

Is this what I deserve? Self-deservingness, welfare experiences, and satisfaction with democracy

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Abstract

Despite being a pivotal element of contemporary democracies, the role of the welfare state in shaping attitudes towards democracy, such as satisfaction with democracy (SWD), remains underexplored. Existing research usually focuses on generosity indicators and mainly relies on cross-sectional data, so there is no actual evidence on whether being a welfare recipient influences within-individual SWD. To answer this question, this paper develops a theoretical framework centered on the concept of self-deservingness, that is, subjective sources of legitimacy for welfare benefits. It also relies on policy feedbacks literature to explore interactions between welfare expectations derived from self-perceptions of deservingness and institutional responses based on programs' structural design. The paper argues that these interactions may generate (mis)matches between policy expectations and policy responses that eventually influence SWD. Using data from the German Socio-Economic Panel (SOEP), the empirical analysis employs two-way fixed effects models to test these expectations. Results show that (1) means-tested programs are strongly associated with a decrease in SWD, (2) earning-related programs are positive but weakly associated with SWD, and (3) the effect of universal programs varies depending on ideational factors, but not on income. Moreover, results also explore the psychological effects of participating in welfare programs, showing that subjective well-being mediates the effect of means-tested programs and SWD. This paper contributes to the literature on perceptions of deservingness by developing an innovative framework to explore subjective sources of legitimacy for welfare benefits. At the same time, this paper also contributes to the policy feedbacks literature by proving that experiences with welfare institutions can shape democratic attitudes.

Keywords: satisfaction with democracy, welfare programs, welfare benefits, self-perceptions of deservingness, policy feedbacks.

1 Introduction

It's well known that the legitimacy of democratic regimes ultimately depends on citizens' support for democratic procedures and democratic norms ([Linz and Stepan, 1996](#)). Concerning attitudes towards democracy, the vast research on satisfaction with democracy (SWD henceforth) has explored how different types of institutions, as well as individuals' perceptions of them, shape satisfaction with democratic performance. Nevertheless, there are only a few works that focus on the role of welfare institutions for explaining democratic attitudes, despite the welfare state being a key element of modern democracies. Following [Soss \(1999, 2000\)](#), individuals draw lessons from their experiences with welfare institutions, and those lessons operate as cues to understand how the political system functions more broadly. Therefore, experiences with welfare institutions and their performance should have a certain effect on how individuals evaluate democratic systems.

The existing literature addressing the link between welfare institutions and SWD has explored the effect of different welfare regimes ([Sirovátka et al., 2019](#)) and welfare generosity ([Kumlin, 2011, 2014](#); [Armingeon and Guthmann, 2014](#)). Others have also focused on how the perceived levels of social protection shape attitudes towards democracy ([Lühiste, 2014](#); [Haugsgjerd and Kumlin, 2020](#)). However, despite the huge amount of quantitative research on policy feedbacks on mass public ([Larsen, 2019](#)), most of this literature usually focuses on how different welfare designs affect attitudes towards welfare and political participation. Consequently, there are only a few works examining how different welfare program designs affect SWD (e.g., [Kumlin, 2004](#)). Moreover, the existing evidence relies on cross-sectional data. Therefore, there is no actual evidence on whether participating in welfare programs shapes SWD within individuals, and whether different structural welfare designs play an important role in this matter.

To address these research questions, this paper builds on the literature on perceptions

of deservingness ([Van Oorschot et al., 2017](#)) to develop a theoretical argument exploring how individuals perceive themselves as deserving of welfare benefits. Because individuals rely on different sources of subjective legitimacy when claiming benefits, welfare experiences may generate distinct expectations toward welfare institutions.. Following expectancy-disconfirmation theory ([Van Ryzin, 2004, 2013](#)), this paper argues that SWD depend on whether institutional responses align with those expectations. Furthermore, the paper also builds on classic arguments on policy feedback theory to account for heterogeneity of different welfare structural designs ([Pierson, 1993](#); [Kumlin and Stadelmann-Steffen, 2014](#)). Hence, I expect that SWD will increase as long as the program’s performance aligns with individual expectations.

To explore how different welfare programs can influence within-individual SWD, I rely on two-way fixed effect (TWFE) regression models with data from the German Socio-Economic Panel between 2005 and 2021. Results show that participation in means-tested welfare programs is consistently associated with a decrease in individual SWD. Furthermore, while participation in earnings-related programs is only marginally associated with SWD, the effect of participating in means-tested programs is conditional on political ideology, but not on household income. Results also demonstrate that the effect of means-tested programs on SWD is mediated by their impact on the subjective well-being of welfare recipients.

These results align with the theoretical expectations, which suggest that welfare programs can conflict with individuals’ welfare state expectations due to their different structural designs, having consequences for how citizens evaluate the democratic system more broadly. Moreover, this paper demonstrated that, in empirical terms, participation in welfare programs shapes within-individual SWD. In theoretical terms, this paper makes two main contributions. First, it contributes to the literature on deservingness perceptions by trying to understand how individuals can perceive themselves as deserving. Second, this paper also contributes to the extensive literature on policy feedbacks by demonstrating that

welfare institutions can shape broader political attitudes and attitudes towards democracy.

2 Literature review

Among the vast research on SWD (see [Singh and Mayne, 2023](#)), one strand of this literature explores the impact of political performance ([Magalhães, 2014](#); [Dahlberg and Holmberg, 2014](#); [Claassen and Magalhães, 2022](#)), as well as a wide variety of economic outcomes ([Wagner et al., 2009](#); [Quaranta and Martini, 2017](#); [Christmann, 2018](#); [Christmann and Torcal, 2017](#)). Equally important are individuals' subjective perceptions of these factors. Research at the individual level has examined how citizens' satisfaction with the economy ([Magalhães, 2016](#); [Christmann, 2018](#)), perceived levels of inequality ([Kang, 2015](#); [Anderson and Singer, 2008](#)), evaluations of social protection systems ([Lühiste, 2014](#)), perceptions of state redistribution and distributive fairness ([Nadeau et al., 2020](#); [Saxton, 2021](#)), or procedural fairness ([Magalhães, 2016](#)) shape satisfaction with democracy. Some of these relationships have even been tested using experimental research designs ([Papp et al., 2024](#)). Given that the welfare state is a key element in shaping inequality due to its effects on the socio-economic structures ([Esping-Andersen, 1990](#); [DiPrete and McManus, 2000](#)), welfare institutions should be taken into account when exploring potential sources of SWD.

Most studies that directly analyze the relationship between the welfare state and SWD focus on macro-level indicators of generosity, such as unemployment benefits ([Kumlin, 2011, 2014](#)), cuts in government social expenditure ([Armingeon and Guthmann, 2014](#)), or even systematic differences in terms of classic welfare regime typologies ([Sirovátka et al., 2019](#)). Others have explored how perceived levels of social protection also shape SWD ([Lühiste, 2014](#); [Haugsgjerd and Kumlin, 2020](#)). The classic work of [Kumlin \(2004\)](#) emphasizes how individual experiences with welfare institutions shape SWD, depending on the different structural welfare designs of various welfare programs. However, he relies on cross-sectional data,

so we don't actually know whether experiences with differing welfare institutions affect SWD not only across individuals, but also within individuals, once they become welfare recipients. This question is particularly relevant since reviews on policy feedback literature stress the low number of studies that explore political attitudes with panel and experimental data¹. That is, taking into account the temporal structure of welfare participation.

Indeed, [Kölln and Aarts \(2021\)](#) suggests that factors related to political and economic performance are more prone to fluctuate and should account for short-term differences in SWD. Although participating in welfare programs is an infrequent event in an individual's life-course, being a welfare recipient may have important implications for individual SWD since being a welfare recipient clearly shapes individuals' economic situation. Moreover, People often use their experiences with welfare institutions as shortcuts for evaluating how government works more broadly ([Soss, 1999, 2000](#)). Thus, the welfare state can act as the visible and tangible face of democracy for welfare recipients, making the policy design a critical determinant of how welfare recipients evaluate democratic performance. In this sense, this paper argues that self-perceptions of deservingness can evolve into expectations from the welfare state. Moreover, the interaction between individuals' expectations and their experience with different welfare state programs may have varying consequences for SWD once they become welfare recipients.

3 self-perceptions of deservingness and welfare expectations

Literature on perceptions of deservingness addresses how public opinion evaluates the deservingness of different target groups -e.g., disabled, unemployed, retired, immigrants-, and how

¹See [Larsen \(2019\)](#) for a review of quantitative studies of policy feedbacks on the mass public.

those opinions work as a source of legitimacy for different welfare programs ([Van Oorschot et al., 2017](#), pg 13). Quantitative research has focused exclusively on how individuals evaluate others ([Van Oorschot, 2000, 2006](#); [Reeskens and Van Der Meer, 2019](#); [Larsen, 2008](#)). Yet, there has not been a systematic attempt to theorize how individuals think about themselves in terms of whether they consider themselves as legitimate welfare recipients. Nevertheless, the CARIN criteria developed by [Van Oorschot \(2000\)](#) provide us with some hints to theorize about different subjective sources of legitimacy regarding welfare benefits. Interestingly, these different subjective sources of welfare legitimacy, as I call them here, align with different forms of eligibility rules.

One of the elements for evaluating deservingness of welfare recipients is the idea of reciprocity, which is based on how those who have contributed before, or will contribute in the future, or who have earned support, are seen as deserving ([Van Oorschot et al., 2017](#), pg. 17). The idea of reciprocity can plausibly be self-applied. For instance, it could be argued that those who have contributed more -e.g., through social security contributions- will believe that they are more deserving than those who have contributed less. In fact, it's argued that paying contributions is associated with building up a personal entitlement ([Watson, 2015](#), p.651). More recently, [Taylor-Gooby et al. \(2019\)](#) has shown that, particularly in conservative welfare contexts, individuals perceive the welfare state as a relation of reciprocity. At the same time, the work of [Mettler \(2005\)](#) points towards the other side of the coin, suggesting that US veterans felt obligated to give back to society what they received due to the opportunities provided by the G.I. Bill. Therefore, these examples suggest that the citizen-state relationship can be perceived as a social contract ([Rubin, 2012](#); [Esaïasson et al., 2020](#)) based on the idea of reciprocity, which can affect self-perceptions of deservingness.

It seems reasonable to think that low-income individuals face difficulties in meeting certain standards of reciprocity ([Cantillon and Van Lancker, 2012](#)) given their lower contributions to public funds. Therefore, one may wonder whether low-income individuals can

perceive themselves as deserving as well. Findings on non-take-up literature suggest that potential beneficiaries don't claim benefits due to fear of being stigmatized (Baumberg, 2016) or cognitive barriers associated with information costs (Dahan and Nisan, 2010). Yet, this does not provide reasons to think that individuals see themselves as undeserving, but only shows that some potential beneficiaries do not take up benefits due to the result of benefit-cost calculations (Janssens and Van Mechelen, 2022). Conversely, Van Oorschot (1991) suggested that some situations may serve as trigger events that lead individuals to claim benefits even though they did not plan to do so previously (Van Parys and Struyven, 2013), due to deterioration of material conditions. Hence, there are situations in which necessity overcomes potential costs. The concept of *need* evokes these situations. Someone who has a necessity tends to be perceived as deserving (Van Oorschot et al., 2017). Indeed, it's the most robust source of legitimacy in normative terms among deservingness criteria. Hence, while stigma stems from the perceived violation of reciprocity norms (Stuber and Schlesinger, 2006), for the individual in a situation of material distress, necessity acts as a primary source of legitimacy to claim benefits.

Finally, there is a third potential way by which individuals, regardless of their income, can perceive themselves as deserving. That is, deserving based on social rights (Marshall, 1950).² Welfare policies that revolve around the notion of citizenship reduce reliance on the labor market (Esping-Andersen, 1990) and usually imply universal coverage (Rothstein, 1998). Examples such as the evolution of maternity leave (Son and Böger, 2021), or contemporary debates on universal minimum income (Standing, 2017) stress the direction that some democracies have taken regarding social benefits based on citizenship rights, at least in certain policy areas. Under this logic, individuals perceive themselves as deserving not because of past efforts or current need, but because they are right-holders within a political community. In the Van Oorschot (2000, 2006) schema, this reflects the idea of *identity*

²Note that the concept of social rights is contested and broader conceptualizations of the concept can also include, for instance, means-tested benefits as well. See Stephens (2021) for a discussion of the concept of social rights.

to some extent, which is based on how those closer to “us” are seen as more deserving, which directly evokes the notion of group belonging. Indeed, deservingness literature points out that migrants are seen as the least deserving group ([Van Oorschot, 2006](#)), and that even other positive attributes do not cancel out the migrant penalty ([Reeskens and Van Der Meer, 2019](#)) because they constitute the out-group regarding the notion of social citizenship linked to the nation state ([Nielsen et al., 2020](#)). Therefore, it can be expected that individuals can perceive themselves as deserving through the use of different heuristics that lead them to see themselves as legitimate beneficiaries.

Since individuals can perceive themselves as deserving because they rely on different sources of subjective legitimacy to claim benefits, those perceptions may easily turn into expectations of the welfare state. Expectancy–disconfirmation theory suggests that individuals judge public services not only through prior experiences but also in relation to their expectations ([Van Ryzin, 2004, 2013](#); [Zhang et al., 2022](#)). Hence, dissatisfaction arises when expectations exceed actual performance. This theoretical framework has been expanded beyond the study of attitudes with public services ([Mattila and Rapeli, 2018](#); [Kumlin, 2007](#)). Very recently, [Kumlin et al. \(2024\)](#) has suggested that welfare state performance can influence broader political attitudes among citizens who hold normative political expectations. However, they report non-significant results when exploring how normative expectations moderate the effect of service satisfaction on political trust. [Sirovátka et al. \(2019\)](#) used a similar argument to explain how welfare expectations shape SWD. Based on this theoretical reasoning, this paper argues that SWD will result from the interaction between welfare expectations and actual welfare experiences. In this sense, the overall theoretical expectation is that SWD should increase as long as policy performance aligns with individuals’ expectations from the welfare state.

4 Institutional responses, welfare designs, and SWD

So far, this paper has argued that, first, individuals may perceive themselves as deserving of welfare benefits through different channels, irrespective of their level of income. Second, because those perceptions may become expectations towards the welfare state, SWD could be the result of the interaction between those expectations and institutional responses. However, individual expectations may encounter different institutional responses. Thus, this section draws on previous evidence on policy feedback literature to establish a set of hypotheses based on how the design of different welfare programs shapes SWD in different ways. Behavioral and attitudinal effects of different policy designs are among the most discussed topics in the policy feedback literature on the mass public ([Campbell, 2012](#); [Kumlin and Stadelmann-Steffen, 2014](#)). Scholars have been interested in whether and how policy designs influence welfare state preferences ([Larsen, 2008](#); [Jordan, 2013](#); [Ebbinghaus and Naumann, 2017](#); [Laenen et al., 2025](#)), but also political trust ([Kumlin, 2004](#)), social capital ([Kumlin and Rothstein, 2005](#)), socialization processes ([Barnes and Hope, 2017](#)) as well as political participation ([Watson, 2015](#); [Bruch et al., 2010](#); [Mettler and Stonecash, 2008](#); [Gingrich, 2014](#); [Soss, 1999](#)). Based on the fact that, depending on the program’s design, welfare recipients have different experiences that shape their political attitudes and behaviors ([Kumlin, 2004](#); [Soss, 1999](#)), this literature provides suitable arguments to understand the effect of different welfare programs on SWD. Crucially, these effects can operate through two distinct channels ([Pierson, 1993](#)) resource effects, based on material benefits ([Campbell, 2003](#)), and interpretive effects, which provide normative signals about the individual’s status and deservingness ([Mettler and Soss, 2004](#); [Schneider and Ingram, 1993](#)). Therefore, the nature of the interactions between citizens and welfare institutions can generate mismatches in both material and symbolic dimensions.

Starting with contributory programs, the theoretical expectations suggest a positive ef-

fect on SWD because individuals' expectations based on merit are likely to be fulfilled. In material terms, contributory programs satisfy individual expectations of reciprocity, ensuring status security. Since benefits are earnings-related, they match the self-interest motivations of individuals who have previously contributed to the system (Van Oorschot, 2002), and their perceptions that these benefits are an earned entitlement (Watson, 2015, p.651). Moreover, although literature on programs' design mainly focuses on differences between means-tested and universal programs (Kumlin, 2004; Kumlin and Rothstein, 2005; Mettler and Stonecash, 2008), Soss (1999) demonstrated that contributory programs involve low levels of administrative discretion (Watson, 2015), and interactions with welfare authorities are horizontal and respectful. As a result, earnings-related programs match expectations of recipients not only by the level of benefits provided, but also by reinforcing the idea of legitimate benefits by signaling earned entitlements. This dual alignment between individual expectations and institutional response, grounded in the principle of reciprocity, meets expectations of welfare recipients by reinforcing the perceived fairness of the social contract, thereby increasing SWD:

Hypothesis 1 *Exposure to earnings-related programs will be associated with an increase in individual SWD.*

By contrast, means-tested programs operate in a fundamentally different way, suggesting a negative effect on SWD. Their eligibility rules and administrative procedures often signal a diminished status of citizens (Schneider and Ingram, 1993; Mettler, 2002; Watson, 2015). These effects stem from the hierarchical structure of means-tested programs, which generate vertical power relations and undermine the voice capacity of welfare recipients (Soss, 1999; Kumlin, 2004). These negative interpretive effects weaken both the sense of external and internal political efficacy (Soss, 1999; Bruch et al., 2010), prompting welfare clients to withdraw from the political realm. At the same time, previous evidence raises doubts about

the effectiveness of means-tested programs in reducing poverty compared to other welfare designs (Brady and Burroway, 2012; Meyer and Wu, 2018). Therefore, even when means-tested programs effectively buffer individuals’ financial hardship, if recipient-administration interactions are based on paternalistic relationships (Bruch et al., 2010), those interactions are likely to decrease the sense of state responsive of their demands. These experiences directly contradict recipients’ expectations based on necessity, leading to a decline in WSD. In other words, this fundamental mismatch between Individuals’ subjective claims of necessity and the actual treatment by welfare administrations is likely to trigger a decline in SWD.

Hypothesis 2 *Exposure to means-tested programs will be associated with a decrease in individual SWD.*

Finally, expectations concerning the overall effect of universal welfare programs are ambiguous. On the one hand, a match between expectations and institutional responses is theoretically plausible. Universal programs are based on the idea of fairness and equality (?), preventing public debates on “who gets what” (Larsen, 2008). Under this logic, institutional responses would match recipients’ expectations based on their legitimate right to claim benefits. Previous evidence has demonstrated that universal welfare programs positively affect democratic attitudes (Kumlin, 2004) by promoting feelings of procedural fairness and equality across citizens (Kumlin and Rothstein, 2005). However, I argue that it’s precisely the blind impartiality of universal policies that conflicts with individuals’ notions of redistributive fairness, that is, how individuals think that resources have to be distributed. This may be particularly the case in non-universalistic contexts, where people do not strongly endorse redistribution through universalistic principles (Larsen, 2008; Svallfors, 1997). This situation suggests that a mismatch may arise from two distinct sources: a normative conflict with individual values and a perceived inadequacy of the material benefits provided. Therefore, rather than a uniform average effect of universal welfare programs on SWD, I expect

their effect to be conditional on individual characteristics. In particular, I focus on ideology and income as key moderators.

Starting with ideology, I expect that the effect of universal programs on SWD will vary depending on the alignment between the distributive logic of universal welfare programs and the value system of recipients. According to [Svensen \(2024\)](#), contemporary partisan conflict is deeply rooted in disagreements over the principles of egalitarianism. Under this lens, although critics may personally benefit from such programs ([Mettler, 2011](#)), their normative evaluation remains tied to their ideological bedrock. Literature on value systems and welfare attitudes ([Feldman and Steenbergen, 2001](#); [Reeskens and Van Oorschot, 2013](#)) suggests that individuals who prioritize equality and redistribution show stronger support for redistribution than those who emphasize meritocracy ([Newman et al., 2015](#); [Brezna, 2010](#); [Neerdaels et al., 2026](#)). At the same time, the congruence theory also argues that the implementation of certain policies can enhance SWD when those policies align with individuals' ideological preferences ([Reher, 2015](#); [Ferland, 2021](#)). Thus, left-leaning recipients are expected to experience a normative match between their values and the underlying principles of universal programs. Conversely, universalism may trigger a value mismatch among right-leaning individuals, as the equal distribution of benefits conflicts with meritocratic principles. For them, distributive fairness is rooted in meritocratic beliefs that justify economic disparities ([Gromet et al., 2015](#)). Consequently, the flat-rate nature of universal benefits conflicts with this meritocratic worldview, leading to lower SWD among right-leaning recipients compared to their left-leaning counterparts.

Hypothesis 3.1 *The association between exposure to universal benefits and SWD is moderated by ideology, such that the effect will be more negative among individuals on the right of the ideological spectrum.*

Regarding the effect of income, one might think that low-income recipients should benefit

more, as the marginal effect of universal benefits is likely to be higher for those with limited material resources. For instance, according to [Nadeau et al. \(2020\)](#), SWD among low-income individuals is more sensitive to redistribution mechanisms because wealth increases the sense of security that makes individuals feel less anxious about economic fluctuations. However, for low-income individuals, whose expectations are driven by acute necessity, blind equality of universalism can be experienced as a failure of institutional responsiveness. Many studies stress that SWD increases when individuals perceive political institutions as fair ([Saxton, 2021](#)) ([Erlingson, 2014](#); [van Ryzin, 2011](#)). As [Magalhães \(2016\)](#) suggests, when procedural fairness is low, the effect of perceived economic performance is higher. For the poor, receiving the same as the wealthy could not be seen as an act of inclusion, but as an institutional indifference to their economic situation. Conversely, since high-income individuals do not rely on welfare benefits, universal programs may function as a symbolic validation of their status as citizens. For this group, receiving benefits without the stigma of means-testing reinforces inclusiveness and democratic belonging ([Rothstein, 1998](#)). Thus, the flat-rate logic of these programs contradicts the perceived inadequacy of the benefits of low-income individuals, leading to a lower SWD of low-income recipients in comparison to high-income recipients.

Hypothesis 3.2 *The association between exposure to universal welfare programs and SWD is moderated by income, such that the effect will be more negative among low-income individuals*

To address how different welfare programs affect political attitudes, literature on policy feedback has traditionally focused on learning-based mechanisms that revolve around the idea of external political efficacy ([Jacobs et al., 2022](#); [Soss, 1999](#)). That is, how individuals perceive authorities as responsive based on their experiences with welfare. In this paper, I explore an alternative mechanism based on the psychological effects of welfare programs.

There is some evidence that suggests that the welfare state is associated with individuals' subjective well-being (Samuel and Hadjar, 2016; Dominko and Verbič, 2021). Indeed, interactions with public administrations can result in an administrative burden, which implies certain psychological costs (Herd and Moynihan, 2018; Schneider and Ingram, 1993). And more importantly, those effects vary across welfare designs (Herd and Moynihan, 2018; Lapham and Martinson, 2022). In the case of means-tested benefits, it has been proven that negative deservingness messages that result in internalization of stigma lead to negative health outcomes for recipients (Baekgaard et al., 2023; Lapham and Martinson, 2022). Hence, I argue that these negative psychological effects derived from interactions with public administrations can mediate the relationship between program participation and SWD. If the structural design of welfare programs affects subjective well-being by imposing an administrative burden on welfare recipients, this personal experience can spill over into evaluations of the democratic system (Soss, 1999). Therefore, I expect that the subjective well-being of recipients mediates the influence of welfare design on SWD due to the psychological effects derived from experiences with welfare institutions.

Hypothesis 4 *The effect of exposure to welfare programs on SWD will be mediated by the subjective well-being of the welfare recipients.*

5 Data and Methods

Why Germany?

This paper uses the German Socio-Economic Panel Study (SOEP) to test the hypotheses stated in the previous section (Goebel et al., 2024). The German Socio-Economic Panel is a wide-ranging representative panel study that collects detailed information about more than 20,000 individuals living in more than 10,000 households in Germany since 1984. The

suitability of SOEP arises from the fact that it contains several pieces of information about the participation of individuals in different types of welfare programs, as well as multiple questions related to political attitudes and values. Due to the rotating nature of some modules in the SOEP questionnaire, the sample is restricted to the period between 2005 and 2021, where the outcome and core explanatory variables were included. Moreover, I restrict the sample to individuals between 18 and 75 years old who have at least two data points in the sample. After cleaning the data and accounting for missing values across all variables, the final sample consists of 24,653 individual-years.

5.1 Variables

The outcome variable is *satisfaction with democracy* (SWD). This variable is measured in an eleven-point Likert scale where zero indicates “*completely dissatisfied*”, and ten indicates “*completely satisfied*” to the question “How satisfied are you with democracy as it exists in Germany?”. This variable is included in specific topical modules, resulting in five main observation windows for this study. The corresponding years are 2005, 2010, 2016, 2020, and 2021.³

To capture whether individuals participate in different welfare programs, I employ three dichotomous variables based on questions that ask respondents whether they received benefits from those welfare programs last year.⁴ Each dichotomous variable captures one different type of structural design. To capture contributory welfare programs, I employ the question related to contributory unemployment benefits (ALGI). ALGI (*Arbeitslosengeld I*) is an insurance-based, temporary unemployment benefit funded by contributions and based on previous income. To capture the effect of means-tested programs, I employ the question

³See [Figure 4](#) in the appendix to see the distribution of SWD across different periods.

⁴The criteria to classify programs’ design are based on eligibility rules. However, the question, as how it’s framed in the questionnaire, directly points to those who have already been eligible to participate in those welfare programs. However, it’s impossible to disentangle these two different criteria.

related to social assistance benefits (ALGII). ALGII (*Arbeitslosengeld II*), commonly also known as Hartz IV, is a means-tested, tax-funded program providing a basic subsistence level when ALGI expires or for those ineligible for it (e.g., long-term unemployed). Finally, for universal programs, I use child benefits (*Kindergeld*), which is a monthly, income-independent payment for parents, currently paying €259 per child until children are 18 years old.⁵ Those variables were recoded so 1 indicates they did receive benefits from a particular welfare program and 0 means they did not. Importantly, since the survey question refers to welfare benefits in the previous year, these variables are already lagged at $(t - 1)$.⁶

To account for individual heterogeneity, I include a set of control variables. Socio-demographic characteristics include *health status* with five categories (bad, poor, satisfactory, good, and very good), and *marital status* with five categories (married, single, widowed, divorced, and separated). To account for socio-economic factors, I include *employment status* with six categories (full-time, part-time/precarious, unemployed, in training, retired, and non-active), and *educational level* with three categories (low, medium, and high) based on the codification of the International Standard Classification of Education 1997 (ISCED 97). I also include the log-transformed *household post-government disposable income* from two years prior $(t - 2)$.⁷ This ensures that the baseline economic status is not affected by the welfare transfers received in $t - 1$, providing a cleaner estimation of the impact of welfare programs, avoiding post-treatment bias. I also include two variables to control for political attitudes. Given the high non-response rates in the direct self-placement ideological scale, I use the question *political party supported* as a proxy of political ideology. I recoded this variable in 5 ideological categories (left, center-left, center, center-right, and right).⁸ I also

⁵It can continue until 25 if the child is in education or vocational training.

⁶ “*does not apply*” category is understood as the individual does not receive benefits from a particular welfare program, so this category was recoded as zero.

⁷I implement the OECD equivalence scale of income to compensate for the number of household members.

⁸The Left includes Die Linke, the Piratenpartei, and the hybrid Bündnis 90/Die Grünen/Die Linke. The Center-Left comprises the SPD, Bündnis 90/Die Grünen, and their respective combinations. The Center primarily centered around the FDP and specific centrist-liberal coalitions. The Center-Right includes the CDU, CSU, and their traditional alliances. The Right includes the AfD, far-right parties like NPD/Republikaner, and specific right-wing combinations. When a respondent identified with two parties, the classification pri-

account for *political interest* and a dichotomous variable that indicates whether the respondent lives in East or West Germany. Finally, I employ a question on current life satisfaction in which 0 indicates “*completely dissatisfied*” and 10 “*completely satisfied*”, to capture the mediating effect of subjective well-being on SWD. The descriptive statistics of all these variables are included in [Table 3](#) in the appendix.

5.2 Empirical strategy

The main purpose of this article is to examine whether participation in different welfare programs affects individuals’ SWD. Specifically, the analysis focuses on within-individual variation in SWD over time, exploiting the panel structure of the data. To this end, I estimate a two-way fixed effects model including individual and year fixed effects with clustered standard errors. Two-way fixed effects model specification allows me to account for time-invariant unobserved heterogeneity across individuals, such as personality traits, thereby mitigating omitted variable bias. At the same time, it controls for common shocks affecting all individuals in a given year ([Allison, 2009](#); [Andreß et al., 2013](#)). By leveraging within-individual changes in welfare participation, the model identifies the effect of program participation on SWD net of stable individual characteristics and aggregate time trends. Standard errors are clustered at the individual level to account for serial correlation within units.

In recent years, some authors have raised some methodological concerns about the usage of TWFE. Among other issues, the question of the use of negative weights that can bias model estimates stands out

oritized the party furthest from the political center to capture the strongest ideological signal. The “Others” category and non-congruent party combinations were recoded as missing values.

$$SWD_{it} = \beta_0 + \beta_1 W_{i,t-1} + \mathbf{X}_{it}'\boldsymbol{\gamma} + \alpha_i + \lambda_t + \varepsilon_{it} \quad (1)$$

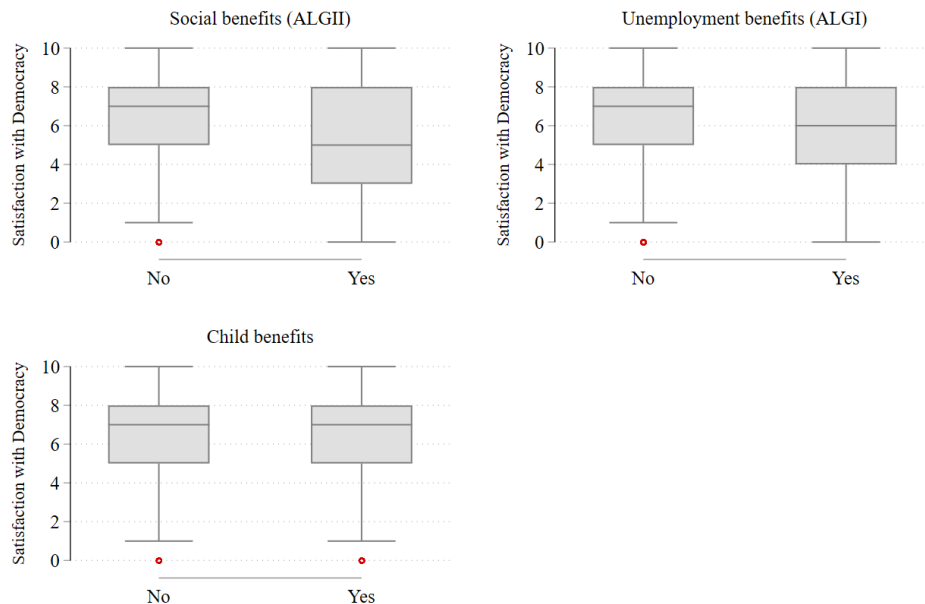
Equation 1 presents the empirical specification. SWD_{it} denotes satisfaction with democracy for individual i in year t . The coefficient of interest, β_1 , captures the effect of receiving benefits from a given welfare program W . Importantly, the welfare participation variable refers to benefits received in the previous year, as reported in the survey. Accordingly, $W_{i,t-1}$ captures lagged program participation. $\mathbf{X}_{it}$ is a vector of time-varying individual-level covariates, with associated parameters $\boldsymbol{\gamma}$. α_i and λ_t denote individual and year fixed effects, respectively, accounting for time-invariant individual heterogeneity and common shocks across years. Finally, ε_{it} represents the idiosyncratic error term.

6 Results

Before starting with the exploratory analysis, Figure 1 illustrates the distribution of SWD across recipients and non-recipients of different welfare programs. The most striking difference is observed for ALGII, where recipients exhibit a substantially lower median SWD compared to non-recipients. For the latter, the distribution is heavily skewed towards higher values, with the interquartile range concentrated between 5 and 8. Conversely, ALGII recipients not only show a lower central tendency but also greater dispersion in their responses, suggesting more heterogeneity within this group. A similar, albeit less pronounced, pattern emerges for ALGI recipients, where non-beneficiaries maintain a slightly higher median. In contrast, the distribution for child benefits is virtually identical across both groups, indicating that this specific program may not be a primary driver of SWD variance at a descriptive level. While these initial findings provide preliminary evidence of group-based differences, they do not account for confounding factors or temporal dynamics. Consequently, I proceed

to a two-way fixed effects framework to rigorously test the link between welfare participation and individuals' SWD.

Figure 1: Distribution of SWD across recipients and non-recipients of different welfare programs



The theoretical predictions in the previous section suggest that participation in welfare programs will be associated with SWD in different ways depending on the structural design of those programs. To test these theoretical expectations, [Table 1](#) displays the main results using TWFE models⁹. Models 1, 2, and 3 from [Table 1](#) test the effect of participating in earnings-related, means-tested, and universal welfare programs, respectively, while Models 5 and 6 test the conditional effects of ideology and income on universal welfare programs, respectively. Beginning with the effect of ALGI, as a case of an earnings-related program, it can be observed that the coefficient is positive, as expected by the theory. However, its significance level is relatively low ($p < 0.10$) without reaching the conventional threshold of significance. Therefore, this result does not provide enough evidence to assume the existence of a significant association between earnings-related programs and SWD. Therefore, Hypoth-

⁹See also Table 4 for the full table with all covariates.

esis 1 is only partially supported. The next model tests the effect of ALGII, as an example of a means-tested program, on SWD. The coefficient of ALGII is negative and statistically significant in this case. This result implies that receiving benefits from ALGII is associated with a decrease of 0.33 points in individual SWD, providing support for Hypothesis 2. Consequently, it can be stated that participation in means-tested programs is associated with a reduction of SWD.¹⁰ Finally, Model 3 focuses on the effect of child benefits as an example of universal welfare programs. As expected, it can be observed that the coefficient of child benefits is not statistically significant. This result challenges previous evidence, which points towards a positive overarching effect of universal policies on political attitudes (Kumlin, 2004). Instead, this paper argues that the effect of universal programs will be conditional on different individual attributes.

Models 4 and 5 in Table 1 examine the conditional effects of income and ideology on the relationship between participation in universal welfare programs and SWD. Starting with the moderating role of ideology, most of the interaction terms between child benefits and ideological categories are statistically significant relative to the reference category (left), pointing to the existence of heterogeneous effects across the ideological spectrum. However, because interaction coefficients are not directly interpretable in isolation, Figure 2 displays the marginal effects of receiving child benefits across different ideological groups. The figure shows that for individuals on the right, participation in welfare programs is associated with a decrease of approximately 0.7 units in SWD. This finding is consistent with theoretical expectations, which predict a negative effect among right-wing individuals due to a normative value mismatch. However, contrary to expectations, the figure also indicates a negative and statistically significant effect for individuals placed on the left. Finally, for those located in the center-left, center, and center-right of the ideological spectrum, the marginal effects are

¹⁰To evaluate the robustness of TWFE estimator due to potential heterogeneous treatment effects, I apply De Chaisemartin and D’Haultfoeuille (2020) diagnosis. Results show that the sum of negative weights is minimum ($\sum = -0.0041$), suggesting that the estimated coefficient is not biased due to inappropriate comparisons between treated groups. The robust coefficient $\beta_{fe} = -0.4099$ proves the negative effect of ALGII on SWD.

Table 1: TWFE models on participation in welfare programs and SWD

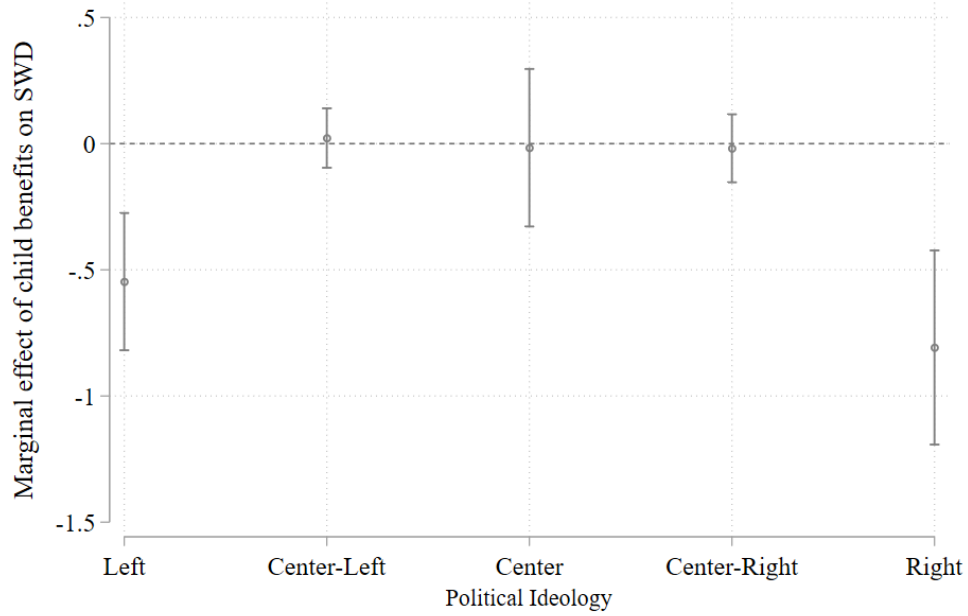
	(1)	(2)	(3)	(4)	(5)
ALGI (Yes=1)	0.252*				
	(0.15)				
ALGII (Yes=1)		-0.338***			
		(0.12)			
Child benefits (Yes=1)			-0.0630	-0.547***	-0.830
			(0.05)	(0.14)	(0.69)
Child benefits $\times$ Center-Left				0.569***	
				(0.15)	
Child benefits $\times$ Center				0.531**	
				(0.21)	
Child benefits $\times$ Center-Right				0.528***	
				(0.15)	
Child benefits $\times$ Right				-0.261	
				(0.23)	
Child benefits $\times$ Disposable income (t-2)					0.0754
					(0.07)
Constant	5.622***	5.655***	5.699***	5.924***	5.983***
	(0.52)	(0.52)	(0.53)	(0.53)	(0.59)
Observations	24653	24653	24653	24653	24653
Individual FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

Note: This table displays TWFE regression models of participation in welfare programs and SWD. All models control for health status, marital status, educational level, employment status, disposable household income (t-2), political interest, political ideology, and the east-west divide. Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

not statistically different from zero. Taken together, these findings do not reveal a monotonic pattern across the ideological spectrum. Instead, the negative effect of receiving child benefits is concentrated at the ideological extremes. Therefore, the evidence provides only partial support for Hypothesis 3.1. Finally, Model 5 shows that the interaction term between child benefits and disposable household income predicts a positive slope, the coefficient is not statistically significant. Therefore, there is no support for Hypothesis 3.2.

This paper further investigates whether the impact of welfare participation on SWD is mediated by its effect on individual well-being. To examine whether the effect of welfare

Figure 2: Marginal effects of child benefits on SWD at different political ideologies.



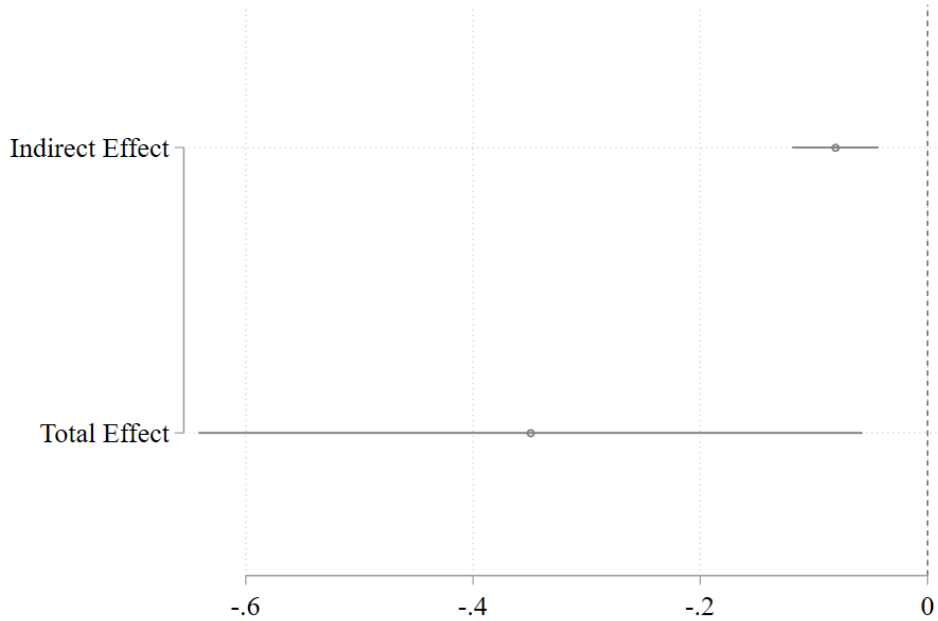
Note: This figure displays the marginal effects of child benefits on SWD at different ideologies. Vertical spikes indicate 95% CI.

programs on SWD is driven by its prior effect on life satisfaction, I conducted a mediation analysis using a custom bootstrapping procedure (100 replications) clustered by individual. This method decomposes the total effect into an indirect effect, which operates through the mediator (life satisfaction), and a direct effect, which captures the residual impact of the welfare programs. Importantly, since only means-tested programs yielded significant results, I only test this expectation in the case of ALGII. To proceed, first, I estimate the effect of ALGII on life satisfaction ($\beta = -.468$).¹¹ Then, I also estimate the effect of life satisfaction on SWD ($\beta = .173$) while accounting for participation in ALGII. The product of these coefficients ($-.468 \times .173 = -.08$) identifies the portion of the effect mediated by current life satisfaction, while the remaining direct coefficient ($\beta = -.268$) reveals the extent to which the program independently diminishes SWD. Finally, the total effect is the sum of the indirect effect and the direct effect ($-.08 + -.268 = -.348$). Figure 3 displays the point estimates and 95% confidence intervals for the indirect and total effects, derived from the bootstrapping

¹¹See Model Table 5 in the appendix.

procedure. Both results are negative and statistically significant. Notably, the indirect effect accounts for approximately 23% of the total impact ($-.08 / -.348 = .229$) of ALGII on SWD, which is mediated by its effect on individuals' life satisfaction. Therefore, these results provide strong support for Hypothesis 4, suggesting that part of the effect of means-tested programs on SWD is rooted in their negative psychological effects on individuals' well-being.

Figure 3: Mediating effect of life satisfaction on SWD.



Note: This figure displays the mediating effect of life satisfaction on the relationship between ALGII and SWD. The indirect effect is calculated by $(-.468 \times .173 = -.08)$. The total effect is the sum of the indirect effect and the direct effect $(-.08 + -.268 = -.348)$. Horizontal spikes indicate 95% CI.

7 Is it actually about being a welfare recipient?

So far, this paper has shown that participation in means-tested programs is strongly associated with a reduction in individuals' SWD. However, this association may be driven by confounding factors, resulting in a spurious relation between ALGII and SWD. In particular, eligibility for means-tested programs is strongly linked to individuals' situation in the labour market. This implies that participation in ALGII is not exogenous, but rather the

outcome of prior labour market trajectories. As a result, the estimated association between ALGII and SWD may partly reflect selection into the program rather than the effect of program participation itself. Although ALGII suggests some temporal distance between job loss and participation in the program because eligibility rules for ALGII apply to long-term unemployment, concerns about selection bias remain. To address this issue, this section discusses a set of complementary models to explore the following question: Do changes in labour market status primarily drive SWD, or does participation in means-tested programs actually associated to SWD beyond changes in employment status? Before trying to answer this question, it's important to clarify some limitations. Given the structure of the data and the timing of the treatment assignment, standard causal designs to address this question are not feasible. Therefore, with this data, it is not possible to fully disentangle the effect of welfare participation and unemployment shocks on SWD. Hence, the following results should be interpreted as suggestive evidence rather than causal associations.

[Table 2](#) presents seven different models to unpack the relationship between ALGII and unemployment on SWD. Model 1 from [Table 2](#) replicates Model 1 from [Table 1](#), but replacing detailed employment categories with a binary indicator of unemployment. The coefficient on ALGII remains negative and statistically significant, suggesting that participation in means-tested programs is associated with lower SWD even after accounting for unemployment status. Similarly, unemployment itself is also significantly associated with SWD. This indicates that both current unemployment status and participation in ALGII drive the baseline association. Model 2 introduces an interaction between ALGII and unemployment status. Since access to ALGII is closely linked to labour market status, one might expect heterogeneous effects depending on whether individuals are unemployed. However, the interaction term is not statistically significant, suggesting that the association between ALGII and SWD does not differ meaningfully between employed and unemployed individuals, providing limited support for the idea that the effect is purely driven by unemployment-related status loss. Model 3 includes a lagged unemployment ($t - 2$) as a proxy for prior labour

market shocks. This specification aims to separate contemporaneous unemployment status from earlier changes in employment status that may have triggered welfare entry. The results remain broadly consistent as ALGII continues to be negatively associated with SWD, while lagged unemployment is not statistically significant. This suggests that earlier unemployment shocks alone do not explain the observed relationship.

Model 4 shifts the focus from levels to transitions by examining entry into unemployment and entry into ALGII. The ALGII entry variable captures the transition into welfare receipt from one period to the next. That is, individuals who participate in the program in a certain year but did not participate in the previous year. Similarly, the unemployment entry variable captures transitions into unemployment from one year to another. This specification is particularly useful because it aligns the timing of shocks more closely with status changes, although it still inherits limitations from the survey structure and lagged measurement of program participation. The results show that entering ALGII is associated with a reduction in SWD, whereas entering unemployment is not statistically significant. This result is particularly relevant because it indicates that means-tested programs are negatively associated with SWD, not only in terms of being a welfare recipient but also in terms of becoming a recipient. Conversely, Model 4 suggests that those who become unemployed do not experience a decrease in SWD, probably because earnings-related short-term benefits from ALGI, which are the immediate benefits individuals receive when they become unemployed, compensate for the shock of the job loss.

Models 5 and 6 restrict the sample to unemployed individuals. This allows for a comparison within a more homogeneous group, focusing on whether variation in welfare participation matters once individuals have already experienced job loss. In this subsample, neither ALGII participation nor entry into ALGII is statistically significant. Nevertheless, the size of the coefficients of these two variables is identical to that obtained using the full sample. Therefore, this could indicate that the lack of statistical significance is likely driven by low

Table 2: TWFE models on participation in means-tested programs and unemployment on SWD

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALGII (Yes=1)	-0.322*** (0.12)	-0.206 (0.14)	-0.367*** (0.12)		-0.356 (0.61)		
Unemployed (Yes=1)	-0.305*** (0.10)	-0.218** (0.11)					
ALGII $\times$ Unemployed		-0.353 (0.22)					
Unemployment (t-2)			-0.129 (0.09)				
ALGII entry				-0.518*** (0.18)		-0.581 (0.63)	
Unemployment entry				-0.0874 (0.12)			
pre ALGII							0.0909 (0.21)
post ALGII							-0.407** (0.20)
Constant	5.785*** (0.51)	5.802*** (0.51)	5.867*** (0.55)	5.780*** (0.51)	1.372 (6.41)	2.715 (6.22)	5.810*** (0.51)
Observations	24653	24653	24247	24653	238	238	24653
Individual FE	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES

Note: This table displays TWFE regression models of participation in means-tested programs and unemployment on SWD. All models control for health status, educational level, disposable household income (t-2), political interest, political ideology, and the east-west divide. Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

statistical power in this subsample rather than by meaningful differences in the underlying effects. Moreover, the number of observations from these two models is 238. This suggests that at least more than half of unemployed individuals in this sample are short-term unemployed individuals who rapidly re-enter the labour market.¹² Finally, Model 7 presents a simplified event-study specification around entry into ALGII, intended to capture dynamic changes before and after treatment.¹³ While there is no clear evidence of pre-trends before entry, SWD appears to significantly decline after entering the program, suggesting a

¹²This huge decrease in the number of observations is not only related to the limitation on unemployed individuals, but also because the model drops observations with only one observation per individual.

¹³See also Figure 5 in the appendix for a graphical representation of these results.

clear reduction of within-individual SWD once individuals become welfare recipients from means-tested programs.

In a nutshell, the results provide mixed but informative evidence regarding the relationship between unemployment, participation in means-tested programs, and SWD. While unemployment status exhibits a robust association with SWD across most of the model specifications, its timing does not provide enough evidence to assume that the SWD of individuals changes when they become unemployed. On the other hand, participation in ALGII is consistently negatively associated with SWD in the full sample and in specifications focusing on transitions into the program. Although not significant, its pattern seems stable even across the subsample. Taken together, these findings do not support a purely employment-driven explanation of SWD dynamics. Instead, they suggest that the entry and participation in means-tested programs is associated with changes in SWD beyond changes in unemployment status, providing additional support for the main results.

Finally, I also conduct a set of robustness checks to assess the role of household income in the estimation. Income is closely linked to both employment status and eligibility for ALGII, which raises concerns about multicollinearity and the inclusion of income as a potential bad control. [Table 6](#) in the Appendix shows that the estimated effect of ALGII remains virtually unchanged when lagged household income at $t - 2$ is included, suggesting that the baseline results are not driven by pre-existing income differences. To further address the strong mechanical correlation between income and employment status, I residualize lagged income by purging the variation explained by unemployment and fixed effects. Including these residuals in the main specification leaves the coefficient of ALGII unaffected, indicating that the results are not driven by the high collinearity between income and ALGII. In addition, I transform the lagged income into deciles. This allows for flexible control of income levels and potential eligibility thresholds. The results remain unchanged, and none of the income categories are statistically significant. Finally, I explore whether the effect of ALGII varies

across the income distribution by interacting ALGII with lagged income. The interaction terms are not statistically significant, providing no evidence of systematic heterogeneity in the effect of ALGII by income level. Taken together, these results consistently indicate that the estimated effect of ALGII on SWD is robust to multiple ways of accounting for household income and is unlikely to be driven by income-related multicollinearity.

8 Discussion

The welfare state is one of the most important pillars of modern democracies. Indeed, individuals tend to rely on experiences with welfare institutions to understand how the political system works in a broad sense (Soss, 1999, 2000). Nevertheless, there is still scarce research that links welfare state institutions with attitudes towards democracy and democratic legitimacy. Moreover, the existing few works usually focus on welfare generosity or rely on cross-sectional data. In this sense, this paper examined whether participation in different welfare programs shapes within-individual satisfaction with democracy (SWD) depending on the structural design of welfare institutions. Building on deservingness theory, expectancy-disconfirmation theory, and policy feedbacks approaches, the paper argued that welfare experiences influence democratic evaluations insofar as institutional responses align, or fail to align with citizens' expectations towards the welfare state. Using TWFE models with panel data from the German SOEP, the results show that welfare participation is associated with SWD in different ways across policy designs.

First, participation in earnings-related programs is positively associated with SWD, although the effect remains weak and only marginally significant. While this finding is consistent with expectations derived from reciprocity-based deservingness, the limited magnitude of the effect suggests that contributory programs may normalize rather than reinforce democratic support. According to the formative effects of policy feedbacks theory, individuals'

experiences with welfare institutions shape their expectations towards them (Kumlin and Stadelmann-Steffen, 2014; Sirovátka et al., 2019). Therefore, receiving benefits perceived as earned entitlements may not substantially alter evaluations of democratic performance because recipients simply experience the expected functioning of the welfare state.

Second, participation in means-tested programs is consistently associated with lower levels of SWD. This relationship remains robust across several specifications, accounting for unemployment dynamics and prior income levels. The findings suggest that means-tested welfare programs may negatively influence SWD because recipients experience interactions with welfare institutions as paternalistic and stigmatizing rather than responsive to situations of need. Importantly, the mediation analysis further shows that part of this relationship operates through subjective well-being. This indicates that the negative psychological costs associated with interactions with welfare administrations may spill over into broader evaluations of democratic performance.

Third, participation in universal programs does not display a uniform effect on SWD. Instead, the results reveal heterogeneous effects depending on ideology. As expected, individuals on the ideological right exhibit lower levels of SWD when receiving universal benefits, likely because the distributive logic of universalism conflicts with meritocratic understandings of fairness. More unexpectedly, individuals on the ideological left also display lower levels of SWD. One possible interpretation is that left-wing recipients evaluate existing universal programs as insufficiently redistributive or inadequate to address social inequalities. Rather than generating ideological congruence, universal programs may therefore activate dissatisfaction among individuals with stronger redistributive expectations. By contrast, no evidence was found that the effect of universal programs varies systematically across different income groups.

Taken together, these findings contribute to several strands of literature. First, the pa-

per contributes to research on deservingness by theorizing how individuals may perceive themselves as deserving welfare recipients through different sources of subjective legitimacy, including reciprocity, need, and social rights. While deservingness research has traditionally focused on how citizens evaluate others, this paper shifts attention toward how individuals understand their own legitimacy as welfare recipients. Second, the paper contributes to policy feedback research by showing that welfare institutions shape broader democratic attitudes within individuals. Importantly, the findings suggest that the political consequences of welfare participation depend not only on material redistribution but also on the symbolic and psychological dimensions of policy design. Third, the results challenge the assumption that universal welfare policies uniformly strengthen democratic attitudes ([Kumlin, 2004](#)). Rather than producing a consistently positive effect, the relationship between universal programs and SWD appears conditional on ideological factors and normative expectations regarding redistribution.

Despite these contributions, the paper also presents important limitations. Most importantly, the available data do not allow for strong causal identification of welfare participation independently from labour market trajectories and other life-course dynamics. Although the panel structure and fixed-effects specification improve upon existing cross-sectional evidence, future research should employ research designs better suited to identifying causal effects, including event-study approaches and difference-in-differences estimators with heterogeneous treatment effects. In addition, the findings are limited to the German welfare context. Since welfare institutions vary substantially across countries in terms of generosity, administrative structures, and normative foundations, future research should explore whether these mechanisms operate similarly in more universalistic welfare regimes, such as the Nordic countries, or in more residual welfare systems characteristic of liberal regimes.

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9 Appendix

Figure 4: Satisfaction with democracy across years

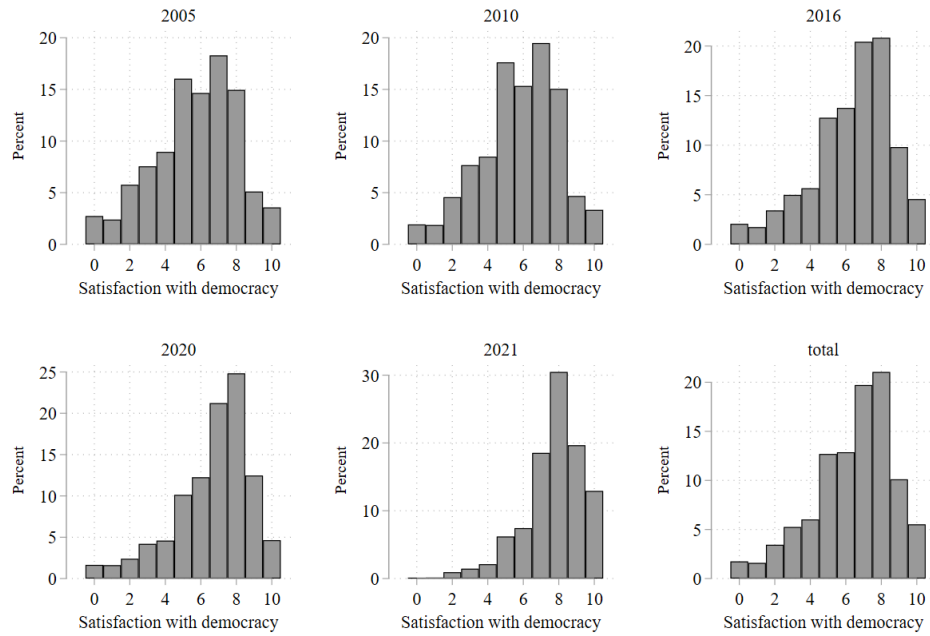


Table 3: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Satisfaction with democracy (SWD)	6.415	2.253	0	10
ALGI	.012	.107	0	1
ALGII	.024	.153	0	1
Child benefits	.46	.498	0	1
Health status	3.451	.909	1	5
Educational level	2.415	.585	1	3
Household disposable income (t-2)	10.117	.535	5.298	13.712
Marital status				
Married	.671	.47	0	1
Single	.178	.382	0	1
Widowed	.036	.186	0	1
Divorced	.089	.284	0	1
Separated	.027	.161	0	1
Employment status				
Full-time	.449	.497	0	1
Part-time/precarious	.214	.41	0	1
Unemployed	.027	.161	0	1
In training	.007	.081	0	1
Retired	.214	.41	0	1
Non-active	.09	.286	0	1
Ideology	2.81	1.11	1	5
Political interest	2.752	.726	1	4
East-West	.211	.408	0	1
Life satisfaction*	7.48	1.55	0	10
N = 24,653				
N* = 24,608				

Table 4: TWFE Models on welfare programs and SWD

	(1)	(2)	(3)	(4)	(5)
ALG I (Yes=1)	0.252*				
	(0.15)				
ALGII (Yes=1)		-0.338***			
		(0.12)			
Child benefits (Yes=1)			-0.0630	-0.547***	-0.830
			(0.05)	(0.14)	(0.69)
Health status (Bad = baseline)					
Poor	0.336***	0.332***	0.331***	0.332***	0.332***
	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
Satisfactory	0.445***	0.440***	0.441***	0.445***	0.443***
	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
Good	0.627***	0.624***	0.623***	0.629***	0.624***
	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
Very good	0.787***	0.785***	0.782***	0.788***	0.781***
	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
Marital status (Married=baseline)					
Single	0.117	0.120	0.0869	0.0928	0.0838
	(0.09)	(0.09)	(0.10)	(0.10)	(0.10)
Widowed	-0.115	-0.111	-0.110	-0.115	-0.110
	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)
Divorced	-0.198*	-0.184*	-0.203**	-0.201**	-0.203**
	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
Separated	-0.272**	-0.266**	-0.279**	-0.273**	-0.281**
	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)

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Table 4: TWFE Models on welfare programs and SWD (Continued)

Educational Attainment (Low=baseline)					
Medium	-0.301*	-0.298*	-0.313**	-0.312**	-0.320**
	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)
High	-0.259	-0.248	-0.280	-0.274	-0.288
	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)
Employment status (Full-time=baseline)					
Part-time/precarious	0.0819	0.0944*	0.0881*	0.0851	0.0898*
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Unemployed	-0.422***	-0.253**	-0.313***	-0.313***	-0.311***
	(0.12)	(0.10)	(0.10)	(0.10)	(0.10)
In training	-0.154	-0.140	-0.134	-0.127	-0.130
	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)
Retired	0.0637	0.0669	0.0620	0.0622	0.0657
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
non-active	0.145**	0.156**	0.151**	0.147**	0.154**
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Disposable income (t-2)	-0.0177	-0.0213	-0.0198	-0.0241	-0.0469
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)
Interest in politics					
(Not interested=baseline)					
Not very interested	0.152	0.156	0.152	0.138	0.151
	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
Interested	0.150	0.155	0.149	0.137	0.148
	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
Very much	0.0809	0.0857	0.0785	0.0672	0.0778

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Table 4: TWFE Models on welfare programs and SWD (Continued)

	(0.13)	(0.13)	(0.13)	(0.13)	(0.13)
Ideology (Left=baseline)					
Center-Left	0.524***	0.518***	0.521***	0.300**	0.519***
	(0.10)	(0.10)	(0.10)	(0.12)	(0.10)
Center	0.794***	0.785***	0.792***	0.579***	0.790***
	(0.14)	(0.14)	(0.14)	(0.17)	(0.14)
Center-Right	0.804***	0.800***	0.804***	0.608***	0.802***
	(0.12)	(0.12)	(0.12)	(0.14)	(0.12)
Right	-0.610***	-0.615***	-0.609***	-0.524***	-0.610***
	(0.16)	(0.16)	(0.16)	(0.18)	(0.16)
East-West Germany (East=1)	-0.0774	-0.0755	-0.0765	-0.0556	-0.0739
	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
interaction terms					
Child benefits $\times$ Center-Left				0.569***	
				(0.15)	
Child benefits $\times$ Center				0.531**	
				(0.21)	
Child benefits $\times$ Center-Right				0.528***	
				(0.15)	
Child benefits $\times$ Right				-0.261	
				(0.23)	
Child benefits $\times$ Disposable income (t-2)					0.0754
					(0.07)
Constant	5.622***	5.655***	5.699***	5.924***	5.983***
	(0.52)	(0.52)	(0.53)	(0.53)	(0.59)

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Table 4: TWFE Models on welfare programs and SWD (Continued)

Observations	24653	24653	24653	24653	24653
Individual FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Mediating effect of life satisfaction

	(1)	(2)
ALGII (Yes=1)	-0.468*** (0.11)	-0.268* (0.14)
Life satisfaction		0.173*** (0.01)
Constant	6.122*** (0.39)	4.601*** (0.56)
Observations	24587	24587
Individual FE	YES	YES
Year FE	YES	YES

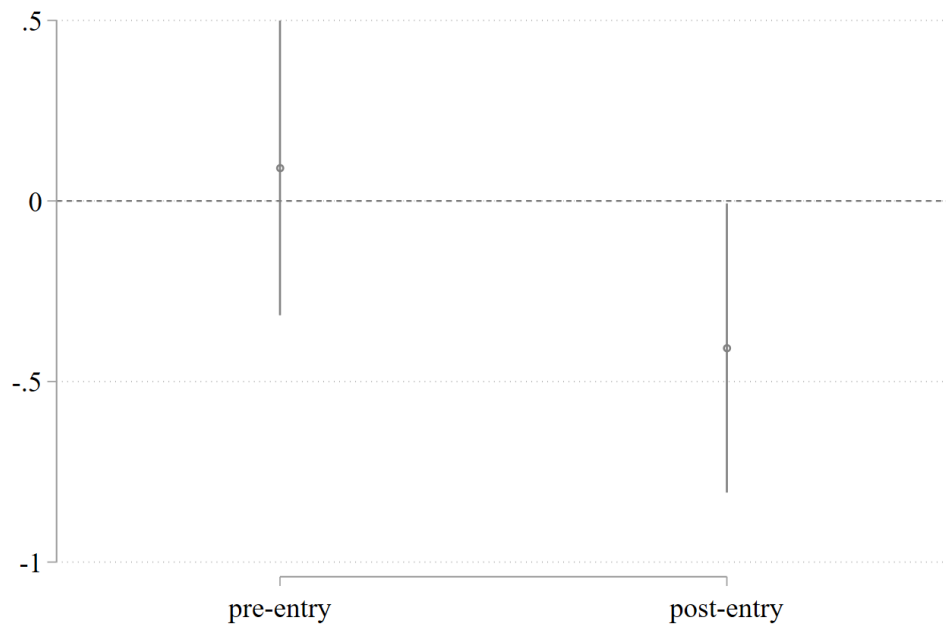
Note: This table displays TWFE regression model of ALGII on life satisfaction and life satisfaction on SWD, accounting for ALGII. All models control for health status, educational level, employment status, disposable HH income (t-2), political interest, political ideology, and the east-west divide. Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 6: TWFE models on participation in means-tested programs and HH income on SWD

	(1)	(2)	(3)	(4)	(5)
ALGII (Yes=1)	-0.336** (0.14)	-0.338** (0.14)	-0.338** (0.14)	-0.322** (0.15)	1.218 (2.60)
Disposable HH income (t-2)		-0.0213 (0.05)			-0.0163 (0.05)
Residual disposabel HH income (t-2)			-0.0213 (0.05)		
Disposable HH income deciles (t-2) (1st decile as baseline)					
2nd decile				0.0314 (0.07)	
3rd decile				0.0910 (0.08)	
4th decile				0.102 (0.08)	
5th decile				0.0839 (0.08)	
6th decile				0.115 (0.08)	
7th decile				0.0455 (0.08)	
8th decile				0.0856 (0.08)	
9th decile				-0.0133 (0.09)	
10th decile				-0.101 (0.10)	
ALGII $\times$ Disposable HH income (t-2)					-0.165 (0.27)
Constant	5.433*** (0.26)	5.655*** (0.56)	5.440*** (0.27)	5.392*** (0.28)	5.604*** (0.56)
Observations	24653	24653	24653	24653	24653
Individual FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

Note: This table displays TWFE regression models of participation in means-tested programs and unemployment on SWD. All models control for health status, educational level, employment status, political interest, political ideology, and the east-west divide. Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Figure 5: Pre- and Post-effects of ALGII on SWD.



Note: This figure displays the results of Model 7 from Table 2. Vertical spikes indicate 95% CI.