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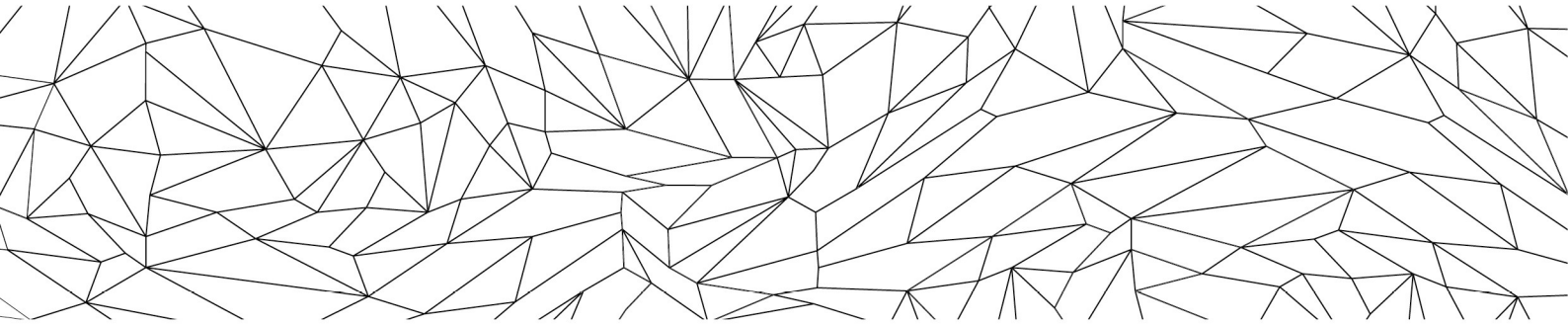

Why Do Eligible Individuals Fail to Enrol in Government Social Benefits? A Systematic Scoping Review of Barriers to Access.

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Why Do Eligible Individuals Fail to Enrol in Government Social Benefits? A Systematic Scoping Review of Barriers to Access

Mariona Tres Vilanova[1]

Abstract

Why do so many eligible individuals fail to enrol in government social benefits? To address this question, I conduct a systematic scoping review of the theoretical and quantitative literature of welfare benefits take-up. I find that evidence on the significance, size, and direction of factors hindering the take-up of social protection programmes by eligible groups remains inconclusive. Benefit size and duration are the main determinants to take-up but focusing only on these offers a truncated story. Participation in other government programmes, social networks, demographic characteristics, education, employment status, geographical location, asset ownership, and migration status seem to influence individuals' decisions to participate in social protection programmes. These individual characteristics in turn proxy for the information barriers, compliance costs and psychological costs of the claiming process.

Keywords: benefit take-up, welfare participation, public policy, institutions

JEL classification: H53, I38, D73, D78, D83, J18.

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1. Introduction

Why so many eligible individuals fail to sign up for government social benefits? Low take-up of social protection programs by eligible individuals—those entitled to government benefits but who do not claim them—is surprisingly high across high-, middle-, and low-income countries. For example, in the European Union, the average of non-take-up is estimated to be around 40%, although this number varies widely by country or programme, ranging from 4% up to 80% (Dubois and Ludwinek 2015; Ko and Moffitt 2022). The United Kingdom's (UK) Income Support-Employment and Support Allowance programmes were not claimed by approximately 25% of the eligible people in 2010 (Finn and Goodship 2014). In the United States (US), 20% of eligible households do not claim the Earned Income Tax Credit that annually distributes more than USD 60 billion to over 20 million low-income families (Linos et al. 2022). In India, it is estimated that 60% of citizens do not apply for benefits and services they report they need from the government (Demirguc-Kunt, Klapper, and Prasad 2017). In South Africa, 80% and 15% of eligible people do not claim the Child Support Grant and the State Old Age Pension, respectively (Zembe-Mkabile et al. 2014). In Mexico, a survey found that around 40% of the eligible households did not apply to the Progresa/Oportunidades cash transfer programme (Coady, Martinelli, and Parker 2013). In Bolivia, around 20% of eligible elderly do not register to the universal non-contributory pension scheme Renta Digna (Canelas and Niño-Zarazúa 2022). In Uruguay, around 20% of eligible households did not apply to the National Social Emergency Response Plan (Burdin and de Melo 2009).

This perplexing situation poses major challenges and questions for individual well-being, successful policy outcomes, and expanded social welfare as a whole; and yet receives disproportionately little attention (Van Oorschot 1991; Brewer 2003; Bargain, Immervoll, and Viitamaki 2012). Much of the research on social protection coverage has focused on how to effectively target social services (Alatas et al. 2013; Basurto, Dupas, and Robinson 2020), but a relevant piece of the puzzle still requires further research to understand the barriers preventing eligible people from accessing social services and benefits that they are entitled to (Banerjee et al. 2023).

The presence of non-take-up[1] of social protection programmes is a concern both for the effectiveness and equity of social policies (Hernanz, Malherbet, and Pellizzari 2004). In terms of policy effectiveness, non-take-up undermines the social programme's intended goals, affects fiscal planning and forecasts, can lead to the underutilisation or misallocation of resources, and may signal dysfunction or implementation failures in the delivery chain. An example is the correlation between non-take-up and labour supply, where the prevalence of non-take-up and take-up will impact the estimation of labour supply models (Brewer 2003).

From an equity perspective, when eligible individuals do not claim government benefits that are designed to assist households facing difficulties, they forego the additional support deemed necessary by the government. Furthermore, those individuals not taking-up benefits may be the most marginalised and with the highest needs (Gupta 2017; Herd and Moynihan 2018). Blundell, Fry, and Walker (1988) also argue that the existence of non-take-up signals the significance of the claiming costs, which are also borne by claimants, reducing the overall value of the benefit for those who have claimed it. These considerations underscore the importance of further identifying and quantifying the extend of the problem and understanding its drivers to better inform policy design and implementation.

This paper integrates examples of take-up studies from the Global South and addresses methodological considerations for contexts with low data availability. Previous review papers (Craig, 1991; Currie, 2004; Ko and Moffitt, 2022; Bearson and Sunstein, 2023) have primarily focused on the literature from the Global North, especially the US and the UK, where most take-up studies are conducted. To extend this research to settings with higher informality, where identifying eligible individuals is more difficult, it is necessary to gather the existing evidence and understand the methodological approaches and data requirements specific to these contexts. Additionally, this review incorporates a systematic revision of measurement strategies, data requirements and how these affect the factors and coefficients associated with non-take-up.

[1] Non-take-up refers to some individuals who are eligible and not taking up the benefit, it does not mean that no one takes the benefit.

Overall, this paper finds that the evidence concerning the significance, size and direction of the factors and barriers that hinder the take-up of social protection programmes by eligible groups remains inconclusive. A key reason is that the population of interest—those who do not access benefits—often remains unrepresented in the data (Craig 1991). They are either absent from administrative records— a situation more common in countries with higher rates of informality such as those in the Global South—or overlooked in surveys, as sampling frames frequently omit highly vulnerable individuals due to geographical remoteness and risky logistics. This leads to measurement errors, unobserved variable bias, and data inaccuracies of estimation studies that use administrative or observational data sources.

Having said this, there is a consensus, supported by evidence, that the size and duration of the benefit is an important determinant of take-up. This supports the assumption that utility maximising agents will sign up for social protection programmes when benefits outweigh costs. However, evidence from public administration and behavioural economics suggest that this scenario is more complex than it initially appears, where individual factors exacerbate how the costs are felt by certain individuals, deterring the most vulnerable from accessing essential programmes. There is a general understanding that the main barriers preventing take-up are information, compliance and psychological barriers (Herd and Moynihan 2018; Bearson and Sunstein 2023). Yet, it is unclear which socio-demographic and individual characteristics mitigate or exacerbate these barriers and the extent to which cognitive and behavioural biases may influence individual decision-making. This ambiguity prompts further investigation into the underlying institutional factors that underpin take-up gaps, a research area that has broadly been unexplored.

The remainder of the paper is organised as follows. Section 2. provides a definition of take-up as understood by this review and a discussion of the different definitions used in the literature and policy spaces. Section 3. presents the theoretical framework that organises the literature reviewed and delves into the main theories that explain non-take-up. Section Error: Reference source not found describes the methodology used to conduct the systematic literature review and describes the studies included in the review. Section 5. discusses the empirical evidence,

considering factors contributing to non-take-up and reviewing evaluations of interventions responding to the identified barriers.

2. Defining take-up

The academic and policy spaces use various definitions for take-up, reflecting the different stages where individuals may fall off or fail to initiate the registration process. This review defines non-take-up as eligible individuals who fail to complete the benefit registration process. This definition, aligned with Craig (1991), Currie (2004), Jensen (2022) and others, aims to highlight the barriers preventing eligible individuals from claiming benefits, excluding issues in benefit delivery, receipt, or use. This is relevant to programmes that require some type of registration.

Figure 1 illustrates the take-up chain, with different steps and potential drop-offs. While non-receipt or non-use raise significant questions regarding the supply of social programmes and service delivery, they also offer a truncated narrative by assuming that all eligible individuals can successfully apply for the programmes they are entitled to, thereby attributing their exclusion solely to administrative errors.

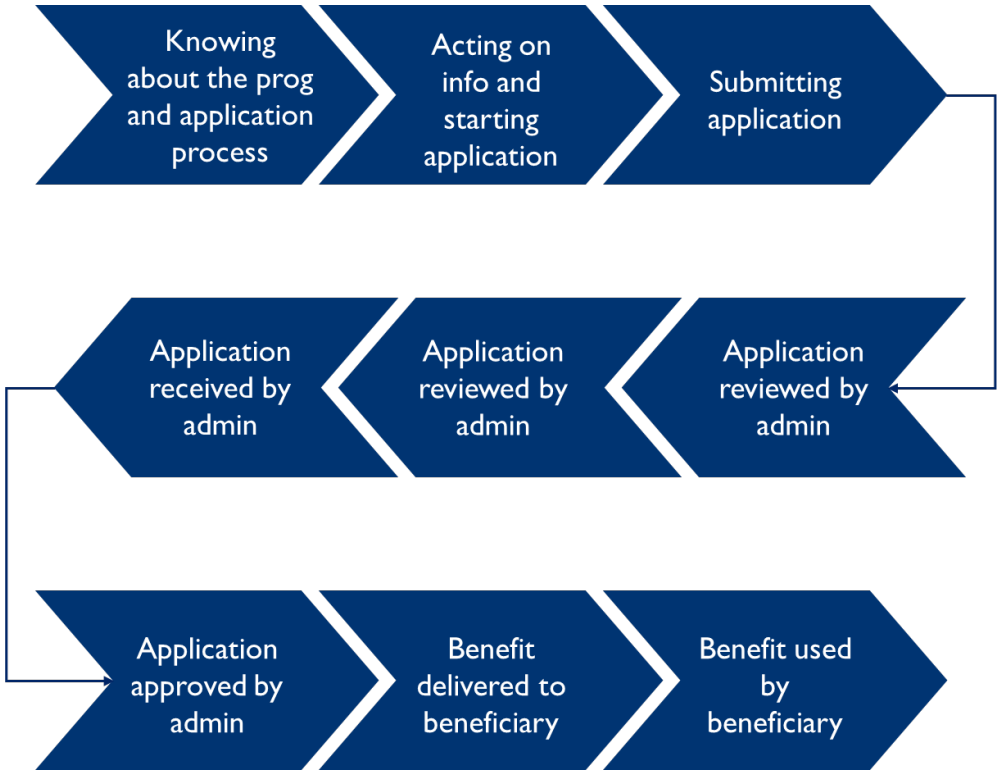


Figure 1: Take-up chain, author's own elaboration.

When defining take-up, it is also important to bear in mind the type of programme being studied. The barriers and incentives will change depending on the programme. Issues related to unconditional cash assistance will differ from those of conditional cash assistance or co-payment insurance. For the former two modalities, registration and receipt will be a more relevant measure; for the latter, usage may be a better metric of effective take-up (Ko and Moffitt 2022).

Despite a seemingly straightforward definition, the variety of programme types and registration procedures, complicates the application of this definition. For instance, consider the subtleties of an individual who may not know about the programme and not even initiate an application, an individual who may know about the programme but fails to act on the given information, an individual who may initiate an application but not finalise it or submit it, or an individual who may submit an application but not be enrolled due to administrative errors. Furthermore, in the case of insurance benefits, an individual who may be enrolled but not use the benefit when in need.

Van Oorschot (1991) framework categorises these examples as four possible stages of take-up: (i) primary non-take-up occurs when eligible individuals do not apply for benefits they are entitled to, (ii) secondary non-take-up occurs when eligible individuals apply but are rejected by programme administrators, (iii) partial or total non-take-up occurs when a person applies for a particular benefit but receives only part of it and (iv) permanent or temporary non-take-shows the variation depending on how long an individual is unaware of or does not apply to a programme. This review focuses on primary non-take-up. Clear definitions are crucial as they affect non-take-up estimates as it is discussed in Section 5.

3. Analytical framework

This section outlines the competing theories that explain the low take-up of social benefits. It begins by presenting an overarching analytical framework that integrates different theories and schools of thought on this issue. The section develops the key theories, starting with the rational utility-maximizing model, followed by extensions of the neoclassical model incorporating public management and behavioural perspectives, and concluding with institutional dynamics. For each these theories, I

explain the core theoretical arguments and discuss their implications for policy design.

3.1. Overall analytical framework

Most take-up studies focus on the individual and their decision-making process of whether to claim or not to claim a benefit. The most prominent models used in the analysis of take-up are the rational utility-maximising agent models that employ a utility function to demonstrate that take-up is a result of a cost-benefit calculation that individuals themselves compute with the information, perceptions and expectations they have. Although taking a utility function as an initial point to conceptualise take-up is a neat and convenient strategy, a classic utility function cannot fully explain why people do not register for benefits that appear to increase their well-being even when considering the potential transaction costs of registering. This limitation has been addressed by public management and behavioural scientists, who have introduced cognitive considerations that may exacerbate costs and reduce expected benefits, leading to non-rational decisions of take-up for people who would otherwise benefit from such programmes. These are represented in the bottom half of the analytical framework (Figure 2).

Even with this extension to the neoclassical model of take-up, the picture is still incomplete as it focuses mostly on the individual decision-making process and does not explicitly consider broader political economy, institutional and structural factors that affect take-up. This review seeks to provide a more comprehensive picture on the phenomenon of non-take-up by including adjacent literature on the role and incentives, bureaucrats, policymakers, and politicians. These are represented in the top half of Figure 2. The framework delineates between formal institutions governed by vertical checks and formalised procedures, and the informal interactions driven by horizontal checks (Khan, 2010). The power, capabilities and incentives[1] of actors is realised both during policy design through policy intentions and actual incentives, and during policy implementation, where local clientelistic or programmatic politics may circumvent formal accountability mechanisms. Such dynamics can lead to wrong inclusion or exclusion from social programmes. Underpinning these

[1] Political Settlements Analysis framework by Khan (2010).

institutional interactions are structural theories. These realities may include armed conflict, migration and forced displacement.

The central axis represents the user journey to apply and receive benefits. Although the primary focus of this research remains barriers preventing application submission, the entire continuum from knowledge to actual use of benefits is outlined for a clearer understanding.

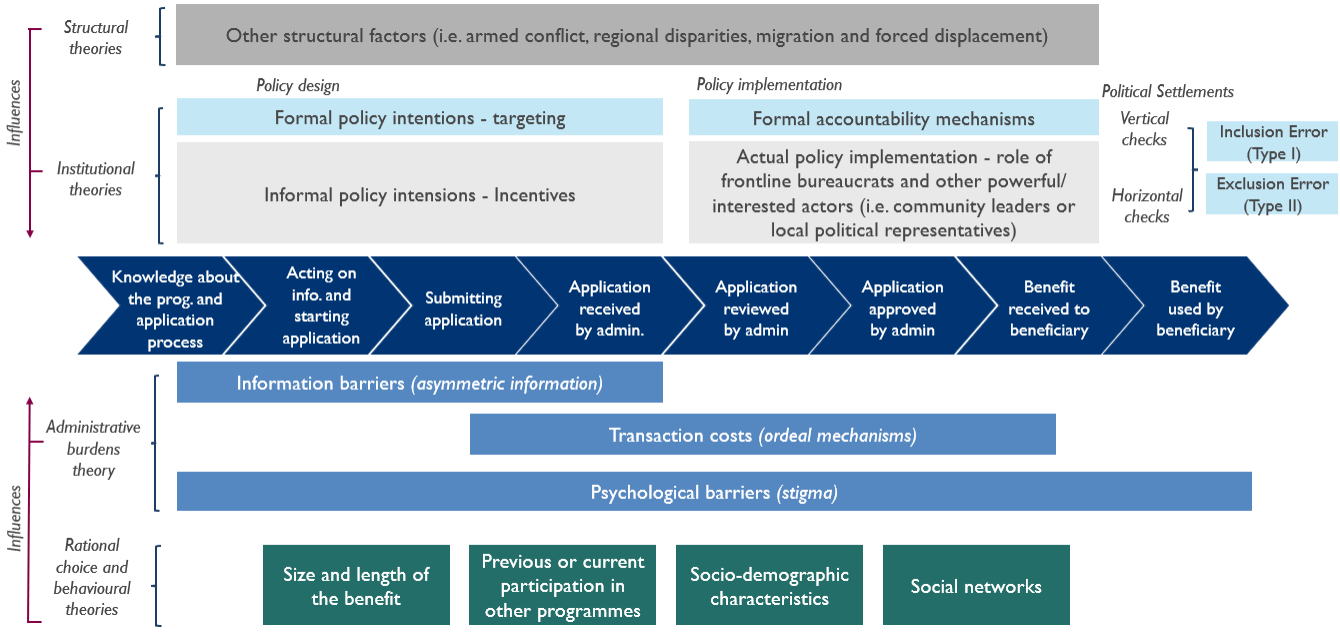


Figure 2: Theoretical Framework, author's own elaboration.

3.2. Rational utility-maximising theory

The first models of non-take-up of social benefits appeared in the 1980s in the UK with the foundational Threshold model (Kerr 1982) and the rational Trade-off model (Ritchie and Matthews 1982). Both models provided the first rigorous conceptualisation of take-up and gave a common narrative to synthesize previous qualitative studies of non-take-up, which up to that date had been lacking the ability to generalise conclusions (Currie 2004).

The Threshold model (Kerr 1982) presents six conditions that an individual needs to fulfil consecutively in order to claim a benefit: (i) perceived need, (ii) basic knowledge, (iii) perceived eligibility, (iv) perceived utility, (v) beliefs and attitudes, (vi)

perceived stability of circumstances. This model assumes that once a threshold has been passed, the cost is no longer borne and thus little can be done to reduce non-take-up by reducing costs. Therefore, actions should centre around the perceptions the individual has (Craig 1991). At a similar point in time, the Trade-off model (Ritchie and Matthews 1982) appears as a response to the Threshold model and proposes a model centred around the cost-benefit calculation an individual may make before deciding whether to take the benefit. In this case, deterrents are as important as promoters in the decision-making process, the costs are borne even if a person decided to claim a benefit and hence take-up can be improved by reducing deterrents (Craig 1991). Moffitt (1983) uses the cost-benefit conceptualisation and models the take-up decision with a utility function. In Moffit's utility function stigma is the main cost,[1] thus assuming that the transaction costs and information barriers are only a consequence of the stigma related to the benefit claiming process. Nevertheless, the utility function expressed by Moffitt can be expanded to include other costs such as the ones related with the claiming process itself (Currie 2004).

These models have their underpinnings in the neoclassical economic assumption of the rational agent. It posits that individuals, when making decisions, will consistently choose options that maximise their utility or well-being, demonstrating preferences that are consistent and reflective of a cost-benefit analysis (Mas-Colell and Whinston 1995). These models also assume exponential discounting, meaning that people will discount the future with a discount rate that is constant over time. These models presume that individuals have the capacity to obtain, process, and act on the information about the programme of interest and the capacity to surpass any transaction or psychological costs if the benefit is large enough, and thus apply for that benefit.

Implications for policy design - rational for targeting

It is precisely the assumption that individuals consider the costs and benefits of applying to government programmes that underpinned the design of many poverty

[1] Moffit is the first one to include stigma as a barrier. Bringing stigma into the utility function explained the "apparent violation of consumer theory" where individuals may not take something that appears to be a benefit (Bearson and Sunstein, 2023).

reduction programmes. Given the difficulties in targeting, in general, and specially so in developing countries where sources of income vary widely and are not systematically registered, one way to limit the take-up of programmes by non-eligible individuals is by increasing the transaction costs so that only those individuals who truly need the benefit will apply for it, discouraging the better off from applying (Nichols and Zeckhauser 1982). This policy tool is called “ordeal mechanisms” that neoclassical economics suggests will reveal the true preferences of potential beneficiaries (Heinrich 2016).

In fact, Kleven and Kopczuk (2008) argue that there is a trade-off between reducing application costs and improving targeting, policymakers may tolerate some non-take-up due to imperfect information and limited budgets. The ordeal mechanisms and associated costs can then be used as a targeting instrument to have a certain degree of non-take-up. Yet, this view is becoming increasingly contested as there is empirical evidence showing that “ordeal mechanisms” may be excluding vulnerable people who have the most pressing needs for social programmes but cannot surpass the registration hurdles and associated costs. Gupta (2017) and others claim that the effect of “ordeals” on targeting are theoretically ambiguous given that the poor may be more sensitive to small, short-term costs, preventing their take-up even if beneficial on the medium or longer term. Furthermore, some also argue that even if non-take-up can save some public funds in the short term, it may not do so in the longer term as people will have exacerbated needs Dubois and Ludwinek (2015).

3.3. Extensions of the neoclassical model using public management and behavioural models

With the realisation that “ordeal mechanisms” may be excluding those with more salient needs from accessing essential assistance, the public management and behavioural economics literature have expanded the neoclassical assumption of optimal decision-making through utility maximising cost-benefit analysis.

The public administration literature introduced the overarching concept of administrative burdens defined as “people’s experience of policy implementation as onerous” (Burden et al. 2012: 742). Administrative burdens include learning,

compliance and psychological costs that people experience in their interactions with the state (Herd and Moynihan 2018) and are thought to disproportionally affect the disadvantaged who lack the resources to navigate such obstacles.

Learning costs or information barriers represent the time and effort required by individuals to learn about the existence of a programme and to understand its benefits, eligibility criteria, and the process and documentation required for the application process (ibid.). When individuals lack information about these aspects or find the process of acquiring that information too onerous, they may choose not to participate in a programme from which they would benefit. This is particularly problematic as it suggests that some eligible individuals are not making optimal decisions regarding their welfare due to information barriers, rather than a calculated decision that the costs of participation outweigh the benefits.

Next, compliance costs relate to the time and effort it takes to comply with a programme's rules and regulations (ibid.). These may include the burden of completing detailed applications, submitting necessary documentation, and navigating the various bureaucratic processes required to maintain eligibility for benefits throughout the years. Such costs can be substantial and act as a deterrent to programme take-up.

Finally, psychological costs also play a role in the take-up of social benefits. These can include the stress associated with applying for and participating in social programmes and the stigma that beneficiaries may feel (ibid.). Moffitt (1983) introduced the concept of stigma as a participation cost and modelled it in his utility function. He demonstrated that stigma from receiving a social benefit can act as both a fixed cost, which decreases individual utility simply by participating in welfare, and a variable cost, which might affect individual utility based on the size of the benefit. He finds that the former is statistically significant but not the latter, implying that stigma affects the decision to participate or not in a programme but once there is take-up, the size of the benefit does not correlate with stigma. Stuber and Schlesinger (2006) introduces three types of stigma, namely personal stigma that relates to one's own beliefs and feelings about social benefits; social stigma that relates to what society may think about such benefits and their view on a person’s

participation to social programmes; and institutional stigma which is the discrimination that one may experience when interacting with a government office.

In addition to the administrative burdens' framework, behavioural scientists have incorporated cognitive considerations that play a crucial role in influencing decision-making and may contribute to the non-take-up of benefits by individuals who would otherwise benefit from such programmes. Bearson and Sunstein (2023) provide a comprehensive overview of key extensions and modifications proposed by behavioural models. These include the impact of cognitive biases stemming from scarcity and complexity, acknowledging that individuals facing resource scarcity or dealing with complex information may experience heightened decision-making challenges. This emphasises that the cost of hassle may vary based on an individual's cognitive state and have a stronger weight in the decision-making process than assumed in the traditional cost-benefit analysis. Other important cognitive factors include present bias and misrepresentation of risk. Importantly, behavioural models relax the neoclassical assumption of exponential discounting where preferences are constant over time and incorporate hyperbolic discounting to represent present bias and time inconsistency in people's decision-making process (Currie 2004). These insights from behavioural economics are a step forward and contribute to a more nuanced understanding of the factors influencing benefit take-up which can effectively inform policy reform.

Finally, considering social psychology theories, it is important to consider aspects of trust from possible recipients towards institutions. The erosion of trust can alienate individuals from interacting with government. One channel by which this erosion of trust may occur is clientelistic behaviour or the perception of unfair practices within social programme delivery. De La O (2013) claims that in Brazil's CCT Bolsa Familia, "one of the things that perhaps recipients liked about the program, and that took time to materialise, was precisely that benefits were not contingent upon vote choice", in fact, the author cites examples where programme recipients were more likely to support incumbent mayors who were perceived as managing the programmes impartially and with minimal diversion of resources to the non-poor (de Janvry et al. 2006) and claims that this finding aligns with social psychology theories that suggest that unconditional gifts foster reciprocity (Landry et al. 2009).

Implications for policy design – nudging and beyond

Taking these findings into consideration, policymakers are increasingly adopting policy tools, called “choice architecture” (Thaler and Sunstein 2009) referring to the way that choices are presented will influence individuals' decision-making and can lead to a positive reinforcement on behaviour. “Choice architecture” is seen as a response to the negative psychological effects that can occur when a person is trying to participate in a social benefit. One of the most popular examples of these tools is nudging, which is “any aspect of the choice architecture that alters people’s behaviour in a predictable way without forbidding any options [...]. To count as a mere nudge, the intervention must be easy and cheap to avoid [by the user]” (Thaler and Sunstein 2009, p. 6). There are many types of nudging such as simplifying information to make it more accessible and understandable, simplifying application requirements and processes, enabling automatic enrolment or establishing default choices for example. There is however the trade-off discussed above between seeking to increase take-up with automatic enrolment, but compromising targeting (Alatas et al. 2013). Factors that will be considered in this trade-off include fiscal and budgetary considerations, characteristics of the target population, and political support for these reforms (Kleven and Kopczuk 2011).

3.4. Institutional dynamics of take-up

The literature outlined above offers a truncated story as it has in most cases omitted the institutional and structural factors that may be driving the non-take-up of social benefits. These factors can relate to who designs the policies, how these are designed and its aims, the economic, social, and political context in which the policies are designed, the incentives and capabilities of politicians, policymakers and bureaucrats and the power structures at play (Khan 2010). Adjacent literature of public service delivery and political economy of welfare can guide the analysis of institutional factors to the study of non-take-up and understand the interrelationships among individuals, governments, and public policy. This section provides an initial overview of relevant adjacent literature and is not intended to be an exhaustive treatment of the subject matter, further research is required to understand the

underlying institutional factors that underpin take-up gaps, a research area that has broadly been unexplored.

The Weberian model of rational bureaucracy, proposing the view of bureaucracies as formal structures and formal relationships, has been a conventional standard to gauge the expected performance of public administration (Mangla 2015). This has led to the wide-spread search for 'good governance' measures including the promotion of the rule of law, transparency, and accountability as means for economic development (Robinson and Acemoglu 2012; Khan 2010). However, to grasp the complex functioning of bureaucracies, especially in most developing countries, an understanding of informal norms and practices such as relational capabilities (Baker, Gibbons, and Murphy 2023; Honig, Lall, and Parks 2023) is essential since many bureaucrats may hold their posts as political surrogates.

Social theorists and sociologists have long focused on these unwritten rules and institutions that guide everyday behaviour within bureaucratic organisations (Mangla 2022). For example, the dynamic between discretion and legalistic norms within organisations can significantly impact the efficacy of frontline workers' decision-making processes, but the evidence is mixed. On the one hand Mangla's studies from 2015 and 2022 have shown that organisational policies granting frontline workers discretion to make decisions based on specific circumstances and adapted to their context, tend to improve educational outcomes in India[1]. On the other hand, Tummers et al. (2015) reveal that, when faced with heavy workloads due to increased take-up, which can be a result of process simplification rules for beneficiaries for example, "street-level bureaucrats" may resort to a variety of questionable tactics. These can range from cream-skimming and parking to the routinisation of tasks, rigid adherence to rules, and even aggression towards users. The burden generated on the state by programmes with complex eligibility criteria such as means-tested or proxy-means tested benefits is a central point of the debate between means-tested benefits or universal or categorical benefits (Devereux 2016).

[1] However, India has a well-established, meritocratic, career service bureaucracy, thus the results of that research may not shed much light to other countries with less robust systems.

The role of bureaucrats is an essential part of the analysis of non-take-up as they are people's first point of contact with the government (Mangla 2022). Organisations ranging from the public sector, private sector and third sectors (when the latter is brought in through subcontracting arrangements), are fundamental in shaping the take-up of public benefits. While the central government is generally responsible for designing and enacting social policies, local government and in particular "street-level bureaucrats" oversee the last mile delivery (Lipsky 1980). In between, a complex network of individuals in their bureaucratic or social organisations will enable or inhibit an effective implementation. The private and third sector often participate in that intricate network, sometimes complementing government services in public-private partnerships, and sometimes filling government gaps.

There are several strategies to analyse the role each of these actors plays, one may employ a Political Settlements Approach which examines the power, capabilities, and incentives of actors and their influence on formal and informal institutions (Khan 2010). Moreover, one may use a systems approach to public service delivery that studies the "multi-dimensional complementarities" of complex bureaucratic systems (Williams and Mansoor 2024). This method provides a holistic understanding of public service delivery by considering institutions, norms, and the contexts in which they operate. Given the debates and trade-offs between universal, categorical, and targeted benefits, it is crucial to study the institutional and systemic factors contributing to non-take-up to understand the interests of policymakers and politicians.

Implications for policy design – workload of frontline bureaucrats

The individual centred approach in take-up studies has meant that policy proposals to improve take-up have also centred on reducing burdens for the individual, such as simplifying or automating enrolment. However, less attention has been given to the impact of these interventions on frontline bureaucrats. Negoita, Levin, and Paprocki (2023) is one of the few studies focusing on the impact of process simplification reforms on bureaucrats in the US, showing that policies seeking to ease the burden from individuals in fact can create additional burdens to bureaucrats, leading to incorrect application of rules and thus not achieve the ultimate outcome of improving take-up. While reducing administrative burdens can enhance take-up, these efforts

must be planned with sufficient state capacity to manage increased demand. For instance, reducing required documents without simplifying eligibility criteria could strain the agencies as it becomes more complex to determine individuals' eligibility (Aussenberg 2018). These findings underscore the importance of understanding non-take-up as a systemic issue, considering all actors involved, to avoid unintended negative consequences such as increased confusion and frustration among potential beneficiaries.

4. Review methodology

I conducted a systematic scoping review to study the factors contributing to the non-take-up of social protection programmes by eligible populations. To do so, I followed the guidelines from the Cochrane Handbook for Systematic Reviews of Interventions (Higgins et al. 2019), PRISMA guidelines (Moher et al. 2009) as well as the guide on conducting systematic reviews in the field of international development (Waddington 2012).[1]

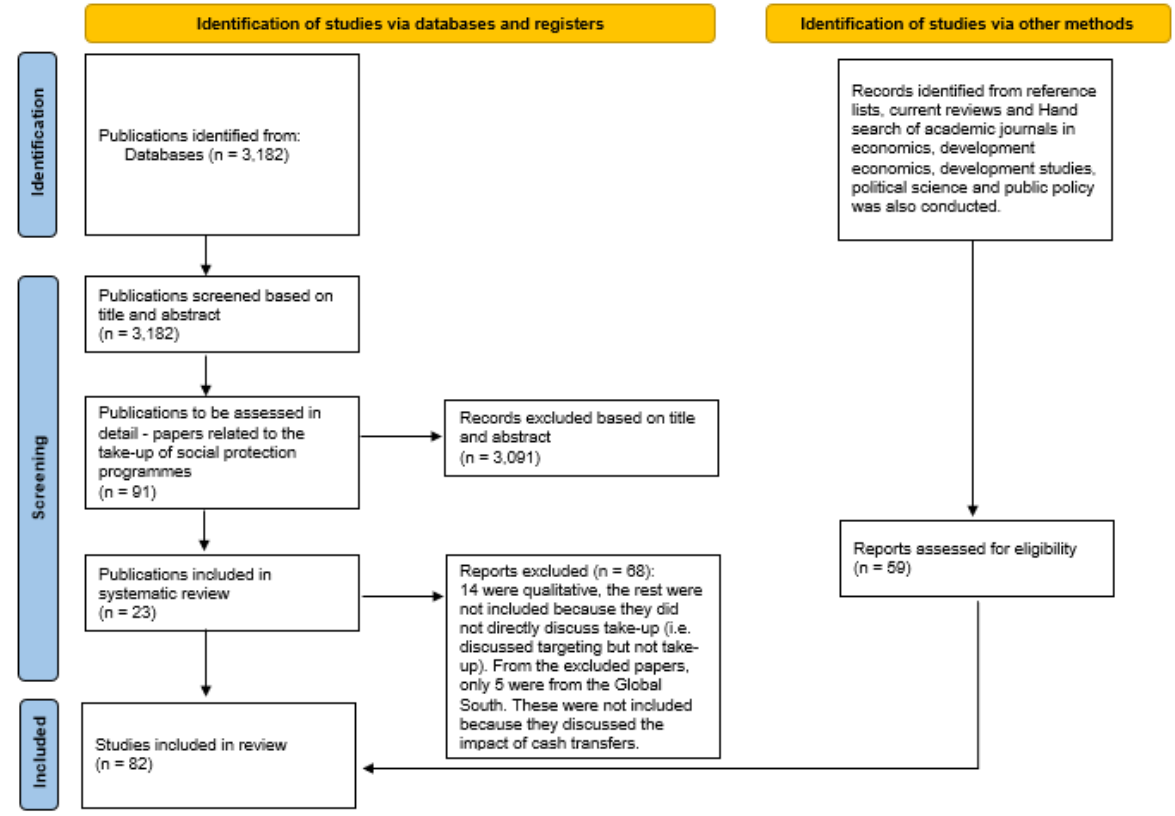
The search was conducted by combining terms such as "take-up", "social benefits", "welfare access" in ISI Web of Knowledge and JSTOR databases. The same search query was inputted into Google Scholar to search for grey literature. The reference list of already existing reviews and key papers was hand searched to ensure that no relevant papers were missed.

The studies included in this systematic review derive from the fields of economics, public administration, behavioural sciences and development studies. The selection of papers was based on choosing studies about eligible populations to social protection programmes, with an additional focus on studies from the Global South; and quantitative studies such as microsimulations to estimate take-up rates, regression analysis to estimate size and significance of factors affecting take-up, Randomised Control Trials (RCTs) and quasi-experimental studies for rigorous testing of specific mechanisms by which take-up may be improved. Conceptual and theoretical studies were also included. The main search was conducted in English. However, at a second stage, a search was conducted Spanish and French to reduce

[1] Annex 1 provides detail of the search terms, search procedure, the inclusion and exclusion criteria from the PICOS framework, and a detailed description of the studies.

the bias of English publications and incorporate perspectives from the literature of the Global South.

The literature on the take-up of social benefits is predominantly conducted in Western Europe and the US. Methodologically, the studies of take-up can be generally classified into four the following categories: (i) theoretical papers that explore the conceptualisations of take-up, these range from the foundational models, the neoclassical utility function models and the behavioural science expansions, (ii) expanding from these are the measurement studies that quantify take-up gaps and microstimulate take-up based on programme and population characteristics, (iii) next follow the studies estimating the determinants (factors) of take-up, usually employing Probit regression models on general household surveys or administrative data, (iv) finally there is an important literature, mostly from the US, employing RCTs to evaluate interventions that can lead to an increase in take-up, most of these interventions focus on information, assistance and nudging.



From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71

Figure 3 PRISMA 2020 flow diagram

5. Synthesis of evidence

The synthesis of evidence is organised into three sections. Firstly, it addresses the methodologies and data requirements for quantifying non-take-up, a crucial aspect given that one of the main barriers to studying non-take-up is the lack of accurate data to identify eligible individuals. While several estimation strategies have been developed to address this gap, each introduces biases and measurement errors. Secondly, I present the main determinants of benefit take-up explored in the literature, primarily through regression analyses. Finally, I review experimental evidence that investigates the impact of information, transaction, and psychological barriers on take-up.

5.1. Quantifying non-take-up: methodologies and data

An important focus of this review identifies, assesses, and discusses the methodologies and data employed to measure non-take-up. In the absence of a universal definition and limited data availability, measurement strategies used in studies vary widely (Craig 1991) and lead to estimates of non-take-up and its determinants to be non-comparable and erroneous. For example, Bargain, Immervoll, and Viitamaki (2012) show that four different studies found four different estimates of non-take-up for the same programme in the US.[1] Given that this exercise involves measuring the unobservable, the set of assumptions adopted becomes pivotal in determining the estimates obtained. By delving into these intricacies, this section seeks to elucidate the challenges associated with quantifying non-take-up.

Setting the definitions

As previously noted, defining non-take-up is complex, with different government organisations employing diverse definitions. Variability in the definitions arises from different interpretations of the nominator and denominator in the take-up calculation. Craig (1991) presents an illustrative example using the take-up calculation of income related benefits from the UK in 1985-86. The Department of Social Security (DSS)

[1] The Aid to Families with Dependent Children programme, where estimates of non-take-up vary from 10% to 55%.

conceptualises take-up as the number of actual claimants using administrative data (numerator) over the sum of the number of claimants and an estimate of the number of eligible non-claimants derived from the UK Family Expenditure Survey (denominator). However, Craig mentions that in other studies (Fry and Stark, 1987), the numerator excludes unentitled recipients, also known as inclusion errors, and the denominator excludes entitled non-recipients, also known as the exclusion errors. For this reason, results in higher take-up estimate than the DSS one.

Another source of variation comes from the moment considered non-take-up, as it can be the moment of registration, the moment a benefit should be claimed, or the moment of benefit receipt. Van Oorschot (1998) and subsequent studies (Ko and Moffitt 2022) highlight the difficulties in distinguishing between “primary take-up" which refers to an individual not claiming the benefit, and “secondary take-up" which occurs due to rejection. A third disparity in the definition stems from whether non-take-up is measured as caseload-based rate, that is the number of people, or as an expenditure-based rate, that is the actual disbursements made by the programme (Currie 2004).

Data availability and quality

Upon establishing a clear definition and theoretical estimand (Lundberg, Johnson, and Stewart 2021), identifying suitable data is crucial. The quality of data directly impacts the accuracy of eligibility and non-take-up simulations, though in most cases an appropriate sampling frame for identifying eligible non-recipients does not exist (Craig 1991) as it concerns people who have not registered and who are not accurately represented in datasets. There are three main types of data sources that researchers and policymakers use to estimate non-take-up rates. These are general-purpose surveys, custom-made surveys, and administrative data (Goedemé and Janssens 2020).

General-purpose surveys collect data on benefits receipt, income and household characteristics, yet often fail to accurately identify eligible individuals due to their lack of specific questions adapted to a programme’ requirements (Hernanz, Malherbet, and Pellizzari 2004). While widely used, these surveys frequently suffer from undercoverage - as they do not adequately represent low-income groups or the most

vulnerable, which are the primary focus in the study of non-take-up, have measurement errors, non-response bias, and a lack of precision regarding the benefits' eligibility criteria and temporal mismatch, undermining the accuracy of non-take-up estimates (Goedemé and Janssens 2020). Their lack of representativeness is particularly problematic as it can be correlated with non-take-up, for example for people who are 'very distant from the system' either due to geography or due to other personal characteristics such as homelessness. This leads to biases and a lack of external validity of the estimates.

Custom-made surveys can directly assess benefit take-up among targeted demographic groups, such as the UK Family Finances Survey. While these surveys offer valuable insights, their cost makes them rare, and their specificity limits the applicability and the ability to generalise findings across population and programmes. Furthermore, reliance on interview-based data is prone to misreporting and measurement errors, affecting the variables essential for establishing benefit receipt and entitlement (Bargain, Immervoll, and Viitamaki 2012; Bruckmeier, Riphahn, and Wiemers 2021).

Administrative data, used by governments to target benefits, is more accurate as information is screened and response biases and measurement errors are reduced. Yet, when these datasets do exist, researchers often have limited access to them (Hernanz, Malherbet, and Pellizzari 2004; Bargain, Immervoll, and Viitamaki 2012). Even when access is granted, administrative data recorded by agencies captures information on eligible recipients but often lacks information on eligible non-recipients, thus undercoverage is still a problem, specifically as it is correlated with non-take-up. A few studies (Bollinger and David 1997; Blank 1997) have had privileged access to both administrative government data and survey data to compare estimates and elucidate on the misreporting and biases that lead to measurement errors in survey-based estimates of non-take-up.

In countries with high levels of informality, administrative data, such as social security records, often exclude the most vulnerable populations. As a result, countries rely on proxy-means tests to determine eligibility for social benefits. However, these surveys can also exclude the most vulnerable. In Colombia, for

example, the proxy-means test that determines eligibility for most of the country's social benefits, requires a utility bill and a fixed address. This means that people in temporary housing, those who are highly mobile, or homeless individuals are automatically disqualified, even when they are otherwise eligible. Emerging methodologies, such as the use of machine learning and non-traditional data sources offer promising alternatives. For example, Aiken et al. (2022) use phone data and machine learning to improve targeting of humanitarian assistance. Likewise, similar examples exist with satellite and geographical data (Smythe and Blumenstock 2022).

The integration of administrative and survey data is becoming increasingly necessary for accurate benefit take-up gap estimations, while acknowledging the inherent limitations and potential biases of each data source and correcting for those in the estimation strategy (Duclos 1995; Pudney, Hancock, and Sutherland 2006). The challenges of accessing comprehensive data and accurately identifying eligible non-recipients underscore the need for innovative methodologies and data-sharing arrangements to improve the accuracy of take-up estimates.

Estimation models

Following the establishment of a precise definition and the identification of data sources, the subsequent challenge emerges from configuring the estimation model (Ko and Moffitt 2022; Goedemé and Janssens 2020; Schokkaert and Bouckaert 2011; Hernanz, Malherbet, and Pellizzari 2004). As previously noted, the majority of datasets lack direct data on the proportion of the population eligible to claim a benefit, and even fewer provide details on those who do not claim it.

First, to measure the size of the take-up gap most studies conduct microsimulations,[2] predicting eligibility through individual and regional variables extracted from general household surveys. This approach has been predominantly applied in Western European research, especially the UK and Germany (Bargain, Immervoll, and

[2] For example, Pudney, Hancock, and Sutherland (2006) use a stochastic simulation method and apply it to a probit model of an income support benefit for UK pensioners. Bruckmeier, Riphahn, and Wiemers (2021) cite the following papers as examples of microsimulation models to simulate eligibility (Blundell et al. 1988; Blank and Ruggles 1996; Riphahn 2001; Wilde and Kubis 2005; Whelan 2010; Bruckmeier and Wiemers 2012).

Viitamaki 2012; Lancker, Ghysels, and Cantillon 2014; Pudney, Hancock, and Sutherland 2006). Microsimulations are also commonly used to examine the distributional impact of means-tested benefit reforms given that take-up behaviour has been linked to entitlement levels, suggesting welfare reforms could influence take-up rates (Pudney, Hancock, and Sutherland 2006). Nonetheless, these models often overlook dynamic shifts in individual circumstances, such as changes in income or household structure (Blundell, Fry, and Walker 1988). This issue is exacerbated by mismatches in the timing of data collection and eligibility evaluations. Frequently, the timeframe for gathering income data does not correspond with the period used by administrations to assess eligibility, potentially leading to errors in identifying eligible participants (Hernanz, Malherbet, and Pellizzari 2004). Another challenge is with regards to the selection of variables, which is not a trivial exercise. For instance, Hu (1998) demonstrates that adding asset information increased estimated take-up of the US Supplemental Security Income by 60% since the denominator (total eligible population) could be better predicted by excluding ineligible people who had more assets than the eligibility threshold. Another hurdle is that researchers must define what they will consider as take-up (and thus non-take-up). For example, Bruckmeier, Riphahn, and Wiemers (2021) define take-up as households who claim social assistance for more than six months, however this varies widely between studies as the definition is context specific and refers to the programme or benefit being studied.

Secondly, once the gap has been quantified, to understand the characteristics differentiating claimants from non-claimants, studies either employ structural models exploring the underlying motivations and barriers to claiming behaviour (Halpern and Hausman 1986; Hernanz, Malherbet, and Pellizzari 2004; Blundell 2017) or reduced-form models, such as Probit regressions, to identify observable variables associated with claiming probabilities (Craig 1991; Blundell, Fry, and Walker 1988). The latter are the most commonly used. These models use observed variables which appear to be associated with differential probabilities of claiming such as age, income, or housing tenure to proxy unobservable barriers and costs such as information, transaction or psychological costs.

These measurement and estimation challenges underscore the complexity of analysing take-up rates and the factors influencing non-take-up, with significant implications for policy decisions aimed at enhancing the accessibility and effectiveness of social benefit programmes. The following section presents the results from the econometric models of take-up in detail and presents the most sizable and significant observable factors that have been identified in the literature.

5.2. Factors contributing to non-take-up of social benefits

This section delves into the determinants of benefit take-up. One by one, this section examines how the size of the benefit, the participation in other government programmes, social networks, demographic characteristics, employment status, geographical location, asset ownership, and migration status influence individuals' decisions to register in social protection programmes. These results cannot be interpreted as causal factors of take-up unless otherwise stated and should therefore be interpreted as correlations.

The review shows that, in many cases, the evidence is inconclusive with regards to the direction and significance of the determinants of take-up. Reflecting on Craig's 1991 observation that the reasons for non-take-up vary greatly across different benefits and household types to be able to provide “clear-cut answers” (p. 556), it becomes evident that the lack of clarity on the reasons why people may be forgoing an increase in disposable income is still puzzling academics and policymakers and deserves further and deeper research to increase personal well-being and social welfare.

Size and duration of the benefit

Benefit size and duration are the factors most commonly cited as significant and positively correlated determinant of take-up (Bargain, Immervoll, and Viitamaki 2012; Konijn, Visser, and Zumbuehl 2023; Burdin and de Melo 2009; Blundell, Fry, and Walker 1988). For example, Konijn, Visser, and Zumbuehl (2023) find that an additional Euro of entitlement in a needs-based student grant in the Netherlands decreases non-take-up by 0.1 percentage point, with stronger effects at lower values of entitlement. Other Western European studies show that an increase of 10% of the

benefit level decreases non-take-up by 0.5 and 3.2 percentage points (Konijn, Visser, and Zumbuehl 2023).[1] In Hong Kong, perceived insufficiency of the cash benefits was significantly associated with the non-take-up of income support among Hong Kong older adults (Kuhner and Chou 2023). The positive correlation between take-up and benefit size indicates the presence of take-up costs, which in turn reduce the net value of the benefit (Craig 1991; Blundell, Fry, and Walker 1988). Duclos (1995) estimated these costs to be around 17% of the total income support budget in the UK.

This finding is nuanced by the role of perception. The actual size and length of the benefit serve as proxies for perceived sufficiency or eligibility, which are as important as the actual benefit. Craig (1991) says that “if people felt themselves to be in need and to be eligible, the amount of their entitlement made little difference” (p. 550). The notion of perceived need and perceived eligibility was recognised in the early models of take-up (Kerr 1982). This finding is echoed by the behavioural literature, which shows that an individual's psychological state affects how they retain and process information. Understanding how take-up moves with benefit size and length and how it is affected by perceptions is key for accurately simulating fiscal and policy changes that enhance policy effectiveness and for designing effective information campaigns. As shown in section 4, Review Methodology, most of the evidence is gathered from studies conducted in the US and Western Europe.

Being already part of the system

Another significant determinant of take-up is whether the individual or someone in their household is already receiving another government benefit (Konijn, Visser, and Zumbuehl 2023; Burdin and de Melo 2009). This points to an interesting pattern where initial engagements can lead to further interactions with government programmes and shows how interactions with the government may operate as a repeated game. This phenomenon underscores the critical need of ensuring the most marginalised and socially excluded have positive contact with government. Notably, Konijn, Visser, and Zumbuehl (2023) find that receiving healthcare

[1] Konijn, Visser, and Zumbuehl (2023) cite the following papers when presenting this statistic Whelan, (2010); Bargain, Immervoll and Viitamäki, (2012); Bruckmeier and Wiemers, (2012); Chareyron and Domingues, (2018); Tempelman and HoukesHommes, (2016).

allowances was associated with significantly lower non-take-up of other programmes. In Uruguay, Burdin and de Melo (2009) also find that prior receipt of benefits from the Social Security Bank increased applications to the National Social Emergency Response Plan, suggesting familiarity with the application reduces perceived barriers and that there are positive externalities of learning by doing. For example, nudging experiments have a larger and more significant impact on people who are already in touch with the government (c.f. next section on policy interventions).

Social networks

An extension of the above is knowing someone who has already applied and can engage in a peer-to-peer learning process. Social networks can both help disseminate information but exacerbate stigma, having a mixed effect. Bertrand, Luttmer, and Mullainathan (2000) use US census data to find that individuals are more likely to participate in welfare programmes when surrounded by people from the same language group, improving access to relevant information. Aizer and Currie (2004) further support this by showing that the use of publicly funded prenatal care services in the US is highly correlated within groups defined by race, ethnicity and neighbourhood, although information sharing is not the driving force in this example[2]. Similarly, Burdin and de Melo (2009) find that household headed by a black person were more prone to enrol in the social benefit, likely due to the information dissemination via personal networks and reduced stigma.

On the other hand, social networks can have a perverse impact on take-up. Social networks can also deter benefit take-up by exacerbating the psychological barriers. For instance, Burdin and de Melo (2009) showed reduced likelihood of benefit take-up in smaller urban areas in Uruguay, indicating that social networks can amplify welfare use stigma. An explanation for these results is that an individual's stigma is a function of how many other people also receive benefits (Ko and Moffitt 2022). This duality underscores the need for further research and a careful policy approach that leverages the positive aspects of social networks while mitigating their potential harms.

[2] See reference to this study below for a more detailed explanation.

Demographic composition of the household

The demographic composition of the household also matters in determining the probability of take-up, yet mixed results are also found. First, findings from Italy, the UK, Germany, the Netherlands and India show that female-headed households are generally less likely to claim social benefits compared to those led by male (Bhattacharya et al. 2015[3]; Herber and Kalinowski 2019b; Boscolo and Gallo 2023; Konijn, Visser, and Zumbuehl 2023). Next, elderly household heads show a lower propensity for take-up (Burdin and de Melo 2009; Bruckmeier and Wiemers 2010; Boscolo and Gallo 2023), although Burdin and de Melo (2009) find that the trend reverses in the capital city of Montevideo, Uruguay, hinting at the complex interplay between social norms, demographic factors and geography (discussed below). Finally, single-parent households and those with younger children are more likely to engage with benefit programmes driven by economic necessity, reduced employment prospects, and caregiving responsibilities (Burdin and de Melo 2009; Bruckmeier and Wiemers 2010; Boscolo and Gallo 2023; Konijn, Visser, and Zumbuehl 2023). Additionally, households with more children may see higher application success rates, which influences subsequent perceptions. Stigma may also be lower for single headed households as there is higher perceived need by society (Blank 1997; Riphahn 2001; Kayser and Frick 2001). These insights highlight the nuanced influence of demographic characteristics on benefit take-up, emphasizing the need for policies to consider each variable to effectively address the diverse needs and barriers faced by eligible populations.

Employment status, wealth and education

The role of employment status in influencing the take-up of social benefits is a critical area of inquiry in both academic and policy discussions as much of the debate centres around the impact of social benefits on labour supply. Boscolo and Gallo (2023) find that the occupational status of household members affects take-up to a lesser extent than expected, with the employment status of household members (employed, self-employed, or unemployed) leading to similar effects on take-up. Similarly, Fuchs (2007) results that show there is no significant difference in the take-up coefficient when the employment and activity status of the household head is

[3] As reported by (Banerjee et al. 2023) in reference to this survey, non-take-up of eligible female for a non-contributory social pension for life is of 66%.

excluded from the regression analysis, indicating that employment may not be highly endogenous to take-up. Yet, Konijn, Visser, and Zumbuehl (2023) identify a 6.4 percentage point increase in non-take-up among self-employed and Burdin and de Melo (2009) find that having an unemployed or inactive household head correlates positively with benefit enrolment. Higher education, perceived as decreasing information barriers, is however inversely correlates with take-up, possibly due to higher financial aspirations, higher income levels and stability – or at least perceptions of it (Burdin and de Melo 2009; Riphahn 2001). Likewise, home ownership and significant financial wealth correlate with reluctance to claim social benefits, suggesting that asset ownership influences financial improvement expectations and perceived need for support (Burdin and de Melo 2009; Boscolo and Gallo 2023). This highlights the complexity of assessing eligibility beyond income measures alone.

Geographical distance

Geographical distance from administrative centres correlates with lower government contact, particularly in rural and peri-urban areas in Global South countries. Burdin and de Melo (2009) find that people in rural areas faced higher traveling costs and had more difficulty accessing information. Berg, Rajasekhar, and Manjula (2022) study India's National Health Insurance Scheme and find that social distance acts as a barrier to the flow of information, but that these barriers can be overcome by the introduction of a small incentive. Improved knowledge about the programme has a positive causal effect of take-up.

Migration and residence status

With global migration flows on the rise, countries and policies are grappling with the integration of displaced populations into their systems. Despite amnesty programmes granting migrants access to government services and presumably surpassing regulatory barriers, low take-up rates persist among displaced populations. Understanding barriers faced by displaced populations is essential for effective migration policy interventions.

Migrant households exhibit varied take-up behaviours, with some studies showing lower take-up among foreign-headed households, while others note higher rates

among migrants, highlighting the role of social networks (Boscolo and Gallo 2023; Konijn, Visser, and Zumbuehl 2023). Castronova et al. (2001) find that in Germany, migrants are more likely to be eligible to the main cash transfer programme and more likely to take-up the benefit once eligible. However, they discuss that the higher probability of take-up is not due to the immigration status but other socio-demographic factors. Zanoni et al. (2023) found that informing Ecuadorian real estate agents about Venezuelan migrants in a way that reduces discrimination increased preference for 33.67% in the housing rental application process. This study suggests that challenging stereotypes can effectively reduce discrimination, reducing barriers to access services.

5.3. Experimental literature assessing the role of information, compliance and psychological costs on the non-take-up of social benefits

The characteristics mentioned in the previous section serve as proxies for the unobservable barriers or costs preventing benefits take-up. However, estimates of these factor's effect, direction and significance on take-up yield mixed results due to methodological limitations including measurement errors, data inaccuracies (Bruckmeier, Riphahn, and Wiemers 2021; Brewer 2003) and the contextual nature of take-up, where factors vary by programme and individual characteristics.

Acknowledging these limitations, experimental literature has sought to quantify the importance of information, compliance and psychological costs on take-up. Researchers use RCTs to randomise the nature and levels of a given barrier and analyse effects on take-up across population groups. An important part of the studies has been conducted in partnership with US government entities, allowing for large sample sizes of approximately 30,000 to 50,000 individuals, and in some cases, exceptionally larger studies of over a million individuals (Linos et al. 2022). Well implemented RCTs can establish causality, offering internal validity and untangling the effect of a given barrier from other factors affecting take-up such as socio-demographic characteristics. This level of internal validity is unfeasible in analyses based on administrative or observational data without a random treatment as confounding factors may influence both benefit take-up and other relevant variables, such as employment status. Yet, RCTs often lack representativeness of the broader population of interest despite the large sample sizes, facing challenges

of external validity, a point that will be illustrated with an example in this section. This section discusses recent experiments on the role of information, compliance, and psychological costs in benefit take-up, following the administrative burdens framework.

Information costs: time and effort to gather information

Information costs or learning barriers significantly impede benefit take-up. These represent the time and effort required by individuals to learn about the existence of a programme, understand its benefits, eligibility criteria, and the process and documentation to apply (Herd and Moynihan 2018). Much of this experimental literature evaluates "low touch [information] interventions" (Linos et al. 2022), test different mechanisms of communication styles, messages, and frequency to improve take-up. For instance, Lasky-Fink and Linos (2023) found that providing information about emergency rental assistance increased application requests by 52% compared to a no-communication control group.

Despite their innovative approach, these interventions have produced mixed results, with some studies finding significant and sizeable effects whereas other studies finding null results.

The following studies illustrate this. Bhargava and Manoli (2015) and Linos et al. (2022) study the Earned Income Tax Credit (EITC) incomplete take-up in California. Bhargava and Manoli (2015) found a 22% increase in take-up among a population of tax filers, while Linos et al. (2022) found null results among a population of non-tax filers, a pre-requisite for the EITC benefit. The former study was with people who had no previous interactions with the government, thus further away from the system and for whom a low-touch messaging intervention was not enough to help them take-up the benefit. Supporting this argument is the study by (Goldin et al. 2022)that encourage tax filing and find that that letters about free tax preparation modestly increased filing, with a large share of the new filers then claiming the EITC and the Child Tax Credit, thus moving the needle for people near the take-up frontier.

These mixed results highlight three important considerations: (i) the external validity challenges of RCTs, (ii) the importance of identifying population groups for whom these interventions yield positive and significant results (Linos et al. 2022; Finkelstein

and Notowidigdo 2019), and (iii) taken together, these results suggest a systemic nature of barriers that surpass programme parameters.

Compliance costs: time and effort to comply with programme rules and regulations

Another significant impediment to benefit take-up are compliance costs. These represent the time and effort it takes to meet programme requirements (Herd and Moynihan 2018). These include completing detailed applications, submitting necessary documentation, and navigating the various bureaucratic processes required to maintain eligibility for benefits. To understand the extent to which these requirements deter take-up, experiments have been conducted to simplify procedures, reduce recertification requirements, establish default options, or provide guidance and assistance to applicants. These interventions have demonstrated varying degrees of effectiveness in enhancing programme take-up.

In their 2015 EICT study, Bhargava and Manoli not only tests whether providing information increases take-up, but they also test whether claiming is sensitive to the perceived complexity of the process. To do so, they compare take-up rates of people who received simplified messaging, either through a visually more appealing notice, or a shorter worksheet to be filled in. The simplifications significantly raised take-up from 14% to 23%. Similarly, Baicker, Congdon, and Mullainathan (2012) research of health insurance take-up demonstrates that individuals often prefer fewer options and may even abstain from making a choice when presented with many insurance plans, this refers to a phenomenon called choice overload (Bearson and Sunstein 2023). Additionally, Shepard and Wagner (2023) find that automatic enrolment suspension for subsidised health insurance in the US decreased take-up by 33%. These examples show that hassles, even if seemingly small, can have profound consequences on the take-up of important benefits and government programmes (Bearson and Sunstein 2023).

These studies underscore the role of simplicity, clarity, and ease of access in enhancing benefit take-up. However, reforms can burden frontline bureaucrats, intensifying their pressure and leading to longer processing times and reduced service quality, especially if reforms do not adequately increase resources or training (Negoita, Levin, and Paprocki 2023). For example, Pierce and Moulton (2023) find

that reforms in a foreclosure prevention programme in the US streamlining application processes and reducing wait times resulted in a significant increase in benefit receipt and a decrease in foreclosure rates, particularly benefiting more vulnerable applicants, but also led to increased processing times.

Although results point to positive effects in increasing take-up, overall take-up remains low even after assistance was provided. For example, Fowlie, Greenstone, and Wolfram (2015) conducted a large-scale RCT on the Federal Weatherization Assistance Program (WAP) in the US, aimed at reducing informational and procedural barriers. Despite the intervention notably increasing application rates, the overall take-up remained low. Similarly to the previous paragraphs, positive impacts are predominantly felt by those at the take-up margin rather than the neediest, raising concerns about who is benefiting from these information and assistance interventions.

This discussion extends to the effectiveness of assistance interventions. Experiments addressing information barriers often include an assistance treatment arm, which tends to yield the most impact. This approach, grounded in behavioural economics, suggests that knowledge alone is insufficient without facilitating action. In fact, Aizer and Currie (2004) explain that the within ethnic and neighbourhood group correlation of public maternity care is led by choice of hospital and treatment in the hospital rather than by information sharing within these groups.

This challenge is accentuated in developing countries, where barriers are further exacerbated by more salient cognitive effects of poverty, illiteracy, and physical constraints (Gupta 2017). Additional administrative barriers include incomplete social registries, inability to conduct means-testing based on income data due to a higher prevalence of informality, and lower digital penetration. Although fewer studies have been conducted to assess the impact of administrative burdens on take-up decisions, those that have, combine information and assistance interventions and provide important results that call for further research.

One such example is Gupta (2017) study of an unconditional cash transfer programme for poor widows and divorcees in Delhi, India, that has a non-take-up of

60% with an even larger gap among the most vulnerable women. The author conducts a field experiment involving over 1,200 eligible women and finds that providing information alone modestly increases application rates among literate women, while adding assistance services significantly boosts applications by 41% to 70% and attracts more vulnerable participants. These results challenge the notion of “ordeal mechanism” as targeting mechanisms that detract non-needing people from applying and instead suggests that simplifying application processes can lead to broader, more inclusive participation. (Zucco et al. 2023) introduces the dimension of political preferences in Brazil, showing that while personalised assistance can enhance take-up, political affiliations can subtly influence individuals' decisions to engage with government programmes. The result indicates that beyond administrative and informational barriers, institutional factors also play a role in shaping programme take-up.

Yet, as per the findings from the US, evidence of positive impacts is also mixed elsewhere. For example, in South India, Berg, Rajasekhar, and Manjula (2022) finds no impact of a programme deploying agents to raise awareness about social welfare schemes, indicating the limited effectiveness of information campaigns alone. However, increased satisfaction with government services among those exposed to the intervention suggests that positive interactions can influence perceptions, even if they do not directly increase take-up rates.

Psychological costs : stress and stigma associated with enrolling and participating in social benefits or programmes

Psychological costs also play a role in the take-up of social benefits. These can include the stress associated with applying for and participating in social programmes and the stigma that beneficiaries may feel (Herd and Moynihan 2018). Psychological barriers closely intertwine with information and compliance barriers as the latter two are grounded in behavioural science of how individual conditions such as vulnerability or stress influence information receipt, complexity perceptions and how such barriers may increase or reduce the psychological impact of a programme.

The evidence is yet again mixed. Referring back to previous examples, Lasky-Fink and Linos (2023) found that destigmatising communication increased rental

assistance applications by 18% relative to an information only group, with potentially larger effects for African Americans. To understand the mechanisms behind their findings, the researchers undertook two subsequent online experiments and found that destigmatising communication reduces internalised stigma, without affecting perceptions of the programme itself. Stuber and Kronebusch (2004) found that personal and institutional stigma decreases participation in two other US social assistance programmes, the Temporary Assistance for Needy Families (TANF) and Medicaid. In South Africa, Samson (2002) explains that removing labels of recipient as "poor" in a universal basic income grant would more likely reach the population in most need while reducing the psychological cost of stigma. Yet, Bhargava and Manoli's (2015) EITC study discussed above found no impact of changing the programme narrative on take-up.

6. Conclusion

Overall, this paper finds that the evidence concerning the significance, size and direction of the factors and barriers that hinder the take-up of social protection programmes by eligible groups remains inconclusive. Benefit size and length are the main determinants to take-up but focusing only on these offers a truncated story. Participation in other government programmes, social networks, demographic characteristics, education, employment status, geographical location, asset ownership, and migration status influence individuals' decisions to register in social protection programmes. These individual characteristics in turn proxy for the information barriers, compliance costs and psychological costs that are experienced in the claiming process.

This systematic literature review highlights the need for further research across various dimensions of social protection take-up to close existing knowledge gaps and strengthen social safety nets for vulnerable populations. The lack of clarity on why people forgo increases in disposable income continues to puzzle academics and policymakers, requiring more in-depth research to enhance personal well-being and social welfare. Context-specific studies are vital to uncover the intricacies behind take-up decisions across different population groups, contexts, and social protection programmes.

Highlighted areas for future exploration include: (i) analysing and understanding non-take-up as a systemic issue, considering the roles of all stakeholders, in particular from an institutional perspective, and not just the role of claimants, (ii) quantifying the costs borne by claimants that reduce the value of benefits as suggested by Blundell, Fry, and Walker (1988), (iii) investigating how take-up varies with benefit size and duration to accurately simulate fiscal and policy changes that enhance effectiveness and social welfare, and (iv) understanding the role of perception and psychological influences on take-up decisions to better inform interventions.

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Annex 1

1. Systematic review method

To systematically review the factors contributing to the non-take-up of social protection programmes by eligible populations, this study follows the guidelines from the Cochrane Handbook for Systematic Reviews of Interventions (Higgins et al. 2019), PRISMA guidelines (Moher et al. 2009) as well as the guide by Waddington (2012) on conducting systematic reviews in the field of international development. A systematic review has a clear search and analysis protocol with pre-defined terminology, databases, time frame, and pre-established criteria for including or excluding studies (Higgins and Green 2008). The Cochrane Handbook for Systematic Reviews of Interventions is the most widely used methodology for conducting systematic reviews. Although initially developed for healthcare research synthesis, social scientists have adapted the method to social sciences and other disciplines given its transparency and reproducibility.

The Cochrane guidelines describe the phases of the review process to ensure a common quality standard across systematic reviews. These phases include defining the scope, objectives and questions of the review, establishing the PICOS framework, specifying the inclusion and exclusion criteria for the selection of relevant studies and outlining the data sources, searching protocols, data collection methods and bias risk assessment. This systematic approach also calls attention to identify potential publication or language biases that may arise during a review process.

To tailor the methodology to social sciences, and particularly to international development, the present review incorporates suggestions from Waddington et al. (2012), specifically regarding “splitting” or “lumping” studies, opting for the latter to allow for a wider inclusion of studies. This strategy broadens the spectrum of included studies rather than adhering to a "splitting" approach that restricts selection to studies with highly similar characteristics in design, population, interventions, and outcomes. Although this review adopts a narrow definition of take-up, it includes studies that align with the broader understanding of take-up (see the definition section) because of the limited literature in this topic and the lack of a standardised definition across studies. Opting for a narrow inclusion criterion would restrict the ability to learn from cases that, while similar, are not identical, thus reducing the

extend and depth of the synthesis. In addition, given the limited evidence from the Global South, the present review includes studies from a broader geographic spectrum, especially studies from the US and Western Europe, to enrich the review with a diverse range of findings, whilst acknowledging the considerable differences in contexts. Such an inclusion is deemed useful to improve public social policies and programs in the Global South.

Waddington et. al. (2012) note that the case for “splitting” becomes stronger when the body of evidence is larger. Therefore, in future research, should the body of evidence concerning the take-up of social protection programmes by eligible populations in the Global South grow, it might become feasible to “split” the evidence and conduct a more focused systematic review. Such a review would elucidate more closely context specific barriers people face when registering to social benefits.

2. The search protocol

The first step to carry out this review consisted in defining the search terms. This step was broken down into two stages. First, a comprehensive list of key words (provided in the Annex 1) was defined following an initial scoping search of previous reviews and most cited papers in the domain of public service delivery and take-up of social protection programmes. Test searches were conducted with different combinations of the comprehensive list of words to assess the preliminary results that were being obtained. After this initial analysis, a narrower more refined list of words was selected and combined using Boolean operators. The search was restricted to the Title, Abstract or Keywords in order to reduce noise from non-related papers.

Comprehensive list of identified language pertaining to the research question

- Take-up, claimant
- State capacity, government effectiveness, bureaucracy, public administration, public service delivery, government programmes, service delivery, social protection, social assistance, social policies, welfare, targeted programmes, universal programmes, **well-being**, cash transfers, income assistance, child support

- Social contract, state-society relations, state-citizen
- Progresa/Oportunidades, Familias en Acción, Bolsa Familia and other relevant programmes
- Displaced populations, migrants, refugees
- Information barriers, administrative barriers, psychological barriers, accountability, frontline workers, bureaucrats, motivation

Example of the permutations that will be searched.

- state capacity OR government effectiveness OR bureaucra*
- social services OR social protection OR social policies OR cash transfers OR income assistance

Example of tested searches

JSTOR

((take-up) AND (social protection)) - returns 51,756 results

((((bureaucratic performance) AND (social protection)) AND (public service delivery)) AND (take up)) - returns 9,233 results

EBSCO Discovery

((take-up) AND (social protection)) - returns 582 results

Google Scholar

review of take up of social benefits in - returns 1700000 articles (review articles)

review of take up of social benefits in latin america - returns 118000 results (review articles).

Final search: **ALL=(take up[5] of social benefits)**

A comprehensive search was undertaken to cover both published and unpublished studies in order to reduce the risk of publication bias. The final search date was December the 6th, 2023. The main search was conducted in Web of Science. The same search query was inputted into Google Scholar to search for grey literature. However, this was only a complementary search as the search engine, although promising to retrieving a broad range of references, lacks features for systematic

searches, such as query optimisation tools and reference export capabilities, making it currently unsuitable for systematic scientific literature retrieval.

Bibliographic databases

- Web of Science
- Google Scholar (to access grey literature)
- SCOPUS
- JSTOR
- EBSCO

Key international development and non-academic research organisations

- Abdul Latif Jameel Poverty Action Lab (J-PAL)
- Foreign Commonwealth and Development Office (FCDO)
- Innovations for Poverty Action (IPA)
- International Initiative for Impact Evaluation (3ie) Impact Evaluations Database
- Inter-American Development Bank (IDB) - Latin America focus
- Overseas Development Institute (ODI)
- The World Bank (WB)
- United States Agency for International Development (USAID)

Hand search - snowball effect

The reference list of already existing reviews and key papers was hand searched to ensure that no relevant papers were missed. Hand search of academic journals in economics, development economics, development studies, political science and public policy was also conducted.

Result: This process returned 3,182 papers. 91 papers were identified as related to the take-up of social protection programmes. These 91 papers were analysed according to the criteria presented in the following section.

3. Criteria for selecting studies: PICOS framework

The second step of this review consisted of reviewing the abstracts of identified papers. This revision followed a pre-defined PICOS framework - population,

intervention, comparator, outcome, and study design, (Higgins and Green, 2011) that established the inclusion and exclusion criteria. The studies included theoretical discussions or empirical analyses on the reasons for non-take-up of social protection programmes both in the Global North and Global South. The studies selected adopt rigorous quantitative techniques such as microsimulations, experimental or quasi-experimental techniques. Qualitative studies were consulted to gain background knowledge and were only included if they shed light to an angle not covered in the quantitative studies. If included in the review, a specific mention that the information comes from qualitative studies is made.

Dimension	Inclusion and exclusion criteria	
Types of participants	Inclusion criteria	***Primary focus:*** Eligible populations to social protection programmes. ***Secondary focus:*** Internal and international displaced populations. ***Regional focus:*** The review considers studies from across the world; however, there is more emphasis on the results from studies from the Global South. The reason for the initial global outlook is that much of the literature on the take-up of public services and benefits is being developed in the US and Western Europe. Thus, it is useful to review the methodological approaches taken in those studies and map the take-up barriers that have been identified in those regions, so they can be built upon with research on Global South countries.
	Exclusion criteria	Displaced population without amnesty regimes in which people have no legal access granted by the recipient country to access government social programmes except for emergency health and emergency social protection. The reason for excluding this population is that the legal and regulatory barrier of being eligible for government programmes has not yet been surpassed and clouds the analysis of take-up barriers once the population is eligible.

Types of interventions	Inclusion criteria	The understanding of intervention is split in two. On the one hand it refers to the type of policy studies. For this, the review includes social protection programmes, following Barrientos, Niño-Zarazúa and Maitrot (2010) typology of pure income transfers, income transfers plus community assets, income transfers plus human capital investment, integrated antipoverty transfer programmes. On the other hand, the review also includes interventions that respond to identified take-up barriers. Such responses can be information intervention, assistance interventions, nudging, change in messaging, among others.
	Exclusion criteria	Programmes that are not part of the social protection system of a country. For example, education enrolment rates have not been included here. Although this could be seen as a form of take-up, the barriers differ substantially due to differences in the nature of the services provided and the contexts in which they operate.
Types of outcome measures	Inclusion criteria	Intermediate results focussed on access, take-up, and coverage. Final outcomes such as better health, education, wellbeing.
	Exclusion criteria	No specific outcomes were excluded. This ensures a comprehensive assessment because the main goal of this review is to provide a broad overview of the literature and identify any significant gaps, particularly in terms of studied and unstudied outcomes.
Types of studies	Inclusion criteria	Peer-reviewed journal articles, conference proceedings, working papers, book chapters, and doctoral dissertations and grey literature to minimize the publication bias. Studies include: **Theoretical papers:** conceptualisations and theoretical

		underpinnings of take-up. **Quantitative studies:** microsimulations to estimate take-up rates, regression analysis to estimate size and significance of factors affecting take-up, Randomised Control Trials (RCTs) and quasi-experimental studies for rigorous testing of specific channels/mechanisms by which take-up may be improved (i.e. information campaigns etc.). The Cochrane guidance recommends only including RCTs, however as Waddington et. al. (2012) points out, in areas where randomised evaluations are not common, this can result in very thin reviews, and it may be beneficial to include a broader set of methods to inform about current empirical limitations and guide future primary research. **Qualitative studies:** to capture people's perceptions of barriers they face and to understand underlying mechanisms behind studies' findings.
	Exclusion criteria	Non-academic documents such as reports, policy briefings, and master's dissertations have been excluded from the review. However, at the final stage of the review, reports and policy briefs were briefly assessed to have an understanding of the policy response from organizations delivering social services to the issues being raised in this review.
Timeline	Inclusion criteria	The search period is restricted from 1970 to the present day as this is when the first studies of non-take-up took place, primarily in the US and the UK. A quick analysis of the time span of the searched papers by date was done before the restriction to assess whether important literature is being discarded due to the review's defined time frame.
Language	Inclusion criteria	The main search was conducted in English. However, at a second stage, a search was conducted Spanish,

		Portuguese and French to reduce the bias of English publications and incorporate perspectives from the literature of the Global South. A quick analysis of the language distribution of the searched papers by language was also done to understand the percentage of papers potentially being discarded due to the review's defined language parameters.

4. Methodological analysis

The third step focused on reviewing the theories, methodologies and results presented in the selected studies. Studies that did not present a theoretical framework or a clear research design, methodology and data were excluded.

Result: This process resulted in 82 papers being identified as rigorous to include in the review.

5. Description of the studies

The studies included in this systematic review derive from the fields of economics, public administration, behavioural sciences and development studies.

The literature on the take-up of social benefits is predominantly conducted in Western Europe and the US. From the 97 studies reviewed, 49 are from Western Europe, with strong dominance from the UK (15) and Germany (12) and 18 are from the US. In other regions, the contributions come first from Latin America (11 studies), then MENA (6 studies) and Asia (6 studies), and then Africa (4 studies). Additionally, 2 studies are from Canada and 1 from Australia.

Most programmes studied are either categorically universal or means tested/proxy-means tested. In terms of programme type, the review has found cash transfers, conditional cash transfers, tax credit, in-kind, service, subsidy, health insurance, work programme. The sectors covered are poverty reduction, unemployment, child

support, pension, food. The population of interest in these studies is quite broad and responds to the eligibility criteria of the programmes studied. Nevertheless, most studies conduct heterogeneity analysis to see how take-up affects different populations groups, which emphasis on marginalised groups such as minorities or migrants.

Methodologically, the studies of take-up can be generally classified into four the following categories: (i) theoretical papers that explore the conceptualisations of take-up, these range from the foundational models, the neoclassical utility function models and the behavioural science expansions, (ii) expanding from these are the measurement studies that quantify take-up gaps and microstimulate take-up based on programme and population characteristics, (iii) next follow the studies estimating the determinants (factors) of take-up, usually employing Probit regression models on general household surveys or administrative data, (iv) finally there is an important literature, mostly from the US, employing RCTs to evaluate interventions that can lead to an increase in take-up, most of these interventions focus on information, assistance and nudging. In addition to this, 6 papers were reviews of take-up.

Table 1: XYZ

Source: ...

Figure 1: XYZ

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