Journal of Social Policy (2025), **54**, 1113–1133
doi:10.1017/S0047279423000612

ARTICLE

Overcoming hybridisation in global welfare regime classifications: lessons from a single case study

Zahid Mumtaz[1], Antonios Roumpakis[2] and Mulyadi Sumarto[3]

[1]London School of Economics and Political Science, London, UK, [2]School for Business and Society, University of York, York, UK, and [3]Department of Social Development and Welfare and Center for Population and Policy Studies, Universitas Gadjah Mada, Indonesia
Corresponding author: Zahid Mumtaz; Email: z.mumtaz@lse.ac.uk

(Received 6 March 2023; revised 26 October 2023; accepted 6 November 2023; first published online 11 December 2023)

Abstract
The hybridisation of welfare regimes is a critical issue in social policy literature due to the lack of a uniform dependent variable and the comparative, international scope of social policy analysis, and data availability. We argue that what is presented in the global welfare regime literature as an analytical problem of classification or transitioning could also, in fact, be treated as a methodological issue. Based on this, we aim to establish a criterion for determining the membership of a welfare regime by capturing the presence of hybridisation of welfare regimes in a given country at a particular time. We present a novel methodological approach based on multistage sampling to capture the hybridisation of distinct welfare regimes and determine the most populous cluster in Pakistan. Establishing criteria for capturing and determining welfare regime membership can improve the understanding of welfare regime dynamics and factors that contribute to hybridisation. Ultimately, this knowledge can inform policy decisions and contribute to the development of more effective welfare systems for diverse populations.

Keywords: welfare regimes; hybridisation; informal security regimes; formal and informal social protection; welfare mix

Introduction

This article aims to contribute towards the existing literature of welfare regime identification and in particular determining the membership of cases representing 'hybrids'. The discussion on 'hybridisation' holds significant academic importance in the analysis of welfare regimes, particularly in the global south. Over the last two decades, numerous literatures have identified hybrid characteristics in their attempt to classify cases within welfare regime typologies (Gough et al., 2004; Abu-Sharkh & Gough, 2010; Aspalter, 2011; Choi, 2012; Yang, 2017; Sumarto, 2020). Hybridizstion, as a concept, emerges in welfare regime classification debates when cases ('hybrids') do not

© The Author(s), 2023. Published by Cambridge University Press. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

entirely satisfy the characteristics of a given analytical category but instead reflect a combination of characteristics of more than one. Scholars have presented two major explanations for such hybrid cases. The first is that these cases are in 'transition' while the second is that the analytical framework of the welfare regime cannot fully capture the complex reality of a given case. Indicatively, the global welfare regime literature has aimed to uncover the characteristics of these transitions, such as 'informal productive', 'liberal productive', and 'informal protective' regimes (Abu-Sharkh & Gough, 2010; Aspalter, 2011; Choi, 2012; Yang, 2017; Sumarto, 2020).

We argue that what is presented in the global welfare regime literature as an analytical problem of classification or transitioning could also, in fact, represent a methodological issue. This issue is related to both data availability and the comparative and international scope of social policy analysis. The lack of an agreed-upon dependent variable is reflected in the evidence used, which ranges from interviews, government reports, and official statistics to international cross-sectional data (see Roumpakis, 2020a). The existing literature exhibits a strong preference for spending variables and welfare outcomes, with few attempts to incorporate civil society (Clement, 2020), and even fewer attempts to incorporate informal variables such as out-of-pocket payments (with some exceptions, such as Franzoni, 2008; Hinojosa et al., 2010; Yu, 2014). Therefore, there remains an inadequate methodological understanding of how to capture the hybridisation of welfare regimes, resulting in a methodological gap[1] in the existing literature. Filling this gap is essential because it will provide a new and effective way to capture and better understand the causes of hybridisation of welfare regime(s). This will enable scholars to empirically capture membership and, more importantly, the empirical reality of complex welfare regimes, while also enabling policymakers to develop better social policies for the welfare of the poor and marginalised. Suffice to say, that our article cannot fully resolve the 'dependent variable' problem but attempt to contribute to this debate by providing new and valuable insights on the distribution of social security outcomes in a case (Pakistan), which often is not fitting with the global welfare regime classifications.

The methodological framework employed in this study involves an analysis of the interplay between formal and informal welfare provision, particularly for the marginalised and vulnerable. This discussion of the interplay between formal and informal welfare is important, as the effectiveness of each type of welfare and their interplay is crucial for social protection distribution in the Global South. The interplay may either strengthen each other, or one may lessen the effectiveness of the other (Sumarto, 2017, Roumpakis 2020b). This situation may affect the level of security in a welfare regime in the Global South, as security may occur if the institutional arrangement of formal social protection facilitates the growth of informal welfare provision, or if both types of welfare work together effectively.

To examine how the interplay of formal and informal welfare provision describes hybridisation, this article uses a single case study of Pakistan's welfare regime. The choice of Pakistan as a case study is primarily because it provides data, at a particular time, that enables us to examine the effectiveness of both formal and informal social protection and how their interplay occurs. The methodological approach presented in this study enables us to identify the existence of multiple welfare regimes within a single case and equally determine the most populous cluster within a single case.

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Recalibrating global welfare regimes

Gough et al. (2004) aimed to provide an analytical framework for expanding and explaining welfare regimes outside of advanced capitalist countries, especially in situations where labour markets did not work pervasively as in OECD welfare states. They identified three analytical categories for the analysis of global welfare regimes: the OECD welfare state regime, as argued by Esping-Andersen (1990), informal security regimes, and insecurity regimes. These classifications captured the institutional interplay between public, private, household, and community provision across different levels and spaces of governance. Over the years, there has been a key attempt to establish a set of criteria for determining the membership of a given welfare regime. However, reflecting on 15 years of research scholarship since the publication of the edited volume, there has been little agreement on the appropriate criteria for establishing these transitions, let alone the different methodological approaches for capturing them (for an overview, see Roumpakis, 2020a).

Schematically, the typology established by Gough et al. (2004) establishes a continuum, with the 'welfare state regime' as the most advanced form of social protection and the 'insecurity welfare regime' indicating the fragility of state interventions and even informal welfare at the other end. Crucially, this means that the middle transitional space is left to the informal welfare regime to occupy. It is perhaps not surprising that cases situated in that transitional space became the focus of attention of Wood and Gough (2006) in the same volume, as they identified the existence of different 'species' within the informal welfare regime category. These species were either trying to dynamically capture the transition of Latin American welfare regimes from conservative-informal to liberal-informal (see Barrientos, 2004), while East-Asian welfare regimes were displaying productivist-informal characteristics, with Taiwan and South Korea displaying a dynamic towards a welfare state regime. Putting aside welfare regimes that displayed some weak or not fully developed welfare state regime properties, Gough identified two variations of informal security regimes that were firmly anchored in this category: 'more' or 'less effective informal security' regimes. More effective informal security regimes included countries with relatively good social outcomes but below-average public spending. Whereas countries that exhibited relatively poorer outcomes, fewer public commitments, and moderate international inflows of remittances formed 'less effective informal security regimes'.

The studies on welfare regimes have so far lacked an understanding of how to capture the hybridisation of welfare regimes because most of these studies have strongly focused on state expenditure and social outcomes, with only a few incorporating transnational variables such as remittances, informal out-of-pocket payments, and quality of government and utilising aggregate data at the national or international level (Roumpakis, 2020a). This preference for formal social spending remains an essentially statist approach and misses out on the importance of informal arrangements that play a significant role in meeting the welfare needs of the poor and vulnerable in many parts of the world. Therefore, it is imperative to consider the role of informal and non-statutory provisions – which hitherto remained the focus of development studies – in analysing welfare regimes (Roumpakis & Sumarto, 2020). Furthermore, the role of informal and non-statutory

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

provisions needs to be analysed not in isolation but in conjunction with statutory welfare measures (Sumarto, 2017, 2020; Roumpakis, 2020a; Mumtaz & Whiteford, 2021a; Mumtaz, 2023). This will enable a better understanding of the complexities of a given case, allow capturing the presence of various welfare regimes within a given context – hybridisation – bridge the gap between social policy with development studies, and offer a mutually beneficial and a more robust approach for the analysis of the welfare regime leading to better social policy measures for the welfare of the poor and vulnerable (Midgley, 2019).

We acknowledge that identifying cases as 'hybrids' reflects both comparative methodological tools (including new comparative empirical evidence) and analytical approaches (including new conceptualisations). In this article, we are unable to fully explore this comparative dimension and instead prefer to emphasise the importance of informed and in-depth case analysis. Therefore, this study provides empirical insights into this under-researched area and presents a novel methodology for analysing welfare regimes based on the availability, access, interaction, and usefulness of formal and informal welfare arrangements available to households and their social outcomes in a single country. To this end, we adopt an inductive approach aimed at identifying diverse welfare arrangements – formal and informal – and their interactions that contribute to the presence of different welfare regimes – hybridisation – in a single country context. Instead of attempting to unravel and explain the path trajectory of a given welfare regime (see Choi, 2012, for East Asia and Sumarto, 2017, 2020, for Southeast Asia), we aim to capture the empirical reality at a specific point in time.

This study is ground-breaking research on several fronts. Firstly, it provides a unique methodology for data collection based on multistage sampling that enables the determination of different welfare arrangements available to households. This original methodology provides a new technique for capturing the hybridisation of welfare regimes in a single country or across countries by considering the mix of formal and informal welfare available to households. Secondly, the study demonstrates that the analytical focus on informal relationships should not be limited to welfare regimes in the Global South but can also be used for the analysis of welfare states in the Global North, especially those regimes that rely heavily on informal provisions (e.g. South European, Latin American). Thirdly, the study offers original and important findings on the effectiveness, ineffectiveness, and interaction of formal and informal welfare, which can be used to build effective social protection policies. Lastly, the study used a novel machine learning (ML) algorithm to explore the collection of data to form clusters that contribute to methodological innovation in the literature on social policy data analysis.

It is also important to note that the study is not able to capture temporal transition as the empirical evidence were collected at a single point in time. Neither are we able to address within this article why social provision is constructed in this particular way. We are aware that the analysis focuses largely on outcomes – this is not deviating from the extensive global welfare regime literature. Our methodological application is not aiming to discount the importance of additional variables (e.g. spending) but identify an effective way of determining membership within empirically complex cases that are often considered within the global welfare regime literature, analytically as hybrids.

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Hybridisation in welfare regime analysis

The concepts of 'hybrid' and 'hybridisation' have been widely applied in the discussion of welfare regimes in the Global South over the last two decades. The concepts were highly developed after the publication of Esping-Andersen's seminal work 'The Three Worlds of Welfare Capitalism', particularly after Esping-Andersen responded to criticisms of his work on the classification of Japan's welfare regime. In response to the criticisms, Esping-Andersen (1997) argues that Japan's welfare regime combines key characteristics of liberal-residual and conservative-corporatist regimes, depicting a hybrid regime. In the analysis of welfare regimes in the Global South, terms such as 'informal security' and 'liberal informal' in an influential work by Gough et al. (2004) reflect the concept of 'hybrid' welfare regimes. Since then, scholars (e.g. Abu-Sharkh & Gough, 2010; Aspalter, 2011; Choi, 2013; Sumarto, 2020; Yang, 2017) have considerably used hybridisation to analyse the characteristics of welfare regimes.

In the development of welfare regimes in the Global South, Wood and Gough (2006) argued that countries could combine elements of three types of welfare regimes: informal security, insecurity, or a welfare state regime, within a single social formation where a country's population can experience different regimes. Some people might be successfully incorporated into state protection, while others rely on community and family arrangements or are dependent upon highly personalised politico-military patrons, indicating the presence of a hybrid welfare regime in a country. However, their analytical categorisations were based on the major primary welfare regime out of these three regime groups and did not fully represent the complexities of welfare provisioning in each country (Wood & Gough, 2006; Mumtaz, 2022). It must be noted that the community was considered an important factor in the welfare mix of the Global South, as de-commodifying agents (Papadopoulos & Roumpakis, 2017). Therefore, its role must be fully explored along with the state, market, and family to capture the hybridisation of the welfare regime and de-commodification of labour within a country at a given point in time. As will be made clear by the following discussion, this remains a major methodological challenge in the literature.

The idea of welfare regimes has led to numerous studies aiming to classify countries into welfare regimes and hybrids. However, such studies have relied on aggregate government spending data and have not considered households' formal and informal welfare mix. For instance, Abu Sharkh and Gough (2010) employed hierarchical cluster analysis (HCA) and K-means cluster analysis (KCA) to identify three distinct types of welfare regimes across 65 developing non-OECD countries using aggregate country-level World Bank data on government expenditures and revenues, immunisation rates, school enrolment of females, and levels of aid, and remittances for two points in time (2000, 2010) to identify whether there had been a change in the welfare regime. Choi (2012), in his study of three East Asian welfare regimes, used government documents, reports, and statistics to analyse how far these regimes have transitioned from their productivist legacy. Kuypers (2014) used aggregate data on the legislation of social protection, government expenditure, decommodification data (pensions, unemployment, sickness), and government spending on education, work, and income protection of five East and five Southeast

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Asian and six Latin American countries to demonstrate that the dissimilarities within the East Asian region are minor compared to the differences concerning the traditional and other emerging welfare regimes. Yang and Kühner (2020) used data on government spending, generosity and coverage rates and argued that no specific prediction could be made about the future of productivist regimes in East Asia because of the diversity within and across East Asian welfare regimes. Mkandawire (2020) identifies three types of welfare regimes in thirty-five African countries using cluster analysis based on aggregate welfare outcomes, forms of welfare arrangement, and institutional variables. Clement (2020) uses country-level aggregate data of public and private expenditure on education and health, international aid receipts, international remittances, civil society strength, literacy and poverty levels, and life expectancy to measure welfare outcomes.

Kuitto (2016) conducted a comparative statistical analysis of Central and Eastern European post-communist welfare states across three welfare dimensions – financing, targeting cash, and decommodifying potential – based on aggregate government spending data and found hybrid patterns of welfare policies in post-communist countries. Bertin and Pantalone (2018) analysed local welfare policies in 20 Italian regions using aggregate government data from 2005 and 2010 concerning two areas of government intervention: social care and healthcare policies. They concluded that the Italian welfare system is a hybrid that is differentiated across regions and policies. Cox (2018) located their study in the context of the debate around Esping-Andersen's ideal types of welfare state regimes and argued that the existence of a bifurcated welfare state – one for insiders who have access to welfare statutory provisions and one for outsiders who rely on social assistance and mainly informal arrangements – offers a means of understanding the key features of hybrid welfare states in East Central Europe. However, they did not present any methodology to do so. Shizume et al. (2021) argued that the Japanese welfare system is evolving and is not a hybrid that shares aspects with the conservative welfare regime. Bertin et al. (2021) identified welfare typologies in twelve European countries focusing on government spending in healthcare and social care. They argued that healthcare and social care policies are characterised by the coexistence and overlap of multiple regimes, i.e., hybridisation.

It is observed from the above discussion that the majority of welfare regime literature on classification and hybridisation used aggregate data at the country level and limited welfare outcomes. This focus on aggregate government data did not adequately capture the welfare mix available to households, which is central to identifying welfare regime development or change, hybridisation, and de-commodifying labour (Gough et al., 2004). In addition, this focus on national-level aggregate outcomes cannot capture various forms of formal and informal welfare arrangements, vulnerabilities, deprivations, inequalities, and social outcomes at the household level (Giraudy & Pribble, 2019). This inadequate focus can be attributed to the fact that in the global south countries, there is a lack of valid and reliable household data on formal and informal welfare sources (Abu Sharkh & Gough, 2010). This lack of focus will not enable an accurate capture of hybridisation or regime change within a country, as different regimes may follow different trajectories, leading to possible 'tipping points' between regime types. Therefore, there is a need for, and importance of, identifying the welfare mix that involves a

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

complex combination of public welfare provision and informal collective welfare provided by the family and community, on which a large population is dependent in many developing and less developed countries (Papadopoulos & Roumpakis, 2017; Leyer, 2020). As argued by Roumpakis (2020a), examining the relations of dependence and the importance of informal and non-statutory provisions of welfare would assist in better understanding the development of global welfare regimes. In the following section, we use the case study of Pakistan to present a novel methodology for examining the welfare mix available to households to capture the hybridisation of welfare regime at one point in time.

Welfare regime and social protection development – a case study of Pakistan

Pakistan has been identified as a country that fulfills the criteria for being part of a less effective informal security regime in two studies. Firstly, in an aggregate study of over fifty countries, Wood and Gough (2006) categorised Pakistan as a less effective informal security regime using variables such as low Human Development Index (HDI), international flows, and public spending. Secondly, Abu Sharkh and Gough (2010) that analysed the transition of global south countries using the variable of levels of public spending, social outputs, and external flows of aid, placed Pakistan in clusters representing features of low-performing informal security regimes. Both studies however, had limitations as the variables used were limited to formal sources and did not include formal social protection benefits and informal statutory provisions, including family and community networks, which are essential components of global welfare regime theory. Abu Sharkh and Gough (2010) acknowledged that a lack of data on formal and informal welfare arrangements constrained their study. This categorisation of a less effective informal security regime has implications because Pakistan represents features of a hybrid welfare regime, where informal relations largely decommodify labour and fulfill the welfare needs of a large population. Additionally, large formal social security benefits are utilised by the formal sector, while some populations in pockets of the country experience conflict and depend on highly personalised politico-militia patrons due to the breakdown of any form of social protection in such areas. Therefore, the classification of Pakistan as a less effective informal security regime underestimates the complexity of its welfare regime.

Pakistan's development of welfare policies, particularly in social protection distribution, took place during British colonialism. The colonial bureaucracy exerted significant influence on policymaking and enjoyed favourable welfare benefits, including pensions, while social policies for the general population received minimal attention. Following independence in 1947, Pakistan confronted considerable challenges in the realms of humanitarian, political, and economic affairs lead to a high demand for economic development (Bashir, 2013). During the late 1950s and the 1960s, the focus shifted towards economic growth, while social development received less attention.

An important element of welfare policy development arose in 1971, when Zulfikar Ali Bhutto's socialist democratic government introduced social protection programs, which included the Employee Social Security Scheme, Workers' Children Education Ordinance, Workers Welfare Fund Scheme, and the Federal Employees Old Age Benefits Institution, benefiting public sector employees. However, they

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

excluded a significant labour force working in the informal sector, which accounts for 67% of the total workforce (Hassan & Syeda, 2019). Bhutto's social protection policy was discontinued and replaced by welfare policy introduced by Zia-ul-Haq (1978–1988) that happened after General Zia-ul-Haq executed Bhutto and implemented the Zakat and Ushr Ordinance, aiming to assist marginalized segments in the informal sector. These programs faced criticism for limited coverage and low transfers, and little impact on social development. Additionally, General Zia-ul-Haq, influenced by international aid organizations, pursued neoliberal structural adjustment programs, aligning Pakistan as a significant US ally during the Soviet-Afghan war (Abbasi, 2021). In 1989 to 1999, Pakistan experienced democratic governments, which continued to embrace neoliberal governance principles. The predominant emphasis on neoliberal policies resulted in a lack of focus on social protection policies, particularly those targeting the informal sector. In 1999–2007, General Pervez Musharraf's dictatorial regime pursued neoliberal economic reforms with a focus on 'good governance' and high GDP growth (Jadoon & Jabeen, 2017). However, poverty and inequality continued to rise during this period.

Another significant welfare development was the introduction of the Benazir Income Support Programme (BISP) that was established in the same year as financial support from international institutions such as the World Bank, USAID, DFID, and ADB, to provide social safety nets for vulnerable population (Mumtaz & Whiteford, 2017). This happened after the government of Pakistan endorsed the publication of the World Bank's report (2013) on social protection mechanisms in Pakistan and introduced an inaugural Social Protection Strategy. Despite the implementation of the social protection strategy however, expenditure on BISP has consistently remained below 0.2% of GDP, and overall spending on social protection programs has not exceeded 1.9% of GDP to date. This leaves a meagre 9.2% of the population covered by at least one social protection benefit, representing one of the lowest rates in the region (Mumtaz, 2022). Notably, the most significant allocation of social protection benefits in Pakistan is directed toward the public pension system, benefiting retired formal public sector employees (Ministry of Finance, 2021). These privileged groups receive also comprehensive in-service benefits. In contrast, only 1.1% of GDP expenditure is allocated to the 65% of Pakistan's workforce engaged in the informal sector, caused them to depend on informal welfare arrangements (Jabbar & Iqbal, 2021). Furthermore, conflict-ridden regions, such as former areas of FATA and Baluchistan, lack access to any form of formal or informal social protection (Mumtaz, 2022). This prevalence of social welfare benefits favouring the public sector arises from the consolidation of authority within the influential civil-military bureaucratic elite, as asserted by Cohen (2004), who contend that policymaking in Pakistan has persistently been under the sway of potent civil-military and political elites, prioritising their own well-being over the welfare of the impoverished.

Given the above discussion on Pakistan's welfare regime and social protection policy development, it is essential to recognise and capture the presence of a hybrid welfare arrangements in a developing country like Pakistan. To enable us to engage directly with the global welfare regime literature, we will rely on classifications developed by Gough et al. (2004). This effort will help identify the populations in need of welfare interventions, the nature of such interventions by the state, and the sectors requiring reduction or elimination of state social protection interventions.

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Research design and methods

It is important to clarify that the purpose of this study is not to identify the variable(s) responsible for regime development/formation. Rather, the study aims to identify different regimes co-existing at a single point in time. Yorük et al. (2019) argued for combining social protection expenditure variables to capture the diversity of welfare arrangements globally and establish an analytical and empirical level playing field for capturing the diversity of both Global North and South countries. This research goes one step further and aims to analyse the hybridisation of Pakistan's welfare regime by using a novel data collection methodology based on the formal and informal welfare mix available to households and the extent to which such a welfare mix decommodified labour and contributed to social outcomes. To this end, we employed a mixed-methods approach, that combined quantitative and qualitative primary data collection, including surveys and semi-structured interviews. The semi-structured interviews triangulated the survey data to provide robust data and in-depth analysis. The survey questionnaires, along with the semi-structured interviews, contained variables that provided a comprehensive picture of the welfare mix available, accessible, and utilised by households and such welfare mechanisms' ability to decommodify labour and impact social outcomes.

In the survey, we developed a questionnaire that generated over 300 variables. The household survey questionnaire consisted of three main parts. The first part contained questions designed to capture households' socioeconomic conditions, risks, and shocks, as well as the means available to them to manage such risks and shocks. The second part aimed to capture the accessibility and usefulness of the formal social protection programs received by the households. This part of the survey included questions about households' knowledge, accessibility, and usefulness of every formal/public welfare program in Pakistan, such as public programs of Zakat/Bait-ul-mal, BISP, retirement pensions (public and private), free public education, free technical education received from a government vocational training institute, free health treatment from a government dispensary or hospital, health insurance (Sehat card), youth loans, and free food and shelter programs. The survey's last part required households to provide information about various sources of informal welfare available to them, as well as the extent to which they considered such sources useful. These informal welfare mechanisms included extended family, friends or community, employer, landlord, remittances sent by immediate family members from overseas, religious organisations, and local and international NGOs.

This survey was conducted among households across fourteen cities in Pakistan using a multistage sampling methodology. The households were selected based on their records in religious institutions (madrassas), which were chosen for several reasons: a) madrassas are prevalent across the country; b) they are one of the largest providers of informal welfare in Pakistan; c) mostly poor and vulnerable households send their children to madrassas, although in some cases, middle- and upper-middle-class families send their children to madrassas to attain religious education only, which demonstrates the diversity in their coverage; and d) madrassas contain records of the families who sent their children to these institutions (Mumtaz, 2022).

The multistage sampling comprised four stages. In the first stage, all cities in Pakistan were divided into ten clusters based on the Multidimensional Poverty

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Index (MPI),[2] as follows: cluster 1 included cities with an MPI of 1–10; cluster 2 included cities with an MPI of 11–20; cluster 3 included cities with an MPI of 21–30; and so on. Cluster 81-90 was not chosen for sampling because the objective was to conduct fieldwork in conflict-affected tribal areas, aiming to understand the characteristics of households and welfare outcomes in regions with similarities to insecurity regimes. The MPI survey was not conducted in these tribal areas. Moreover, the cities within this cluster 81-90 exhibit similar characteristics to those in Cluster 91-100, where extreme poverty and the prevalence of diseases and illnesses was common. As a result, only one city was surveyed from Cluster 91-100, representing shared features of these two clusters. In the second stage, one or two cities were randomly selected from every cluster for the survey, and a total of fourteen cities were randomly selected from remaining nine clusters. The selection of cities from each cluster was based on their population and geographical area. If a city with a large population and area was selected during the random selection process, then only one city was chosen from that cluster. One city, 'Bajor', was selected from conflict-affected tribal areas where an MPI survey had not been conducted, and one randomly selected city, 'Upper Dir', had experienced conflict in the recent past. In the third stage, from each city, a total of five to eight madrassas were randomly selected from the list of madrassas obtained from the city administration. In the fourth stage, the list of households that sent their children to madrassas was obtained from each madrassa. From that list, eight to ten households were randomly selected, and the primary researcher distributed a total of 660 survey questionnaires, of which 560 households returned the survey.

The quantitative data collection method described above was followed by the qualitative one i.e. for the semi-structured interviews. In the qualitative data collection approach, we selected research participants for semi-structured interviews who were different from those who participated in the survey, but they were identified through the same multistage probability sampling method. A total of 103 households were approached for interviews, out of which 90 households agreed to participate in semi-structured interviews across fourteen cities, enabling us to triangulate the survey data. The high response rate of interviews (87%) and surveys (85%) is attributed to the employment of strategies such as assistance from local sources and help from district administration. Approval was obtained from the University Ethics Committee to conduct the fieldwork. The multistage sampling method enabled us to obtain a representative sample of the population to capture the hybridisation of Pakistan's welfare regime.

Results

The collected data was analysed using a novel unsupervised machine learning (UML) K-means clustering algorithm, as the original survey generated over 300 variables for each household, resulting in big data. One advantage of using UML clustering is that it requires no explicit labels to be provided to the UML algorithms, which helps minimise human bias in cluster formation (Mumtaz & Whiteford 2021b). In contrast, traditional statistical software, such as SPSS or STATA, requires input parameters (explicit labels) to form clusters, which can lead to biased cluster

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

formation (Mumtaz 2022; Mumtaz & Whiteford 2021b). The K-means clustering algorithm was compared to the Density-Based Spatial Clustering of Applications with Noise (DBSCAN) algorithm using the metric of maximum silhouette distance. The K-means clustering algorithm provided the optimal results, with a maximum silhouette distance of 0.44063, and four clusters were formed with no outliers. In contrast, the DBSCAN approach formed three clusters with eighty-seven outliers. Therefore, the study used the four clusters formed by the K-means clustering technique. Thematic analysis of semi-structured interview data was conducted by transcribing the interviews into text. Codes were generated by assigning specific codes to different parts of the text. Similar codes were grouped together to identify patterns or themes emerging from the data. The themes were further explored by revisiting the original interview data. These themes were triangulated with the results obtained from the clustering process to validate and complement the findings of survey data. Table 1 provides a summary of the results. The data analysis revealed that the four clusters exhibited the features of different welfare regimes, representing the presence of a hybrid welfare regime in Pakistan as follows.

Cluster1 – Potential welfare state regime

Of the households surveyed, 8.24% were classified within cluster1 – Potential welfare state regime. Most of the households in this cluster belonged to low MPI cities in Pakistan, i.e., wealthy urban areas. This cluster exhibited the features of a 'potential welfare state regime', characterizsed by formal employment, high income, better health, and education outcomes. Many households in this cluster were not eligible to receive benefits from formal social protection programs. One participant from Lahore, for instance, stated:

> I work in the education department as a section officer, and we are a family of three. I have been provided with government accommodation and paid sick leave. I will also receive a pension after my retirement. I have the option of reimbursement for my medical treatment. My salary is sufficient to feed my family. My kids go to a private school, and I am satisfied with the quality of education. The benefits I receive from the government are sufficient for my family and myself.

Because these households had ample resources, savings, high-income formal sector employment or business, and access to quality health and education services provided by the state, they did not rely on informal welfare mechanisms during times of crisis. One participant remarked:

> I was an officer in the Pakistan Army. During service, I received benefits such as a house, medical treatment from a military hospital, private schooling at a reduced rate. Upon retirement, I received a residential plot and pension. I am happy with the benefits of the support I received from the government during service and after retirement.

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Table 1. Description of clusters

	Percentage of households in each cluster	Average household size	Annual mean income	Average living density per room	Bank accounts	Forms of employment and income	Sources of livelihood and living conditions/ assets	Risks and shocks	Institutional landscape for risk management measures	Welfare outcomes	Formal and informal social welfare – role of the state
Cluster1- Potential welfare state regime	8.24%	9.1	8000 US dollar per year.	5 rooms/ 9.1 persons.	14.89% of households do not have bank accounts.	Capitalist economy with high levels of formal employment and income levels. Majority of the households belong to urban areas.	Access to formal labour market, good living conditions and holding of substantial assets by the households.	No prevalence of conflict and disasters. Low incidence of shocks such as unemployment etc. 68.09% of the households faced a shock.	Majority of the households do not require any assistance to manage risks and shocks due to the holding of substantial assets.	Good welfare outcomes with extremely low incidence of disease and high levels of education.	Majority of households are not in need of formal or informal social protection. A mix of public and private welfare services are used some households.
Cluster2- More effective informal security regime	16.7%	7	3050 – 3350 US dollar per year.	2.7 rooms/ 7 persons.	34.74% of households do not have bank accounts.	A mix of formal and informal employment with relatively high levels of income than households of Cluster1. Majority of the households belong to urban areas.	Households use a variety of livelihood strategies such as agriculture farming, government jobs, rural urban and overseas migration etc. resulting in relatively high income, better living conditions with less housing overcrowding, sizeable assets, and a moderate access to formal credit as compared to Cluster3.	Households experienced shocks such as unemployment, illness, disability, death of family member etc., on a lesser scale than Cluster1. No household ever experienced conflict. 75.79% of the households faced a shock.	A sizeable number of households do not require any assistance to manage the shocks. However, some households did use informal mechanisms to face the shocks.	Moderate welfare outcomes with low levels of prevalence of disease and relatively good education outcomes than Cluster1.	A complementary mix of formal and informal welfare is evident in this cluster with a large role of the state in welfare provisioning.
Cluster3- Less effective informal security regime	68.4%	8.7	600 – 900 US dollars.	1.9 rooms/8.7 persons.	89.49% of households do not have bank accounts.	Mostly informal economies with little formal employment opportunities and very low-income levels. Majority of the households belong to rural areas.	Households employ various livelihood strategies for survival such as low-paid informal sector jobs, agricultural tenants, and child labour, etc. Poor living conditions (housing overcrowding), little or no assets and extremely low access to formal credit.	Majority of households experience shocks such as unemployment, illness, disability, death of family member etc. Conflict and naturals disasters are experienced by few households. 97.69% of the households faced a shock.	Mostly informal mechanisms are utilised by the households for managing risks and shocks. Formal mechanisms are present on a low scale.	Poor welfare outcomes with prevalence of high levels of chronic and communicable diseases and low levels of schooling.	Coverage of formal social protection is low vis-a-viz informal welfare mechanisms. Less role of state in provision of welfare.

(*Continued*)

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Table 1. (*Continued*)

	Percentage of households in each cluster	Average household size	Annual mean income	Average living density per room	Bank accounts	Forms of employment and income	Sources of livelihood and living conditions/ assets	Risks and shocks	Institutional landscape for risk management measures	Welfare outcomes	Formal and informal social welfare – role of the state
Cluster4- Insecurity regime	6.66%	16.44	900 – 1200 US dollar.	2.60 rooms/ 16.44 persons.	89.47% of households do not have bank accounts.	Mostly informal sector (rural, feudal, or tribal economies) with little or no employment opportunities and extremely low levels of income. Starvation and hunger are common. Majority of the households belong to rural areas.	Limited livelihood opportunities leading to child and bonded labour, high risks jobs such as coal mining etc., high overcrowding in housing, little or no assets and almost no access to formal credit.	Majority of households experience shocks such as unemployment, illness, disability, death of family member etc. Conflict and natural disasters are experienced by a sizeable number of households leading to destruction of assets and migration. 100% of the households faced a shock.	No support is available to manage the risks and shocks to a sizeable number of households.	Prevalence of chronic and communicable diseases is common, exceptionally low levels of schooling and insecurity is persistent among most of the households.	Largely absent with a breakdown of informal mechanisms is often observed. Almost negligible role of state in welfare provisioning.

Note: A shock refers to an unforeseen event or circumstance that has a significant impact on individuals, communities, or societies. These shocks can occur at an individual level, such as experiencing unemployment or illness, or at a broader level, such as being affected by natural disasters, conflicts, or pandemics. In the context of this study, the shocks faced by households and were measured by illness, physical injury, disability, the death of a family member, infant mortality, unemployment, war or conflict, loss of business due to conflict, migration resulting from conflict, illness impeding work ability, diseases like hepatitis, polio, and tuberculosis, and natural disasters such as earthquakes or floods, etc.

The results indicated that the state's role was well established in offering comprehensive social protection in this cluster, and the cluster's population was receiving considerable welfare benefits mainly because of formal public-sector employment. A majority of this population resided in wealthy urban areas of the country and had access to quality health and education services, which contributed to positive social outcomes and successful decommodification of labour (Table 1).

Cluster2 – More effective informal security regime

Of the households surveyed, 16.7% comprised Cluster2, which exhibited the features of a 'more effective informal security regime' and had relatively good outcomes from low state social spending levels. A complementary mix of formal and informal welfare contributed to better outcomes in this cluster. Nearly 70% of the households in this cluster resided in urban areas of the country, and the incidence of formal employment was relatively higher than in Cluster3 – Less effective informal security regime, and Cluster4 – Insecurity regime. Chronic disease prevalence was uncommon, and no household had ever experienced conflict, indicating a reduced level of insecurity. However, some households faced shocks such as unemployment and illness during their life course (Table 1). To manage such shocks, several households did not require any assistance. In contrast, a lower percentage of households relied on formal and informal welfare mechanisms to manage the shocks they faced. This indicates that households in Cluster2 – More effective informal security regime, faced insecurities, but to a lesser scale than those in Cluster3 – Less effective informal security regime. They had access to a welfare mix of formal and informal sources to effectively manage the shocks they had faced. People employed in the informal sector, including overseas employment, earned a substantial income that complemented formal sources of income contributing to better social outcomes. As one participant explained,

> My elder son went to Spain to complete his master's degree 15 years ago. During his study, he used to send us less money. However, he got his citizenship five years ago and got a permanent job in Spain. He has been sending us money every month for the last five years. He is also arranging for my younger son to migrate to Spain. The money he sends to us is spent on household expenses and the education of my other children. We are also receiving assistance from the government through health insurance (Sehat Card), which is very helpful.

Another participant narrated,

> I am a lumberdar (village headman), and I am running a village fund. There are 25 members in the fund. Every member contributes 15,000 PKR to the fund each month. I will receive a sum of 300,000 rupees from the pot in the fifteenth month. If I am in need, I can always ask the fund members to give me the money earlier. I have planned to buy a motorcycle from the fund money. I have also received a Sehat Card from the government, and I have the option of using

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

> this card for treatment up to 500,000 PKR, which is pretty good. As the village headman, I am also receiving an honorarium from the government, which is quite helpful for us to buy household items.

These results show that a complementary mix of formal and informal welfare in Cluster2 – More effective informal security regime, effectively countered the challenges of maintaining well-being, administered the risks and shocks faced by households, and decommodified labour to a large extent.

Cluster3 – Less effective informal security regime

Of the total households surveyed, the majority (68.4%) belonged to Cluster3 – Less effective informal security regime, with most residing in rural areas. This cluster exhibited characteristics of a 'less effective informal security regime', with inadequate schooling, a high prevalence of disease/illness, predominantly low-income informal sector employment, and insufficient social protection to manage risks and shocks (Table 1). Furthermore, many households experienced conflict and natural disasters that exacerbated their insecurities. The most common forms of employment in this cluster were low-paid, uninsured, informal sector jobs, including street vendors or hawkers, and some incidence of child labor. Living conditions were poor, with a strong prevalence of unhygienic and crowded living arrangements. As one participant noted:

> I own a small cart and sell children's toys on the roadside. Sometimes, municipal corporation officials confiscate my cart because I cannot sell toys on the road. I do not earn much money by selling toys. I have six children to feed, and most of the time, we do not have money to buy flour for a day. We have to ask people in our area for food. My wife works on a brick kiln to share my burden. My elder daughter does not go to school because she has to do household work. We do not own any land or assets and live in a temporary shelter on someone else's land. The owner tells us to vacate the land, and we pack our shelter to move to another place.

The coverage and income support of formal social protection were insufficient in this cluster, but most households received informal welfare through various sources, as explained by one participant:

> I am a brick kiln worker and receive approximately 4,500 PKR every quarter from the BISP. This amount is so little that I cannot buy basic consumption items for a week as I have six family members. As a result, the people in our area give us food when we do not have food.

Another interviewee stated:

> I am divorced and illiterate. My husband left me five years ago. I am responsible for feeding all my kids because my ex-husband does not give me

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

> any maintenance money. I work in people's homes, and my mother works with me. I am sending my kids to a local madrassa, where they are provided with food, clothes, and education. The madrassa also helps us during Ramadan and Eid.

This discussion highlights that Cluster3 exhibited characteristics of a less effective informal security regime, where people relied mainly on informal relationships to meet their security needs and did not receive adequate support from formal state welfare services. Such measures produced low social outcomes and did not effectively commodify labour.

Cluster4 – Insecurity regime

Cluster4 exhibited features of an 'insecurity regime', with approximately 7% of the total surveyed households comprising this cluster. Most households in this cluster resided in rural areas with high MPI cities. The population in this cluster had a high prevalence of chronic diseases, inadequate education, high levels of poverty, and few or no employment opportunities (Table 1). This situation was further exacerbated by tribal and military conflicts and natural disasters, which generated extreme forms of suffering for most households, as narrated by some participants in the study. For example:

> We are living in a tribal conflict-affected area. The two major tribes have been at war for 40 years. Now and then, they open fire at each other, and as a result, we have to close our shop for days. There is no income for days, and we cannot move out of our homes during the day. The schools and local dispensary get closed during times of exchange of fire between the tribes. In case of a medical emergency, we must wait until night to move out of our homes for safety reasons. Sometimes, death occurs because of the unavailability of medical treatment.

Another participant explained,

> In our area, law enforcement agencies are operating against local militants. Law enforcement agencies force us to close our business when they are doing any raids. This frequently happens because of which everything shuts down. There are no operational government facilities in our area because no government officer wants to serve in this area. Due to the lack of employment opportunities, everyone in our area is poor, and we cannot help each other in times of need.

The discussion has shown that Cluster4 exhibited features of an insecurity regime, where households faced gross insecurities due to disasters, conflict, and unstable economies, causing persistent insecurity for them. Such a situation constrained the possibility of even informal welfare, resulting in persistent insecurity for populations in this cluster.

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Implications, discussion, and conclusion

This article highlights the importance of taking a comprehensive approach to analysing welfare regimes by considering the intricacies of social policy and its implementation. Through an innovative methodology presented in the study that establishes clear criteria for identifying welfare regime membership, we can better understand how welfare regimes develop and what factors contribute to their classification. The clusters identified remain located within the global welfare regime literature and typologies – what this method enables is to capture how the arrangements on the ground, and their lived experiences, relate to existing welfare regime typologies. This understanding can help inform policy decisions and contribute to the development of more effective welfare systems that can cater to the diverse needs of populations.

First and foremost, this article aims to address how to best capture and analyse hybrid cases; cases that do not fully satisfy the properties of a given analytical category (in this case global welfare regime typology) but instead reflect a combination of characteristics of different categories. We argue that what is essentially presented as an analytical problem of classification or transitioning can also be, in fact, a methodological one. Given the lack of agreement in the dependent variable and the various methodological approaches for capturing welfare regime classification, the methodological approach presented in the study enables us to both identify the existence of multiple welfare regimes within a single case and equally determine the most populous cluster within a single case.

By applying this novel technique in a single case study, we are able to demonstrate the different variants of welfare support in place in Pakistan. They can confidently determine that its properties best resemble a 'less secure informal regime' given that it is by far the most populous cluster.[3] It remains crucial, however, to highlight that other than answering this problem of hybridisation, this method is highlighting that we cannot ignore the sufferings and hardships of the population who are faced with such a violent crisis daily. Nor can we ignore how the elites are able to purchase the highest quality of services available in the global private market, thereby sidestepping the public sector in schooling, medical care, safety, and security. All of these key findings are essential both for policymakers in devising their policy interventions and for enriching the understanding of scholars interested in social policy and development studies.

An important finding of the study relates to the geographical location and welfare outcomes in Pakistan. The results highlight that urbanised areas with low MPI tend to have a majority of households benefiting from a potential welfare state and a more effective informal security regime. Conversely, rural areas within cities are associated with a prevalence of less effective informal security regimes, while tribal areas exhibit higher levels of insecurity regimes. However, it is important to note that households experiencing less effective insecurity regimes or potential welfare state are not exclusively limited to rural or urban areas respectively; they can also be found in urban areas, although less frequently indicating the connection between geography and welfare regimes. One potential policy implication is that governments should prioritise social protection interventions in underdeveloped areas, as they are more likely to face socio-economic deprivations.

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Gough et al. (2004) opened the way for researchers to explore the interplay between statutory and informal provisions. The 'global welfare modelling business' did not develop an agreement on the dependent variable or appropriate methods for capturing categorisations or transitions, let alone how to explain hybrid cases. Shifting the level of analysis to households, even within a single case, enables us first to gain a better insight into the empirical reality as it is experienced at the micro level and also adopt a more in-depth understanding of the cultural, economic, and social dynamics for welfare regime development. By paying attention to how non-statutory provisions, including family and community relationships, interact with and are often conditioned by statutory (or lack of thereof) provisions, this methodology offers the next step in identifying the particularities of each welfare regime. It represents one of the first attempts to empirically capture how households are receiving welfare provision and, more importantly, how institutional arrangements are captured on the ground, not simply by macro or meso level variables. The methodology presented in the paper can be used as a heuristic tool mainly in welfare regimes where the level of informal provision is extensive so that researchers and policymakers capture formal and informal welfare's role and its impact on livelihood outcomes, considering the presence of informal support networks though on a smaller scale in high-income countries.

The study offered a unique methodology of data collection based on multistage sampling that enabled the determination of different welfare arrangements available to households. This data was explored using a novel machine learning (ML) algorithm to form clusters contributing to methodological innovation in social policy data analysis literature. This original methodology provided a new technique to capture the hybridisation of welfare regime(s) based on outcomes in a single or across countries by considering the welfare mixes – formal and informal social protection – available to households. However, one major limitation of using such an approach is that it cannot capture the benefits enjoyed by the richest elite in a country.

The study presented original findings on the effectiveness and ineffectiveness, as well as the interaction of formal and informal welfare, highlighting the more effective informal security regimes that can be used to build effective social protection policies. This research methodology has the potential to set a new research agenda as the way institutional arrangements and informal provisions interact with each other at the household level remains subject to change. The study does not claim that Pakistan will not effectively shift to a more effective informal welfare regime, but rather suggests that identifying future paths is a task for future empirical research. The article has not opted to explore the political strategies employed, by successive governments, in reproducing the complex relationship between social policy and democratic governance (Schneider & Ingram, 1993) but exposing these inequalities should be a sufficient requirement for future scholarship to engage with.

Acknowledgements. The authors extend their appreciation to the anonymous reviewers for providing valuable feedback that has significantly contributed to the improvement of the paper's quality and overall argument.

Competing interests. The author declares none.

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Notes

1 New research methods are necessary to generate new insights for a problem (Müller-Bloch & Kranz 2015; Miles 2017).

2 The Multidimensional Poverty Index (MPI) is an important measure to assess the challenges faced by the impoverished at a subnational level. It measures various household dimensions such as education, healthcare, and living standards. A low MPI indicates positive social outcomes, while a high MPI reflects significant deprivation and poverty, necessitating urgent intervention, and support (UNDP, 2016).

3 Suffice to say that the empirical analysis in this case was able to clearly indicate the most populous group. As a suggestion, should the findings had identified two clusters with the same representation, then we would have suggested that our case would display – with a higher level of confidence – hybrid properties.

References

Abbasi, A. (2021). Politics of development in Pakistan: From the post-independence modernization project to 'Vision 2025'. *Journal of South Asian Development*, **16**(2), 220–243.

Abu Sharkh, M., & Gough, I. (2010). Global welfare regimes: A cluster analysis. *Global Social Policy*, **10**(1), 27–58.

Aspalter, C. (2011). The development of ideal-typical welfare regime theory. *International Social Work*, **54**(6), 735–750.

Barrientos, A. (2004). Latin America: Towards a liberal-informal welfare regime. In I. Gough et al. (Eds.), *Insecurity and welfare regimes in Asia, Africa and Latin America* (pp. 121–168). Cambridge University Press.

Bashir, M. (2013). Public policy processes and citizen participation in Pakistan. In M. Sabharwal, & E. M. Berman (Eds.), *Public administration in South Asia* (pp. 395–407). Routledge.

Bertin, G., Carrino, L., & Pantalone, M. (2021). Do standard classifications still represent European welfare typologies? Novel evidence from studies on health and social care. *Social Science & Medicine*, **281**, 114086.

Bertin, G., & Pantalone, M. (2018). Comparing hybrid welfare systems: The differentiation of health and social care policies at the regional level in Italy. *Italian Sociological Review*, **8**(1), 1–23.

Choi, Y. J. (2012). End of the era of productivist welfare capitalism? Diverging welfare regimes in East Asia. *Asian Journal of Social Science*, **40**(3), 275–294.

Clement, J. (2020). Social protection clusters in sub-Saharan Africa. *International Journal of Social Welfare*, **29**(1), 20–28.

Cohen, S. P. (2004). *The idea of Pakistan*. Rowman & Littlefield.

Cox, T. (2018). Bifurcation, stratification and informality in post-socialist welfare regimes. *Intersections. East European Journal of Society and Politics*, **4**(1), 24–44.

Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Princeton University Press.

Esping-Andersen, G. (1997). The three worlds of welfare capitalism. *Journal of European Social Policy*, **7**(3), 179–189.

Franzoni, J. M. (2008). Welfare regimes in Latin America: Capturing constellations of markets, families, and policies. *Latin American Politics and Society*, **50**(2), 67–100.

Giraudy, A., & Pribble, J. (2019). Rethinking measures of democracy and welfare state universalism: Lessons from subnational research. *Regional & Federal Studies*, **29**(2), 135–163.

Gough, I., Wood, G., Barrientos, A., Bevan, P., Room, G., & Davis, P. (2004). *Insecurity and welfare regimes in Asia, Africa and Latin America: Social policy in development contexts*. Cambridge University Press.

Hassan, S. S., & Syeda, M. H. (2019). Development-centered mainstreaming of the marginalized: Re-defined landscape of social policy in Pakistan. *Pakistan Vision*, **20**(2), 316.

Hinojosa, L., Bebbington, A., Barrientos, A., & Addison, T. (2010). State revenue and social policies in mineral-rich developing countries. United Nations Research Institute in Social Development-UNRISD, Geneva, Switzerland.

Jabbar, A., & Iqbal, J. (2021). The shadow economy in Pakistan: An analysis with MIMIC model. *Pakistan Journal of Humanities and Social Sciences*, **9**(3), 340–350.

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Jadoon, M. Z. I., & Jabeen, N. (2017). Administrative reforms in Pakistan. In M. Sabharwal, & E. M. Berman (Eds.), *Public administration in South Asia* (pp. 439–451). Routledge.

Kuitto, K. (2016). *Post-communist welfare states in European context: Patterns of welfare policies in Central and Eastern Europe*. Edward Elgar Publishing.

Kuypers, S. (2014) The East Asian Welfare Regime: Reality or Fiction, CSB Working paper, 14, 4.

Leyer, R. V. (2020). Has social policy expansion in Latin America reduced welfare decommodification and defamilialisation? Evidence from an overview of the Mexican welfare regime. *Social Policy and Society*, **19**(4), 645–659.

Midgley, J. (2019). Social policy and development: An overview. In J. Midgley, R. Surrender, & L. Alfers (Eds.), *Handbook of social policy and development* (pp. 14–34). Cheltenham: Edward Elgar.

Miles, D. A. (2017). A taxonomy of research gaps: Identifying and defining the seven research gaps. In *Doctoral student workshop: Finding research gaps-research methods and strategies* (pp. 1–15). Dallas, TX. https://www.academia.edu/35505149/RESEARCH_A_Taxonomy_of_Research_Gaps_Identifying_and_Defining_the_Seven_Research_Gaps

Ministry of Finance. (2021). *Pakistan economic survey 2018–2019*. Islamabad: Government of Pakistan. http://www.finance.gov.pk/survey_1819.html

Mkandawire, T. (2020). *Colonial legacies and social welfare regimes in Africa: An empirical exercise* (pp. 139–172). Springer International Publishing.

Müller-Bloch, C., & Kranz, J. (2015). A framework for rigorously identifying research gaps in qualitative literature reviews. *The Thirty Sixth International Conference on Information Systems, Fort Worth 2015*, Texas, USA, pp. 1–19.

Mumtaz, Z. (2022). *Informal social protection and poverty* (pp. 45–72). Singapore: Springer Nature Singapore.

Mumtaz, Z. (2023). Conceptualising the relationship between formal and informal social protection. *Social Policy and Society*, 1–18. doi: 10.1017/S1474746423000337

Mumtaz, Z., & Whiteford, P. (2017). Social safety nets in the development of a welfare system in Pakistan: an analysis of the Benazir Income Support Programme. *Asia Pacific Journal of Public Administration*, **39**(1), 16–38.

Mumtaz, Z., & Whiteford, P. (2021a). Comparing formal and informal social protection: A case study exploring the usefulness of informal social protection in Pakistan. *Journal of International and Comparative Social Policy*, **37**(3), 243–272.

Mumtaz, Z., & Whiteford, P. (2021b). Machine learning based approach for sustainable social protection policies in developing societies. *Mobile Networks and Applications*, **26**, 159–173.

Papadopoulos, T., & Roumpakis, A. (2017). Family as a socio-economic actor in the political economies of East and South East Asian welfare capitalisms. *Social Policy & Administration*, **51**(6), 857–875.

Roumpakis, A. (2020a). Revisiting global welfare regime classifications. *Social Policy and Society*, **19**(4), 589–612.

Roumpakis A. (2020b). Revisiting global welfare regimes: Gender, (in)formal employment and care, *Social Policy and Society*, **19**(4), 677–689.

Roumpakis, A., & Sumarto, M. (2020). Introduction: Global welfare regimes revisited. *Social Policy and Society*, **19**(4), 585–588.

Schneider, A., & Ingram, H. (1993). Social construction of target populations: Implications for politics and policy. *The American Political Science Review*, **87**(2), 334–347.

Shizume, M., Kato, M., & Matsuda, R. (2021). A corporate-centred conservative welfare regime: Three-layered protection in Japan. *Journal of Asian Public Policy*, **14**(1), 110–133.

Sumarto, M. (2017). Welfare regime change in developing countries: Evidence from Indonesia. *Social Policy & Administration*, **51**(6), 940–959.

Sumarto, M. (2020). Insecurity and historical legacies in welfare regime change in Southeast Asia–Insights from Indonesia, Malaysia, and Thailand. *Social Policy and Society*, **19**(4), 629–643.

UNDP (United Nations Development Programme). (2016). *Multidimensional poverty in Pakistan*. Islamabad: UNDP. http://www.pk.undp.org/content/pakistan/en/home/library/hiv_aids/Multidimensional-Poverty-in-Pakistan.html

Wood, G., & Gough, I. (2006). A comparative welfare regime approach to global social policy. *World Development*, **34**(10), 1696–1712.

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press

Yang, J. J. (2017). *The political economy of the small welfare state in South Korea*. Cambridge University Press.

Yang, N., & Kühner, S. (2020). Beyond the limits of the productivist regime: Capturing three decades of East Asian welfare development with fuzzy sets. *Social Policy and Society*, **19**(4), 613–627.

Yörük, E., Öker, İ., Yıldırım, K., & Yakut-Çakar, B. (2019). The variable selection problem in the three worlds of welfare literature. *Social Indicators Research*, **144**, 625–646.

Yu, X. (2014). Raising food prices and welfare change: A simple calibration. *Applied Economics Letters*, **21**(9), 643–645.

Cite this article: Mumtaz Z, Roumpakis A, and Sumarto M (2025). Overcoming hybridisation in global welfare regime classifications: lessons from a single case study. *Journal of Social Policy* **54**, 1113–1133. https://doi.org/10.1017/S0047279423000612

https://doi.org/10.1017/S0047279423000612 Published online by Cambridge University Press