as health care systems or old-age and invalidity pensions were introduced in large parts of the world from the late 19th century onwards. Social policies addressing the risk of long-term care dependency, however, have emerged much more recently. As populations age and traditional family and gender roles change, the need for long-term care has developed into a "new" social risk. In an increasing number of states worldwide, this has led to the introduction of public long-term care systems over the last few decades. Hence, it is worth taking stock of the geographical spread and historical development of this welfare state "latecomer".

Long-term care needs arising from disease, injury or disability can be linked to both physical and/or mental impairments. Following the World Health Organization's (WHO) Report on Ageing and Health, care dependence "arises when functional ability has fallen to a point where an individual is no longer able to undertake the basic tasks that are necessary for daily life without the assistance of others" (WHO 215: 68). The risk of needing long-term care can affect everyone during their life course, but particularly in old age when functional ability typically declines. For instance, across the European Union more than 30 percent of persons aged 65 years or over need prolonged assistance with daily living, a share which further increases in higher age brackets (Social Protection Committee & European Commission 2021: 27). Cumulated incidence, that is the probability of needing long-term care at some point in life, is even higher. In Germany, by way of illustration, respective ratios stand at 66 percent for men and 81 percent for women

(Rothgang & Müller 2021: 65). Consequently, large parts of the population are personally concerned with long-term care, be they current or prospective care recipients, family members, formal or informal care providers. This is not only the case for countries in the Global North, but also for many low- and middle-income countries, where the number of care dependent older people is projected to increase significantly due to rapid population aging (WHO 2015: 129).

The existence and distinctivenes of long-term care systems

Currently, public provision and social protection mechanisms for long-term care are globally rather the exception than the rule. In many countries, the provision and financing of continuous care is organized privately, with no or very little public involvement. Care work is largely informal and gendered. Elder care has always been—and still is—to an overwhelming extent delivered by female family members. Additionally, in some socio-economic groups and parts of the world domestic care workers—often migrants—also play an important role (King-Dejardin 2019). Yet, with global aging trends and other societal changes, in particular in the realm of mobility and female labor market participation, the public social protection of long-term care needs is increasingly being taken onto the social policy agenda. But which countries actually have a country-wide public long-term care system? When were these systems introduced and how are they designed? The newly assembled Historical Long-Term Care Systems Dataset (HLTCS), as part of the WeSIS project, helps to answer these questions (Fischer et al. 2023).

One initial observation when researching nationwide, statutory long-term care systems in international comparison is that their distinctiveness and development vary strongly. Consequently, we distinguish two types of systems: Firstly, distinct long-term care systems, which recognize long-term care as a specific social risk and which thus regard long-term care dependency explicitly as a separate area of social policy making; secondly, indistinct systems, which offer statutory social benefits for long-term care as part of the health or social assistance system, but do not recognize long-term care as a social risk in its own right (Rothgang et al. 2021). For example, Germany and Japan both already introduced a means-tested social assistance scheme for elder care in the early 1960s, marking the establishment of an indistinct long-term care system in both countries. It was not until 1994 and 1997, respectively, that they passed laws introducing specific, standalone—distinct—long-term care insurance systems. However, not all countries took such a two-step pathway. For instance, Uruguay and Australia introduced a

distinct system directly without previously having indistinct statutory benefits for long-term care at the national level.

Global distribution of long-term care systems

Map 6.1 shows how both types of systems are globally distributed as of 2020. In total, we identified 51 countries with long-term care systems. The countries colored in blue mark the countries which have so far "only" introduced an indistinct system. The countries colored in green mark the 18 existing distinct long-term care systems. Overall, long-term care systems are much more widespread in the Global North than in the Global South, with almost 70 percent of all systems located in the European region. However, many countries within Europe such as Belgium, Italy or Poland have not established a distinct system (yet). Looking to the East, it is remarkable that many countries of the former Soviet Union have established statutory elder care benefits—even though many of them seem to be rudimentary or hardly implemented. Across Europe, we can also see a large variation in system

6.2 Introduction points of first long-term care system per country, by region

Number of countries
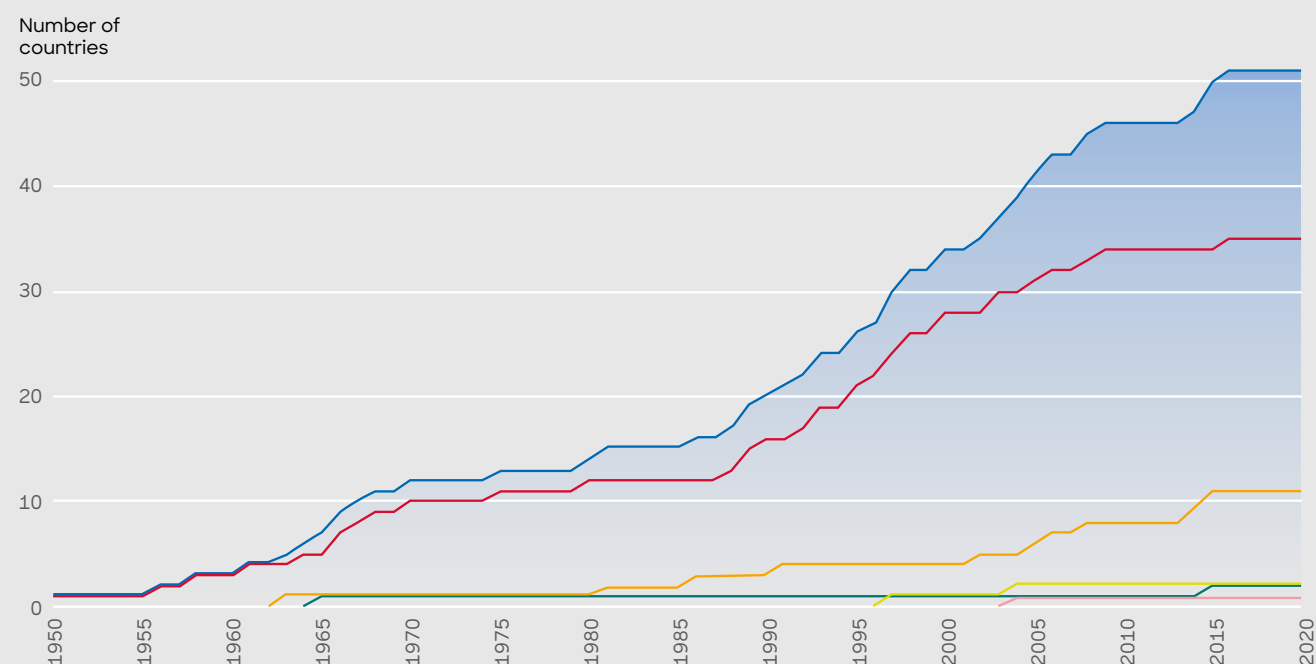
Introduction points are defined as the year of formal adoption of the law establishing the long-term care system. Regions are defined in accordance with the United Nations standard country area codes for statistical use (M49).

- World
- Europe
- Asia
- Oceania
- America
- Africa

designs. Besides home, community-based and residential care services, some countries offer—additionally or solely—cash benefits to compensate informal care-giving or to facilitate choice and market-based provision. For example, the Nordic-European countries and Portugal rely more on formal services, while Czechia, Austria and Italy focus on cash benefits. Furthermore, some countries such as in Latvia or the United Kingdom apply means-testing or demand higher private co-payments than others.

Outside of Europe, most long-term care systems are located in Asia. About one quarter of Asian countries established some form of long-term care system prior to 2020. We can also find four countries with distinct systems in this region: Israel, Japan, South Korea and Singapore. Of these, the former three, together with the Netherlands, Germany and Luxembourg, belong to the group of six countries worldwide that have introduced a social long-term care insurance at national level (Fischer 2022). While this model is based on social contributions and solidarity principles, Singapore is so far the only country in the world that has established a compulsory private long-term care insurance as

the main scheme (Rothgang et al. 2021). Outside of Europe and Asia barely any long-term care systems can be found. There are, however, three states in the Global North outside these regions with established systems, namely the United States, Australia, and New Zealand. Otherwise, Uruguay's distinct system and South Africa's indistinct system stand out as the sole schemes in Latin America and the African continent, respectively. However, the absence of country-wide, statutory benefit schemes does not mean that other countries in the Global South are not discussing and experimenting with state interventions relating to care dependency. In China, for instance, whose population will age dramatically in the coming decades, long-term care programs have been piloted for years in several cities (Zhu & Österle 2019). Similarly, in Latin America, there are also endeavors in states such as Chile and Costa Rica to strengthen and institutionalize public protection for long-term care (Matus-López & Chaverri-Carvajal 2022).

The introduction of long-term care systems—a timeline
Besides the cross-sectional global distribution of systems, it is also helpful to examine the historical

context within which long-term care systems were introduced. Starting with the first identified indistinct system in the United Kingdom, adopted via the Social Assistance Act in 1948, Figure 6.2 shows a timeline of each first long-term care system—indistinct or distinct—established within a country. The blue line represents the cumulative points of law adoption per year, while the other five lines display adoption years by region. While the late 1950s and the 1960s saw a first wave of introductions, mostly in Europe but also in the United States and Japan, adoptions then slow down. The timeline clearly shows that the global increase in long-term care systems was highest from the late 1980s onwards. While for the first decades the red line for Europe and the cumulative blue line run very much in parallel, we see a catch-up effect of non-European countries—particularly in Asia—from the 2000s, and even more markedly in the 2010s.

There are several factors which could be responsible for determining the time point of system adoptions. One potential set of explanations is linked to functional pressures within a society making public policies for elder care more urgent. As the prevalence of long-term care dependency is strongly associated with old age, in particular a high share of (very) old people might give rise to such pressures. However, problem pressure often does not directly translate into the adoption of a policy. Actors, institutions, and ideas also play a role, in terms of both national constellations and international influences. In a preliminary analysis on long-term care system introduction we found that in particular countries with high levels of women's empowerment and democratic institutions as well as countries whose neighbors had already adopted a long-term care system are more likely to establish a system themselves (Fischer et al. 2022).

Additionally, the world map (6.1) highlights the time period of introduction for the distinct long-term care systems by different shades of green. Here, the Netherlands are the forerunner with the adoption of the Exceptional Medical Expenses Act in 1967, followed by Scandinavian countries and Israel. For the populations of the 18 distinct systems, we also see an increase from the 1990s

onwards, the latest being the introduction of the National Care System in Uruguay in 2015 and the CareShield Life scheme in Singapore in 2019 (data recorded up until 2020). But why did some countries introduce distinct systems early on while others have kept their indistinct schemes in place until today? Case studies on specific countries provide some clues on this question, while a systematic analysis is still pending. We learn from Germany and Japan, for example, that existing social policies which have become dysfunctional can put pressure on political actors to innovate a new long-term care system (Campbell et al. 2009). In Uruguay and Austria, interest groups and civil society movements, which also linked their demands to broader international discourses, seem to have been of importance. While in the former, women's rights movements made a case for stronger public protection of informal (female) care givers, in Austria rights of persons with disabilities were at the center of debate (Esquivel 2017; Theobald 2011).

Future research on long-term care systems in international comparison
While a look at the global distribution and historical evolution of long-term care systems provides a first comprehensive overview of the political responses to this novel social risk, it is also crucial to examine more precisely which types and levels of benefits are granted to which population groups. Only then can we make clear statements about the extent of individual protection in different cases of care dependency. One interesting question in this regard is whether there are trade-offs between more inclusive systems covering a wide range of persons and the level of benefits, that is the depth of benefit coverage. Another important inquiry concerns the coverage of persons with dementia—a substantial group with (specific) care needs—through long-term care systems. Furthermore, as already indicated above, sound explanations addressing the variation in timing and design of long-term care systems are still lacking. In this regard, it might also be fruitful to look more at the trans- and international levels and trace the development of ideas and proposals on the topic and their influence on national social protection.

Further information: Access data used in this chapter via the QR code. For more data on the dynamics of global social policy visit: https://wesis.org/QR/INF_Atlas06
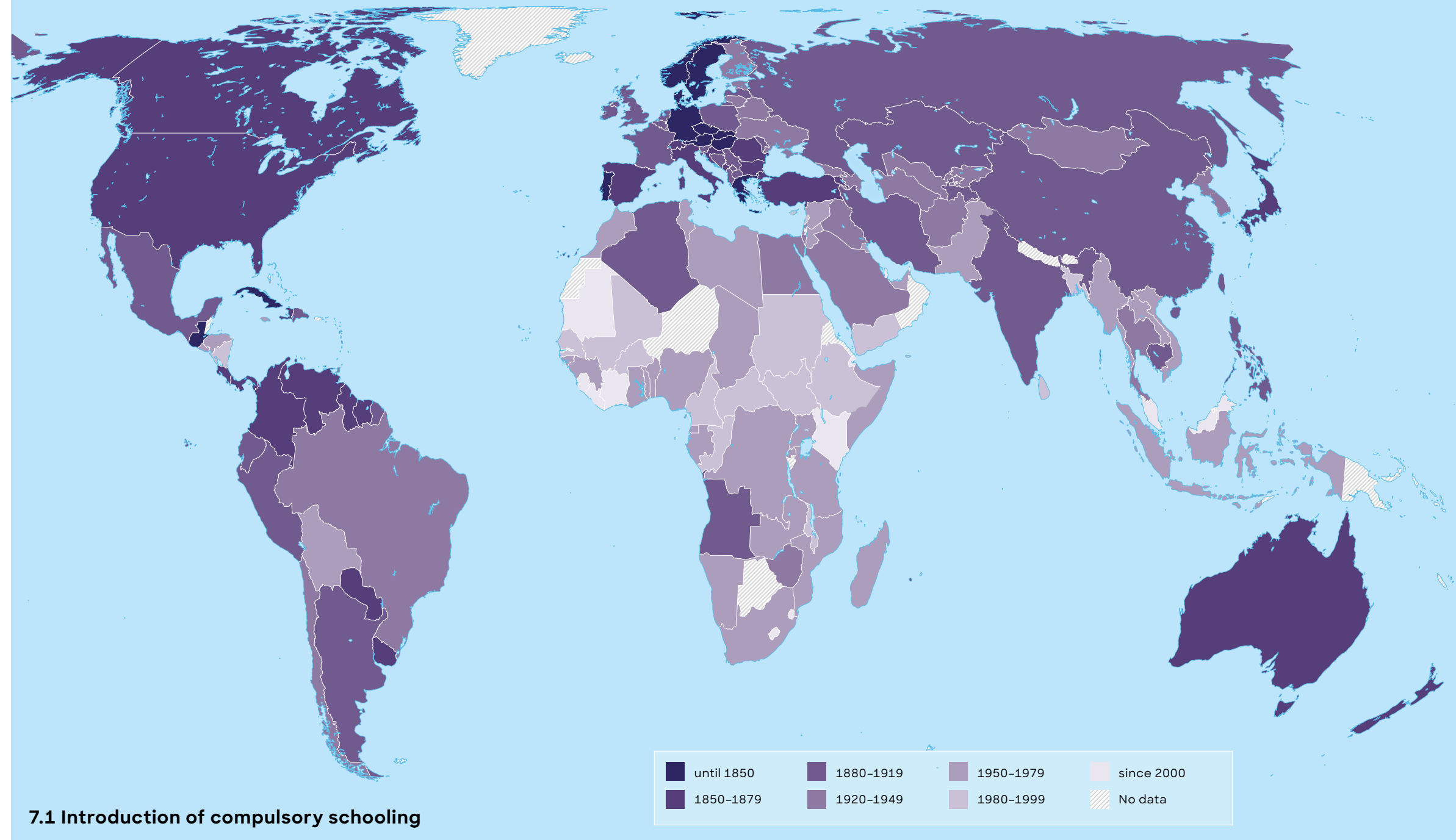
Compulsory Education Around the World

First Institutionalization and Policy Development

Fabian Besche-Truthe, Helen Seitzer
and Michael Windzio

Compulsory education is so ingrained in most education systems that we rarely question its existence or even its development. Governments all around the globe are expected to provide universal access to mandatory, state-led schooling. Yet, at closer inspection, we see differences around the world, both in terms of the initial institutionalization and the subsequent growth and development of education policies.

Education closely corresponds with modernization in several ways: For instance, well-organized bureaucracies require appropriately qualified employees and citizens, who fulfill increasingly global labor market requirements. Furthermore, education seemingly increases economic gains both on the individual and societal levels. Another fundamental aspect of education is the transmission of norms and values from one generation to the next. With this, it ensures not only the continuation of traditions but also influences and shapes the persistence of local cultures. As a consequence, the content and shape of state-organized education are closely tied to local culture and practice. At the same time, as a result of globalization, they are also strongly influenced by transnational processes and developments, such as international relations and transnational organizations (Besche-Truthe et al. 2023).

Historcally, education was viewed in the Western world as the solution to a wide range of social, political, and economic issues even before the two World

7.1 Introduction of compulsory schooling

Legend: until 1850 · 1850–1879 · 1880–1919 · 1920–1949 · 1950–1979 · 1980–1999 · since 2000 · No data

Wars. More precisely, education was used as a tool for redistribution, promoting loyalty, nation-building, and/or industrialization (Paglayan 2020). For example, in Prussia, compulsory education was introduced due to the need for a polis that fit with society's hierarchical strucutre as well as a military that could adequately follow orders. In line with the Pietist puritan tradition, the young United States of America (USA) introduced compulsory schooling state by state, starting in New England (Rickenbacker 1999). In the Ottoman Empire, compulsory education was introduced in 1869 and was intended to create a coherent Ottoman culture and populace (Cicek 2012). On the other hand, former colonies quickly introduced compulsory education after the surge of independence—some even before formal independence. In Ghana, for example, the Legislative Assembly of 1951 "declared basic education to be free and compulsory for school-aged children"

(Marlow-Ferguson 2002: 506), even though Ghana only became officially independent in 1957. And the Movimiento Nacionalista Revolucionario in Bolivia introduced compulsory education as an attempt to reach new generations in their endeavour to build a truly democratic republic (Marlow-Ferguson 2002: 72). In this 'new era', education became a new meaning beyond socialization and was seen as embodying the ideals of a caring and prosperous state. Education became a human right with the Universal Decleration of Human Rights 1948 and compulsory education an obligation for the nation-state.

Geographically, the global diffusion process of compulsory education as we know it started in a few countries in Northern and Central Europe and then spread to the Americas and Australia (see Fig. 7.1). Until 1900, Japan as well as the Philippines had also adopted compulsory education. Until 1950, it is

apparent that countries in sub-Saharan Africa had not introduced compulsory education yet, while China and the Soviet Union had adopted the policy by this point. To date, only 10 of the observed 164 states have not introduced compulsory education: Bhutan, Botswana, Burundi, Comoro Islands, Fiji, Nepal, Niger, Oman, Papua New Guinea, and Solomon Islands; represented in white.

The initial hegemony of Western state formation can be visualised through the pattern of diffusion of compulsory education, originating in Europe, slowly covering the globe. For this, we coded the year of the implementation of the first regulation, making education mandatory for all children in the given country, as data for this diffusion graph. For most cases this means the attendance of state-regulated schools. Our rationale is to record the first instance in which a state takes control of the
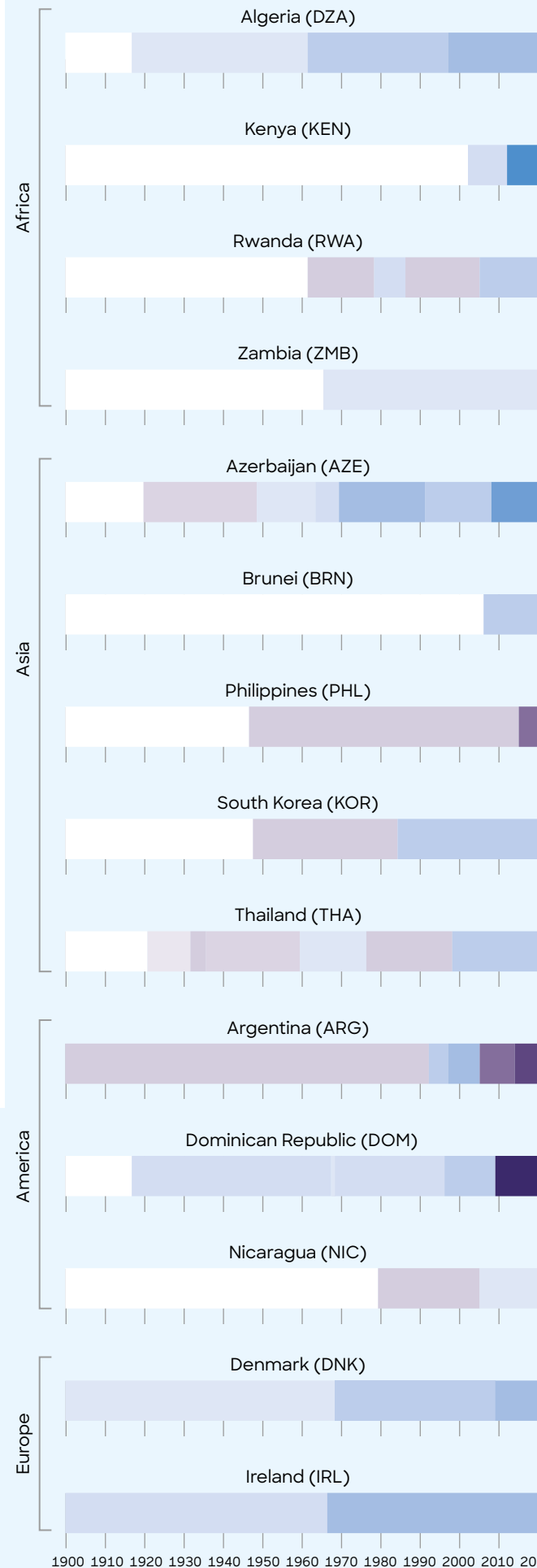
education and socialization of its citizes and mandates education to be conducted. We therefore code the first de jure introduction and disregard de-facto implementation as well as later abolitions of previously implemented mandates to schooling. For example, a law enacted in 2000 makes school compulsory in Djibouti, implying school attendance. However, 1 in 5 children of primary school age is not attending school. Another example is Singapore, where high enrollment rates precede compulsory education: Here, compulsory schooling was only enacted in 2003 with enrollment rates already reaching more than 90 %, even 20 years prior to that (Tan 2010). Despite countries' efforts, there are still significant gaps between adoption and imeplemntation of laws.

We have shown in previous research that for the global spread of compulsory education culture matters; even when controlling for democratization and GDP per capita (Martens & Windzio 2022; Besche-Truthe et al. 2023). More precisely, we have analyzed how the exposure to other countries, which had already introduced compulsory education, influences a country's chances of also introducing compulsory education laws. Exposure was measured through networks tying countries together based on either their shared colonial history, geographic proximity, trade relations and cultural similarity, such as language proximity and religious distributions in the population. Countries with stronger connections contribute more to the exposure than those with weak connections. Indeed, we find that at least to some degree, the exposure to countries who had already introduced compulsory education increases the chances of other, culturally similar countries, to introduce compulsory education themselves.

Based on this observation, we assume that education is not only derived from singular national factors and history but that legitimization and

7.2 Duration of compulsory education

In this illustration, we see the development of legislation on the Duration of compulsory education. The shades of the bars represent sequences in which, by law, children were subject to this number of years of compulsory education. The countries were selected as examples because they show interesting and contrasting developments.

Legend:
- 0 years
- 4 years
- 5 years
- 6 years
- 7 years
- 8 years
- 9 years
- 10 years
- 11 years
- 12 years
- 13 years
- 14 years
- 15 years

adaption to external units is an important aspect of policy diffusion. As such, we find, that transnational influences through globalization and organizations but also local, regional pressure through similar countries contributes to the diffusion process. The increasing isomorphism of education systems or at least the global agreement that education should be accessible for all and, therefore, compulsory, are determined by cultural and geographical proximity (Seitzer et al. 2022).

One can assume that making education mandatory would constitute a viable first step toward achieving the goal of universal education. Accordingly, the Sustainable Development Goal (SDG) 4.1 "Universal Primary and Secondary Education" and Goal 4.2 "Early childhood development and universal pre-primary Education", propose extending the duration of compulsory education to pre-primary as well as secondary education as a viable next step.

Starting with the premise that there are different ideas about the necessary duration of schooling, compulsory education policy constitutes an observable manifestation of the importance of state-led education. Indeed, globally, one can discern a general trend toward more years of compulsory education. However, timing of and the actual size of extension, i.e. when and by how many years compulsory education increases, is difficult to systematize across a large number of nation-states, clouding the diffusion process. Looking at the trajectories of the policy's development enables us to explore the temporal and sequential context of policy development. We show here a selection of interesting and exemplary cases.

Some countries might incrementally increase the duration of compulsory education over a long period (Azerbaijan), or after a long period of stagnation, increase the length quite rapidly (Argentina). Others might not reform their compulsory education system for a long time (Ireland). Yet, some countries might withstand international pressure until a certain point and only introduce compulsion quite late (Kenya, Brunei, Nicaragua). What is very rarely seen, however, is a reduction in the duration of compulsory education (Rwanda, Thailand). In Rwanda the increase which was revoked quite quickly is the result of restructuring of primary education to which two grades were added and which was compulsory. Those grades, however, had essentially been closed down amidst rising ethnic tensions and escalating violence across the country (Hollabaugh 2012). In Thailand a restructuring of primary education led to an effective one year decrease in the duration of compulsory education. This exemplifies the different possibilities of denoting the duration, either based

on specific education levels; or based on the age of the students. Again Thailand is indicative, because its 1999 National Education Act required all children aged seven to enroll in basic education. They would be subjected to compulsory schooling explicitly until the age of 16.

On a global scale, we can generally discern that states with higher income extend compulsory education duration earlier and by a larger margin. Furthermore, a wave of introduction and extension of compulsory education seems to correlate—at least time-wise—with the increasing intensity of international discourses like Education for All or the Sustainable Development Goals, for example. The first of these discourses was started at the World Conference on Education for All in Jomtien in 1990 and was renewed in the Dakar Education for All (EFA) Framework for Action in 2000, the latter is currently shaping education policies around the world since 2015.

Finally, it is worth noting that today, nations with the longest compulsory education durations are not necessarily those with the highest GDP or, more broadly, Western frontrunners, as the first wave of compulsory education diffusion might lead us to suspect. It is countries like Argentina, the Dominican Republic, and the Philippines, that recently even made some form of pre-primary education compulsory, which offer the greatest number of years of compulsory education for their students. Interstingly, pre-primary education is currently heavily lobbied for by International Organizations and a global goal in the SGDs, yet ignored by many European and Anglo-American policy-makers (Besche-Truthe 2022).

All of this is not to say that having compulsory education means that every child is enrolled and participates in schooling, or that not having compulsory education laws in place means that hardly anyone attends school. However, compulsory education strengthens the right to education by allowing the state to allow citizens to demand participation in schools. Yet, compulsory schooling promotes the right to education by allowing citizens to demand participation in education. Consequently, equitable access to schools can promote equality of opportunity within and across countries, supporting efforts to create a more sustainable and fair society and future.

International Organizations in Education

Mapping the Regional Organizational Field

Dennis Niemann, David Krogmann, Kerstin Martens and Fabian Besche-Truthe

For education, which has been an inherently nationalized policy field, the existence and work of different international organizations (IOs) has long gone under the radar of international scholarship. In particular, a focus away from the 'usual suspects' of the World Bank, the Organisation for Economic Co-operation and Development (OECD) and the United Nations Educational, Scientific and Cultural Organization (UNESCO); lets us see the IO-variety countries are jointly subjected to.

IOs are often equipped by their founders to set agendas, foster implementation, and make binding decisions in the face of state sovereignty. IOs are more than the sum of their member states' interests. Thus, they can be considered powerful actors who are able to shape discourses and influence policy implementation. Central to the impact of IOs in international politics in general and in education, in particular, is their ability to exercise autonomy and authority at the same time (Barnett & Finnemore 2004)

This ability can manifest itself for example in 'soft' governance tools like ratings and rankings, which are ultimately used to steer education policies in one or the other direction. Most prominent for that is the OECD's Programme for International Student Assessment (PISA). This large-scale assessments, which covers by far not only OECD members and which has already spread to developing countries as well promotes an economically based idea of human capital and related learning techniques in education policy (Sellar & Lingard 2014). The number of regional and national assessments of different school levels has skyrocketed indicating that the "approach of soft governance through putative hard fact" has become a role model for other IOs (Niemann & Martens 2018).

The possibility to trace single education policies back to specific IOs is difficult. It can be done for the OECD and EU (Martens et al. 2010) but becomes difficult for regional IOs outside of the "West". This is also due to the role of IOs in those regions, where there is often much more emphasis on state sovereignty. Therefore, IOs more often play the role of distributors of norms, ideas, and knowledge, rather than the role of initiators of actual policy on the ground. The Association of Southeast Asian Nations (ASEAN), for example, to which the Southeast Asian Ministers of Education Organization (SEAMEO) belongs, explicitly advocates the "non-intervention" principle in the region.

A more regional than global orientation allows these IOs to participate in and steer distinct discourses, which might not gain traction globally. For instance, we find that Muslim education IOs operate in a discursive space rather different from globally active IOs. Our analysis of documents by the Islamic World Education, Science and Culture Organization (ICESCO) a branch of the Organization of Islamic Cooperation, the Arab League Cultural, Educational, and Scientific Organization (ALECSO) and the Arab Bureau of Education for the Gulf States (ABEGS) shows that they engage in a balancing act quite similar to the Southeast Asian case of the SEAMEO: On the one hand, global labor markets require standardized education in order to be tapped into. On the other hand, "Westernized" education may be detrimental to the proliferation of traditional cultural-religious roots that the Islamic education IOs are committed to protect (Krogmann 2022).

As of today, 30 IOs, which are intergovernmental institutions with states as members, deal with education policy as part of their policy portfolio.

We define an IO as an 'education IO' if it maintains three complementary features regarding its policy programs, organizational structures, and desired scope. First, education must be mentioned in the IO's programmatic mission statement as a designated task of the IO. Second, it must have its own permanent organizational sub-department, unit, or structural component, which specifically deals with issues of education or training. Third, the IO must address education policy issues. Hence, we exclude from our definition any IOs that deal with educational topics, such as teaching methods or coordinating scientific cooperation. As of 2020, out of the approximately 350 IOs that exist (according to the Correlates of War dataset and the Yearbook of International Organization), eight percent deal with education policy (Niemann & Martens 2021).

Regarding the growth of IOs active in the field of education, four observations can be made. First, the number of education IOs grew steadily starting with just two in 1945, namely the International Labour Organization (ILO) and UNESCO. Furthermore, there was no sharp increase in a particular decade but rather an incremental expansion from 1945 until the mid-1990s. A second observation, however, is that by the mid-1990s, the expansion slowed down towards the end of the decade, with only two education IOs founded after 2005. This decline suggests that after the continuous growth and discovery of education as a significant field of IO activity over the last decades, the field is now saturated. Third, many IOs with no direct mandate for education policy expanded into this field from the 1960s onwards. For example, IOs that were designed to coordinate international economic cooperation, like the World Bank, the OECD, or the regional development banks, cover almost one third of the entire education IO population today. Surprisingly, the expansion of education IOs predates the emergence of the global knowledge society which encompasses the internationalisation of discourse around education policy and the diversification of relevant actors in the field. Therefore, the proliferation of IOs was not a consequence of intensified internationalisation in education policy but rather a driving force behind this development. Fourth, the development in this field reflects intensified regionalism. While initially, it was mainly globally active IOs like UNESCO and the ILO that dealt with education policy, more and more IOs with a regional focus included education topics in their policy portfolio over time. In figure 8.1 we focus solely on regional IOs and countries' joint memberships in a multitude of those. We do this to highlight the variety of the IO landscape and the abundance of international discourse national education systems are embedded in.

These observations show that the developments of education IOs can be described along two main dimensions. The first dimension is the policy fields that they primarily focus on, that is, the IOs' thematic scope, and the second is the geographic level they operate on, or geographic reach. Regarding the thematic scope of the 30 education IOs, seven IOs indicate education as a primary activity through their mandate and name. These organizations have been created with the intended purpose of focusing on education policy (and closely associated policies). This group includes UNESCO, SEAMEO, the ABEGS, the ALECSO, the Intergovernmental Foundation for Educational, Scientific and Cultural Cooperation (IFESCCO), the Organization of Ibero-American States for Education, Science and Culture (OEI), and Islamic World Educational, Scientific and Cultural Organization (ICESCO). Most of the education IOs, however, cover several policy fields with education being only one among several. This class comprises two sub-types. On the one hand, it is constituted by 'multi-purpose' IOs, i.e. IOs that have a broader purpose, focusing on a wide range of issues over a number of policy fields. Examples include the European Union (EU) and the South Asian Association for Regional Cooperation (SAARC), or the African Union (AU). In several multi-purpose IOs, the founding members did not intend to specifically address education policy. Many of them moved into the policy field after their inception, making education part of their programmatic mission ex post. On the other hand, another group of education IOs are comprised of specialized IOs, which have a primary mission other than education. The introduction of education transformed their mission to involve education issues within their primary mandate. For example, organizations like the OECD or the World Bank, which were set up with a specific mission in economic development, have gradually expanded their work into the education field.

In terms of their geographic reach, the highest share of education IOs can notably be found on a regional level. In total, 20 IOs, or two-thirds of all education IOs, can be classified as regional IOs, which means that they operate on one (sub)continent only. Starting with a share of 17 percent of IOs in 1950, the percentage of regional IOs in education policy has increased to 67 percent in 2020. At the same time, the absolute number of global education IOs has remained the same with only a slight growth between the mid-1950s and mid-1960s. Thus, it is safe to say that education IOs have a greater regional presence versus a global one. Since the late-1960s, we observe that regional IOs have become the dominant type amongst education IOs. Most regional education IOs have multiple
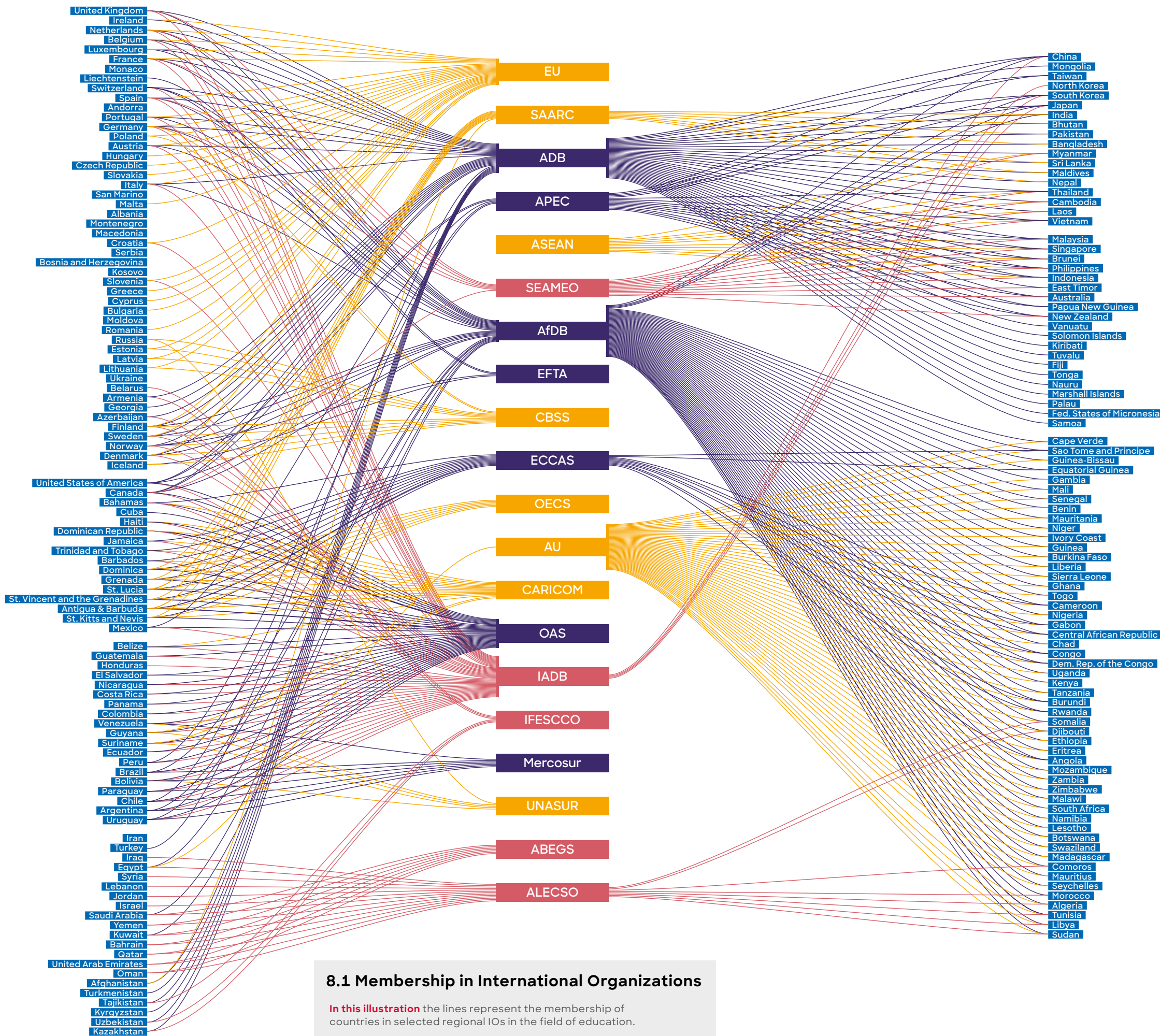
areas of expertise, while others have an economic focus, like the regional development banks e.g. Asian Development Bank (ADB), African Development Bank (AfDB), Inter-American Development Bank (IADB).

In Europe, regional IOs include the EU but also less prominent IOs such as the European Free Trade Association (EFTA) and the Council of Baltic Sea States (CBSS), which is limited to that specific region within Europe. We also observe an increasing pattern of regionalism present in two regions: South-East Asian and Latin America. The South-East Asian region includes active education IOs such as the Southeast Asian Ministers of Education Organization (SEAMEO), the Asia-Pacific Economic Cooperation (APEC), the ADB, the SAARC, and the Association of Southeast Asian Nations (ASEAN). Moreover, in the Americas, there are six IOs active in the field of education. These include the Organization of American States (OAS), Mercosur, the Union of South American Nations (UNASUR), the Caribbean Community (CARICOM), the Organisation of Eastern Caribbean States (OECS), and the IADB.

In addition, four IOs cannot be clearly assigned to one particular region, rather they are transregional organizations with member states sharing traits other than geographical proximity. Notable transregional IOs include the ICESCO, in which membership is connected to Islam, and the OEI, which is made up only of 'iberophone' states.

Consequently, when looking at the membership of states in regional education IOs, we quickly detect a close-knit and branched out network. Even here, shared membership and influence streams are difficult to decipher. The interdependency of nation states only rises in extent over the years. Through this abundance of connections to IO secretariats, staff, and other member countries educational models are developed, analysed and spread around the globe. However, focusing solely on regional IOs, we can observe some fragmentation of memberships.

8.1 Membership in International Organizations

In this illustration the lines represent the membership of countries in selected regional IOs in the field of education.

multi-purpose   education   economy

Discrepancy of Paid Maternity Leave Between Laws and Practices in Low- and Middle-Income Countries

Keonhi Son

Most research on social security systems in low- and middle-income countries (LMICs) has focused on legislation, with minimal attention given to the the discrepancy between social security legislation and its actual implementation. This contribution examines the gap between the *de jure* and *de facto* coverage of maternity leave in 73 LMICs to offer an insight into the discrepancy between social security laws and practice across various global regions.

Maternity protection has been a key factor in human development. International Labour Organization (ILO) has been instrumental in setting international standards for maternity protection since its inception in 1919: Three Maternity Protection Conventions (C3 in 1919, C103 in 1952, and C183 in 2000) were adopted every three decades. Consequently, low- and middle-income countries (LMICs) introduced paid maternity leave at the early stage of their economic development. LMICs have endorsed the ILO Maternity Protection standards to be acknowledged as a "modern state" and have adapted their domestic laws to the ILO standards, regardless of their official position to ratify the conventions or not (Son 2022b). The ILO also pressured European colonial powers to apply international labor standards to colonies, resulting in the early adoption of paid maternity leave in many LMICs (Schmitt 2015). For instance, the majority of Sub-Saharan African countries adopted the first maternity protection legislation in the 1950s and the 1960s when they were under the rule of colonizers (Son 2022a).

The first paid maternity leave in LMICs included advanced standards: they often covered "all the employed", namely employees in the industrial, commercial, and agricultural sectors (Son & Böger 2021). Furthermore, legal coverage of paid maternity leave was extended over time: maternity insurance in a large number of Latin American and Asian countries has included atypical workers since the 1980s. Recently, LMICs adopted non-contributory cash transfer programs for mothers with newborns to reach various groups of underprivileged women workers. However, in practice, only 40.6 percent of women workers in the world receive maternity benefits (Addati et al. 2014). In LMICs, social security legislations have existed in written form, without being implemented in practice for a long time, which resulted in citizens being unable to access the benefits they are entitled to. For example, Asian countries adopted maternity protection legislation for women workers in the garment industry as well as beedi and cigar production since the 1960s to endorse the principles of the ILO, while the regulation remained unknown for workers and employers and compliance was not 'expected' for decades (Boris 2019).

The growing literature on social security systems in LMICs mainly focuses on legislative information such as the introduction year, generosity, financing method and legal coverage. By contrast, it has neglected that the discrepancy between social security legislation and its practice is enormous

9.1 Expected and effective coverage of maternity leave
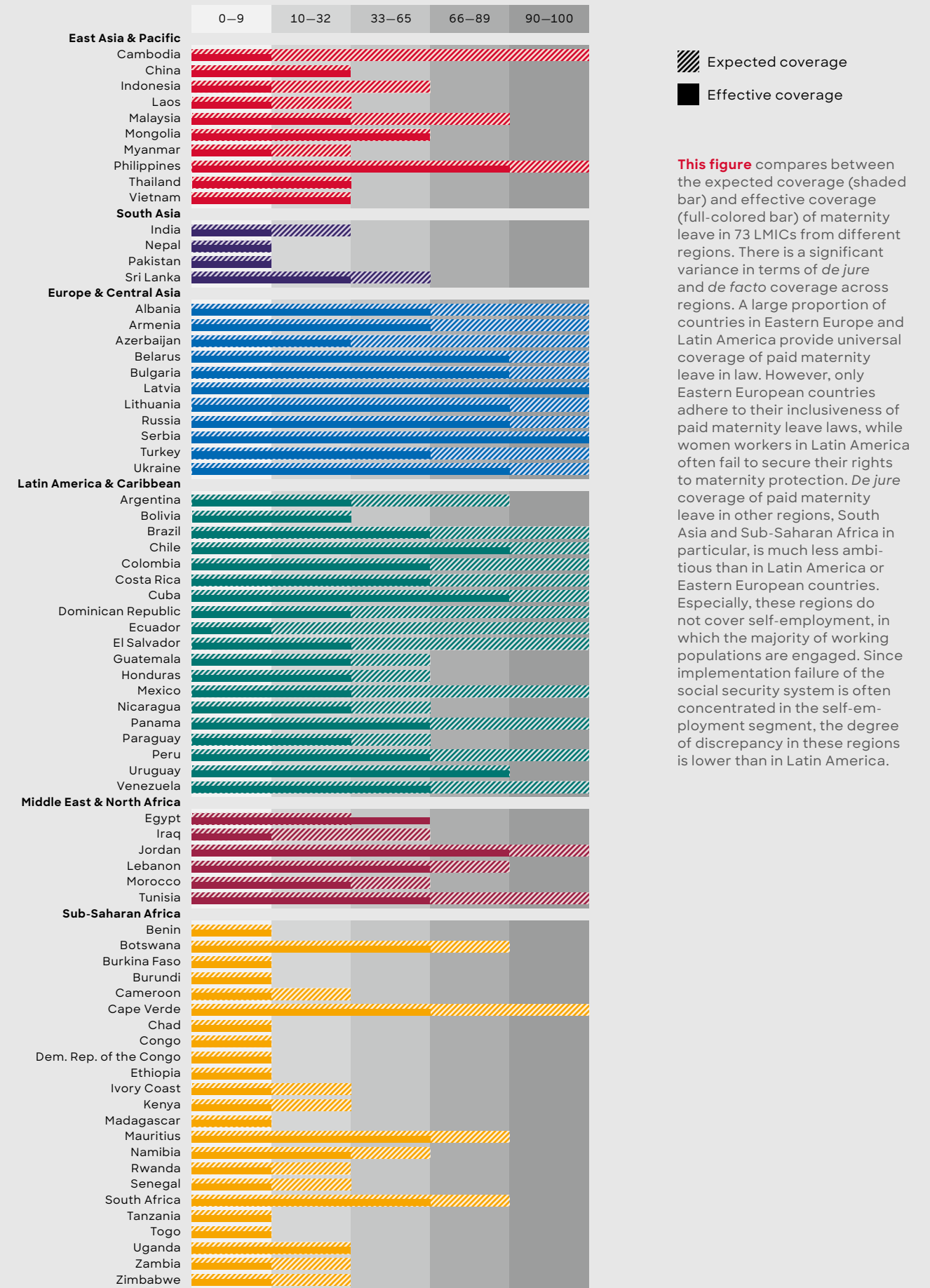
This figure compares between the expected coverage (shaded bar) and effective coverage (full-colored bar) of maternity leave in 73 LMICs from different regions. There is a significant variance in terms of *de jure* and *de facto* coverage across regions. A large proportion of countries in Eastern Europe and Latin America provide universal coverage of paid maternity leave in law. However, only Eastern European countries adhere to their inclusiveness of paid maternity leave laws, while women workers in Latin America often fail to secure their rights to maternity protection. *De jure* coverage of paid maternity leave in other regions, South Asia and Sub-Saharan Africa in particular, is much less ambitious than in Latin America or Eastern European countries. Especially, these regions do not cover self-employment, in which the majority of working populations are engaged. Since implementation failure of the social security system is often concentrated in the self-employment segment, the degree of discrepancy in these regions is lower than in Latin America.

in LMICs. To fill this research gap, this contribution introduces a way to measure the discrepancy between social security laws and practice and present an overview of the discrepancy in 73 LMICs.

Measuring the discrepancy

The gap between *de jure* and *de facto* coverage of maternity leave is calculated in the following steps. First, the expected coverage is estimated as a proxy of *de jure* coverage, namely the proportion of women workers who are legally entitled to maternity leave among all women workers. To calculate the expected coverage, two types of information are required: legal coverage of maternity leave and the proportion of women workers who are included in the legal coverage. A new historical database on maternity leave (HDML) includes information on which employment sectors among industrial, commercial, agricultural, and atypical sectors maternity leave laws in each country would cover (Son et al. 2020). The ILO provides data on the ratio of women workers engaged in the industrial, commercial, and agricultural sectors to all women workers. The aggregated ratio of women workers in the industrial, commercial, and agricultural sectors is 100 percent.

However, a distinctive problem arises when calculating the expected coverage of atypical employment. No maternity protection legislation in the world covers all types of atypical employmentm while most legislations cover all employees in the industrial, commercial, or agricultural sectors without disaggregating them into a detailed list of occupations. The expansionary reforms regarding atypical workers are gradual, extending from one group (e.g., the self-employed) to another group (e.g., seasonal workers). Since no comparative data exist regarding the proportion of women workers in disaggregated types of atypical employment, the self-employed are used as a proxy for atypically employed workers. The self-employed are more prevalent than other types of atypical employment: the number of workers in beedi- and cigar industry or seasonal workers, for instance, may vary across different world regions, depending on national economy's industrial profile. Moreover, the self-employed are among the first groups to be integrated into a social security system after being excluded for decades (Mesa-Lago 1978). Thus, the self-employed would be a litmus test for a state's will to incorporate workers in atypical employment into the social security system.

The ratio of women workers in each employment sector and the self-employed are aggregated with legal coverage of maternity insurance to calculate the expected coverage. If a maternity leave policy covers women workers in the industrial, commercial, and agricultural sectors but excludes the self-employed, the expected coverage would be calculated as "(ratio of women workers in the industrial, commercial, and agricultural sectors) x (1-ratio of women workers who are self-employed)." Here, the ratio of the self-employed is not simply deducted because 'self-employed' is a terminology based on types of employment rather than sectoral classification.

The proportion of working women who are potentially entitled to maternity leave is used to measure *de facto* coverage, which is taken from the ILO's Maternity and Paternity at Work report (Addati et al. 2014: 144–149). The number of potential beneficiaries of maternity insurance was measured by the number of working women who are registered to maternity insurance. Although this so-called effective coverage is practically the only indicator that measures *de facto* maternity protection coverage in different world regions, it has several shortcomings. First, the effective coverage of maternity leave underestimates the discrepancy between maternity leave laws and practice, since the effective coverage does not reflect the proportion of women workers who actually receive maternity benefits (i.e., take-up rate). Some employers may opt to terminate the employment of pregnant workers rather than provide them with maternity benefits, while some employees may not meet the eligibility criteria despite their contribution history. Nevertheless, case studies on implementation failures argue that a considerable number of workers in LMICs are not even registered in social insurance systems, either because employers seek to reduce labor costs or employees avoid paying their insurance contributions (Boris 2019).

The second issue is that effective coverage is coded as categorical values (0–9, 10–32, 33–65, 66–89, 90–100), which may result in the down-biased estimation of the discrepancy. To take a conservative approach, the highest value within each category is used when calculating the gap between the expected and effective coverage of maternity leave. For example, Burkina Faso offers maternity leave to workers in the industrial, commercial, and agricultural sectors, but excludes the self-employed. As the self-employed make up 94 percent of all women workers in Burkina Faso, the expected coverage is estimated to be 6 percent. The effective coverage in Burkina Faso is coded as 0–9 percent, suggesting that all 'entitled' women workers (i.e., 6 percent of all women

workers) may actually be registered in the maternity insurance system.

The discrepancy in the different world regions

Figure 9.1 compares between the expected coverage (shaded bar) and effective coverage (full-colored bar) of maternity leave in 73 LMICs. The numeric value of expected coverage is converted to categorical values to facilitate the comparison between expected and effective coverage. Figure 9.1 shows that there is large variation in the degree of discrepancy between LMICs, ranging from 0 to 91. While 36 percent of LMICs achieve *de jure* universal coverage and 67 percent of the LMICs extended their coverage of maternity leave to the self-employed, only two Eastern European countries, namely Latvia and Serbia, potentially provide maternity benefits to more than 90 percent of women workers. In extreme cases, less than 9 percent of women workers in Cambodia and Ecuador may have access to maternity benefits, although women workers in the industrial, commercial, and agricultural sectors as well as the self-employed are legally entitled to maternity leave in these countries. Cambodia extended the coverage of maternity leave to the self-employed and handicraft establishments in which a large number of women workers are engaged in 1997, and Ecuador extended its coverage to the self-employed and domestic servants in 1990, which is still not reflected in the effective coverage after two decades.

Each region shows distinctive patterns. A large proportion of countries in Eastern Europe and Latin America provide universal coverage of paid maternity leave in law. More than half of Latin American countries and all Eastern European countries achieved *de jure* universal coverage. It may reflect that Soviet Union and Yugoslavia established generous and inclusive paid maternity leave to support women workers since the beginning of their history. In case of Latin America, many countries introduced paid maternity leave earlier than the 1950s to show their endorsement to the ILO Maternity Protection Conventions. However, only Eastern European countries adhere to their inclusiveness of paid maternity leave laws, while women workers in Latin America often fail to secure their rights to maternity protection.

De jure coverage of paid maternity leave in other regions, South Asia and Sub-Saharan Africa in particular, is much less ambitious than in Latin America or Eastern European countries. Only Cape Verde provides universal coverage of paid maternity leave in law. Especially, these regions do not cover the self-employment, in which the majority of working populations are engaged. Since implementation failure of social security system is often concentrated in the self-employment, the degree of discrepancy in these regions is lower than in Latin America. A large proportion of these countries shaped their first paid maternity leave during colonial period. For instance, French colonizers introduced identical paid maternity leave in its colonies, which covered all "employed" in industrial, commercial, and agricultural sectors but excluded self-employed (Son 2022a). Such colonial legacies seem difficult to overcome in these regions: countries with French colonial history tend to extend the coverage of paid maternity leave less than other countries (Son 2022b: 11). It is hard to detect a distinctive pattern from East Asia and North Africa. Notably, Egypt is the only country that shows higher effective coverage than expected coverage: the expected coverage is estimated as 30 percent while the effective coverage is 33 to 65 percent. This may come from the fact that the self-employed is used as a proxy for atypical workers.

Concluding remarks

Overall, this contribution aims to emphasize that the lack of access to social security in LMICs often comes from the implementation failure of social security system rather than missing coverage of social security laws. Figure 9.1 clearly shows that (1) a large proportion of LMICs achieved universal coverage of paid maternity leave in laws, and (2) however, such inclusiveness of paid maternity leave is not translated into universal access to paid maternity leave. Future research should take up these findings and investigate the potential determinants of varying degree of the discrepancy between social security law and practice.

Leave-Care Gaps Around the World

Tobias Böger

Two key policies help women reconcile work and family obligations: Maternity or parental leaves and early childhood education and care (ECEC). Almost all countries provide an entitlement to paid leave at least to women employed in the formal sector (see Chapter 9) and more and more countries around the world have expanded the provision of ECEC. To encourage women's continuous labor force participation and enable them to combine parenthood with paid work, these policies must not only be accessible, implying high degrees of inclusiveness in the case of leave policies (Son & Böger 2021) and a sufficient supply of childcare services, but also aligned to each other: The gap between paid leave and child care provision needs to be short. Or conversely: In the time between the end of paid leave and the start of ECEC, families are left to their own devices in managing the dual responsibility of generating market income and caring for (very) young children. Longer gaps lead to slowed accumulation of human capital of the primary care-giver, i.e. the mother, and hence increase gender pay gaps as well as reinforcing the gendered division of labor within households. Even though global norms call for governments to "prevent discrimination against women on the grounds of marriage or maternity and to ensure their effective right to work" (Convention on the Elimination of All Forms of Discrimination against Women; Art. 11.2) and encourage the public provision of both paid leaves and child-care facilities (see also: Convention on the Rights of the Child; Art. 18.3), substantial leave-care gaps remain in most countries of the world.

Explaining the gap: origins

While certainly desirable from the perspective of modern 'dual earner' families, a seamless configuration of leave and care policies is not only costly: It requires coordination among two policy fields, which have distinct historical origins and are in many cases still under the auspices of different agencies or ministries. Leave policies originated in concerns over maternal and infant health and were institutionalized in labor and/or sickness insurance laws, overseen by ministries of labor or social affairs. ECEC in Europe, in turn, has two historical origins, each leaving its own lasting institutional impact. In some countries, such as Germany, it started out as a custodial policy with strong elements of social control aimed at poor families with working mothers leading to 'marginal programs for marginal families' managed by welfare ministries. In contexts of intense conflict between religious and secular forces about the competence for education and socialization of children, France being the paradigmatic case, universal preschool emerged in the early 20th century under the control of education ministries (Bahle 2009).

Thus, leave and care policies largely developed on a variety of institutional trajectories for a long time, not coalescing into a coherent model with the rationale of reconciling family life and paid employment for all adult members of the family. This changed beginning in the 1970s when Scandinavian countries pioneered policies –parental leaves and daycare expansion– which closed the leave-care gap and thus helped institutionalize a 'dual earner' model (Korpi 2000). Similar shifts have slowly taken hold in other European countries. Outside of Europe the emergence of a similarly coordinated and comprehensive configuration of leave and care policies seems unlikely. Resource constraints on the one hand, and widely shared norms assigning women the primary role of raising children, on the other, limit the feasibility of enhanced public support for working women. However, female labor force participation is rising in many world regions while at the same time multi-generational households are on the decline, indicating growing need for coherent work-family reconciliation policy packages.

Mapping the gap: patterns

Combining data on post-natal periods of paid leave for mothers with the availability of government guarantees of ECEC provision allows to gauge the size of contemporary leave-care gaps and identify regional patterns. Such data focuses on institutions rather than policy outcomes or effects, on legislated government guarantees rather than take-up or enrolment. While the latter always reflects demand as well as supply and is thus influenced by socio-economic circumstances, institutional indicators capture core dimensions of policies themselves. The data captures the periods, in which governments support the family of an ideal-typical women worker, through the provision of either paid leave or social services. They represent the de-jure situation for women employed in the formal sector of the economy, presuppose that the women worker fulfils all eligibility criteria, and reflect only national, rather than state- or county-level, legislation. In the data ECEC institutions encompass a range of functionally equivalent provisions and policies, which ensure universal availability of ECEC for a specific age group: Place guarantees for working families, compulsory pre-primary schooling, policy targets of universal coverage and free access guarantees. Furthermore, they do not consider the availability of private and workplace provisions of childcare (Böger et al. 2022).

Figure 10.1 shows that very few countries feature no or only a minimal gap between the end of well-paid leave and the start of an ECEC guarantee and these cluster in two regions: In Europe and the Post-Soviet 'region'.

Among the European welfare states entitlement gaps remain the norm rather than the exception. Gaps are non-existent only in Germany, Denmark, Finland, Hungary, Slovenia and Sweden. The remaining gap in Norway can be filled by using the daddy-month of the parental leave scheme. Except for Hungary these countries have converged in providing around a year of well-paid leave, which is followed by an entitlement to childcare until the start of compulsory schooling. Differences in de-facto provision and quality notwithstanding these countries come close to the ideal-type of a 'dual earner' policy model.

Countries, which were historically part of the Soviet Union, share an institutional legacy of full employment policies combined with a dense network of childcare facilities. Yet, compared to Europe, these countries are now quite diverse with regard to the balance between leave and care. Belar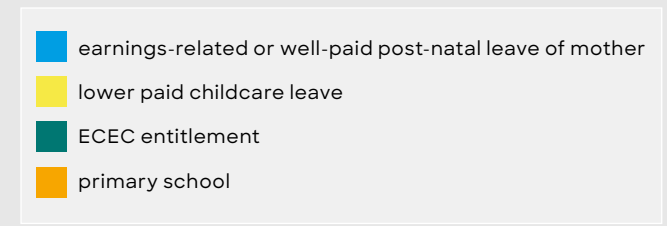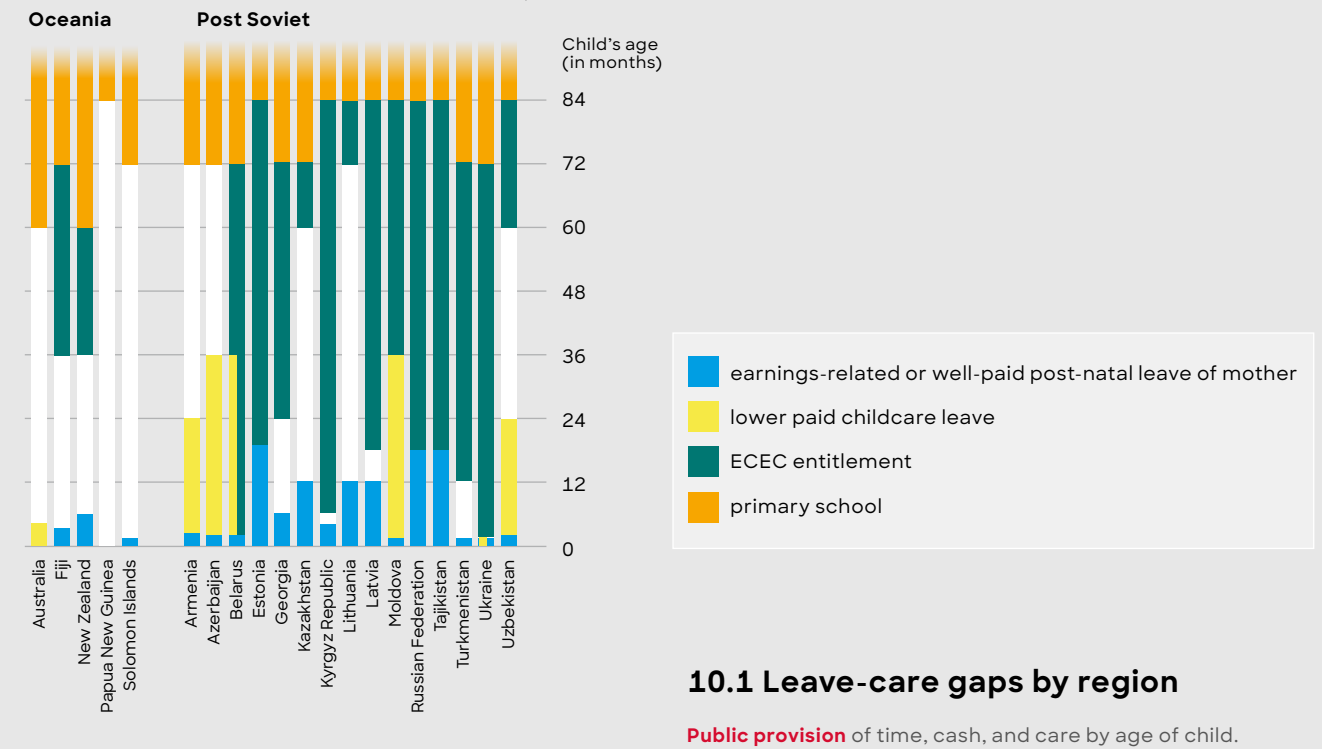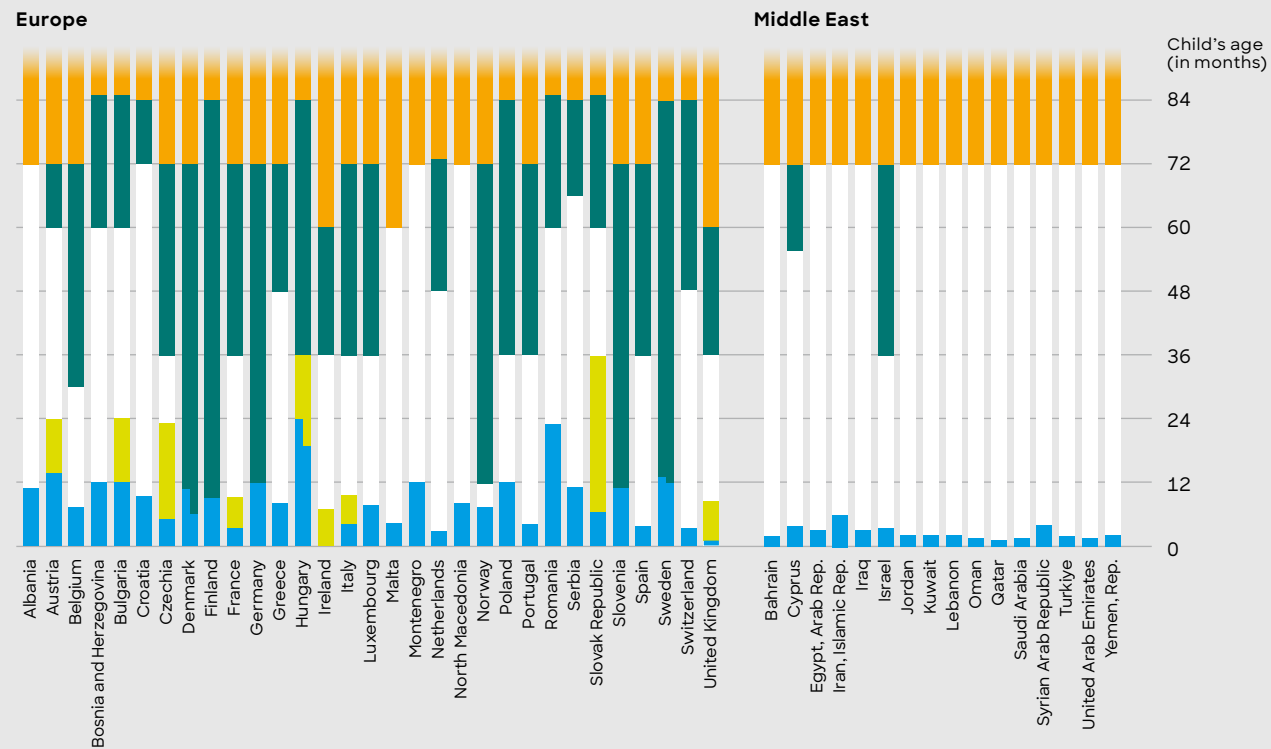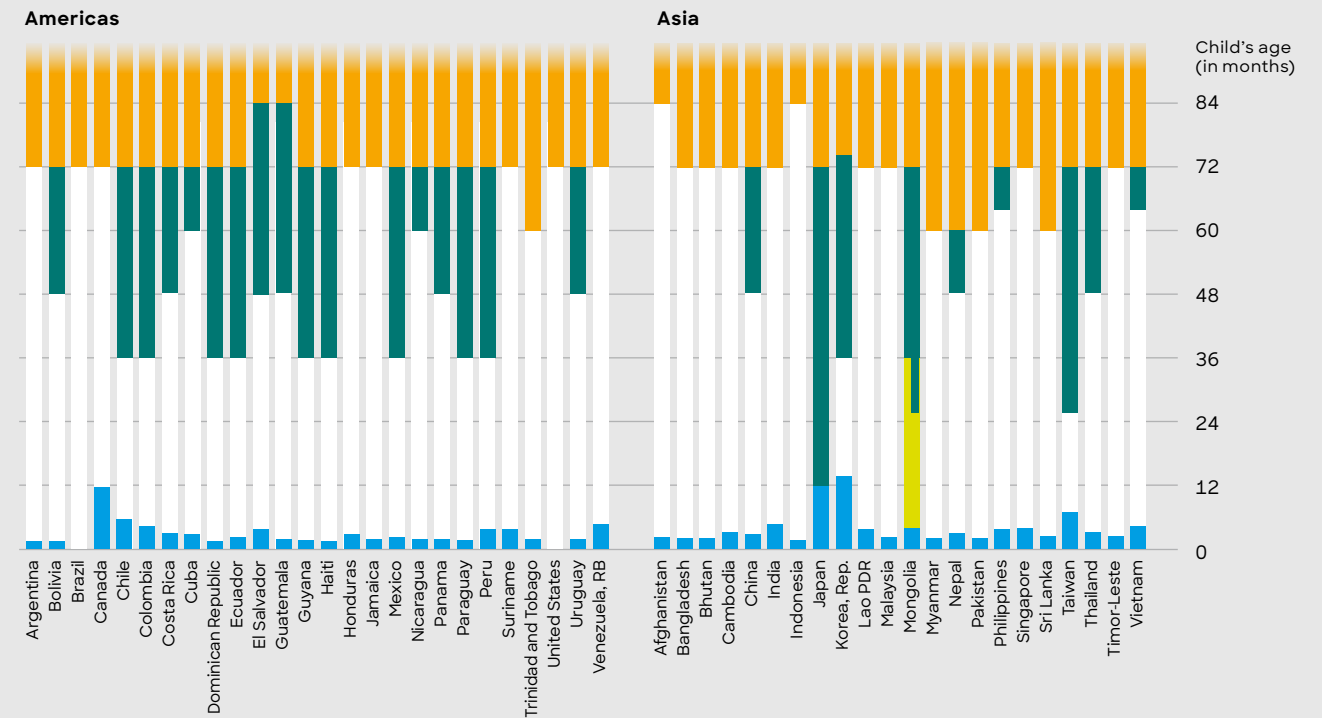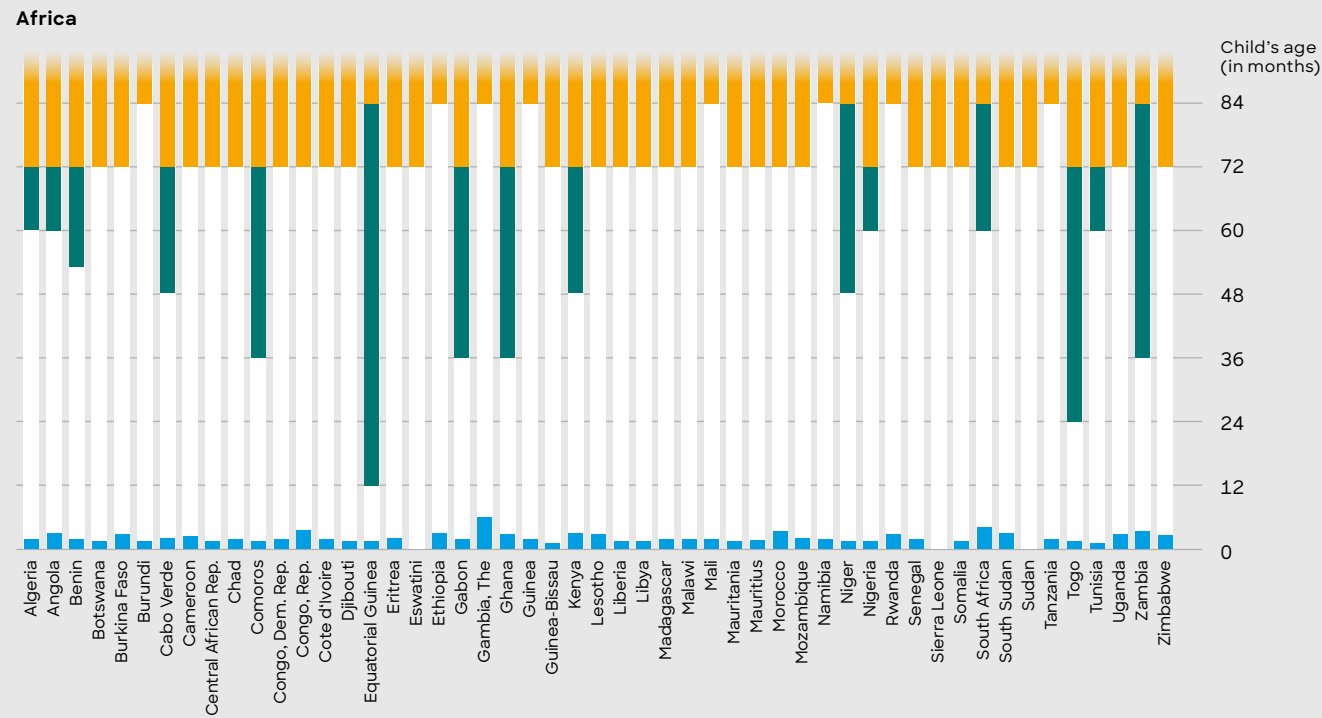us, Mongolia and Moldova feature long childcare leaves succeeded by ECEC guarantees. Others—Georgia, Turkmenistan, and Ukraine—combine short leaves with early or very early guarantees of ECEC provision. Mid-length leaves and subsequent or coinciding ECEC guarantees are found in Estonia, Latvia, Russia, and Tajikistan. Some of the longest childcare leaves, which are often not as well paid as maternity or parental leaves, are found in the region. In some cases these overlap with early ECEC guarantees, hence providing a real alternative, in others they are the only support available for the period of early childhood, reflecting an ideal-type of gendered 'general family support', which supports families but assumes that mothers remain primarily responsible for caring and reproductive work.

Outside of these two regions only Brazil, Egypt, Japan and Venezuela feature no gaps between the end of paid leave and ECEC. However, here, as in the other cases, substantial differences between the de-jure and de-facto provision exist: While Venezuela guarantees "free education in all official educational centers" (Art. 6) and includes ages zero to six in the level of "initial education" (Art. 25) in its 2009 education law, actual enrolments are only around 15 % for the age group of zero- to two-year-olds. However, it is noteworthy that Brazil and Venezuela are, at least de-jure, moving towards policy models that promote gender equality and institutionally converging with European pioneers in contexts of a persistent "unbalanced patriarchal contract" (Blofield et al. 2021).

Two patterns dominate the rest of the world: The first is a combination of paid leaves, which are either quite lengthy or provide a 'maternalist floor' of six weeks of post-natal leave (Blofield & Martinez Franzoni 2015), and an ECEC entitlement starting at age 3 or 4. This pattern still prevails in many European countries, dominates in Latin America and is found in some large Asian countries such as China and Vietnam. ECEC provision in these cases usually means universal and/or compulsory preschool and has a strong educational component. The second pattern provides only paid leave, but no guaranteed ECEC before the start of compulsory schooling, implying substantial leave-care gaps. This configuration is almost universal in North Africa and the Middle-East, dominant in Africa and also found in some lower-middle or low income countries in Asia, such as Bangladesh and India.

Three cases stand out, because they guarantee women neither paid leave nor ECEC: Papua New Guinea, Sierra Leone and the United States of America.

Africa

Child's age (in months)
84 72 60 48 36 24 12 0

Algeria · Angola · Benin · Botswana · Burkina Faso · Burundi · Cabo Verde · Cameroon · Central African Rep. · Chad · Comoros · Congo, Dem. Rep. · Congo, Rep. · Cote d'Ivoire · Djibouti · Equatorial Guinea · Eritrea · Eswatini · Ethiopia · Gabon · Gambia, The · Ghana · Guinea · Guinea-Bissau · Kenya · Lesotho · Liberia · Libya · Madagascar · Malawi · Mali · Mauritania · Mauritius · Morocco · Mozambique · Namibia · Niger · Nigeria · Rwanda · Senegal · Sierra Leone · Somalia · South Africa · South Sudan · Sudan · Tanzania · Togo · Tunisia · Uganda · Zambia · Zimbabwe

Americas

Child's age (in months)
84 72 60 48 36 24 12 0

Argentina · Bolivia · Brazil · Canada · Chile · Colombia · Costa Rica · Cuba · Dominican Republic · Ecuador · El Salvador · Guatemala · Guyana · Haiti · Honduras · Jamaica · Mexico · Nicaragua · Panama · Paraguay · Peru · Suriname · Trinidad and Tobago · United States · Uruguay · Venezuela, RB

Asia

Child's age (in months)
84 72 60 48 36 24 12 0

Afghanistan · Bangladesh · Bhutan · Cambodia · China · India · Indonesia · Japan · Korea, Rep. · Lao PDR · Malaysia · Mongolia · Myanmar · Nepal · Pakistan · Philippines · Singapore · Sri Lanka · Taiwan · Thailand · Timor-Leste · Vietnam

Europe

Child's age (in months)
84 72 60 48 36 24 12 0

Albania · Austria · Belgium · Bosnia and Herzegovina · Bulgaria · Croatia · Czechia · Denmark · Finland · France · Germany · Greece · Hungary · Ireland · Italy · Luxembourg · Malta · Montenegro · Netherlands · North Macedonia · Norway · Poland · Portugal · Romania · Serbia · Slovak Republic · Slovenia · Spain · Sweden · Switzerland · United Kingdom

Middle East

Child's age (in months)
84 72 60 48 36 24 12 0

Bahrain · Cyprus · Egypt, Arab Rep. · Iran, Islamic Rep. · Iraq · Israel · Jordan · Kuwait · Lebanon · Oman · Qatar · Saudi Arabia · Syrian Arab Republic · Türkiye · United Arab Emirates · Yemen, Rep.

Oceania

Child's age (in months)
84 72 60 48 36 24 12 0

Australia · Fiji · New Zealand · Papua New Guinea · Solomon Islands

Post Soviet

Armenia · Azerbaijan · Belarus · Estonia · Georgia · Kazakhstan · Kyrgyz Republic · Latvia · Lithuania · Moldova · Russian Federation · Tajikistan · Turkmenistan · Ukraine · Uzbekistan

Legend:
- earnings-related or well-paid post-natal leave of mother
- lower paid childcare leave
- ECEC entitlement
- primary school

10.1 Leave-care gaps by region

Public provision of time, cash, and care by age of child.

Closing the gap: limitations

Overall, substantial leave-care gaps remain in many countries and across all regions. In Europe countries still lack ECEC guarantees for very young children, outside of Europe paid leave often barely reaches the 'maternalist minimum'. Yet, the length of the gap isn't the only relevant dimension for policy outcomes: First of all, while going beyond the 'maternalist floor' (Blofield & Martinez Franzoni 2015) of leave provision will be necessary to close the gap in many countries, long periods of paid leave may also undercut labor market outcomes of women. As a substantial body of research has shown, parental leaves support female employment up to point, but are detrimental if they are 'too long' (Hook & Li 2020). Leaves of two or three years, which are available in Austria, the Czech Republic, Hungary, Slovakia, Azerbaijan, Belarus, Mongolia, Moldova and Uzbekistan, may lead to shorter gaps, but not to improved labor market outcomes for women. Secondly, the 'educational model' of ECEC, i.e. the expansion of pre-school, which is prevalent in large parts of Latin-America and Asia, not only leaves gaps in terms of life-course coverage. Services are likely also only available part-time rather than full-time. Leave-care gaps may thus be reduced, but the possibilities of full-time employment not substantially extended, because care responsibilities remain with the primary care-giver, i.e. the mother. The educational model presupposes the primacy of the family for 'care' in the strict sense and thus limits the extent to which it reorganizes the sexual division of labor and allows women to participate in labor markets. 'Closing' the gap is necessary but not sufficient to enhance gender equality.

Further information: Access data used in this chapter via the QR code. For more data on the dynamics of global social policy visit: https://wesis.org/QR/INF_Atlas10

Social Protection— Immigrant Exclusion?

Are Immigrants Included in Systems of Social Protection Around the World?

Friederike Römer and Jakob Henninger

Across the world, there are large differences in regard to the social rights that welfare states grant to their immigrant populations. But rights granted also differ by legal status—whereas immigrants who hold a permanent permit are often granted a relatively far-reaching set of rights, temporary immigrants are frequently excluded from even basic measures of social protection.

Whether immigrants are able to access the benefits and services provided by national welfare states is the subject of intense public debates in many countries. Often, these discussions are dominated by broad and generalizing statements. But the issue is complex: Who is meant by "immigrants"? Which benefits and services are being referred to? And how does a country's "generosity" towards immigrants compare internationally? In this article we want to answer some of these questions using novel data from the Immigrant Social Rights (ImmigSR) project, which is included in WeSIS. The data show, firstly, that access to welfare benefits differs widely across different categories of immigrants, across countries and across time. Secondly, it demonstrates that in many countries of the Global North, immigrant social rights are declining, while they are on the rise in the Global South. To some extent, this is evidence for a trend towards convergence.

While empirical research on the social rights of immigrants—the term "immigrant" here denotes
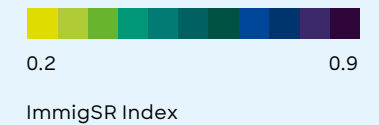
The Data. Three dimensions, namely "type of migrant", "type of benefit", and "type of restriction", are at the heart of the ImmigSR conceptualization (see Fig. 11.2). ImmigSR differentiates between temporary and permanent labor migrants, asylum seekers, recognized refugees, and family migrants and allows to compare access to non-contributory social assistance benefits and contributory unemployment insurance, considering both direct and indirect restrictions. In total, this amounts to seventeen items measuring access to social assistance for temporary and permanent labor migrants, asylum seekers and recognized refugees, access to unemployment insurance for temporary and permanent labor migrants, type of benefit for asylum seekers, consequences of job loss and benefit receipt, and income requirements for family reunification. The data covers the years 1980–2018 for 39 countries in Europe, Latin America, North America, Oceania, and Southeast Asia.

In order to construct this dataset, we build on a methodology and set of questions that was developed in the realm of the Immigration Policies in Comparison (IMPIC) project (Bjerre et al. 2016; Helbling et al. 2017). Higher scores denote more rights (for more details on the data collection, see Römer et al. 2021). A score of 1 denotes that migrants enjoy rights equivalent to those granted to citizens, whereas 0 indicates that all rights are being denied; at intermediate values, migrants have to fulfill additional requirements like years of residence in the country, or—in case of unemployment or when claiming benefits—face certain consequences which citizens do not face.
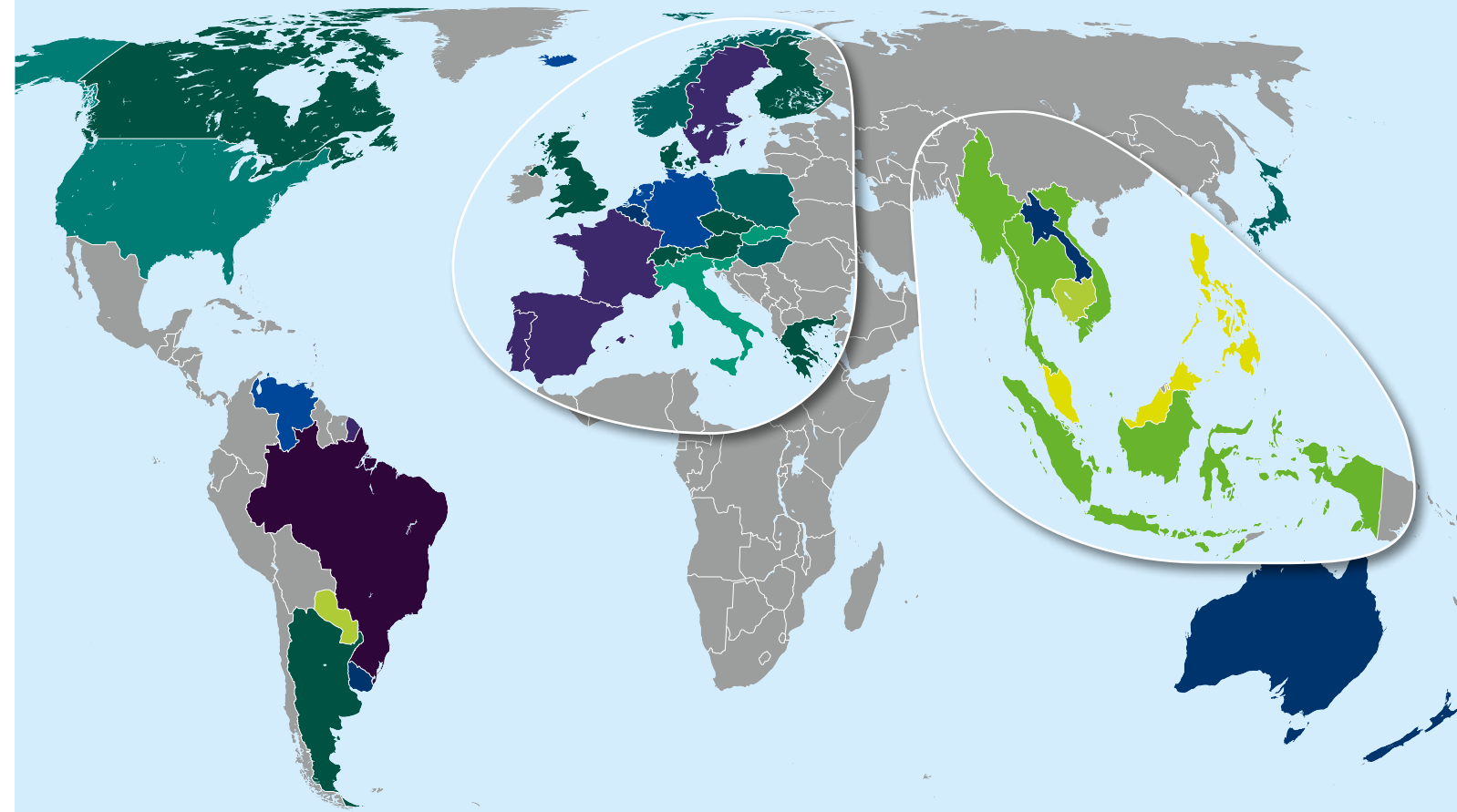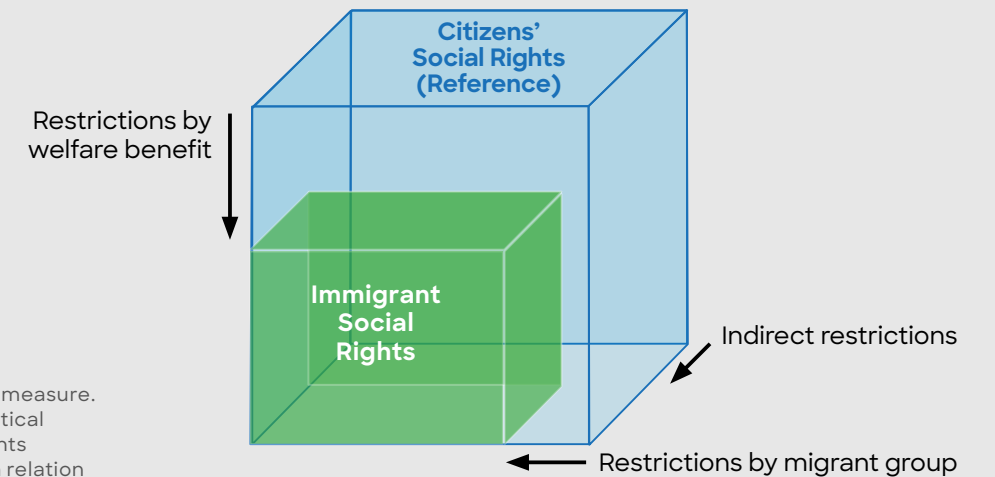

11.1 Immigrant social rights in five world regions in 2018

Today, there are strong differences between regions in regard to immigrant social rights. Whereas the least inclusive legal frameworks can be found in Southeast Asia, the most inclusive cases cluster in Europe. But there is also intra-regional variation, and cases of immigrant exclusion can also be found in Europe and the Americas

0.2   0.9

ImmigSR Index

11.2 The multidimensional nature of immigrant social rights

Citizens' Social Rights (Reference)

Restrictions by welfare benefit

Immigrant Social Rights

Indirect restrictions

Restrictions by migrant group

The ImmigSR index is a relative measure. The figure visualizes a hypothetical degree of immigrant social rights (visualized as the green box) in relation to the reference category, i.e. the social rights of citizens (the blue box).

11.3 The development of immigrant social rights over time, 1980–2018
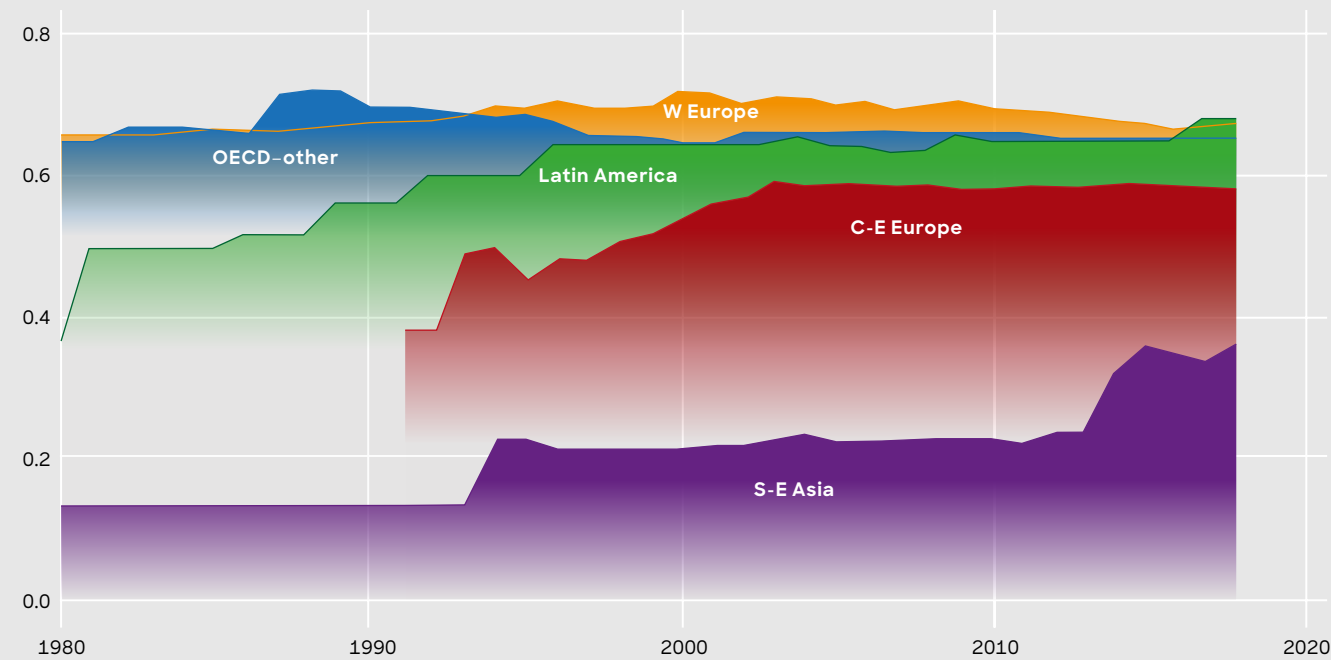
The aggregated index shows that rights differ considerably by region. There is a slight trend towards convergence. In the Global North, rights are increasingly curtailed, in the Global South, there are expansions.

11.4 Differences between social rights of temporary and permanent labor migrants
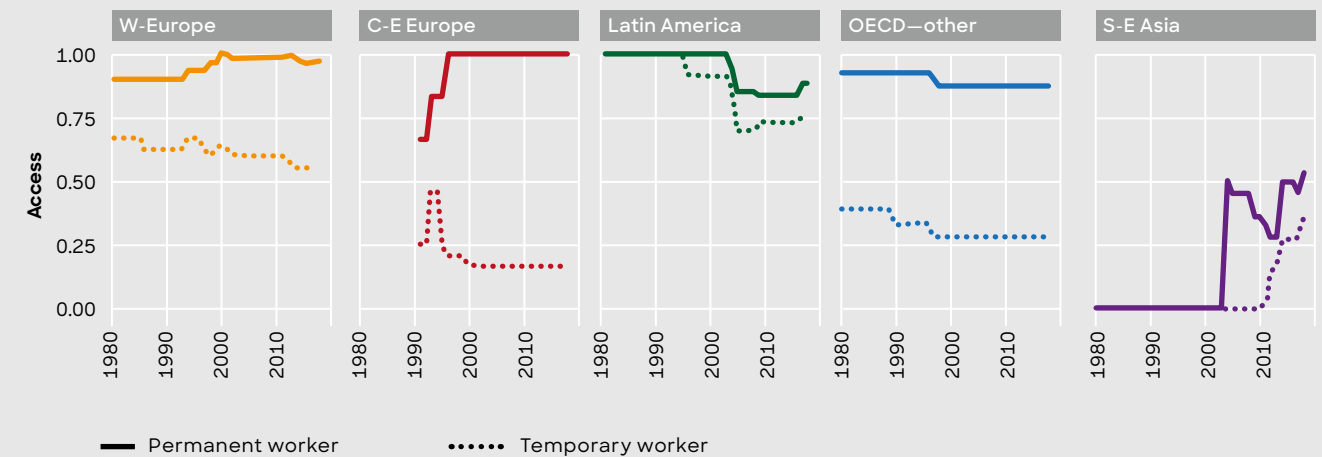
When the data is disaggregated by migrant legal category important variation becomes visible. Across all regions, with the exception of Southeast Asia, the rights of permanent workers are relatively far-reaching, whereas the rights of temporary workers are limited. In four out of five regions, rights of temporary workers are even declining.

people that do not hold the citizenship of the country they are residing in—has been expanding in recent years (e.g. Avato et al. 2010; Koning 2022; Römer 2017; Sainsbury 2012), there is a notable lack of comparative work that includes countries in the Global South. However, overcoming the "Western Bias" of comparative welfare state research (see e.g. Leisering and Barrientos 2013; Nullmeier et al. 2022; Schmitt et al. 2015) is highly relevant in the study of immigrant social rights. Sizable immigrant populations exist in many countries in the Global South (UN DESA 2020) and welfare states in these countries are expanding and consolidating.

What are "Immigrant Social Rights"?

In spite of what simplistic political debates suggest, assessing immigrant social rights is a complex issue. Immigration policy regimes often encompass a large number of different residence permits with varying stipulations regarding the respective group's access to benefits and services. Welfare state provisions also cover a wide range of different policy sub-fields that often operate under different logics of eligibility. Finally, the exclusion of migrants from welfare provisions also occurs in indirect ways. The receipt of many benefits is tied to habitual residence. Yet, immigration policy may deprive immigrants of their right to reside

precisely in those moments when they would begin to access benefits. This, for instance, is the case when residence permits are revoked in case of unemployment, thereby precluding access to unemployment benefits. Similarly, making use of certain benefits may result in the loss of a residence permit on account of the migrant now being a "public burden". The ImmigSR data in WeSIS consists of measures that acknowledge the differences between legal categories of immigrants, between benefit types, and between types of restrictions.

Immigrant social rights around the world: the facts

Map 11.1 shows that in 2018 in the five regions that are covered by the ImmigSR data in WeSIS, there is no country that excludes immigrants completely, but there is also no country in which immigrants are granted rights that are equivalent to those granted to citizens (a 1 on the scale). The least inclusive legal frameworks can be found in Southeast Asia and many relatively inclusive cases cluster in Europe. But there is intra-regional variation, and cases of immigrant exclusion can also be found in Europe and the Americas, as well as cases of inclusion in Southeast Asia. Notably, Brazil, Laos and Paraguay stand out in their respective regions. In Europe, highly inclusive cases—like Sweden,

France, Spain or Portugal—stand alongside cases like Italy or Slovakia, where rights are relatively curtailed.

Today's outcomes are the result of a historical development. Figure 11.3 compares for five regions how the average over all items in our dataset evolves over time. The graph reveals some striking results: While the Western European and other OECD countries in our data set exhibited high immigrant social rights scores in the 1980s, they have entered a long period of slowly but steadily accumulating restrictions. Latin America, on the other hand, started at low values in the 1980s but by the late 2010s this has changed. Similarly, immigrant social rights in Central-Eastern Europe experienced large increases in the 1990s and early 2000s, before stagnating until this day. Lastly, Southeast Asia has had the lowest level of immigrant social rights of the five regions since 1980, but has made very significant progress over the years. Latin America thus is a little-known champion of immigrant social rights and a pioneer of a tentative convergence between the Global North and the Global South.

Aggregated indices however tell only part of the story. As can be seen in Figure 11.4, migrant workers

with permanent residence permits enjoy much more extensive social rights than their counterparts with temporary residence permits in regard to access to social assistance and unemployment insurance[1]. Southeast Asian countries, where until the 2000s permanent and temporary migrant workers fared equally badly, are an exception to this pattern. The rights of temporary workers are the most extensive in Latin American countries. Lastly, in all regions except Southeast Asia, temporary migrants' social rights have over time taken a turn for the worse. This clearly demonstrates that blanket statements on immigrant social rights often hide great inequalities between different groups, as well as across time and space.

[1] Not in all countries do these two benefits exist in all years. The same can be said in regard to legal categories. We made the following conceptual decision: If a benefit does not exist, no scores are assigned, as a comparison is void. If a certain legal category of migrant does not exist, this is scored as "most restrictive". The reasoning here is that if the right to enter under a certain status is not granted, this is the most extreme form of indirectly restricting the rights of that group (for more information, see Römer et al. 2021).

Multidrug-Resistant Tuberculosis in the Post-Soviet Region

A Tale of Vulnerability through Labor Migration
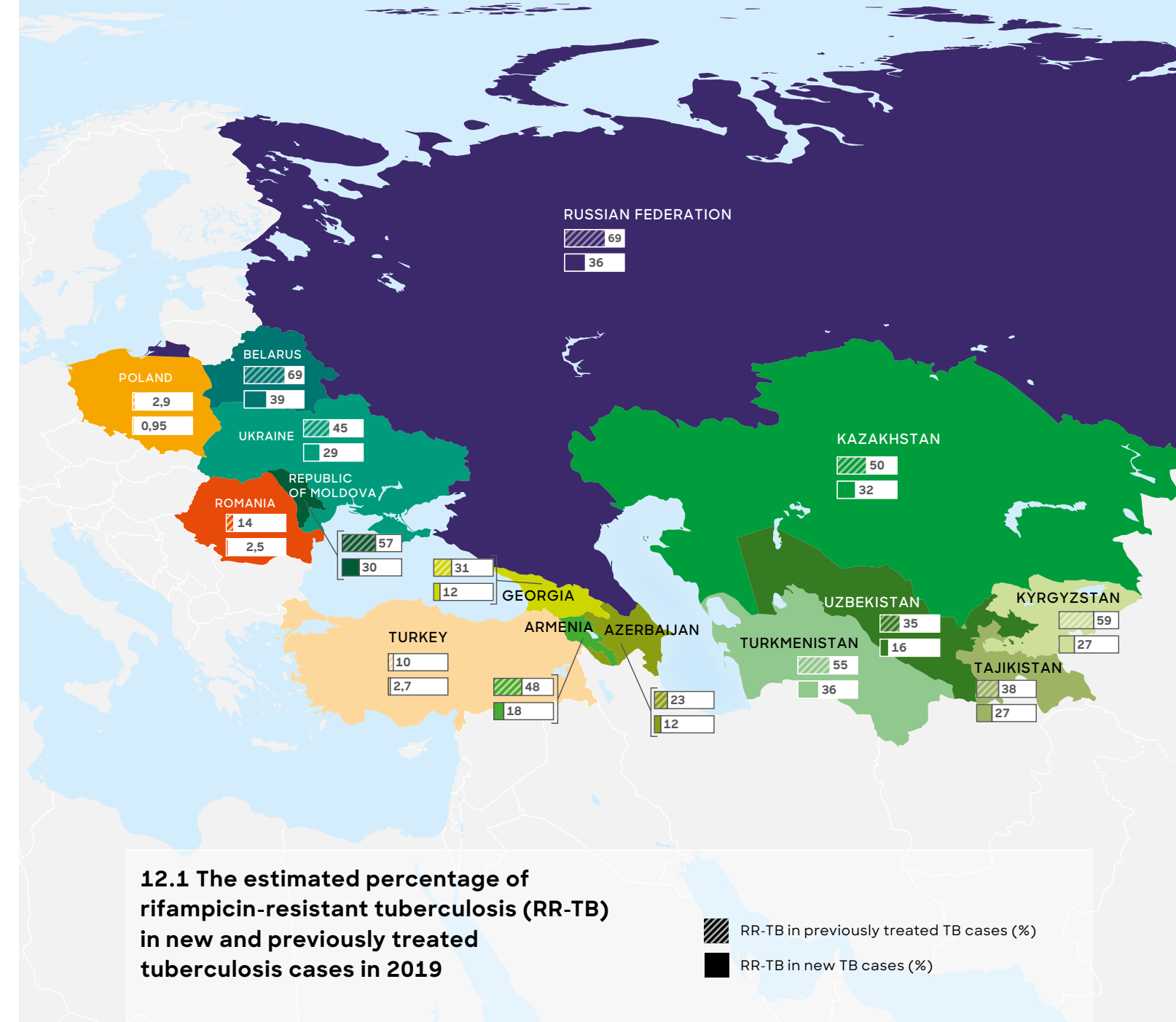
Andreas Heinrich and Gulnaz Isabekova

This contribution discusses the vulnerability of labor migrants to acquiring/developing multidrug-resistant tuberculosis. We suggest that in the face of COVID-19, this vulnerability has been further aggravated, making the achievement of the global goal of eliminating this disease by 2030 unattainable.

Tuberculosis is an airborne disease. Though its diagnosis and treatment have been known and applied for decades, it remains as of 2022 the world's second deadliest disease, after COVID-19 (Economist 2022). In 2021 alone, 10.6 million people became ill with tuberculosis, and about 1.4 million died from it (WHO 2022a: 2). The United Nations Sustainable Development Goals aim to end this epidemic by 2030 by achieving an 80 % reduction in the incidence rate or the number of new cases per 100,000 population per year compared to the 2015 baseline (WHO 2022b). However, drug-resistant forms of tuberculosis pose a significant challenge to eliminating this disease. Thus, multidrug or Rifampicin-resistant[1] tuberculosis (MDR-TB/RR-TB)

¹ Rifampicin is used in a combination with other medications to treat tuberculosis.

is associated with higher morbidity and mortality, an extended treatment duration of 12 to 24 months (Kherabi et al. 2022), and high treatment costs. In 2020, the average treatment costs in middle-income countries were € 764 for multidrug-resistant and € 44 for drug-susceptible tuberculosis (Günther et al. 2023). In addition to high costs, treatment of multidrug-resistant tuberculosis involves medications with more side effects and a lower treatment success rate of only 50–75 %, compared to an 85 % success rate for drug-susceptible form (WHO 2022a: 37).

Tuberculosis prevalence in the post-Soviet region
Globally, the countries of the former Soviet Union have a high prevalence of multidrug-resistant tuberculosis among new and previously treated cases because patients in these countries are especially prone to developing drug-resistance. In addition to a specific genotype of tuberculosis bacteria, the epidemic expansion of multidrug-resistant tuberculosis in this region is attributed to significant socioeconomic changes.

12.1 The estimated percentage of rifampicin-resistant tuberculosis (RR-TB) in new and previously treated tuberculosis cases in 2019

RR-TB in previously treated TB cases (%)

RR-TB in new TB cases (%)

The dissolution of the Soviet Union had dramatic social, economic, and political repercussions. The collapse of the public healthcare system and poor disease management contributed to further mutations and the spread of multidrug-resistant tuberculosis in the region (Merker et al. 2022). Treatment interruptions are also relevant to its prevalence, as they contribute to patients' drug-resistance development (see Isabekova 2019). Map 12.1 demonstrates the percentage of rifampicin-resistant tuberculosis among new and previously treated patients in 2019 (WHO 2022c). The tendency for other years is similar. A higher percentage of multidrug-resistant tuberculosis among previously

treated patients is particularly remarkable as it points to the magnitude of drug-resistance and the fact that treatment success is associated with, among other things, the continuity of treatment.

Vulnerability of labor migrants to tuberculosis
Our contribution expands on the socioeconomic underpinning of tuberculosis by discussing the problem with access to healthcare and the related treatment interruptions among labor migrants in Russia (Isabekova 2019). As of 2020, the Russian Federation was among the top five destinations for labor migrants (MPI n.d.), while the post-Soviet region (except for the Baltic states) represented

the top eleven countries sending migrants to Russia. Map 12.2 offers estimates of migrant stock by countries of origin (United Nations Population Division n.d.). Notably, the countries providing fewer in absolute numbers may provide an equally large share of migrants when considering their population size. For instance, 450,000 migrants from Georgia represent 12 % of its total population, a figure comparable to 2.5 million migrants from Kazakhstan, or about 14 % of its total population in 2019 (WBG 2022). Estimating the share of labor migrants among those is not feasible. However, the large amount of remittances from migrants to their home countries suggests a significant share of the migrant stock consists of labor migrants (see Isabekova 2019).

Overall, the discussion of migration and tuberculosis is not new. Migration is known to increase the chances of being infected by or developing this disease due to exposure to the bacterium and health determinants in the host country (see Isabekova 2019). There is also evidence of a higher number of migrants or foreign-born nationals among patients with multidrug-resistant than among those with drug-susceptible forms of this disease (Kherabi et al. 2022). However, these findings should be taken with caution as discussions around tuberculosis generally refer to migration from countries with a high incidence of this disease to countries with a low incidence. Our tale is different, as the host country has a similar or even higher multidrug-resistant tuberculosis prevalence.

Restrictive policies do more harm than good
Isabekova (2019) argues that despite its long history of immigration, the Russian Federation retains restrictive policies toward migrants. The responsible authorities are, for instance, authorized to make decisions on the "undesirability" of a stay or residence of foreign citizens representing a "real threat to public health" (Federal Law of RF 2002, Article 5(8)). Tuberculosis is among the diseases deemed to pose such a threat. Due to the fear of deportation, labor migrants may not refer to healthcare institutions to seek treatment for acute tuberculosis infection or to continue a related treatment started in the migrant's home country. In addition to state regulations and (dis)incentives, migrants face further obstacles in the host country's healthcare system. Access to healthcare varies depending on the registration status of the migrant; the experiences of labor migrants with official work permits are incomparable to those employed unofficially. Still, irrespective of their employment status, labor migrants may face

discrimination and language barriers in healthcare facilities (see Isabekova 2019).

Referred to as a "silent epidemic," tuberculosis still affects mainly socioeconomically vulnerable societal groups (Scandurra et al. 2020: 1), which in the case of labor migrants may also cause their possible deportation from the country. Though the impact of the war in Ukraine on labor migration to Russia remains to be seen, the socioeconomic circumstances of labor migrants and state regulations are unlikely to improve. A recent study on tuberculosis risks and treatment success among labor migrants in Tajikistan suggests a higher level of this disease among labor migrants compared to non-migrants. Major reasons include exposure to tuberculosis, unfavorable work and living conditions, inadequate nutrition, lack of seasonally appropriate clothing, and limited access to medical services (Bobokhodzhaev et al. 2020).

COVID-19 has increased the vulnerability of labor migrants further. The pandemic-associated economic decline primarily affected sectors disproportionately employing labor migrants, worsening the socioeconomic situations of those who stayed and limiting the re-entrance of those who had left Russia (Denisenko & Mukomel 2021). Moreover, as of 29 December 2021, all foreign workers are required to undergo a medical examination. This costs up to 6,200 rubles (approximately € 80[2]) and covers tuberculosis, COVID-19, sexually transmitted infections, and drug use (Matusevich 2022). In addition to the significant costs for labor migrants, the mandatory medical examination creates an additional bureaucratic hurdle and hints at the association of migrants with these diseases, as well as posing the threat of their possible deportation from the country or denial of entry.

Still vulnerable: Looking beyond the post-Soviet region
Yet, Russia is not alone in its concerns. Tuberculosis screening of migrants before or after their entry into host countries is a common measure in Australia, Canada, the Netherlands, the USA, and other countries. Despite the growing emphasis on including migrants in tuberculosis prevention and control, the migrants' perspectives are not reflected in these measures. For instance, there is limited research on migrants' views on the tuberculosis screening mentioned above. Being subject to inspection and viewed as a potential source of infection, migrants have little voice in the policies pursued in host countries (e.g., Scandurra et al. 2020).

[2] as of 04 March 2023.

12.2 Migrant stock in Russia by top eleven countries of origin in 2019
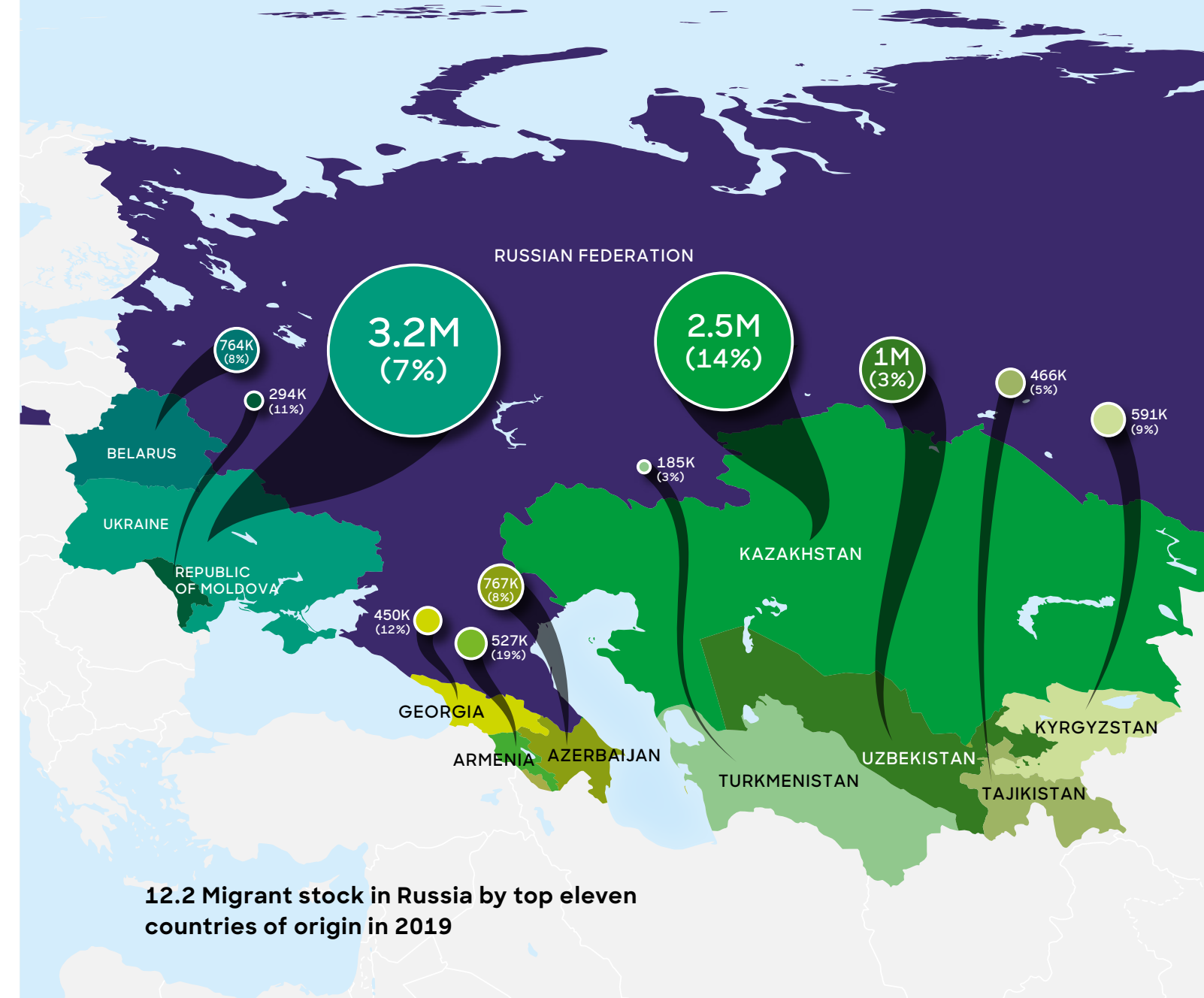
The target set by the United Nations Sustainable Development Goals was ambitious even before the outbreak of COVID-19, but the global pandemic made it unattainable. Diversion of human resources and facilities and restrictive mobility regulations imposed in the immediate response to the pandemic resulted in reductions in diagnosis and treatment of this disease in 2020. Consequently, deaths related to tuberculosis in 2021 increased by 14 % as compared to 2019 (Economist 2022), reversing the trend of decline achieved in the period 2005–2019 (WHO 2022a). Labor migrants find themselves particularly vulnerable to the implications of the global pandemic and national regulations aiming at disease control. "Leave no one behind" is a central message of the United Nations Sustainable Development Goals (2022). However, the screening measures used in many countries may not address, but rather aggravate the vulnerability of labor migrants to acquiring and developing multidrug-resistant tuberculosis. The realization of the Sustainable Development Goals' promise requires further steps toward acknowledging the broader circumstances underpinning the vulnerability instead.

Further information: Access data used in this chapter via the QR code. For more data on the dynamics of global social policy visit: https://wesis.org/QR/INF_Atlas12

Healthcare Struggles in Contemporary Africa

Roy Karadag

Health follows socio-spatial stratifications, especially on a global scale. The persistent logic of health inequalities constrains most reform attempts until today, and even with newer global health governance agendas, African struggles for socialized and high-quality medicine have not been successful.

Since the times of European rule, African populations had remained least affected by the revolutions of modern medicine. Due to imperial negligence, there were only few public health infrastructures and capacities available at the time of independence (doctors, nurses, clinics, universities, drug companies, research facilities). The few Africans who received modern medical care did so either in invasive campaigns against "tropical diseases", e.g., malaria, cholera, yaws, bilharzia and yellow fever (Coghë 2020) or as patients in low-quality mission facilities (Hardiman 2006). The expansion of public health infrastructures was a huge accomplishment of independence governments since the 1950s, many of whom invested between one tenth and one fourth of national budgets to increase the geographical coverage of medical staff, facilities and treatment opportunities. In combination with health aid, missionary medicine and new international disease control campaigns, these public health policies led to a major improvement of social

and health indicators across the board. They came to a halt in the 1980s, when austerity and privatized medicine coincided with the tuberculosis and HIV/AIDS epidemics, which crushed the life chances of so many people across Southern and East Africa (Turshen 1999).

The state of public health in Africa has been of central concern to national and international development agendas since then. In recent decades, a new global health governance framework unfolded in goal number three "Good Health and Well-Being" of the 2030 Agenda for Sustainable Development adopted by the General Assembly of the United Nations (UN) on 25th September 2015. Sustainable Development Goal 3 proclaims to "ensure healthy lives and promote well-being for all at all ages" to overcome the steep hierarchies and inequalities in global health and to support governments in expanding their public health capacities. For African countries, this new attempt to catch up was accompanied by a new wave of public-private global health initiatives as the, e.g., Global Fund to Fight AIDS, Tuberculosis, and Malaria or the Global Alliance for Vaccines and Immunization (Rushton & Williams 2011).

The results of catching up are mixed, at best. As shown in map 13.1, there is enormous regional variation in terms of medical

infrastructure. All in all, the density of physicians correlates with the overall economic development successes and failures of governments in past decades. The richer a country, the more capabilities it has to set up modern medical sectors. That explains why North African countries and South Africa fare much better than countries in the Sahel zone and the very poor West and East African countries. However, what the nationally aggregated data does not show are the steep inequalities within each country regarding access to medical provisioning. While many countries and projects were successful (e.g. new treatment infrastructures against HIV/AIDS in Uganda), that rarely led to the expansion of public healthcare infrastructures deemed conditional for social changes and social freedoms in the history of richer countries. Yes, Africans today are, in average, healthier, better-treated, and medically included much more than in the past. However, these improvements have not come with what gives middle class metropolitan life such good quality, that is, systems of socialized, national, public healthcare that guarantee that medical treatment is offered without regard to market conditions, individual financial status and geographical location. Thus, Africans must invest a significant part of their financial resources and to organize access to the few medical

infrastructures available to be and to stay healthy. To counter the problem of private, out-of-pocket payments (OOPs) for medical services, new universal health care schemes (UHC) have been proposed in the past two decades to make treatment, surveillance, therapies more available and more affordable under the "Health for All" agenda of the WHO.
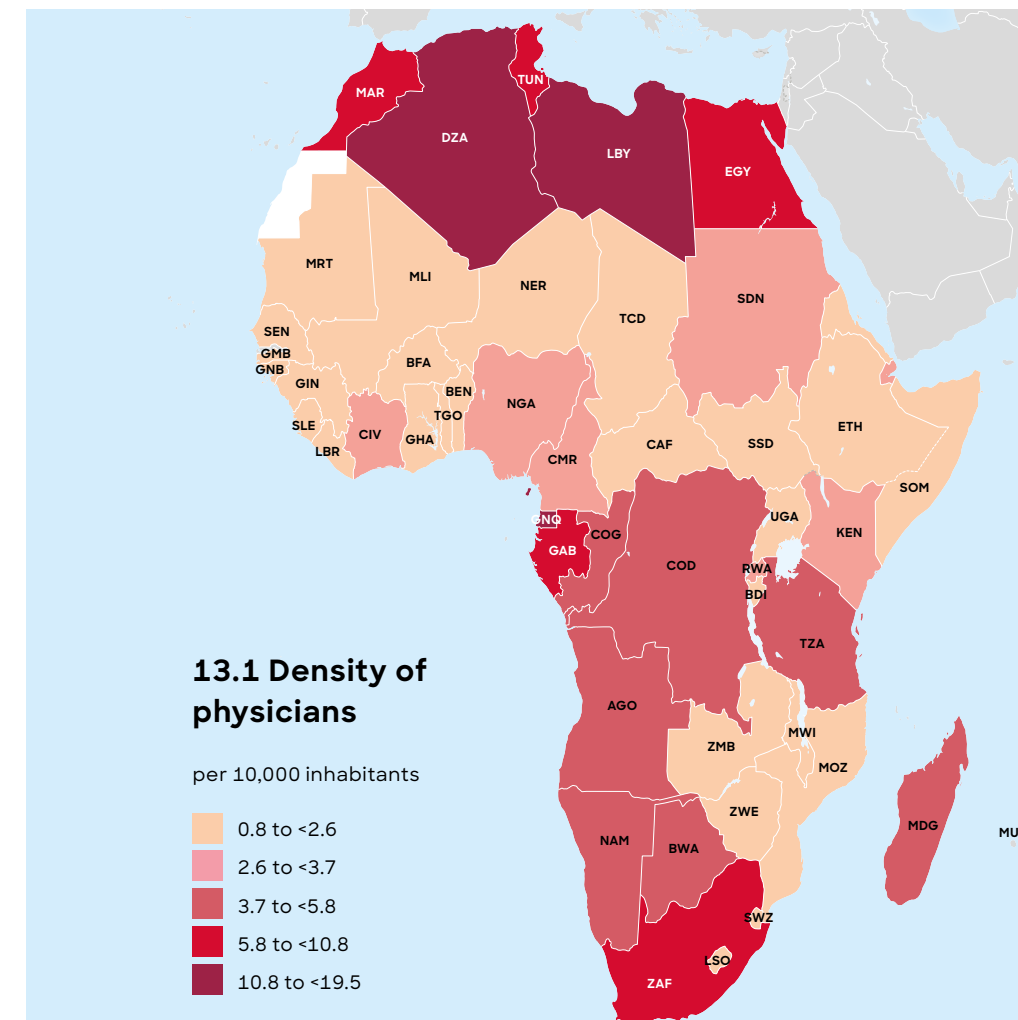
Venues of African healthcare
Drawing on social insurance and healthcare models in Europe, the promise of UHC is to strengthen the belief that healthcare is part of a moral economy that builds the public good by ordering everyday medical interactions between patients, doctors, therapists, health insurers, and ministerial bureaucrats under regulatory frameworks not driven by profit requirements.

Within the framework of promoting more inclusive UHC policies and schemes around the world, there are quite diverse real life struggles to implement it. How struggles for healthcare as social rights are fought turned out very much to be a function of, first, the timing of the healthcare systems as were instituted after decolonization and, second, of the scope of the medical sector that can and has to be regulated by healthcare policies.
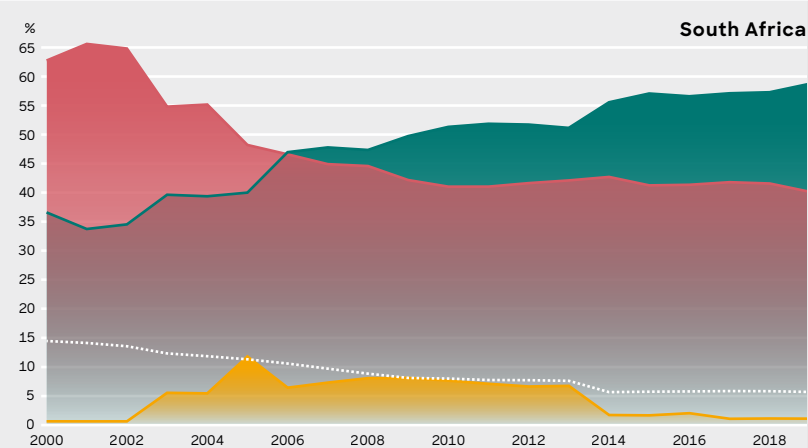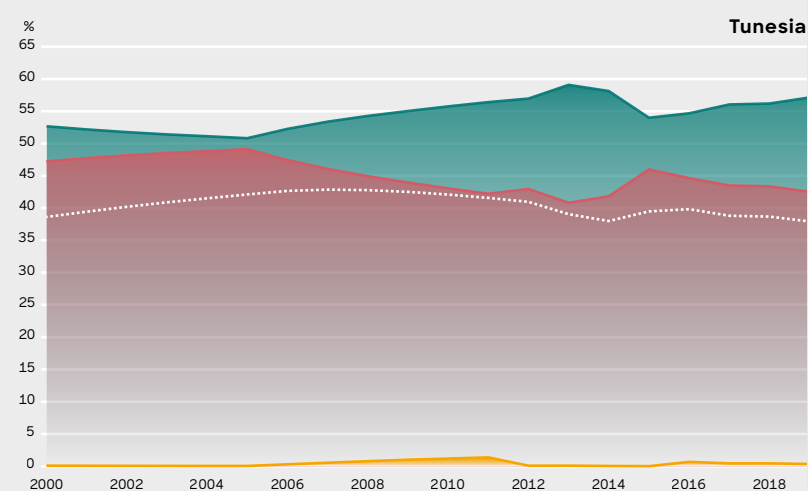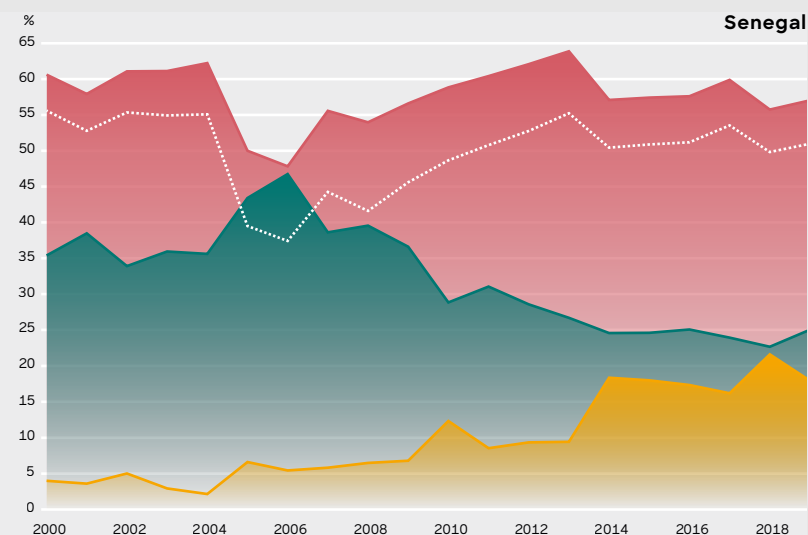
A country like **Senegal** represents a rather classical health trajectory. Under French rule, imperial public health was mainly driven by concerns for urban order which meant dealing with and containing diseases like malaria, yellow fever and bubonic plague through a mix of vaccination, sanitation and disease eradication and control campaigns in the Louis Pasteur tradition (Echenberg 2002).

After independence (1960), national elites invested in health facilities and medical training that would also benefit peripheral areas. Later, with structural adjustment, user fees and cost recovery mandates quickly privatized everyday interactions in urban and rural health posts when payment was demanded from impoverished patients before treatment. Also, as newly decentralized public service providers, hospitals were locally administered, and community participation was instituted through neighborhood assemblies electing responsible health councils. In this combination of privatization and decentralization, what medical services could be delivered directly reflected the socio-economic profile of quarters and neighborhoods, with some health posts making profits and many others barely covering their costs (Foley 2009). Since this downsizing, government health spending has remained at very low levels, and out-of-pocket payments could not be reined in.

To promote UHC under these conditions, new national health insurance legislation was adopted and supported with the donor-driven development of community health financing schemes as new ways of resource and risk pooling and of channeling private health spending. However, community health insurances rarely, if ever, expand beyond pilot phases when funding is still available from donors. The impact of this is displayed in the growing role of external health financing in the Senegalese case (figure 13.2). It is seemingly impossible to induce people to pay for new public healthcare schemes and medical facilities to offer sufficient and reliable treatments solely paid for by the respective schemes, that is, without further side payments (Wood 2023).

13.1 Density of physicians

per 10,000 inhabitants

- 0.8 to <2.6
- 2.6 to <3.7
- 3.7 to <5.8
- 5.8 to <10.8
- 10.8 to <19.5

13.2 Health expenditure (% of current health expenditure)


Senegal

Tunisia

South Africa

Legend:
- Domestic private
- Domestic general government
- External
- Out-of-pocket

National elites in **Tunisia**, on the other hand, were very much capable of setting up a relatively generous healthcare system since independence. Socialist forces within the ruling party

translated into a growing medical sector and social insurance legislation that bound state, business and union interests to one another in corporatist manner (Eibl 2020). Linked to a large public sector, public health investments led to big successes in vital statistics since the 1960s and to high reputation of the Medical Faculty of the new Université de Tunis. Over time, there was enough political will to adapt the insurance scheme to changing labor market realities and to include more social groups in it and to maintain affordable access to hospitals and rural health clinics. Eventually, growing budgetary pressures, economic opportunities of medical professionals and new patient demands increased the market for out-of-pocket payments to secure better and more treatments. While the public sector was not rolled back as in many other African countries, the state incentivized the growth of the private health-care sector, which created new segmentations. In these, urban classes secured more and better access to medical services through side payments or new private healthcare insurances, while public sector employees felt ever more pressure of OOPs despite being covered, whereas no insurance solution was found for the group of informal workers for many years. Since the 1990s, healthcare struggles were fought between factions for and against further privatizing the healthcare market. This struggle was politically won by the powerful Tunisian Labor Organization UGTT that defended the role of public healthcare. The healthcare reform of 2004 unified healthcare schemes and a single financial and reimbursement agency was maintained with the newly installed Caisse Nationale d'Assurance Maladie (Eibl 2020). However, this reform represented the last corporatist
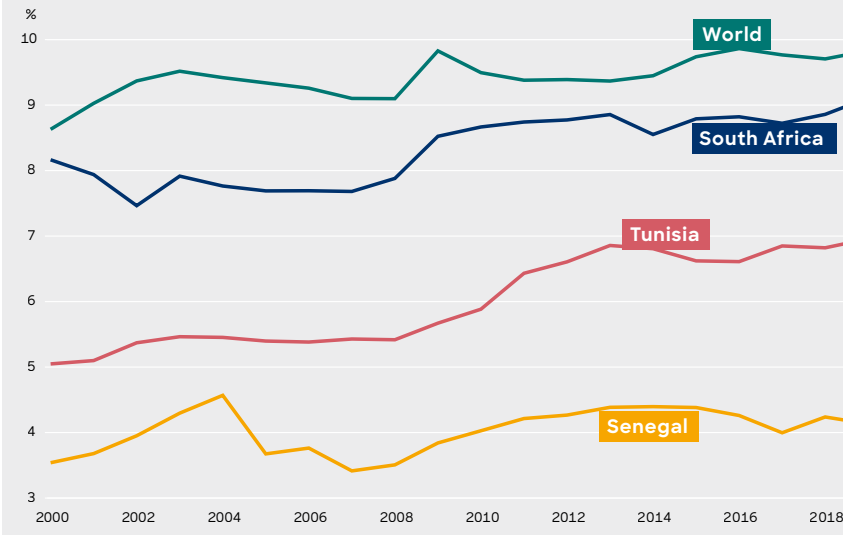
healthcare compromise. Despite relatively high formal healthcare coverage, privatized medicine grows continuously and weakens further UHC aspirations, with patients facing the realities of social stratification in health system (figure 13.2).

South Africa has a peculiar system with an unbroken dominance of private healthcare schemes. Over time, these have become the dominant line separating the life chances of white and black South Africans, which clearly reflects the policies of white settler colonialism. Accordingly, the health of Africans played no role, at all. Even when the health of black workers in mining and large farms and their decade-long exposure to tuberculosis was contested in liberal circles, no policies were put in place to address African health concerns (Packard 1989). A brief window of opportunity for more inclusive healthcare coverage emerged during World War II. Paralleling the Beveridge Report (1942) in Britain, the National Health Services Commission (1942-44) and the Gluckman Report (1945) foresaw a path to universal healthcare including Indians and Africans. Unfortunately, this road was not

taken after the war, as formal Apartheid was instituted in 1948. Since then, white employers and employees had been covered in private schemes, whereas Africans received minimal public health provision and were mainly treated in mission clinics (Price 1986). This 'color line' in health politics resulted in deep health inequalities which held until the end of Apartheid, including the HIV/TB epidemic that devastated African communities. Understandably, with the new democracy and African National Congress rule since 1994, healthcare reform has dominated the agenda to end these health injustices. After the work of several reform commissions, the government proposed a new national health insurance in 2011 (NHI), which intended to set up a single fund for the medical coverage of all (Ruiters & van Niekerk 2012). Since then, however, progress has been spurious, at best, as it remained unclear how to finance the NHI, how much power to give it to replace the powerful

13.3 Current health expenditure (% of GDP)

World
South Africa
Tunisia
Senegal

private schemes and private hospital companies and how to go from voluntary to mandatory payments. As figure 13.2 shows, OOPs did in fact decrease in the past decade, but health in South Africa is still heavily segmented. Government spending grows, but this is mainly to compensate for the inequities produced by the private monopolies, not to overcome them.

In sum, to fight for and realize UHC in Africa has not been successful, yet. For all the international attention and efforts to support it, the repertoire of global health governance is fairly limited to realize it. There just is no mechanism in place to commit domestic political, economic and bureaucratic elites to inclusive, generous UHC policies. There are several reasons for this: first, the idea of UHC goes against the interest of domestic capital and businesses, who would have to be bound to commit to financially support public healthcare schemes. Second, it is very complex to realize within the prevailing growth models that rely heavily on informal sectors. Third, it is very tricky to accomplish this under conditions of already heavily segmented healthcare systems. Given these constraints, it is rarely possible to mobilize sufficient and durable popular support for more inclusive health systems and UHC. As the South African case shows, even with strong civil society mobilization, labor union and medical professional support, healthcare reforms only minimally counter the power of privatization and segmentation, leaving Africans further at the bottom of global public health hierarchies.

Expansion and Dualization: Social Insurance in China

Tobias ten Brink, Armin Müller and Hao Chen

During the transformation from a command economy into a state-permeated variety of capitalism, the People's Republic of China saw a fundamental restructuring of its welfare regime. Motivated by the objective of creating cost efficiency and social stability, the party-state established a contribution-based insurance system partially based on Western and East Asian models. As a result, social insurance coverage has significantly expanded. At the same time, China's welfare regime features strong dualization.

While reform pressure was already high in the 1980s, it was not until the 1990s, when the remnants of command-economy social security had eroded, that serious steps were undertaken to create a more comprehensive insurance system. In line with market-oriented reforms, the late 1990s and early 2000s saw the formation of a new system of five social insurance programs for the formal urban sector: pension, health, unemployment, work injury, and maternity insurance. While the speed of this process varied between regions, and often foundered when it came to program implementation, population coverage expanded significantly from 2000 to 2020, as depicted in figure 14.1. Indeed, most urban employees take a certain amount of social security for granted nowadays.

Moreover, a range of policies were adopted to create pension and health insurance for the informally employed and rural residents, who account for the majority of the population. A pronounced welfare dualization resulted. The welfare regime operates relatively generous contribution-based insurance programs for formally employed urban workers and civil servants, benefitting the new urban middle classes in particular. The rest of the population, in contrast, is left with only very rudimentary resident insurance programs.

The uneven development of China's continent-sized economy, and differences in local institutional setups and traditions fostered regional heterogeneity in insurance coverage and generosity (Huang 2015). Regional coverage variation is shown in map 14.2, which illustrates the inclusiveness of the

formal sector pension insurance at prefectural and provincial level. The vast majority of the population lives South-East of the Heihe-Tengchong line. Here, prefectural-level data reflects differences in socio-economic development between predominantly urban and rural regions, and between the old industrial regions in the North-East and the newly industrialized regions in the Coastal South. The differences between large metropolises and the rural hinterland are particularly visible in the Yangtze and Pearl River Delta areas.

Explaining expansion

Why was social insurance expanded in the first place? A number of factors are discussed in the literature. Of course, economic prosperity and the related provision of fiscal means for the expansion of social policy are relevant. Moreover, the downsides of market-oriented reforms pressurized the government to act. In the 1990s, waves of redundancies and an increasing number of people working in the informal sector created a social security vacuum, which made reform necessary (Duckett 2020). Additionally, demographic change facilitated the expansion of social policy.

Besides these factors, capacity for action among party-state actors is also significant (ten Brink et al. 2022). The success (or failure) of local experimentation under the national party-state hierarchy influenced the design of social insurances. Different competing local pilot projects at the city level, for instance, typically preceded the adoption of national programs. When local pilots had shown that a policy was feasible and after a political consensus had formed at national level, the insurance programs were rolled out nationwide and legally codified in the 2010 Social Insurance Law. Further studies show a causal relationship between social protests and deficits in the legitimacy of the authorities, and social policy reform (Solinger 1999). Besides seeking to prevent dissatisfaction and protest and, thus, to create social stability, the party-state promoted insurance reforms to stimulate the economy.

14.1 Expansion of social insurance coverage in China, 1990–2020
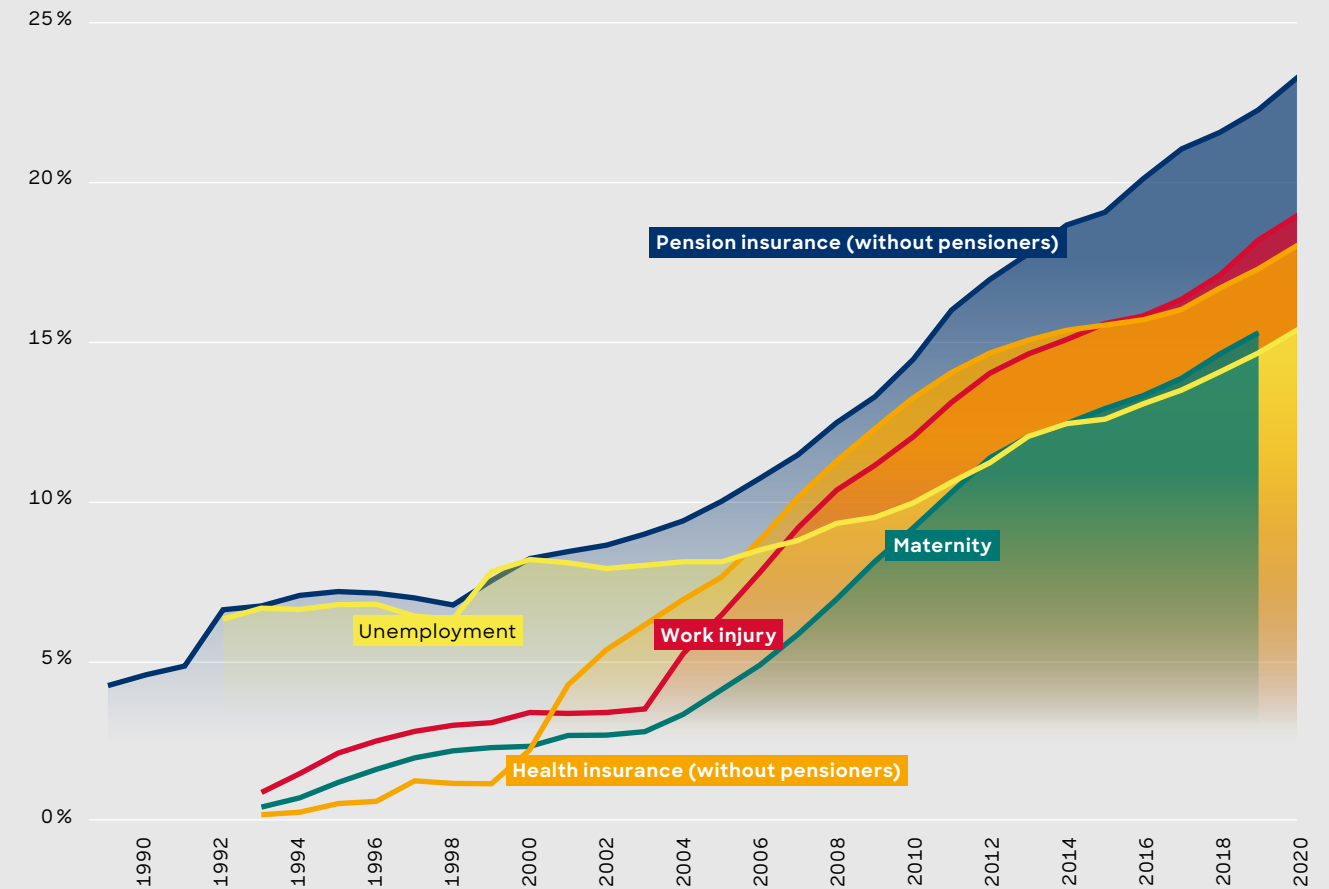
This figure depicts a steep increase in public social insurance coverage from the 2000s onwards, displayed as percentage of the total population. For health and pension insurance, pensioners are excluded to make the figures more comparable.

Notably, employers have also become a cornerstone of insurance expansion. Well into the 2000s, opposition against urban pension reform prevailed among employers, and different company types came into conflict over compliance and implementation (Frazier 2010). But this has gradually changed. Large businesses in particular, domestic and international alike, have adapted, and many now support social insurance as an anchor of social stability. Their interest in improving their "human capital" bases typically aligned with state priorities.

Last not least, learning from international models was important, influencing the design of insurances (Müller & ten Brink 2022). The urban employee pension and health insurance schemes are both hybrid models that combine a Bismarckian-style pay-as-you-go system with individual savings accounts, as established in Singapore.
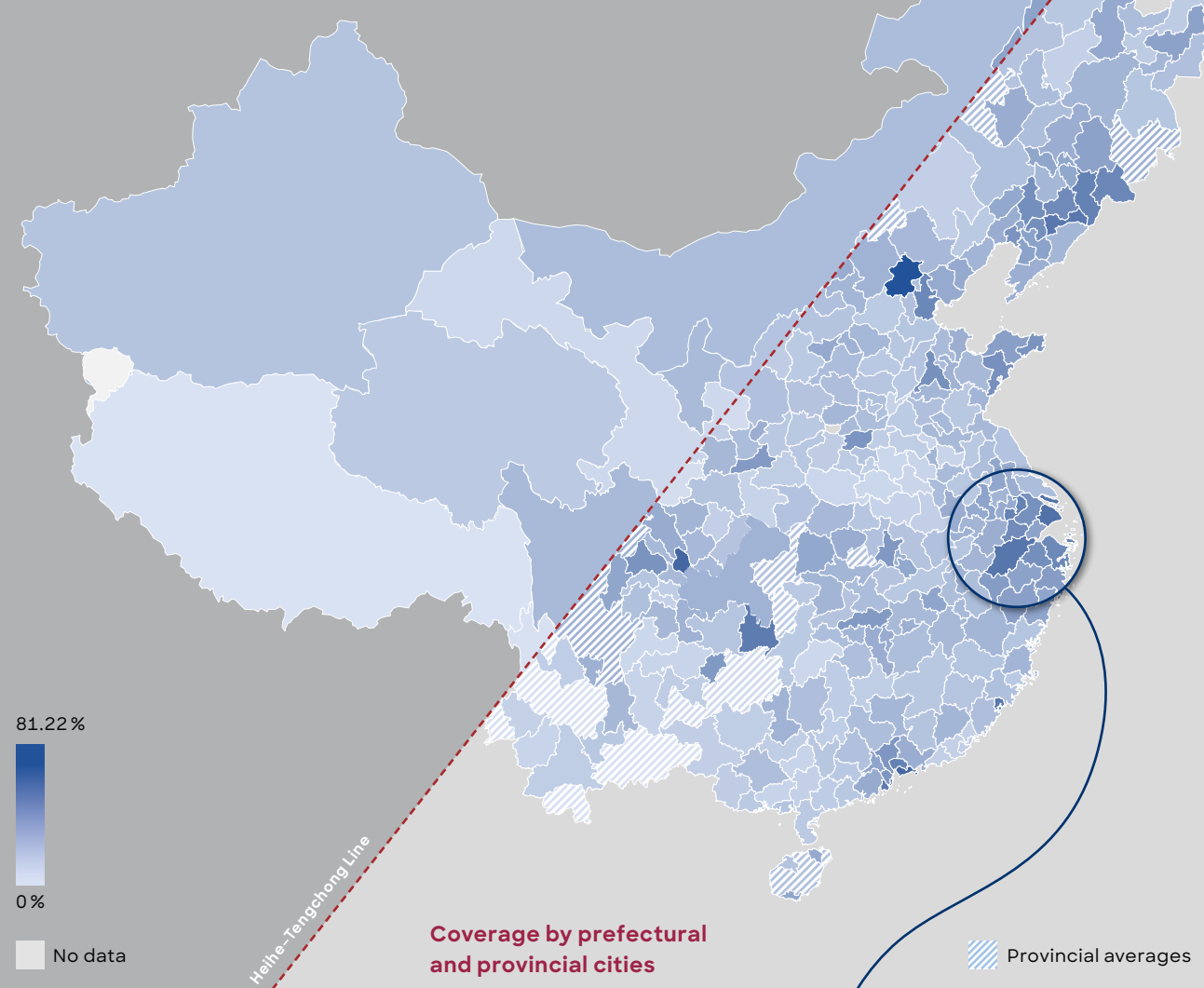
Dualized welfare

Welfare reform in China is officially portrayed as universalizing and equalizing. In reality, however, civil servants and urban formal workers benefit from much higher levels of protection and care

than the rest of the population. Since insurance schemes link benefits to contributions, those with higher incomes receive more generous benefits—resembling "productivist" and "conservative" welfare regimes across the planet. In fact, the government legitimizes dualized welfare by arguing that the formal sector of the economy is more productive than the informal and agricultural sectors. In this context, women are especially disadvantaged regarding pensions, since they are more likely to have part-time jobs, low salaries, and temporary employment (Zhu & Walker 2018).

Differences in generosity are unambiguous. As the example from pension insurance in figure 14.3 shows, civil servants and formally employed urban workers receive relatively generous annual pensions, easily ten times higher than those provided by the rudimentary resident insurance program for the informally employed and the rural population. While pension insurance for formal employees is mandatory and based on a mix of employer and employee contributions, pension insurance for the rest of the population is neither mandatory nor funded by employer contributions. Employee

14.2 Urban Employees Basic Pension Insurance, provinces and cities

Coverage by provinces

81.22 %

0 %

No data

Coverage by prefectural and provincial cities

Provincial averages

Heihe–Tengchong Line

Shanghai

Yangtze River Delta

Hangzhou

Above: The left side of this map shows regional variation in population coverage of the urban employee pension insurance in Western China (2020 data; Labor Statistical Yearbook of China). The right side focuses on prefectural and provincial cities, an administrative level below provinces (2020 data; City Statistical Yearbook). Both sides illustrate how population coverage is higher in more urbanized and industrialized regions, and lower in regions with large agricultural sectors and populations. While coverage is often higher in socio-economically more developed areas, regional and local variation also reflects distinct economic histories, and social and demographic particularities. Crosshatched areas are less urbanized prefectures, where we imputed the provincial averages14 of population coverage.
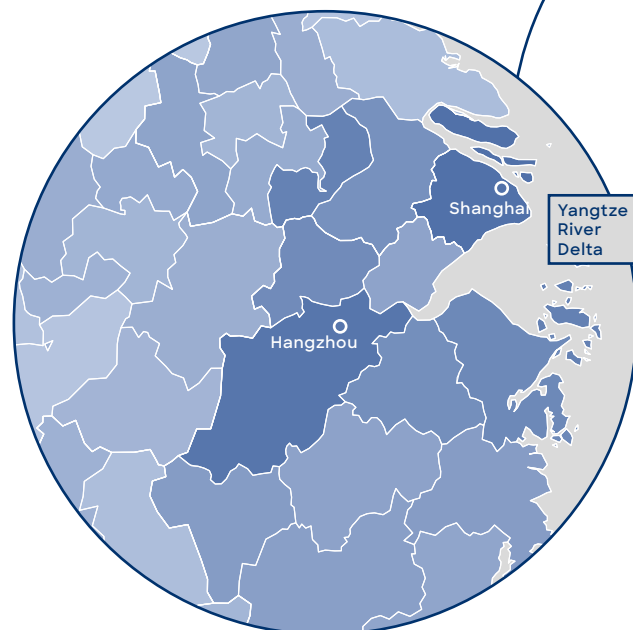
Left: This map section zooms in on the Yangtze River Delta, arguably the biggest concentration of adjacent metropolitan areas in the world, with more than 140 million people and a fifth of China's GDP. The two most advanced cities in this area, Shanghai and Hangzhou, have the highest urban employee pension coverage. In relation to their total population, these cities cover 64.98 % and 62.79 %, respectively. Other cities in the area however vary widely, with coverage rates ranging between 21.18 % and 55.52 %.

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payments into individual savings accounts and a small state subsidy form the basis of this rudimentary form of protection. A largely similar situation exists for health insurance. Regarding unemployment insurance, security tends to be provided for the small share of better-off employees.

Dualized welfare generosity is associated with older forms of social segregation—meaning, above all, the system of household registration (hukou) established in the 1960s, which provided for a strict separation between rural and urban residents and defined their social entitlements. Admittedly, this urban-rural divide was weakened during the reform process by extending social insurance to migrant workers in the formal sector and by integrating the urban and rural protection systems for the remainder of the population. Today, a new kind of segregation of the population can be observed, one which is also rooted in the past: Although rising government revenues and per capita GDP have allowed the government to increase social spending over time, they have disproportionately benefited the wealthier segments of the population. Residents with a rural hukou and limited prospects for permanent employment continue to be left behind. Unsurprisingly, this dual structure of social insurance prevents a far-reaching and institutionalized redistribution between social classes (Gao et al. 2019).

Note that this dualization is not simply the result of a government plot. The structure of the economy and related employer preferences both play important roles, too. Structural change in China's capitalist modernization from the 1980s onwards exhibited one key feature: The substantial reallocation of labor from agricultural to non-agricultural sectors and a parallel shift from primarily labor-intensive to increasingly capital-intensive industries. This, in turn, has led to a strong segmentation of the industrial workforce into core workers—with formal and more long-term contracts—and underprivileged temporary workers (Lüthje et al. 2013). As a result, this dual structure of the workforce has strongly impacted the expansion and subsequent maintenance of dualized insurance schemes, with core workers insured under the more generous urban employee schemes, and temporary workers, if they have any insurance at all, often being covered by the rudimentary resident schemes. Large employers in particular are benefitting from this. With the combination of urban employee insurance and the resident insurance with no employer contributions at all, a cost-effective "solution" was found. Nevertheless, businesses also continue to exploit loopholes even within the urban employee insurance schemes, and determine their contribution levels based on the minimum wage rather than salaries that are actually paid, for instance.

14.3 Average annual pension 2020

¥ 45,000

¥ 40,000

¥ 35,000

¥ 30,000

¥ 25,000

¥ 20,000

¥ 15,000

¥ 10,000

¥ 5,000

¥ 0

UEBPI   URRBPI

China's pension reforms since the 1990s have created a strongly dualized system. While the resident insurance program for the informally employed and the rural population (URRBPI) is rudimentary, formally employed urban workers and civil servants receive a more generous pension (Urban Employees Basic Pension Insurance, UEBPI). Note that an average annual pension of 40,198 Chinese yuan (¥) in 2020 was roughly equivalent to 5,700 US dollars.

Finally, looking at the broader consequences of social reform, studying China's welfare arrangements can help facilitate a better understanding of the maintenance of authoritarian rule. This is related in particular to the one group that has so far benefited disproportionately from welfare reform, namely the new urban middle classes. The latter is a key support group for the party-state, hence their inclusion in the more generous public insurance—which they are, of course, allowed to augment with supplementary commercial health insurance.

Further information: Access data used in this chapter via the QR code. For more data on the dynamics of global social policy visit: https://wesis.org/QR/INF_Atlas14

Social Pensions in Bangladesh

and the Challenges of Targeting Social Transfers

Sebastian Fehrler and Heiner Salomon

Societies in South Asia are aging fast. This demographic shift creates immense challenges, which most countries meet with the expansion of their social pension schemes. However, the targeting of these schemes toward those most in need has proven a major challenge itself.
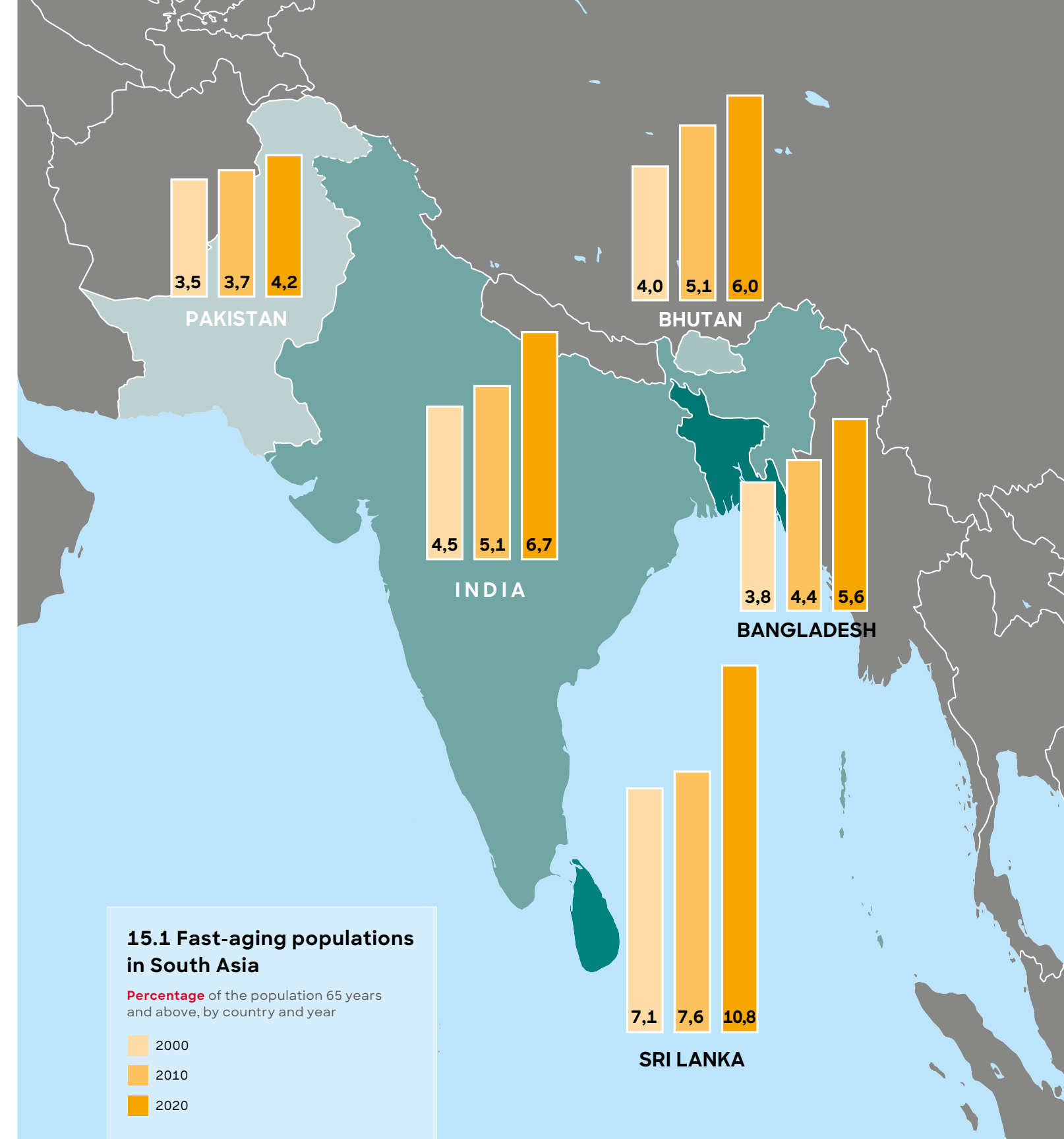
The share of older persons in the total population has substantially increased across all countries in South Asia (see map 15.1)—except for Pakistan, the share of persons who are 65+ years old has grown by nearly 50 % between 2000 and 2020. This trend poses a number of challenges for these countries— the most pressing is the lack of access to social pensions and other means public support for older persons. This leads to increased poverty and social isolation, which in turn may have a negative impact on the overall health and wellbeing of this group. According to the United Nations, Bangladesh's population over the age of 60 is expected to more than double by 2050, reaching nearly 40 million people (UN DESA 2022). This is partially due to the great successes in swiftly reducing birth rates in the country. The total fertility rate is down from nearly 7 children per woman in 1970 to around the replacement level of 2 nowadays. Consequently, the share of older persons in the total population will rise sharply.

Bangladesh currently has about 10 million older persons 65 years and above (ibid). Older persons are less likely to be able to support themselves through the labor market, especially in one where the large majority of jobs require manual labor: About 60 % of men and over 75 % of women in Bangladesh work in agricultaure and industry (World Bank 2016). Moreover, the share of older persons receiving government support through occupational pensions is negligible. Only 5 % build up pension contributions (ibid), and only 630,000 older persons receive the pension for former government employees (Government of Bangladesh 2022), that means that only about 6 to 7 % of older people are covered by any public or private government pension that is not a social pension. Finally, processes such as (internal) migration, the aforementioned reduced birth rates and increased female labor participation increasingly reduce the availability of informal support within the family or community. The pressure on Bangladesh to provide adequate support and services for this fast-growing segment of population is growing.

The Old Age Allowance program

One of the key ways in which older people in Bangladesh can currently access support is through a social pension, the Old Age Allowance (OAA). This pension provides a regular small income grant (500 Bangladesh Taka a month, equivalent to roughly 5 US Dollars) to persons over the age of 65 years for men, and 62 years for women who do not have access to other forms of governmental support. The program is meant to be poverty targeted using criteria set by the government (such as household structure, disability, income and land ownership).

15.1 Fast-aging populations in South Asia

Percentage of the population 65 years and above, by country and year

- 2000
- 2010
- 2020

The OAA was introduced in 1997 for a relatively limited number of about 400,000 recipients in selected areas in Bangladesh. Over the years the number of those included in the program gradually grew to about a million in 2004, and consecutively to 2.5 million by 2010. After a period of nearly constant recipient numbers, the number started rising again swiftly in 2015 and now stands at nearly 5 million. At the same time, the transfer amount rose progressively from 100 Bangladesh Taka (BDT) to 500 BDT in 2017. Due to the strong economic growth of the Bangladesh economy, much of the increase of both recipient numbers and transfer amounts since the 2010s has not raised public expenditures on the OAA as a share of GDP (See figure 15.2).

However, despite the existence of the OAA, many older people in Bangladesh still do not have access to the support they would need. This is partly due to the limited transfer amount, which is nowhere near enough to actually cover expenses for an older person. Another issue is that the targeting is very poor. As a consequence, a lot of older persons who should be eligible do not receive the OAA.

Lessons from a recent attempt to improve targeting

In a recent impact evaluation study in the North-West of Bangladesh, Asri et al. (2023) found high rates of mistargeting ranging between 60 and 80 % when measuring the percentage of eligible individuals not receiving the social pension and the percentage of ineligible individuals receiving the social pension. Selection committee members, who were in charge of the targeting, lacked knowledge of the eligibility and priority criteria that they were supposed to follow for the selection of beneficiaries. Based on these findings, the authors developed two capacity-building interventions to improve the selection of beneficiaries in collaboration with the Department of Social Services of the Ministry of 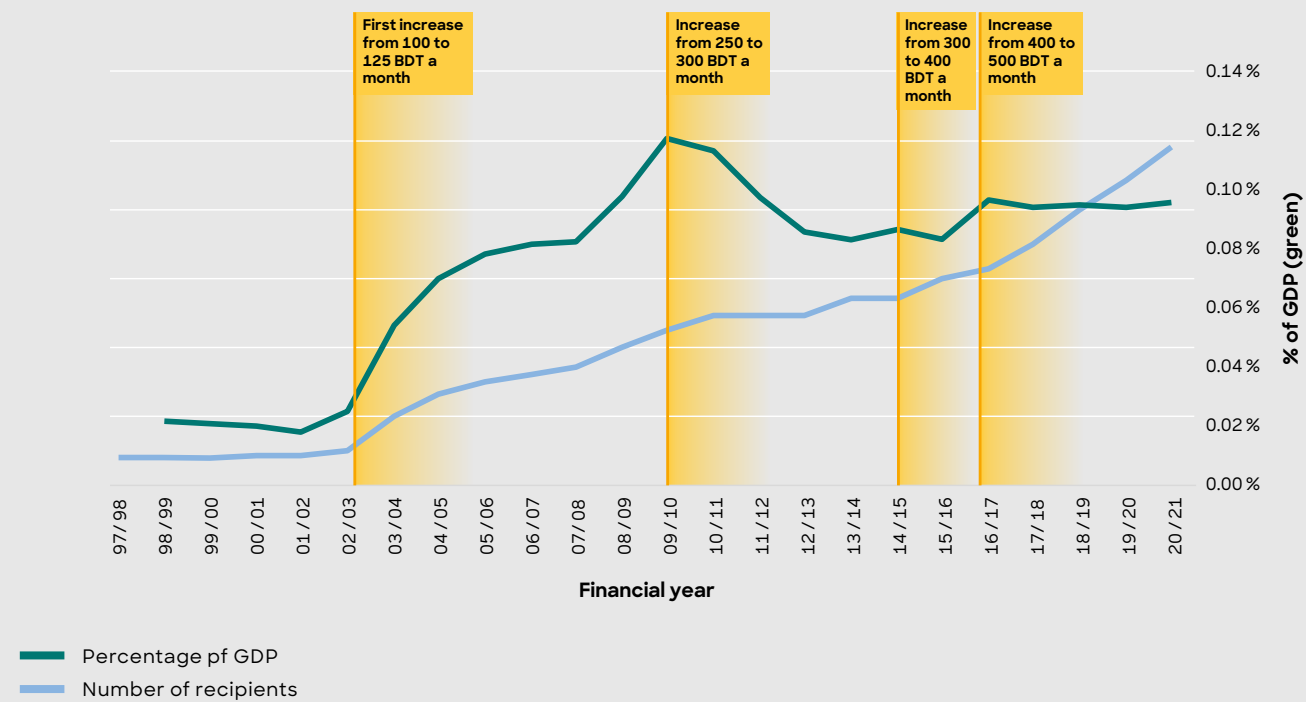Social Welfare of Bangladesh. The interventions included a one-to-one training on selection procedures and the provision of data on the target group using so-called eligibility information cards in randomly selected municipalities (unions).

The main result of the impact evaluation of these interventions was that the intervention improved the knowledge levels among selectors but could not improve the selection of beneficiaries. Moreover, the authors present evidence indicating that corrupt selection practices such as the collection of bribe payments during the application and selection period continued to influence the selection of beneficiaries. These findings suggest that future reforms or interventions need to address both capacity constraints and corruption at the same time. They also clearly show that improving targeting is difficult and will remain a key challenge in the future.

Further information: Access data used in this chapter via the QR code. For more data on the dynamics of global social policy visit: https://wesis.org/QR/INF_Atlas15

Key problems in the targeting of social transfers in Bangladesh and beyond are (Niehaus et al. 2013, Asri et al. 2022, Grosh et al. 2022):

1. Limited coverage: Often only very few of eligible individuals are reached due to lack of information, eligibility verification, and access to the pension program. The image below shows a large number of potential recipients waiting in front of a government building — only a fraction ended up receiving the OAA.

2. Leakages and fraud: There can be problems with targeting the most vulnerable individuals, leading to benefits being received by those who are not eligible or those who do not need them.

3. Political influence: The allocation of means-tested pensions may be subject to political influence, leading to favoritism and corruption.

Policies to improve targeting

To overcome these problems different approaches have been proposed (ibid):

1. Data-driven targeting: Using data-driven targeting methods such as proxy means testing or community-based targeting, which can accurately identify eligible beneficiaries and minimize leakage to those who do not need support.

2. Simplification: Simplifying the process of targeting and distributing social transfers, reducing the administrative burden and costs involved.

3. Evidence-based policy: Evidence-based policy-making by conducting impact evaluations of social transfer programs to identify best practices and lessons learned.

4. Capacity: building local capacity and strengthening existing systems, e.g. via training and provision of data.

15.2 Old age allowance in Bangladesh

First increase from 100 to 125 BDT a month

Increase from 250 to 300 BDT a month

Increase from 300 to 400 BDT a month

Increase from 400 to 500 BDT a month

% of GDP (green)

0.14 %
0.12 %
0.10 %
0.08 %
0.06 %
0.04 %
0.02 %
0.00 %

97/98 98/99 99/00 00/01 01/02 02/03 03/04 04/05 05/06 06/07 07/08 08/09 09/10 10/11 11/12 12/13 13/14 14/15 15/16 16/17 17/18 18/19 19/20 20/21

Financial year

— Percentage pf GDP
— Number of recipients

1997–2008: Begum and Sen 2013;
2009–2021: Government of Bangladesh (multiple years)

BDT = Bangladeshi taka (currency of Bangladesh)

Gathering of potential recipients in front of local government office (photo: Kumar Biswas)

About WeSIS – The Global Welfare State Information System

Nils Düpont and Ivo Mossig

This atlas and all maps are based on data that is collected within the collaborative research center 1342 "Global Dynamics of Social Policy" (CRC 1342) funded by the German Research Foundation (DFG) since 2018. Up to 15 projects were and are working under one umbrella with the overarching goal to describe, map, analyze and explain the introduction and subsequent development of state social policies, globally since 1880. For this, research data desiderata—particularly for welfare states of the Global South—had to be filled, at times in years of detailed archival work. With the launch of WeSIS—The Global Welfare State Information System—in summer 2024, this "data treasure" will be publicly accessible to the scientific community at wesis.org, including data that is accessible for the first time ever.

Data in WeSIS

Setting out to explore the dynamics of global social policies, the CRC's goal is to describe, map, analyze and explain state social policies globally since 1880 for countries with at least 500,000 inhabitants (as of today). The CRC's analytical framework focuses on the interplay between transnational interdependencies and national responses, paying particular attention to global coordination efforts by international organizations. This unique research profile in terms of a historically and simultaneously globally comparative scope requires consistent research data that captures

(1) the introduction of state social policies, their generosity and inclusiveness plus their development over time,
(2) trans- and international (inter-)dependencies and linkages between entities, as well as
(3) the domestic conditions.

Applying common coding rules alongside standardization procedures and validation checks when entering data into the system ensures a high level of harmonized data making WeSIS a "one stop data shop" for (comparative) welfare scholars. Given the analytical framework, a unique feature of WeSIS is its combination of monadic *and* dyadic data at the country-year and country-country-year level, respectively.

This way a myriad of research questions can be addressed quite easily such as questions about the economic interdependencies and their impact on state social policies, how colonial dependencies, migrant movements or violent international relations affect the introduction and design of social policies and whether and how domestic factors condition them. Data for social policies cover the fields of old age and survivors, labor and labor market policies, health and long-term care, education and training, family and gender policies, as well as migrants' social rights (Figure 16.1).

Data + Database + Tools = Information System

At the core of WeSIS is a database, but WeSIS is more than that. It's unique combination of data, a database and (analytical) tools at "both sides" of the system overcomes current limitations with oftentimes single, isolated and non-standardized welfare policy data(sets) turning WeSIS into an *information system*.

Featuring many visualizations co-created with social policy scholars on indicator explorer pages, correlation and map tools as well as country profiles, WeSIS enables the user to easily dive into the data and explore the dynamics of social policies. The possibility to save a specific selection

of indicators, countries and time points as a user-specific dataset that can (a) be downloaded for further processing in open file formats, and (b) be made publicly available keeping a unique identifier, allows for making the research data FAIR (Wilkinson et al. 2016). The user also benefits from an extensive and standardized documentation of each indicator alongside consistency and validation checks that ensure harmonization and accuracy at a new level on the "other side" of WeSIS, i.e., when the data is prepared for and uploaded to the database.

16.1: Main categories and sub-categories in WeSIS

Social Policies	Domestic Conditions	Interdependencies and Relations
Old age and survivors	Policy legacies	Communication
Labour and Labourmarket	Economic and financial factors	Political institutional linkages
Health and long-term care	Political factors	Economic relations
Education and Training	Social structure	Migration
Family and gender policies	Culture	Violent conflicts and colonial dependencies
Immigrants	Geography	

The Genesis of WeSIS

Based on insights from user-centered design processes, WeSIS was built in *co-creation* with the CRC's policy scholars. Co-creation as a software development method takes the user onboard right from the beginning (Zwass 2010) leading to exchange and empowerment of the participants and a mutual understanding of the requirements, needs and features of the system—both for the computer as well as social scientists. Building WeSIS was accompanied by research dealing with the question if and how co-creation contributes to improvements and habitual changes in analyzing and visualizing (social policy) data (Molina-León & Breiter 2020; Molina-León et al. 2020; 2022).

In a first step, a requirement analysis involving all projects dealing with quantitative data laid ground by providing an overview about the data to come, the methods applied and the specificities of each project in terms of theoretical approaches rooted in different disciplines such as sociology, political science, public health and law. Iterative co-creation sessions—also involving "analogous paper-and-pencil methods"—led to a definition of the basic features and the visualizations deemed most helpful. As a side-effect, the sessions prepared ground for common rules and standardization procedures including a systematic documentation necessary on behalf of the social scientists. Creating such a mutual understanding both *within* social policy scholars as well as *across* computer and social scientists together with the fact that users valued being able to influence and literally "see" their impact on the system resulted in a very positive

evaluation of the co-creation process (Molina-León et. al 2022). As a result, co-creation will also be the preferred way to further develop and extend WeSIS.

How to use WeSIS

In principle, WeSIS allows for three ways to approach the data. (1) If you are interested in a specific variable, the *indicator page* is the preferred starting point including the documentation, data visualizations, summary statistics (if applicable), and the possibility to download the data. In short, the indicator page is useful for univariate descriptive insights. (2) For those who are less interested in a single indicator but rather a single country, the *country profiles* gather country-specific information and display them in a structured and easily accessible manner for putting the data into perspective. (3) The *data explorer*, in turn, allows for inspecting several indicators at the same time providing bi-variate correlations and further data visualizations to conduct explorative analyses.

Additional resources like video tutorials explaining the use of WeSIS, community notebooks showcasing analysis conducted with WeSIS data, or the possibility to create (and search for) user-specific data making the data FAIR, accompany the data in WeSIS. This way, the interested reader can delve into all the details, common rules and standards while the curious user can immediately dive into the data and start exploring the dynamics of social policy—globally since 1880.

Further information: Access data used in this chapter via the QR code. For more data on the dynamics of global social policy visit: https://wesis.org/QR/INF_Atlas16

References

Abramson, A. (1929). Social Insurance in Soviet Russia. *Journal of Political Economy*, 37 (4), 377–99.

Adams, Z., Bastani, P., Bishop, L. & Deakin, S. (2017). The CBR-LRI Dataset: Methods, properties and potential of leximetric coding of labour laws. *Journal of Comparative Law and Industrial Relations*, 33 (1), 59–92.

Addati, L., Cassirer, N. & Gilchrist, K. (2014). Maternity and paternity at work: law and practice across the world. Geneva: International Labour Office.

Albalate Lafita, J. (1979). The influence of international labour Conventions on labour law and social change in Spain. *International Labour Review*, 118, 443–457.

Alber, J. (1982). Vom Armenhaus zum Wohlfahrtsstaat. Frankfurt / New York: Campus.

Asri, V., Biswas, K., Fehrler, S., Fischbacher, U., Michaelowa, K. & Rabbani, A. (2023). Missing the target: Does increased capacity of the local government improve beneficiary selection? Working Paper. Available a http://sebastianfehrler.bplaced.net/wordpress/wp-content/uploads/221101_Asri_et_al_Social_pension_BD.pdf (accessed 06 June 2023).

Asri, V., Michaelowa, K., Panda, S. & Paul, S. B. (2022). The pursuit of simplicity: Can simplifying eligibility criteria improve social pension targeting? *Journal of Economic Behavior & Organization*, 200, 820–846.

Avato, J., Koettl, J. & Sabates-Wheeler, R. (2010). Social Security Regimes, Global Estimates, and Good Practices: The Status of Social Protection for International Migrants. *World Development*, 38 (4), 455–466.

Bahle, T. (2009). Public Child Care in Europe: Historical Trajectories and New Directions. In: Scheiwe, K. & Willekens, H. (eds.), *Childcare and Preschool Development in Europe*, 23–42. London: Palgrave Macmillan.

Baldwin, P. (1990). The Politics of Social Solidarity: Class Bases of the European Welfare State 1875–1975. Cambridge, UK: Cambridge University Press.

Barnett, M. N. & Finnemore, M. (2004). Rules for the World. International Organizations in Global Politics. Ithacat / London: Cornell University Press.

Batich, M. (2004). Previdência do trabalhador: uma trajetória inesperada. *São Paulo em Perspectiva*, 18 (3).

Becker, B. (2019). Introducing COLDAT: The Colonial Dates Dataset. *SOCIUM SFB 1342 Working Papers*, 2. Bremen: SOCIUM, SFB 1342. DOI: doi:10.31219/osf.io/apvqm

Begum, S. & Sen, B. (2013). Elderly Population and the Old Age Allowance Programme of Bangladesh: An Overview. Dhaka: Bangladesh Institute of Development Studies.

Béland, D., Morgan, K., Obinger, H. & Pierson, C. (eds.) (2021). The Oxford Handbook of the Welfare State. Oxford: Oxford University Press.

Bensúsan, G. (2022). La legislación laboral y su contribución en la segmentación del mercado de trabajo en América Latina. In: Mückenberger, U. & Dingeldey, I. (eds.), *Overcoming Legal Segmentation: Extending Legal Rules to All Workers?*, Special Issue: International Labour Review No. 3. Geneva: ILO.

Besche-Truthe, F. (2022). The Global Trajectories of Compulsory Education: Clustering Sequences of Policy Development. In: Martens, K. & Windzio, M. (eds.), *Cultural Spheres, Networks, and International Organizations*, 65–96. Cham: Palgrave Macmillan.

Besche-Truthe, F., Seitzer, H. & Windzio, M. (2020). Cultural Spheres — Creating a dyadic dataset of cultural proximity. *SFB 1342 Technical Paper Series*, 5. Bremen: SFB 1342. DOI: 10.26092/elib/2081

Besche-Truthe, F., Seitzer, H. & Windzio, M. (2023). Diffusion of Mass Education: Pathways to Isomorphism. In: Mattei, P., Dumay, X. Mangez, E. & Behrend, J. (2023), *Oxford Handbook on Education and Globalization*. Oxford: Oxford University Press.

Bjerre, L., Helbling, M., Römer, F. & Zobel, M. (2016). The Immigration Policies in Comparison (IMPIC) Dataset: Technical Report. *WZB Discussion Papers*, No. SP VI 2016-201. http://hdl.handle.net/10419/145970

Blofield, M., Filgueira, F., Giambruno, C. & Martínez Franzoni, J. (2021). Beyond States and Markets: Families and Family Regimes in Latin America. In: Sátyro, N., del Pino, E. & Midaglia, C. (eds.), *Latin American social policy developments in the twenty-first century*, 255–285. Cham: Palgrave Macmillan.

Blofield, M. & Martinez Franzoni, J. (2015). Maternalism, Co-responsibility, and Social Equity: A Typology of Work-Family Policies. *Social Politics: International Studies in Gender, State & Society*, 22 (1), 38–59.

Bobokhodzhaev, O., Radzhabzoda, A., Mirzoeva, F., Sharipov, F.; Aliev, S. & Ali-Zade, S. (2020). Риск заболевания туберкулезом и эффективность его химиопрофилактики у трудовых мигрантов, жителей Республики Таджикистан [The risk to develop tuberculosis and efficacy of its preventive treatment in labor migrants residing in the Republic of Tajikistan]. Туберкулёз и болезни лёгких, 98 (1), 16–21.

Böger, T., Son, K. & Tonelli, S. (2022). Origins of Family Policy: Prerequisites or Diffusion. In: Windzio, M., Mossig, I., Besche-Truthe, F. & Seitzer, H. (eds.), *Networks and Geographies of Global Social Policy Diffusion*, 169–193. Cham: Palgrave Macmillan.

Boris, E. (2019). Making the woman worker : precarious labor and the fight for global standards, 1919–2019. New York: Oxford University Press.

Cameron, D. (1978): The Expansion of the Public Economy: A Comparative Analysis. *American Political Science Review*, 72 (4), 1243–1261.

Campbell, J., Ikegami, N. & Kwon, S. (2009). Policy learning and cross-national diffusion in social long-term care insurance: Germany, Japan, and the Republic of Korea. *International Social Security Review*, 62 (4), 63–80.

Cicek, N. (2012). The Role of Mass Education in Nation-Building in the Ottoman Empire and the Turkish Republic, 1870–1930. In: Brockliss, L. & Sheldon, N. (eds.), *Mass Education and the Limits of State Building, c.1870–1930*, 224–250. Basingstoke: Palgrave Macmillan.

Coghë, S. (2020). Disease control and public health in colonial Africa. In: Oxford Research Encyclopedia of African History.

de Carvalho, G. & Fischer, J. (2020). Health and long-term care system introduction and reform — concepts and operationalisations for global and historical comparative research. *SFB 1342 Technical Paper Series*, 3. DOI: 10.26092/elib/539

de Carvalho, G., Polte, A. Frisina Doetter, L. (forthcoming). When do states take responsibility for healthcare? Timing and entitlement trends of healthcare system introductions in a global perspective.

de Carvalho, G., Schmid, A., Polte, A., Frisina Doetter, L., Haunss, S. & Rothgang, H. (2023). Global Historical Healthcare SystemsDataset (G2HSet): Technical report andcodebook. SFB 1342 Technical Paper Series 15. Bremen: SFB 1342. DOI: 10.26092/elib/2273.

Denisenko, M. & Mukomel, V. (2021). Labor migration in Russia during the coronavirus pandemic. Демографическое обозрение (English selection), 7 (5), 42–62.

Dingeldey, I., Fechner, H., Gerlitz, J-Y., Hahs, J. & Mückenberger, U. (2022). Worlds of Labour: Introducing the Standard-Setting, Privileging and Equalising Typology as a Measure of Legal Segmentation in Labour Law. *Industrial Law Journal*, 51 (3), 560–597.

Duckett, J. (2020). Neoliberalism, Authoritarian Politics and Social Policy in China. *Development and Change*, 51 (2), 523–539.

Echenberg, M. (2002). Black Death, White Medicine. Bubonic Plague and the Politics of Public Health in Colonial Senegal, 1914–1945. Portsmouth, NH: Heinemann.

Economist (2022): How one pandemic made another one worse. Covid-19 set back the battle against tuberculosis. But it also points the way forward, 27 October. Available at https://www.economist.com/international/2022/10/27/how-one-pandemic-made-another-one-worse (accessed on 06 June 2023).

Eiser, L., Lischka, M. & Tkaczick, T. (2020). Calculating Distances between Capital Cities in ArcGIS using the CShapes Dataset. *SFB 1342 Technical Paper Series*, 1. Bremen: SFB 1342. DOI: 10.26092/elib/2111

Esquivel, V. (2017). The Rights-based Approach to Care Policies: Latin American Experience. *International Social Security Review*, 70 (4), 87–103.

Fechner, H. (2022). Legal segmentation and early colonialism in sub-Saharan Africa: Informality and the colonial exploitative legal employment standard. *International Labour Review*, 161 (4), 615–634.

Federal Law of RF (2002). On the legal status of foreign citizens in the Russian Federation. As amended by 02.07.2021. Available at http://pravo.gov.ru/proxy/ips/?docbody&nd=102078147 (accessed on 06 February 2022).

Feierman, S. (1985). Struggles for Control: The Social Roots of Health and Healing in Modern Africa. *African Studies Review*, 28 (2/3), 73–147.

Fischer, J. (2022). The social long-term care insurance model: comparing actor configurations across countries and time. *Journal of International and Comparative Social Policy*, 38 (2), 93–110.

Fischer, J., Polte, A. & Sternkopf, M. (2022). The introduction of long-term care systems: The nascent diffusion of an emergent field of social policy. In: Windzio, M., Mossig, I., Besche-Truthe, F. & Seitzer, H. (eds.), *Networks and Geographies of Global Social Policy Diffusion. Culture, Economy and Colonial Legacies*, 139–167. Cham: Palgrave Macmillan.

Fischer, J., Sternkopf, M. & Rothgang, H. (n.d.): Historical Long-Term Systems Dataset (HLTCS) as part of the Global Welfare State Information System (WeSIS). Updated version 10.01.2023 (unpublished dataset).

Frisina Doetter, L., Schmid, A., de Carvalho, G. & Rothgang, H. (2021). Comparing apples to oranges? Minimizing typological biases to better classify healthcare systems globally. *Health Policy OPEN*, 2, p. 100035.

Fudge, J. & Mundlak, G. (2022). Law and gendered labour market segmentation. *International Labour Review*, 161 (4), 657–675.

Gao, Q., Yang, S. & Zhai, F. (2019). Social Policy and Income Inequality during the Hu–Wen Era: A Progressive Legacy? *The China Quarterly*, 237, 82–107.

Gorecki, J. (1970). Industrial Accident Compensation in Eastern Europe: An Empirical Inquiry. *Stanford Law Review*, 23 (2): 276–86.

Government of Bangladesh (2022). Social Protection Programs: Fiscal Year 2021–22. Government of the People's Republic of Bangladesh, Ministry of Finance, Finance Division, Budget-1

Wing, Branch-9. http://www.mof.gov.bd/site/page/5f9be3bc-923f-4c27-8a65-c5e7fe417945/Social-Security-Programs

Grosh, M., Leite, P., Wai-Poi, M. & Tesliuc, E. (2022). Revisiting Targeting in Social Assistance: A New Look at Old Dilemmas. Washington, DC: World Bank.

Günther, G., Guglielmetti, L., Leu, C., Lange, C. & van Leth, F. (2022). Availability and costs of medicines for the treatment of tuberculosis in Europe. *Clinical Microbiology and Infection*, 29 (1), 77–84.

Hahs, J. & Mückenberger, U. (2022). Segmenting and equalizing narratives in the ILO's standard-setting practice. *International Labour Review*, 161 (4), 635–655.

Hall, P. & Soskice, D. (eds.) (2001). Varieties of Capitalism, Oxford: Oxford University Press.

Hardiman, D. (ed.) (2006). Healing Bodies, Saving Souls. Medical Missions in Asia and Africa. Amsterdam: Brill.

Helbling, M., Bjerre, L., Römer, F. & Zobel, M. (2017). Measuring Immigration Policies: The IMPIC Database. *European Political Science*, 16 (1): 79–98.

Hollabaugh, J. (2012). Exploring the perceptions and experiences of inductive teachers in secondary education: how do inductive teachers find their place in the teaching profession, and what motivates them to remain in the field? Doctor of Education (EdD). Available at https://digitalcommons.georgefox.edu/edd/1 (accessed on 06 June 2023)

Hook, J. & Li, M. (2020). Gendered Tradeoffs. In: Nieuwenhuis, R. & van Lancker, W. (eds.), *The Palgrave handbook of family policy*, 249–266. Cham: Palgrave Macmillan.

Huang, X. (2015). Four Worlds of Welfare: Understanding Subnational Variation in Chinese Social Health Insurance. *The China Quarterly*, 222, 449–474.

Iliev, P. & Putterman, L. (2007). Social Capability, History and the Economies of Communist and Postcommunist States. *Studies in Comparative International Development*, 42 (1), 36–66.

International Labour Office (2012). Giving globalization a human face. General survey on the fundamental conventions concerning rights at work

in light of the ILO Declaration on Social Justice for a Fair Globalization, 2008. Geneva: International Labour Office. Available at http://www.ilo.org/wcm-sp5/groups/public/---ed_norm/---rel-conf/documents/meetingdocument/wcms_174846.pdf (accessed 06 June 2023)

Isabekova, G. (2019). The Contribution of Vulnerability of Labour Migrants to Drug Resistance in the Region: Overview and Suggestions. *The European Journal of Development Research*, 31 (3), 620–642.

Kahn-Freund, O. (1959). Labour Law. In: Ginsberg, M. (ed.): Law and Opinion in England in the 20th Century, 215–263. Berkeley, Los Angeles: University of California Press.

Kherabi, Y., Mollo, B., Gerard, S., Lescure, F.-X., Rioux, C. & Yazdanpanah, Y. (2022). Patient-centered approach to the management of drug-resistant tuberculosis in France: How far off the mark are we? *PLOS Global Public Health*, 2 (4), 1–12.

King-Dejardin, A. (2019). The social construction of migrant care work. At the intersection of care, migration and gender. Geneva: International Labour Organization.

Koning, E. (ed.) (2022). The Exclusion of Immigrants from Welfare Programs: Cross-National Analysis and Contemporary Developments. Toronto: University of Toronto Press.

Korpi, W. (2000). Faces of Inequality: Gender, Class, and Patterns of Inequalities in Different Types of Welfare States. *Social Politics: International Studies in Gender, State & Society*, 7 (2), 127–191.

Krogmann, D. (2022). International Organizations and Education in the Islamic World. In: Martens, K. & Windzio, M. (eds.), *Global Pathways to Education. Cultural Spheres, Networks, and International Organizations*, 191–215. Cham: Palgrave Macmillan.

Leisering, L. (2021). Social Protection in the Global South: An Ideational and Historical Approach. In: Leisering, L. (ed.), *One Hundred Years of Social Protection: The Changing Social Question in Brazil, India, China, and South Africa*, 3–52. Cham: Palgrave Macmillan.

Leisering, L. & Barrientos, A. (2013). Social Citizenship for the Global Poor? The Worldwide Spread of Social Assistance: Social Citizenship for the Global Poor? *International Journal of Social Welfare*, 22, 50–67.

Lischka, M. (2022). Dynamiken Transnationaler Interdependenzen. Veränderungen der Integration von Nationalstaaten im globalen Exportnetzwerk zwischen 1995 und 2018. Bremen: Dissertation. DOI: 10.26092/elib/1519

Lischka, M. & Besche-Truthe, F. (2022): Introducing RED — The Relational Export Dataset. *SFB 1342 Technical Paper Series*, 14. Bremen: SFB 1342. DOI: 10.26092/elib/2082

Lüthje, B., Luo, S. & Zhang, H. (2013). Beyond the Iron Rice Bowl—Regimes of Production and Industrial Relations in China. Frankfurt am Main: Campus.

Mahler, H. (2016). The Meaning of "Health for All by the Year 2000". *American Journal of Public Health*, 106 (1), 36–38.

Marlow-Ferguson, R. 2002. World Education Encyclopedia: A Survey of Educational Systems Worldwide. Detroit: Gale Group.

Martens, K., Nagel, A.-K., Windzio, M. & Weyman, A. (eds.) (2010). Transformation of Education Policy. Basingstoke: Palgrave Macmillan.

Martens, K. & Windzio, M. 2022. Global Pathways to Education. Cultural Spheres, Networks, and International Organizations. Cham: Palgrave Macmillan.

Matusevich, Y. (2022). Russia tightens health rules for labor migrants, causing dismay and headaches. *Eurasianet*, 2/23/2022. Available at https://eurasianet.org/russia-tightens-health-rules-for-labor-migrants-causing-dismay-and-headaches (accessed on 15 December 2022).

Matus-López, M., & Chaverri-Carvajal, A. (2022). Progress Toward Long-Term Care Protection in Latin America: A National Long-Term Care System in Costa Rica. *Journal of the American Medical Directors Association*, 23 (2), 266–271.

Merker, M., Rasigade, J.-P., Barbier, M., Cox, H., Feuerriegel, S., Kohl, T. et al. (2022): Transcontinental spread and evolution of Mycobacterium tuberculosis W148 Europeant / Russian clade toward extensively drug resistant tuberculosis. *Nature Communications*, 13 (5105), 1–11.

Mesa-Lago, C. (1978). Social Security in Latin America: pressure groups, stratification, and inequality. Pittsburgh: University of Pittsburgh Press.

Molina León, G. & Breiter, A. (2020). Co-creating Visualizations: A First Evaluation with Social Science Researchers. *Computer Graphics Forum* 39: 291–302.

Molina León, G., Lischka, M. & Breiter, A. (2020). Mapping the Global South: Equal-Area Projections for Choropleth Maps. *IEEE VIS 2020. Short Paper Proceedings*, arXiv:2008.13592.

Molina León, G., Skitalinska, G., Düpont, N., Klaff, J., Schlegel, A., Heuer, H. & Breiter, A. (2022). Co-Creating a Research Data Infrastructure with Social Policy Researchers. *Proceedings of the 20th European Conference on Computer-Supported Cooperative Work 2022.*

Moses, J. (2018). The First Modern Risk: Workplace Accidents and the Origins of European Social States. Cambridge: Cambridge University Press.

Mossig, I., Heuer, H., Lischka, M. & Besche-Truthe, F. (2021). Measuring global competition in export markets and export sectors. *SFB 1342 Technical Paper Series*, 8. Bremen: SFB 1342. DOI: 10.26092/elib/1533

Mossig, I. & Lischka, M. (2021). Globalization, Economic Interdependencies and Economic Crises. In: Nullmeier, F., González de Reufels, D. & Obinger, H. (eds.), *International Impacts on Social Policy. Short Histories in a Global Perspective*, 289–304. Cham: Palgrave Macmillan.

MPI (n.d.). Top 25 Destinations of International Migrants. Available at https://www.migrationpolicy.org/programs/data-hub/charts/top-25-destinations-international-migrants (accessed on 13 December 2022).

Mückenberger, U. (2022). A Quest for Equity: Labour Standards on the Transnational Move. In: Nullmeier, F., González de Reufels, D. & Obinger, H. (eds.), *International Impacts on Social Policy. Short Histories in a Global Perspective*, 463–476. Cham: Palgrave Macmillan.

Mückenberger, U. & Deakin, S. (1989): From Deregulation to a European Floor of Rights: Labour Law, Flexibilisation and the European Single Market. *Zeitschrift für ausländisches und internationales Arbeits- und Sozialrecht*, 3, 153–207.

Mückenberger, U. & Dingeldey, I. (eds.) (2022): Overcoming legal segmentation: Extending legal rules to all workers? *International Labour Review* (Special Issue), 161 (4).

Müller, A. & ten Brink, T. (2022). The diffusion of international models in China's Urban Employees' Social Insurance. *Global Social Policy*, 22 (3), 560–579.

Niehaus, P., Atanassova, A., Bertrand, M. & Mullainathan, S. 2013. Targeting with Agents. *American Economic Journal: Economic Policy*, 5 (1), 206–38.

Niemann, D. & Martens, K. (2018). Soft governance by hard fact? The OECD as a knowledge broker in education policy. *Global Social Policy*, 18 (3), 267–283.

Niemann, D. & Martens, K. (2021). Global Discourses, Regional Framings and Individual Showcasing: Analyzing the World of Education IOs. In: Martens, K, Niemann, D. & Kaasch, A. (eds.), *International Organizations in Global Social Governance*, 163–186. Cham: Palgrave Macmillan.

Nullmeier, F., González de Reufels, D. & Obinger, H. (eds.) (2022). International Impacts on Social Policy: Short Histories in Global Perspective. Cham: Palgrave Macmillan.

Nunn, N. (2008). The Long-Term Effects of Africa's Slave Trades. *The Quarterly Journal of Economics*, 123 (1), 139–76.

Packard, R. (1989). White Plague, Black Labor. Tuberculosis and the Political Economy of Health and Disease in South Africa. Berkeley, CA: University of California Press.

Packard, R. (2016). A History of Global Health. Interventions into the Lives of Other People. Baltimore: Johns Hopkins University Press.

Paglayan, A. (2020). The Non-Democratic Roots of Mass Education: Evidence from 200 Years. *American Political Science Review*, 115 (1), 179–198.

Price, M. (1986). Health care as an instrument of Apartheid policy in South Africa. *Health Policy and Planning*, 1 (2), 158–170.

Rasmussen, M. & Knutsen, C. (2022). Reforming to Survive: The Bolshevik Origins of Social Policies. Cambridge: Cambridge University Press.

Rickenbacker, W. (1999). The Twelve-Year Sentence: Radical Views of Compulsory Schooling. San Francisco: Fox & Wilkes.

Rieger, E. & Leibfried, S. (2003). Limits to Globalization. Welfare States and the World Economy. Cambridge: Polity.

Römer, F., Harris, E., Henninger, J. & Missler, F. (2021). The Migrant Social Protection Data Set (MigSP). Technical Report. *SFB 1342 Technical Paper Series*, 10. Bremen: SFB 1342. DOI: 10.26092/elib/2043

Römer, F. (2017). Generous to All or 'Insiders Only'? The Relationship Between Welfare State Generosity and Immigrant Welfare Rights. *Journal of European Social Policy*, 27 (2): 173–96.

Rothgang, H., Fischer, J., Sternkopf, M. & Frisina Doetter, L. (2021), The classification of distinct long-term care systems worldwide: the empirical application of an actor-centered multi-dimensional typology. *SOCIUM SFB 1342 Working Papers*, 12. Available at https://www.socialpolicydynamics.de/f/2483ea052c.pdf (accessed on 07 June 2023).

Rothgang, H. & Müller, R. (2021). BARMER Pflegereport 2021. *Schriftenreihe zur Gesundheitsanalyse*, 32. Berlin: BARMER.

Ruiters, G. & van Niekerk, R. (eds.) (2012). Universal Health Care in Southern Africa. Introducing a National Health Insurance in South Africa and Zimbabwe. University of KwaZulu-Natal Press.

Rushton, S. & Williams, O. (eds.) (2011). Partnerships and foundations in global health governance. Basingstoke: Palgrave Macmillan.

Sainsbury, D. (2012). Welfare States and Immigrant Rights: The Politics of Inclusion and Exclusion. Oxford: Oxford University Press.

Scandurra, G., Degeling, C., Douglas, P., Dobler, C. & Marais, B. (2020). Tuberculosis in migrants—screening, surveillance and ethics. *Pneumonia*, 12 (9), 1–8.

Schmid, A., de Carvalho, G., Basilicata, A. & Rothgang, H. (2021). Classifying healthcare systems at introduction: Types of healthcare systems under public responsibility. *SOCIUM SFB 1342 Working Papers*, 13, 1–51. DOI: 10.13140/RG.2.2.24634.52163

Schmid, A., de Carvalho, G. & Rothgang, H. (forthcoming). Origins of social protection in healthcare: Classifying healthcare systems at introduction in 165 countries.

Schmitt, C. (2015). Social Security Development and the Colonial Legacy. *World Development*, 70, 332–342.

Schmitt, C., Lierse, H. Obinger, H. & Seelkopf, L. (2015). The Global Emer-

gence of Social Protection: Explaining Social Security Legislation 1820–2013. *Politics & Society*, 43 (4), 503–24.

Seitzer, H., Besche-Truthe, F. & Windzio, M. (2022): Networks of Global Policy Diffusion. The Introduction of Compulsory Education. In: Windzio, M. Mossig, I., Besche-Truthe, F. & Seitzer, H. (eds.), *Networks and Geographies of Global Social Policy Diffusion. Culture, Economy and Colonial Legacies*, 59–81. Cham: Palgrave Macmillan.

Sellar, S. & Lingard, B. (2014). The OECD and the expansion of PISA: New global modes of governance in education. *British Educational Research Journal*, 40 (6), 917–936.

Social Protection Committee; European Commission (2021). 2021 Long-Term Care Report. Trends, challenges and opportunities in an ageing society. Joint Report prepared by the Social Protection Committee (SPC) and the European Commission (DG EMPL). Luxembourg: European Union.

Solinger, D. (1999). Contesting Citizenship in Urban China: Peasant Migrants, the State, and the Logic of the Market. Berkeley: University of California Press.

Solow, B. (1987). Capitalism and Slavery in the Exceedingly Long Run. *The Journal of Interdisciplinary History*, 17 (4), 711–737.

Son, K. (2022a). Colonialism and paid maternity leave policies in Sub-Saharan Africa. In: Dobrotić, I., Blum, S. & Koslowski, A. (eds.), *Research Handbook on Leave Policy: Parenting and Social Inequalities in a Global Perspective*, 310–323. Cheltenham: Edward Elgar Publishing.

Son, K. (2022b). Ship of Theseus: from ILO Standards to Outcome of Maternity Protection Policy. *Journal of Social Policy*, 1–29.

Son, K. & Böger, T. (2021). The Inclusiveness of Maternity Leave Rights over 120 Years and across Five Continents. *Social Inclusion*, 9 (2), 275–287.

Son, K., Böger, T. Tonelli, S. Buhr, P. Drobnič, S. & Huinink, J. (2020). Codebook of Historical Database on Maternity Leave (HDML). *SFB 1342 Technical Paper Series*, 2. Bremen: SFB 1342. DOI: 10.26092/elib/2110

Strange, S. (1995). The Limits of Politics. *Government and Opposition*, 30 (3), 291–311.

Tan, J. (2010). Compulsory Education in Singapore—Who Benefits? *Asia Pacific Journal of Education*, 30 (4), 401–418.

ten Brink, T. (2019). China's Capitalism: A Paradoxical Route to Economic Prosperity. Philadelphia: University of Pennsylvania Press.

ten Brink, T., Müller, A. & Liu, T. (2022). The Introduction of Pension, Accident and Health Insurance in Urban China. In: Nullmeier, F. & Kuhlmann, J. (eds.), *Causal Mechanisms in the Development of Social Policies*, 33–66. Cham: Palgrave Macmillan.

Theobald, H. (2011). Multi-level governance and universalism: Austria and Germany compared. International *Journal of Sociology and Social Policy*, 31 (3/4), 209–221.

Turshen, M. (1999). Privatizing Health Services in Africa. New Brunswick: Rutgers University Press.

UN DESA (2020). International Migration 2020: Highlights. New York: United Nations Department of Economic and Social Affairs. Available at https://www.un.org/en/desa/international-migration-2020-highlights (accessed on 21 April 2021).

UN DESA (n.d.). World Population Prospects 2022. https://population.un.org/wpp/

United Nations Department of Economic and Social Affairs (2016). Leaving No One Behind — The Imperative of Inclusive Development. New York: United Nations.

United Nations Population Division (n.d.). International Migrant Stock. Available at www.un.org/development/desa/pd/content/international-migrant-stock (accessed on 22 November 2022).

United Nations Sustainable Development Goals (2022). Leave No One Behind. Available at https://unsdg.un.org/2030-agenda/universal-values/leave-no-one-behind (accessed on 06 June 2023).

USP 2030 (2019). Together to Achieve Universal Social Protection by 2030 (USP2030) — A Call to Action; Global Partnership for Universal Social Protection (USP2030). Geneva. Available at https://usp2030.org/ (accessed on 06 June 2023).

WBG (2022): Population, total — Georgia, Kazakhstan. Available at https://

data.worldbank.org/indicator/SP.POP.TOTL?locations=GE-KZ (accessed on 14 December 2022).

Wendt, C., Frisina, L. & Rothgang, H. (2009). Healthcare System Types: A Conceptual Framework for Comparison, *Social Policy & Administration*, 43 (1), 70–90.

WHO (2022a). Global Tuberculosis Report 2022. End Global Tuberculosis Report 2022. Available at https://www.who.int/teams/global-tuberculosis-programme/tb-reports/global-tuberculosis-report-2022 (accessed on 14 December 2022).

WHO (2022b). The Global Health Observatory. SDG Target 3.3 Communicable diseases. Available at https://www.who.int/data/gho/data/themes/topics/sdg-target-3_3-communicable-diseases (accessed on 13 December 2022).

WHO (2022c). Global Tuberculosis Programme. Provisional TB notifications by month or quarter. Available at www.who.int/teams/global-tuberculosis-programme/data (accessed on 22 November 2022)

Wilensky, H. (1975). The Welfare State and Equality. Berkeley: University of California Press.

Wilkinson, M. D., Dumontier, M., Aalbersberg, I.J. et al. (2016). The FAIR Guiding Principles for scientific data management and stewardship. *Scientific Data* 3: 160018.

Williams, G. (2003). Democracy as Idea and Democracy as Process in Africa. *The Journal of African American History*, 88 (4): 339–60.

Windzio, M., Mossig, I., Besche-Truthe, F. & Seitzer, H. (2022). Networks and Geographies of Global Social Policy Diffusion. Culture, Economy, and Colonial Legacies. Cham: Palgrave Macmillan.

Wood, A. (2023). Patronage, Partnership, Voluntarism: Community-based health insurance and the improvisation of universal health coverage in Senegal. *Social Science & Medicine*, 319. Online first.

Worger, W. (1993). African Labor History. *International Labor and Working-Class History*, 43, 77–86.

World Bank (2016). Bangladesh Social Protection and Labor Review: Towards Smart Social Protection and Jobs for

the Poor. Bangladesh Development Series, 33. Dhaka: World Bank.

World Health Organization (2015). World report on ageing and health. Geneva: World Health Organization.

Zhu, H. & Walker, A. (2018). Pension system reform in China: Who gets what pensions? *Social Policy & Administration*, 52 (7), 1410–1424.

Zohlnhöfer, R. (2023): Globalisierung, In: Wenzelburger, G. & Zohlnhöfer, R. (eds.), *Handbuch Policy-Forschung*, 175–201. Wiesbaden: Springer.

Zwass, V. (2010). Co-Creation: Toward a Taxonomy and an Integrated Research Perspective. International *Journal of Electronic Commerce* 15: 11–48.

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Canada

United States of America

UKRAINE   45
           29

ROMANIA   14
REPUBLIC
OF MOLD
           2,5

VENEZUELA
0.24 0.60 0.80

BRAZIL
0.53 0.77 0.84

MLI

SEN
GMB
GNB   GIN   BFA
                  BEN
SLE   TGO
  LBR   CIV GHA

13.1 Density of physicians

per 10,000 inhabitants

- 0.8 to <2.6
- 2.6 to <3.7
- 3.7 to <5.8
- 5.8 to <10.8
- 10.8 to <19.5