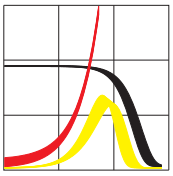

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Support for Intergenerational Transfers from a Demographic Perspective

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Abstract

The political discourse on demographic change has gained momentum in many developed countries. When it began, the discussion centred on the question of how to influence population ageing through political means (e.g., by raising fertility rates). But political decision makers now seem to be concerned about the consequences of demographic change on societal dynamics, especially intergenerational relations.

This is particularly evident in Germany, where the latest pension increase provoked a discussion about a possible transformation of the political system into a "gerontocracy", in which the elderly control public resources to their own benefit. In this paper, we investigate whether there is evidence for such a scenario by looking at two main questions. First, what is the effect of age on preferences toward social policies, which organise public transfers between generations (family and pension policies)? Second, to what extent does a possible age effect depend on further demographic factors, such as parenthood and marriage, which represent the framework of an individual's life course?

In order to answer these questions, we use recent survey data (GGS 2005 and PPAS 2003), which we analyse by applying standard linear models as well as Generalised Additive Models. The latter allow us to identify the trajectories of a possible age effect and its dependency on other demographic variables.

In contrast to most existing studies, our analyses show clear age effects: older people are less prone to support a variety of transfers to families than younger respondents. At the same time, the elderly are more prone to support pension policy reforms that put an even greater burden on the younger generation. We can also show that the age effects found are not always linear and follow different trajectories across the life course. We therefore argue that classical economic concepts cannot fully explain age-based support for intergenerational transfers. Age effects have to be seen in light of further demographic variables beyond a solely economically defined life cycle.

I Introduction

Over the past decade, the discourse on demographic change has gained momentum in many developed countries, especially in Europe. When it began the discussion centred around the question of how to influence population ageing using political means, e.g., by raising fertility levels or allowing for higher levels of immigration. Now, however, political decision makers seem to be more concerned about the consequences that demographic trends may have on societal dynamics, especially intergenerational relations. This is particularly evident in Germany, where the latest pension increase has provoked a discussion about whether the country is about to become a "gerontocracy," i.e., a system in which political power is concentrated in the hands of the elderly, as this group represents an increasing share of the electorate due to population ageing. A further basic assumption of this scenario is that the elderly use their (implicit and explicit) political power to control public resources in their own interests, and in opposition to the needs of the young.

On the other hand, the elderly also seem to be under increasing societal and political pressure: retirees are being held responsible for the current financial problems of the social security system, as well as the future debts of the younger generation. As a consequence, there have been a range of political reforms which aim at cutting costs stemming from transfers to the older generation. For example, taxation on pensions was increased in 2004, and in early 2009 the German Bundestag passed the so-called *debt brake* bill ("*Schuldenbremse*"), which limits the annual national debt to 0.35 percent of German GDP as of 2016, and which was clearly motivated by a group of younger MPs arguing for more intergenerational justice. At the same time, and as in many other European countries, more money has been spent on children and families. There are two main reasons for this shift in policy direction. First, the German Constitutional Court pointed out in several of its decisions that families had been economically disadvantaged. Second, a new family policy paradigm called "Sustainable Family Policy" (Gruescu and Rürup 2003) was introduced, and established as the "meta-aim" of German family policies an increase in birth rates. This increase is to be achieved through the implementation of an array of reforms, e.g., better childcare facilities or new parental leave benefits. The latter was introduced in 2007, and has resulted in additional costs of about € 4 billion per year.

Indications of an emerging generational conflict are also reflected in the current media discourse. The leading German dailies are printing headlines such as: "Greedy pensioners – future generations have to pay the bill," "Child-care ban: How child-unfriendly is Hamburg?" or "No hip-replacements for the very old."

This discussion of a conflict between the young and the old over public resources is fairly new in the German context; internationally it was first broached by Samuel Preston as early as in 1984. Preston analysed the situation in the United States, and his observation that a growing share of older people leads to higher spending for the elderly, and, subsequently, to lower public transfers to children, has been a subject of controversy ever since. Most of the existing research in demography, sociology and political science has so far rejected the concept of generational conflict, often focusing instead on still functioning generational relations within the family. However, this optimistic conclusion might be challenged, especially in the

area of public generational relations due to a continuing increase in the share of older voters, the need for reform of old age social security posed by population ageing, and the weakening of traditional family structures with more childless and unmarried people in the future. The very few recent studies on the issue have found either no effects of population ageing on redistributive public spending on the macro level (Tepe and Vanhuysse 2007), or limited evidence of age differences in related preferences on the individual level, especially in the German context (Busemeyer et al. 2009). All these studies use cross-country datasets, which have limitations regarding questionnaires and sample size when looking at specific countries. Furthermore, they focus solely on pension and education policies as proxies for upward and downward transfers, and do not take family policies into account. They also base their analytical framework on classical political economy concepts, which conceptualise age in light of economic life cycle phases (education, labour market participation, retirement). We argue that adding a demographic perspective to these models contributes to an understanding of age differences that tends to support intergenerational transfers, as the underlying motives for social policy preferences are determined not only by an individual's location within the economic life cycle, but also within the demographic life course (marriage, parenthood, grandparenthood).

In an earlier study (Wilkoszewski 2008) based on data from the 2003 wave of the Population and Policy Acceptance Survey (PPAS), we have already shown that large age effects can be found for the German case when looking at preferences for monetary family policies (e.g., an increase in child benefits), and that childlessness plays a significant role in determining these preferences as well. In the paper at hand, we intend to extend this analysis by several dimensions to shed more light on how demography affects public transfer preferences. First, we incorporate a set of 12 additional family policy measures into our study, which represent all possible public downward transfer types (i.e., money, time, care, housing). Second, our findings for downward transfers are contrasted by adding a proxy for upward transfers: we analyse preferences for pension policy reforms. Third, additional statistical models are applied in order to identify the trajectories of the age effects found over the life course, as well as their dependency on demographic events. Finally, we apply our statistical models to a second large international survey (Generation and Gender Survey GGS, 2005) in order to test the robustness of our findings.

The paper is structured as follows. We first present the current state of research in the field, and then derive our theoretical framework. Here, we extend in an ad hoc manner the usual political economy concepts used for the research question at hand. Special attention is paid to the role of underlying motives for policy preferences. The third part of the paper introduces the research design including the datasets used, as well as the statistical techniques applied. Part 4 presents the findings of our empirical analysis. The paper ends with a short summary and suggestions for future research.

II Literature overview and theoretical considerations

1 Research on demographic change, intergenerational relations and preferences

The question of demographic change and intergenerational transfers has been addressed mainly by economists seeking to measure the extent and direction of transfers between generations, as well as by sociologists and psychologists analysing the underlying motives behind transfers. The latter two, however, have focused on private intergenerational transfers, rather than on public ones. Only a few studies have analysed possible age effects in this context, even though from a theoretical point of view age is crucial to preference patterns: the (political and social) interests of different groups in the modern welfare state largely depend on rights and duties which are based on chronological age. Such an age-based system of access to and restriction of benefits can only be sustained as long as its character as a contract between age groups remains credible, i.e., every age group is treated in the same way as its respective counterpart in the past or in the future. However, demographic change poses major challenges to all modern welfare states. Unequal treatment for different age groups is therefore already moving up on the agenda, and may be expected to gain importance in the future.

Generally, existing studies come to the conclusion that family transfers exist to a significant extent, and flow mostly from the elderly to the younger generations (e.g., McGarry/Schoeni 1997), whereas public transfers are directed upwards (Lee 2003). However, recent generational accounting studies have tended to support the hypothesis that, in the case of the U.S., the net present value over the life cycle for current younger generations is positive (e.g., Bommier et al. 2004). According to Schokkaert, one of the most remarkable findings in the empirical work on the magnitude of transfers is the significant effect of age and education on voluntary work and charitable giving: highly educated older people give more of their resources than the less educated and younger members of society (Schokkaert 2006).

1.1 Preferences toward intergenerational transfers

The ongoing pension policy debate in Germany provides an apt illustration of why motives or preferences – in this case, public acceptance of the so-called generational contract – are crucial, not only for families, but also for public transfer flows between the generations. As long as members of the working-age generation perceive contributions to the pension system as insurance rates, and not as taxes, it seems plausible that workers will be more willing to make these contributions to the elderly. On the other hand, a perception that pension contributions represent pure taxation can lead to welfare losses due to lower support for these transfers, e.g., in the form of an increase of activities in the shadow economy (Börsch-Supan/Reil-Held 2001). Surveys show that when the current German pension system was started in the early 1960s, most workers considered pension contribution rates to be fair, whereas now the majority see pension benefits as transfers to the generation of the elderly which are only linked loosely to own contributions (Boeri et al. 2001).

Given the importance of preferences for redistributive policies, it is surprising that most studies dealing with the analysis of attitudes focus on private intergenerational transfers in specific social interactions in the family context (e.g., Cox and Soldo 2004). Far less research has been devoted to the analysis of preferences towards public intergenerational transfers. This is partly due to the fact that the necessary survey data are available only to a limited extent.

A comprehensive overview of studies on attitudes towards public intergenerational transfers is provided by Kohli (Kohli 2005). Two data sources focusing on international comparisons were used in these studies (Andreß/Heien 2001, Blekesaune/Quadagno 2003, Hicks 2001, Smith 2000, European Commission 2004, Kohl 2003): (a) the International Social Survey Program (ISSP), a rather extensive (in terms of sample size) yearly survey with additional topical modules at larger intervals; and (b) the Eurobarometer, a regular survey of the European Union covering all member and candidate countries, but with smaller sample sizes than the ISSP, which makes the analysis of preferences according to age groups difficult, if not impossible.

Concerning attitudes towards transfers (regardless of, for example, the effect of age), all recent studies basically offer the same findings: Hicks' analysis (Hicks 2001), which is based on ISSP data, showed that the majority of people in all countries oppose reductions in old age benefits. Furthermore, when asked if government spending on pensions should be increased "more" or "much more," even at the cost of a general tax increase, a considerable fraction of the analysed populations were found to agree with this policy option. In Germany, 13.5 percent of the population opt for "much more," and another a third for "more" public spending for the elderly, while only 3.9 percent support "lower," and 0.4 percent "much lower" expenditures. With regard to the responsibility for the provision of pensions, the study finds high support in all countries for the proposition that the state should be responsible for the income of the elderly. In Germany, this view even gained support during the last decade of the 20th century (38 percent in 1992, 40 percent in 1999).

Further findings on these issues are provided by a special Eurobarometer poll conducted in late 2001 covering public attitudes to the welfare state's tasks, such as a guaranteed minimum pension or the pay-as-you-go system. Both of these were shown to have the support of a large majority of citizens throughout the EU, with very few differences seen between countries (European Commission 2004).

The drawbacks of these studies include the data they are based on, which were collected during the 1980s and 1990s when demographic change had not yet played a significant role on political agendas, and the fact that the statistical techniques they apply mostly remain on the descriptive level. In addition, most of these studies do not look at downward transfers, and if they do so, they only consider transfers in the form of education policies (Smith 2000). Meanwhile, family policies are not considered, mostly because of data restrictions. These studies therefore fail to resolve the question of whether there are differences in preferences regarding the two directions of the public transfers. As people obviously tend to perceive the state as being the most responsible actor for social care (see above), it is plausible that the majority might support transfers to all age groups, regardless of the cost.

Smith's study addresses this gap to some extent by focusing on preferences concerning government expenditure on different policy fields (e.g., elderly, police, education, health), using ISSP data from 1985, 1990 and 1996 (Smith 2000). The main results of this study are that, on average, an increase in public spending for the health care sector is favoured over increased retirement benefits, which in turn ranks above all other government sectors. However, relatively large country-specific differences can be observed. For example, (West) German respondents in 1985 and 1990 were found to overwhelmingly favour increases in expenditures for environmental protection (81.1 percent in 1985 and 89.5 percent in 1990), even at the cost of higher taxes. While this study points in the right direction, its results remain at a limited explanatory level, because the government sectors which were included in the ISSP modules could not be directly connected to the interests of either the younger or the older generation. The one exception is education, which unfortunately was not analysed in Smith's study with regard to differences in age groups. This gap in adequate data also persists in very recent studies of international surveys. A Eurobarometer on the solidarity between generations (European Commission 2009) again focuses solely on upward transfers in the form of pensions and old age care facilities.

1.2 Socio-demographic influence on preferences: Does age matter?

Whether or not age has an influence on attitudes toward public intergenerational transfers remains a controversial issue in the recent literature. Following Blekesaune and Quadagno's and Hicks' argument (Blekesaune/Quadagno 2003, Hicks 2001), Kohli draws the conclusion that "most attitude studies up to now show a level of acceptance of welfare policies that is much higher than the discourse on generational equity would lead us to think, with pensions being the most popular part of the welfare state. There is some differentiation along the age dimension, but much less than one would expect from an interest-based model of political preference" (Kohli 2005: p. 19).

On the basis of Eurobarometer data, Kohl also argues that differences in attitudes between age groups concerning the needs for social protection at old age are relatively small, even though he identifies indications of weaker support for the idea of intergenerational solidarity among younger people (Kohl 2003).

In contrast, Smith, analysing ISSP data, finds systematic differences in support of governmental spending on pensions: "Across age groups the predominant pattern was for support for governmental spending for retirement benefits to rise with age […]. This occurred in 19 of 25 countries. The generational differences were often quite large." (Smith 2000: p. 12). Similar findings are presented in a very recent study by Busemeyer et al. (2009) using the 1996 wave of the ISSP, which looks at age/retirement and income effects on preferences toward education, health, and pension spending. Variation across countries and policy fields is considerable, with Germany (West) showing the smallest age differences. In their analytical concept, Busemeyer et al. frame age in an economic life cycle perspective; their framework does not consider further demographic variables, such as parenthood or marital status.

The only existing research work which extends the analysis to a broader demographic perspective are the studies by Logan and Spitze (1995), Miettinen et al. (2008), and

Wilkoszewski (2008). Logan and Spitze compare the levels of support between age groups 40 to 80+ in 10-year intervals on a series of preferences toward parent-child relations and governmental programs for older people. Programs within the family sector are not taken into account. The data used in this study come from interviews with 1,200 residents of the Albany-Schenectady-Troy metropolitan area, a region in the U.S. state of New York. Logan and Spitze conclude from their analysis that older people's attitudes in both spheres are least likely to appear selfish, i.e., representing the "pro-elderly" position, if other variables are controlled for. The number of children seems to have an effect, though: "People with more adult children are more likely to adopt attitudes favouring the younger generation." Using recent survey data, Wilkoszewski, however, finds large effects of both age and parenthood on preferences toward family policies for the German case: older and childless people are less prone to support increases in child benefits.

1.3 Summary

In summary, we find that existing research remains inconclusive on the question of whether age has an effect on social policy preferences. The large bulk of studies is based on cross-country comparisons; some of these find certain evidence for age differences in degrees of support for intergenerational transfers, but with large variations across countries, and with small, if any, effects for Germany. Except for one study, the focus lies on education and pension policies as proxies for downward and upward transfers. Surprisingly, family policies, which cover various dimensions of redistributive policies to the younger generation (e.g., money, time, care, housing) are hardly considered, even though latest research has shown that large age differences can be found in related preferences.

2 Theoretical considerations

As far as the theoretical framework is concerned, the standard political economy approach to studying preferences on redistributive policies is based on concepts in which age as an explanatory demographic variable does not play a central role. Preferences for intergenerational transfers are rather explained by the individual's position in economic terms, i.e., by his or her income and/or need for public transfers. Busemeyer et al. (2009) in their study extend this concept and assign age a more relevant function. They conceptualise age along different life cycle phases (i.e., education, labour market participation, retirement) and identify seven respective functional age groups, including "young and in education," "young and in the labour market" and "old and in retirement." The authors concede that age might bear more (demographic) explanatory power than just structuring economically (in-) active phases:

> "Given that education is focused on the young, it is to be expected that older people are less in favour of increases in education spending than younger people, controlling for their socio-economic status. Of course, older people will show a certain amount of support for education spending, either because they have (grand)children in education or

> realize that an educated workforce is needed to sustain economic well-being." (Busemeyer et al. 2009: p 199)

Yet, their main measure of age differences in preferences is the comparison between individuals participating in the labour market ("middle-aged and in work") and those out of the labour market ("old and retired"). Furthermore, Busemeyer's et al. concept basically remains within a rational-choice framework, which considers self-interest (in terms of receiving benefits, or the expectation of collecting them in the future) as the main underlying motive for the observed policy preference. Variables such as parenthood or grandparenthood and related motivations (altruism), which could grasp the demographic life-course notion of possible age effects, are not included in their model.

Therefore, inconsistencies identified in the empirical analysis by Busemeyer et al. cannot be explained: the fact that many older retired people in Germany are not in favour of decreases in forms of spending they no longer benefit from, such as unemployment or education, may seem counterintuitive if we assume that people are motivated by self-interest. The authors conclude that more attention has to be paid to the underlying norms and values of preferences.

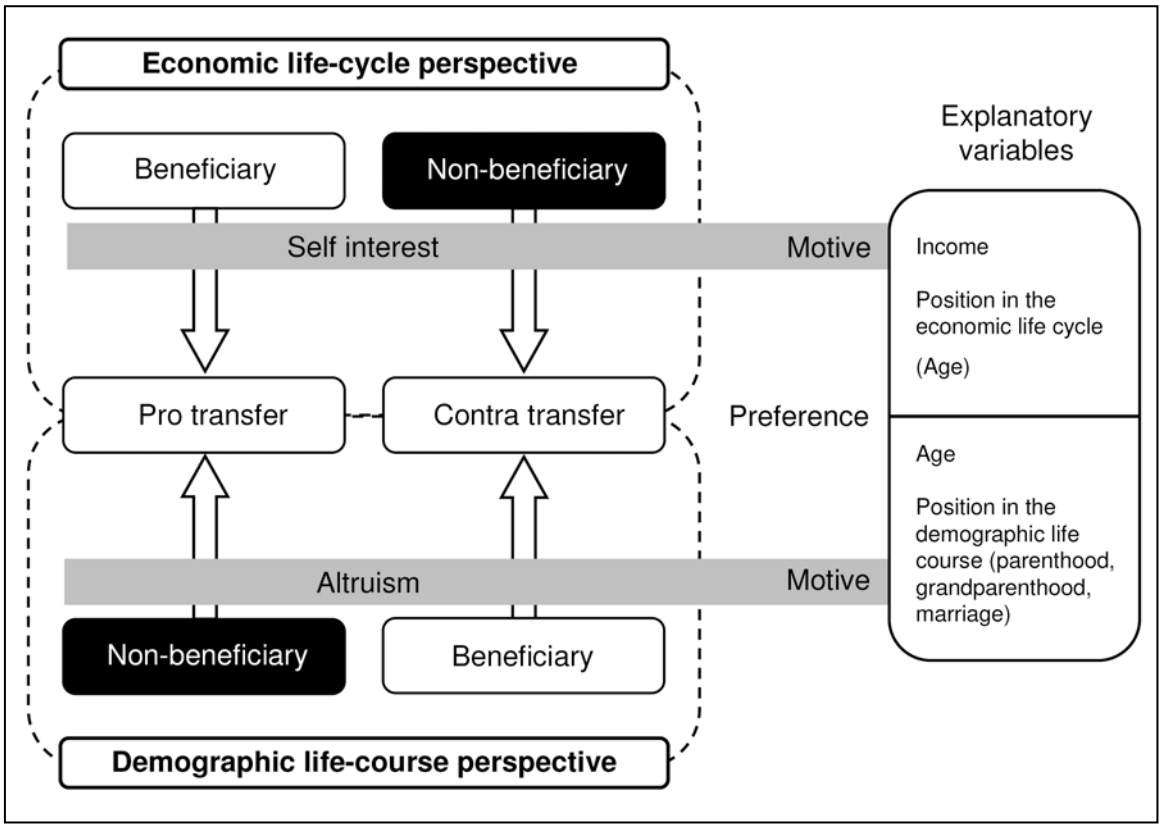
In this paper, we seek to tackle the obvious shortcomings of a basic political economy approach by adding a demographic life-course perspective to the economic life cycle phases. This will also enable us to look deeper into the underlying motives of preferences, as it allows us to use altruism as an explanation for preferences, which are seemingly inconsistent in the self-interest context (see also Schokkaert 2006). Like Busemeyer et al., we would argue, for example, that older people are also very likely to have children and/or grandchildren who are at risk of becoming unemployed; as a consequence, (grand)parents are dynastically altruistic and do not support cuts in unemployment benefits to the same extent as older people who are childless. In order to test this hypothesis, however, variables like (grand)parenthood would have to be included into the empirical model. In the following, we will briefly present our analytical framework, which is illustrated by Graph 1.

From an economic life-cycle to a demographic life-course perspective

In a simple redistributive context of a specific transfer, there are basically two groups of individuals: beneficiaries (recipients) and non-beneficiaries (contributors). The group of beneficiaries also includes those individuals who do not currently receive the benefit, but who are potentially eligible to receive it at a certain time. The tendency to support a specific benefit depends on the individual's socioeconomic position (income). As introduced by Busemeyer et al., it also depends on the individual's position in the economic life cycle (= "age"), which also determines the individual's likelihood to be beneficiary or not. The underlying motives for these preferences are various forms of self-interest (e.g., material self interest, social prestige, reciprocity; for a systematic overview of motives for public transfers see Wilkoszewski 2008). As outlined above, this concept cannot explain the case of individuals who support a specific transfer, even though they are not recipients of this benefit or cannot expect to become beneficiaries in the future. Neither it is able to provide reasons for a (hypothetical) situation in which beneficiaries are not supporting the transfer they receive. Retirees, for example, could

be willing to accept cuts in their pensions if, given budget constraints, this were the only option for providing essential transfers to the younger generation.

These seemingly counterintuitive social policy preferences require another dimension of motives in order to be analysed and explained: altruism. Since the set of motivations for transfers can be understood as a continuum between pure egoism and pure pro-social attitudes, it is possible to introduce sub-categories for both altruism and self-interest (Wilkoszewski 2008, Schokkaert 2006). In the context of the research question at hand, we distinguish between two forms of altruism: dynastic altruism and societal altruism. Both kinds are triggered by demographic life-course events and phases: i.e., parenthood, grandparenthood, and, to a certain extent, marriage. Dynastic altruism – which in economic studies on intra-family transfers (bequests) is also referred to as "intergenerational altruism" – motivates parents and grandparents to support public transfers which they do not benefit from directly, but which are directed towards their children or grandchildren. Examples could be educational transfers or, in the case of grandparents, child benefits or other family policies. Societal altruism, on the other hand, assumes that individuals with offspring are also more likely than childless people to support transfers towards the younger generation as a whole. The experience of having or not having raised children (and by doing so contributing to the continuance of society) might determine a person's general attitude on intergenerational relations beyond the private sphere.



Graph 1: Theoretical framework

III Research design, data and methods

Based on the research gaps identified in the literature overview, as well as our theoretical considerations, we develop the following main hypothesis for the empirical analysis of this paper.

(1) *Social policy preferences differ across age.*

The elderly are less in favour of public transfers to the young than the younger generation, and prefer public transfers channelled to the older generation.

(2) *Social policy preferences differ between (grand)parents and (grand)childless people.*

(Grand)childless people are less in favour of public transfers to the young and are more in favour of public upward transfers than (grand)parents.

(3) *Social policy preferences differ between married and unmarried people.*

Unmarried people are less in favour of public downward transfers than married people.

In addition to the main covariates of interest (age and (grand)parenthood), the statistical models developed hereafter will also control for further important factors such as sex, socioeconomic status, differences between East and West Germany, current benefit entitlements and general attitudes.

For our analysis, we use the most recent data suitable to addressing the questions at hand: the German Population and Policy Acceptance Survey (PPAS 2003) and the German Generations and Gender Survey (GGS 2005). Both cross-sectional datasets have a large sample size (over 4,000 and over 10,000 respondents, respectively) and include an identical set of questions concerning preferences on 13 family policies, which we use as a proxy for public downward transfers. By applying the same model of support for these transfers to two independent surveys, it is possible to test the robustness of the coefficients found. Furthermore, each dataset has its specific features that justify the use of both surveys in our analysis: on the one hand, the PPAS contains a question on preferences with regard to eight pension policies, which allows for a complementary analysis of demographic effects on upward transfer preferences; while on the other hand, the GGS provides information on grandparenthood, which unfortunately is not included in the PPAS dataset.

As a first step, we apply classical Generalised Linear Models (GLM, logistic regression) to identify the impact of demographic factors on transfer preferences at particular ages. Since linearity of coefficients is one of the basic assumptions of these models, we use Generalised Additive Models (GAM) in a second step to assess the patterns of age effects found over the (synthetic) life course. This not only allows us to identify possible age trajectories of social

policy preferences; it also enables us to reflect on the underlying motives of preferences outlined in our theoretical framework. In the following, we will present the model specifications used for both datasets in more detail.

Model specifications – dependent variables

The PPAS and GGS datasets contain a battery of practically identical items on 13 family policies which cover a whole range of public downward transfers (money, time, education, and housing, see Table 1). Respondents were asked to evaluate the importance of each of these policies:

> "What do you think about the following policies which are supposed to help families in having, raising and caring for children? Are you more in favour or more against these measures? These policies are not fictitious; most of them do exist in some European countries. A few have also been implemented in Germany, or were taken into consideration by policymakers."

	Family policy	**Transfer type**
1	Better marital leave schemes for working mothers	Time
2	Lower income taxes for parents of minor children	Money
3	Better childcare facilities for children under the age of 3	Time / Care
4	Better childcare facilities for children from the age of 3 to the age of primary school entry	Time / Care
5	Financial bonus for families with children (means-tested)	Money
6	Financial bonus at birth of a child	Money
7	Financial assistance for mothers or fathers who give up their jobs because they want to look after their minor children	Money
8	A substantial increase in child benefits to € 250 per child and month	Money
9	Care facilities for children of school age for the time before and after school hours, as well as during school holidays	Time / Care
10	Flexible working hours for working parents with small children	Time
11	More and better part-time work opportunities for parents with children	Time
12	Significantly cheaper costs for education	Education / Money
13	Better housing for families with children	Housing / Money

Table 1: Family policies and respective type of transfer
PPAS 2003 and GGS 2005 (item 12 here: "More all day schools")

For our empirical analysis, we use each of these family policies as a separate dependent variable (resulting in 13 logistic regression estimations). To do so, we dichotomise the variables, with 1 representing those respondents who fully agree or agree with the proposed reform, and 0 for all other responses.[a] Depending on the transfer type, between 11 and almost 30 percent of respondents oppose the proposed reforms in both datasets. The highest levels of rejection concern mostly money transfers (6 and 8).

With regard to public upward transfers, only the PPAS contains a suitable question which asks the respondents' views on various policies designed to sustain the current pay-as-you-go-pension system in Germany:

> "Many people fear that the state will not be able to pay for their public pensions after they retire. There are several options for securing the financial basis of the public pension system. Please select from the following options the policy which you would most like to see implemented for that purpose."[b]

Respondents were asked to select from a range of 10 policies, some of them putting a greater burden on the younger generation, and some of them asking for more contributions from the elderly (see Table 2 below).

	Pension policy	**Transfer direction**
1	Raising the official retirement age	Downward
2	Increase in income taxes	Upward
3	Reduction in monthly pension payments	Downward
4	Force children to support their parents	Upward
5	Abolish early retirement programmes	Downward
6	Make amount of monthly pension payments dependent on number of children	Downward
7	Put extra burden on certain groups within society	Upward
8	Fight unemployment	n.a.
9	More private pension plans	n.a.
10	Pay pensions only to those, who paid contributions into the system	Upward

Table 2: Pension policies and respective direction of transfer; PPAS 2003

a Even though the sample size is rather big, some spells would contain too few cases when using ordered logistic regression, resulting in non-significance of most effects found. By dichotomising the variables we avoid this problem.

b Respondents were also asked to give a second choice. However, for our subsequent statistical analysis we will not consider the second policy option given by the respondent. We argue that in this type of question, the actual policy preference is made clear by ranking the policy option as the "preferred" one, leaving the second option with lesser power to identify policy preferences (as the question is not an "either-or" one).

We identify eight of these policy measures as proxies for upward and downward transfers, respectively: 2, 4, 7 and 10 are upward transfers in the sense that they put a burden on the younger generation in order to ensure pensions for the older generation; while 1, 3, 5 and 6 put the burden on the older generation, and can be therefore seen as a proxy for downward transfers. Policies 8 and 9 (fight unemployment and more private pension plans) cannot be clearly assigned to either direction of transfers. Hence, we exclude these from our sample (this also seems to be justified given that, with a frequency of 0.5 percent and 1.9 percent, respectively, they do not influence the sample very much). The dependent variable is constructed by recoding responses favouring upward transfers into 1, and those preferring downward transfers into 0, with the latter making up roughly 20 percent of responses.

Model specifications – independent variables

The dependent variables of our binary logit model are predicted by a function of the following covariates (Table 3 below).

Age of the respondent Range: 20 – 65 years (PPAS); 17 – 85 (GGS)
Childlessness 1 if the respondent is childless, 0 if other
Grandparenthood 1 if the respondent has grandchildren, 0 if other (not included in the PPAS data)
Area of residence 1 if West Germany, 0 if East Germany
Current benefits 1 if respondent receives child benefits, 0 if other (not included in the model for pension policies)
Educational level 1 if higher education, 0 if other
Sex 1 for male, 0 for female respondents
Respondent's marital status 1 if married, 0 if other
Conservatism Proxy for respondent's conservatism; 1 if conservative, 0 if other
Net household income 1 if below the median (€ 2000.--), 0 if above
Net household income (imputed) 1 if below the median (€ 2000.--), 0 if above
Imputation dummy 1 if missing case in the household income variable was replaced by variable mean, 0 if other

Table 3: Independent variables

In addition to the demographic variables, we control for economic factors, such as education and household income. The latter usually shows higher levels of missing cases than other variables. In order to evaluate the impact of these missing cases on our results, we run the

logit model with the original income variable, as well as with an imputed variable.[c] When using the imputed variable, the model is extended by an imputation dummy.

We also include variables measuring potentially important attitudinal effects. The first is a variable on the area of residence: since respondents in West and East Germany have experienced fundamentally different welfare state regimes, they may have different preference levels concerning child benefits. General political views might also play a role. A respondent who, for example, favours a significant increase in child benefits may generally support the younger generation. However, this response may also be an expression of a conservative political view, since more generous state transfers to the child advantages the male-breadwinner model. Therefore, we include a covariate to test for these attitudes. In the PPAS, interviewees were asked several questions on general relations between men and women, and the role of institutions like marriage or the family. One item asked whether respondents believe that couples who want to have children should marry (dummy: yes/no). We use this variable as a proxy for identifying possible effects of conservative attitudes on the dependent variable.[d]

In the logit models on family policy preferences, we also control for strong positive attitudes of current beneficiaries regarding the policy measures under question. As a proxy, we use information on whether or not the respondent received child benefits at the time of the survey, coding beneficiaries as 1, and all other respondents as 0.

For each dependent variable we run up to five different model specifications: 1) including all covariates without imputing the missing cases of the household income variable, 2) including all covariates with imputation, 3) including only significant variables, 4) including only demographic variables 5) and including only demographic and significant variables.[e]

The central specification for the Generalised Additive Models is the same as for the logit model, except for the fact that the independent variable age is entered into the model via a smoothing function (Hastie and Tibshirani 1990). For each of the dependent variables, we run only two model specifications: 1) including all covariates and with imputation of the household income and 2) including age as the only covariate. The latter allows us to analyse the interaction between age and other covariates: in the full model we expect to identify the "pure" age trajectory of policy preferences by controlling for all relevant other factors; while in the restricted model with age as the only variable, we expect to find different patterns, as the age effect is distorted by other life-course effects, such as parenthood, which are not controlled for. Because our goal is to assess the trajectories of age effects found over the life course, and since the coefficient estimates of the GLM and the GAM are identical, we will only present the graphical results from the Generalised Additive Models.

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c Missing cases replaced by variable mean (€ 1993.--).

d Due to the different phrasing of attitudinal questions, we use a different proxy for the GGS dataset: here one item included the question, i.e., whether respondents support the idea of abolishing the right to divorce (dichotomous response yes/no).

e Model specification 5 only applicable depending on model results of other specifications. For the full model we test for collinearity of the covariates. The Variance Inflation Factors (VIF) are clearly below 2.5 for all covariates, thus giving no concern for collinear relationships between the variables included into the model.

IV Results

This section of the paper contains the results of the GLM and GAM estimations. For the sake of a clear and efficient presentation of results, logistic regressions tables are only displayed for the PPAS dataset. The second part of this section will then address eventual differences compared to the coefficients obtained from the logit models based on the GGS dataset. The third part will highlight findings of the GAMs for both datasets combined.

1 Demographic effects on transfer preferences

1.1 Public downward transfers – family policies

In the following, the results of the binary logit models for the 13 family policies are grouped according to the type of transfer (monetary, time, education, housing).

Preferences towards monetary public downward transfers

As outlined in Table 1, family policies which mainly address monetary transfers include lower taxes for parents (2), a means-tested financial bonus for families (5), a financial bonus at birth (6), financial assistance to parents who give up their jobs (7) and a substantial increase in child benefits (8).[f]

Tables 4 through 8 in the Annex present the results for all models concerning attitudes towards these policies. We find large and highly significant age effects in all of them, with an odds ratio range of 0.959 and 0.987, depending on the model specification and the monetary transfer type. The highest effect can be found with regard to a significant increase in child benefits (Table 8). In Model 4, the odds of supporting the introduction of this policy decreases by 4.1 percent per year of age. When comparing the youngest with the oldest respondent in the sample, the effect adds up to an odds ratio of $0.959^{45}=0.152$; i.e., the odds of a 65-year-old respondent (fully) agreeing with the policy are 84.8 percent lower than those of a 20-year-old.

Parenthood plays an equally important role in determining preferences regarding the five family policies; the coefficients found are large and highly significant for all models and all policies. The odds of a childless person supporting the introduction of a significant increase in child benefits are almost 50 percent lower than those of a respondent with children (Models 1, 2 and 3 in Table 8); while in the restricted Model 4, the odds are, at 77.5 percent, even lower. The range of the parenthood effect lies between an odds ratio of 0.312 (Model 4, Table 4, policy: lower taxes for parents) and 0.627 (Model 2, Table 7 in the Annex).

With regard to the other demographic variables, only gender seems to have an effect on downward transfer preferences, while the coefficients for marital status are all marginal and non-significant. In general, men tend to support the five family policies to a lesser extent than women, with significant gender differences of between 15 and 30 percent for the following

f Numbers in parentheses are referring to the order of policies in Table 1.

policy options: benefits for parents who give up their job, financial bonus at birth and increase in child benefits.

Large differences in preferences can also be found between respondents who currently benefit from downward transfers and those who do not: the odds of supporting, for example, an increase in child benefits are twice as large among those respondents who received this transfer at the time when the survey was conducted, as among those who did not (Table 8).

Of the socioeconomic factors included into our models, only educational attainment seems to influence social policy preferences, leaving household income with small and non-significant effects.[g] People with high school degrees are 20 percent less prone to support an increase in child benefits, and are 40 percent less prone to support a financial bonus at birth (Table 6), than are respondents with lower educational levels.

There are also considerable and highly significant regional differences. Among respondents in Western Germany, the odds of supporting higher monthly payments for children are over 50 percent lower than among interviewees in Eastern Germany (Table 8). At 65 percent, the variation in opinions with regard to a financial bonus at birth (Table 6) is even higher.

Finally, the covariate testing for the effect of broader attitudinal effects only provides significant coefficients in the case of a financial bonus at birth: conservative respondents are 40 percent more prone to support this policy than more liberal interviewees (Table 6).

Preferences towards public downward transfers providing more time for parents and families

In a further step, we look at those downward transfers which are supposed to provide parents and families with more time, facilitating better childcare and parent-child relations. This transfer type includes the following family policies: better marital leave schemes for working mothers (1), better childcare facilities for children under the age of three (3), better childcare facilities for children from the age of three to the age of primary school entry (4), care facilities for children of school age for the time before and after school hours, as well as during school holidays (9), flexible working hours for working parents with small children (10) and more and better part-time work opportunities for parents with children (11).[h]

Tables 9 through 14 in the Annex present the results for all models concerning these policies. As in the case of monetary downward transfers, age does play a role in influencing opinions regarding this set of policies, though to a much lesser degree. This is not surprising, as transfers in time appear to have far smaller consequences for the state budget, hence providing less potential for conflict between age groups.

A highly significant age effect can be found concerning more flexible working hours for parents: the odds of supporting this policy decrease by about 1.5 percent per year of age, amounting to a change in odds of about 50 percent between a 20-year-old and a 65-year-old respondent (Table 14). A smaller but still significant age effect of about 1.0 percent change in

g The model results also show that changing sample sizes due to missing cases in the household income variable do not affect the coefficients found, as they have similar values and significance levels in both imputed and non-imputed samples.

h Numbers in parentheses refer to the order of policies in Table 1.

odds appears with the policy options "better marital leave schemes" and "better part-time work opportunities for parents" (Tables 9 and 13 [Models 4 and 5]). For the three other family policies, age does not seem to play a role.

Parenthood, however, appears to be as important for determining public downward transfers in the form of time as for monetary transfers. In this case as well, the coefficients found are large and highly significant for all models analysing four out of the six family policies (flexible working hours, better part-time work opportunities, better childcare facilities after school, better day care for children above the age of three). The odds of a childless person supporting the introduction of flexible working hours for parents are more than 50 percent lower than those of a respondent with children (Table 14); in the case of better part-time work opportunities, the odds change amounts to about 60 percent (Table 13).

With regard to the other demographic variables of interest, the coefficients for marital status are all marginal and non-significant.[i] Again, only gender seems to have an effect on downward transfer preferences with high significance values and considerable coefficients for all model specifications and all six family policies. In general, men tend to support these to a lesser extent than women, with an odds change of about 25 to 35 percent.

In contrast to the case of monetary downward transfers, whether the respondent received child benefits at the time of the survey, does not have an impact on preferences for these six family policies; the coefficients are to a large extent marginal, and are all non-significant. Education and household income also show no effect, except for the policy option "better part-time work" (Table 13), which respondents with higher education tend to support more than those with lower educational attainment.

On the other hand, the differences between Western and Eastern German expectations towards transfers organised by the state also seem to manifest themselves in this set of "time" transfers. They are considerable and highly significant for all model specifications; with an odds change of about 20 percent (better marital leave schemes) to 60 percent (better childcare facilities after school and during holidays). Western Germans are clearly less in favour of these transfers than Eastern German respondents.

Finally, when looking at the three policies which focus on establishing more child care facilities of different kinds, we find that conservative respondents are clearly less prone to support these transfers than interviewees with more liberal attitudes (odds changes from 17.2 to 25.5 percent, see Tables 10, 11 and 12).

Preferences towards public downward transfers providing lower education costs and better housing

In addition to monetary and time downward transfers, our analysis also includes family policies designed to provide cheaper education and better housing to families. While these goods are in a sense connected to monetary transfers, we argue that they constitute their own categories, since they each target a specific policy field: education and infrastructure. Tables 15 and 16 present the results of the binary logit models. Compared to the other transfer types,

i Except for the policy option "better day care for children below the age of three," which married people are less prone to support than unmarried people (26.8 percent odds change, see Model 4 in Table 10).

age does not play an important role in determining preferences. The effects are either small or non-significant.

However, parenthood again seems to be of even greater importance: the odds of a childless person supporting better housing for families are about 40 percent lower than for a respondent with children (Table 16), while in the case of lower education costs, the effect varies between almost 50 percent and about 30 percent, depending on the model specification (Table 15). When we look at the other demographic variables included in the model, we see results similar to those observed for the other two sets of transfers, with coefficients for marital status being marginal and non-significant, and those for gender having a high significance, with men being roughly 20 percent less prone than women to support the policies.

Receiving benefits at the time of the survey has a clear impact on preferences for lower education costs, but is non-significant for better housing. By contrast, household income only has an effect on the latter policy, with the odds of supporting the measure being about a third higher for a household with a net income below the median. The effect of educational level appears to be of the same magnitude and significance as for monetary transfer policies.

An interesting deviation from the effect of the area of residence can be observed: whereas in all other models, Western Germans are clearly less prone to support the policy, the odds that West Germans will be in favour of "better housing for families" are roughly 75 percent higher than those of respondents living in East Germany. A possible explanation for this could be that, throughout West Germany, housing for families is much more expensive than in the former area of the GDR, where there actually is an oversupply of housing.

1.2 Public upward transfers – pension policies

To complement our preceding analysis on intergenerational family policies, we also look at preferences regarding intergenerational upward transfers. As a proxy for these, we use support levels for pension policy options, which would place greater burdens on the younger generation in order to sustain the German pension system. Table 17 in the Annex displays the results of the binary logit models.

Commensurate with the negative age effect on preferences regarding downward transfers, we find a clear positive age effect on preferences toward upward transfers: the older the respondent is, the more prone he or she is to favour a pension-policy mix that places greater burdens on the younger generation. The odds ratio changes by about one percent per year of age depending on the model specification, and therefore is somewhat smaller than in the downward transfer models. The significance levels are also lower, yet the effect is distinct: the odds of a 65-year-old respondent (fully) agreeing with the policy mix are 71.1 percent (since $1.012^{45}=1.711$) higher than those of a 20-year-old.

The effect of parenthood is reversed, too. Whereas childless people are less in favour of family policies than fathers or mothers, they have significantly higher odds of supporting an increased burden for the younger generation: the odds change compared to parents ranges between 59.9 and 76 percent, depending on the model specification.

Of the other covariates, only the East-/West-divide has a distinct and highly significant effect on upward transfer preferences; as in the downward transfer models, Western Germans see the state as less responsible for organising transfers between generations.

2 Robustness of findings

As the GGS dataset contained the same set of questions on downward transfer preferences, we were able to test the robustness of our findings. Furthermore, the demographic variables contained in these data provided a larger age range (up to 85 years), as well as information about whether or not the respondent has grandchildren, which is one of the main explanatory factors within our theoretical framework. The following brief comparison focuses on the demographic variables, and will not present detailed regression tables. Differences in the other covariates can be considered to be marginal.

Demographic effects on downward transfers – Age

The effects of age found in the PPAS analysis are extremely robust, and can be replicated on basis of the GGS data. Generally speaking, the odds changes are again higher for monetary transfers than for other types of transfers. However, we also identify some differences between the two datasets. Whereas in the PPAS analysis, no age effect was found for the policies concerning better day care for children below and above the age of three, differences across ages could be found in the GGS data concerning this policy preference, with a highly significant odds change of about one percent per year of life. In addition, the magnitude for the age effect found with the policy "better marital leave schemes" is larger in the GGS than in the PPAS data, and shows higher significance levels.

Demographic effects on downward transfers – Parenthood and Grandparenthood

In addition to age, parenthood seems again to be one of the most influential factors for shaping preferences toward public downward transfers, also on the basis of GGS data. In contrast to the PPAS analysis, we are able to replicate all results concerning this covariate with regards to both the magnitude of the effect and its significance levels. Only when looking at the policies "lower taxes for parents" and "better day care for children above the age of three" are the odds changes slightly smaller than in the PPAS analysis.

Generally speaking, the odds of childless people finding public transfers to the younger generation "very important" or "important" are about 30 to 35 percent lower than for parents. In contrast to the PPAS analysis, we were also able to control for grandparenthood on the basis of GGS data. Having or not having grandchildren might be of a similar importance for shaping public transfer preferences as having children or being childless, especially at older ages.

In literally all models, grandparenthood increases the odds of rating as "very important" or "important" the two indexed variables, as well as all 13 family policies separately. In most of the models, this effect is also significant or highly significant. With an odds change of

between 10 and almost 45 percent, there is quite some variance in the results. The biggest effects can be found with regard to time-related public transfers. The highest odds changes concern the policies "flexible working hours for parents," "better day care for children below and above the age of three" and "better marital leave schemes."

3 Age trajectories of social policy preferences

Generalised Linear Models assume linearity of the effects found, i.e., in our case, a regular increase or decrease in the likelihood of supporting or opposing certain transfer policies by each single year of age.

However, our analysis has shown that preferences are highly dependent on time-varying demographic factors, such as parenthood. Therefore, the age effects identified in our models might follow a non-linear pattern over the life course. They might be also dependent on economic factors, as suggested by the life-cycle perspective.

In order to investigate these possible trajectories, we will present the graphical results from the GAM estimations for both datasets. All graphs will compare the baseline model, which includes only age as a covariate (therefore resulting in a "distorted" age effect) to the full model, which controls for all relevant demographic and economic variables (therefore giving the "pure" age effect). Based on our theoretical considerations, we expect that the baseline model underestimates the negative age effect found for most downward transfers, and underestimates the positive age effect found for the upward transfer during life-course phases, in which parenthood and grandparenthood are most likely.

Age trajectories of preferences regarding monetary public downward transfers

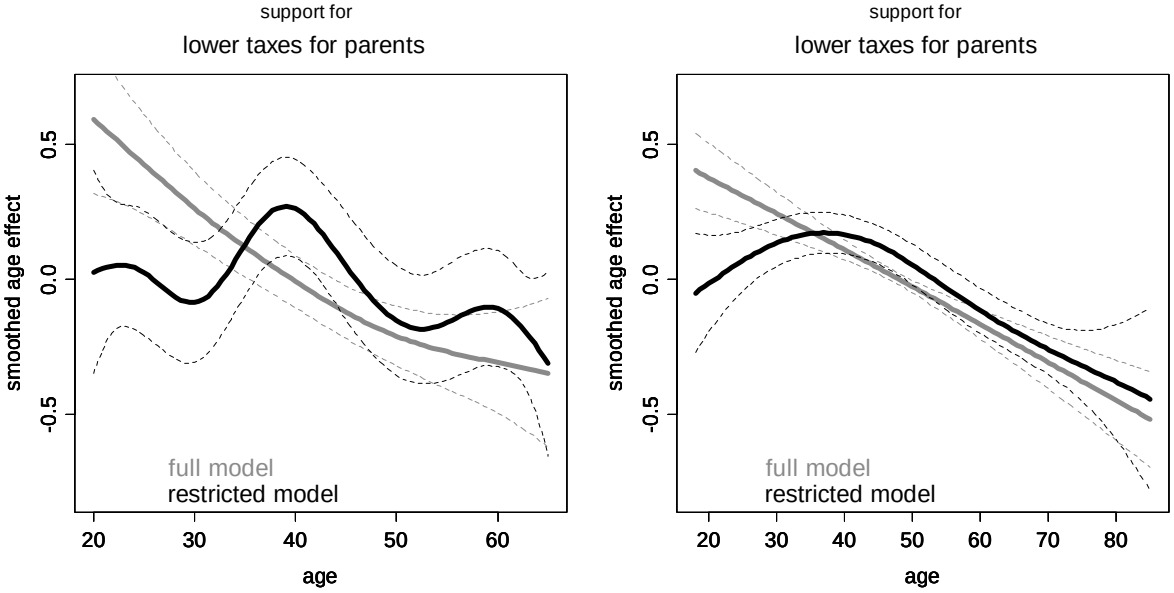
Monetary public downward transfers included in our analysis cover the following five family policies: lower taxes for parents (2), a means-tested financial bonus for families (5), a financial bonus at birth (6), financial assistance to parents who give up their jobs (7) and a substantial increase in child benefits (8).[j] In the following, we will pay special attention to policies (2) and (8), since the age effects found follow quite remarkable non-linear traits, as shown in Graphs 2 and 3 on the following page.[k]

Whereas on the basis of the full model a rather clearly linear negative age effect on support for a policy promoting lower taxes for parents can be identified (red line, Graph 2a), the restricted model (green line) reveals a pattern which can partially be attributed to the economic life cycle ("parenthood hump" in the age range 30 to 49). However, the "grandparent hump" in the age range 55 to 65 cannot be explained by economic self-interest motives, as tax benefits are directed to parents, and not to grandparents. We argue that, in this age group, the likelihood of becoming a grandfather or -mother leads to an underestimation of the "pure" age effect, as grandparents form their preferences in a setting of dynastic altruism, in which they support transfers directed to their grandchildren. Even though in the full model

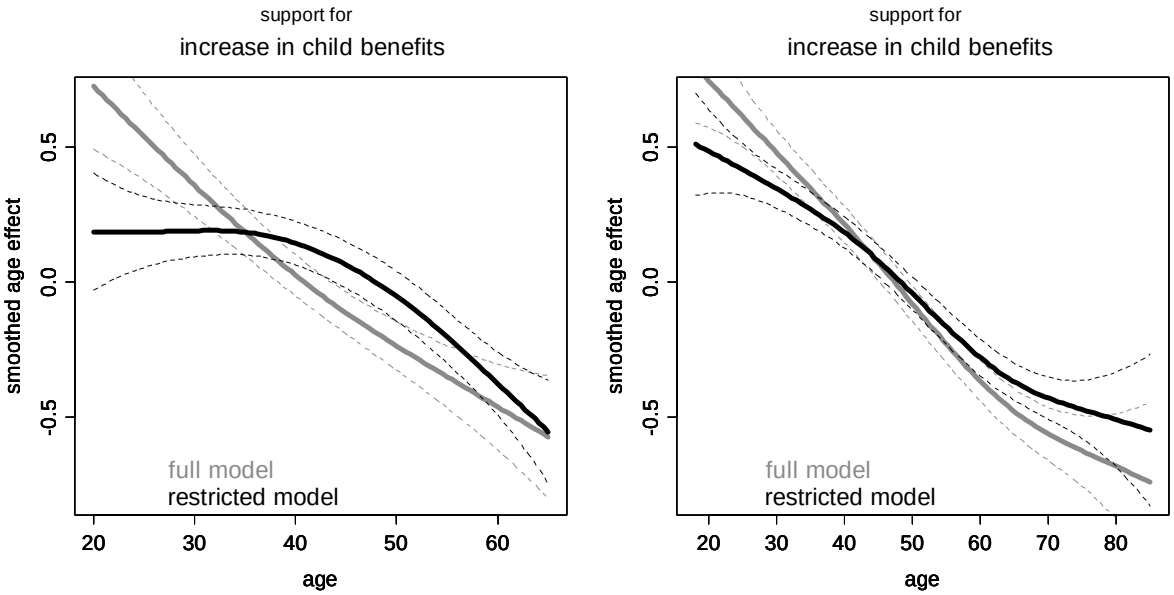
j Numbers in parentheses are referring to the order of policies in Table 1.

k The letters refer to the two datasets used, where a = PPAS and b = GGS. Note that the age axes of the two graphs differ.

we do not control for grandparenthood, the variable "childlessness" obviously captures much of its effect, since a large fraction of parents in that age group also have grandchildren. When looking at the trajectories obtained from the GGS dataset, we find practically identical results with regard to parenthood. The trait for grandparenthood is not as pronounced as in the case of the PPAS. Yet the restricted model overestimates the support for the downward transfer in the higher age groups.



Graphs 2a and b: Smoothed age effect on support for family policies (a=PPAS; b=GGS)



Graphs 3a and b: Smoothed age effect on support for family policies (a=PPAS; b=GGS)

The second monetary family policy, which provides for a substantial increase in child benefits, displays similar preference structures (Graphs 3a and b). When controlled for a range of possible life-course relevant covariates, the "pure" age effect follows an almost perfect linear

pattern (as shown in the red line in Graph 3a), while the "distorted" age effect in the restricted model remains marginal up until the age of 40 (again, the period in which respondents are most likely to be exposed to parenthood), and follows a rather steep slope downwards thereafter. An almost identical pattern can be found in the trajectories based on GGS data. In addition, we find a clear grandparenthood effect here, which disappears in the full model when controlled for grandparenthood. Our interpretation of the corresponding underlying motivations (dynastic altruism) also appears to be supported in this case.

Age trajectories of preferences regarding public downward transfers providing more time for parents

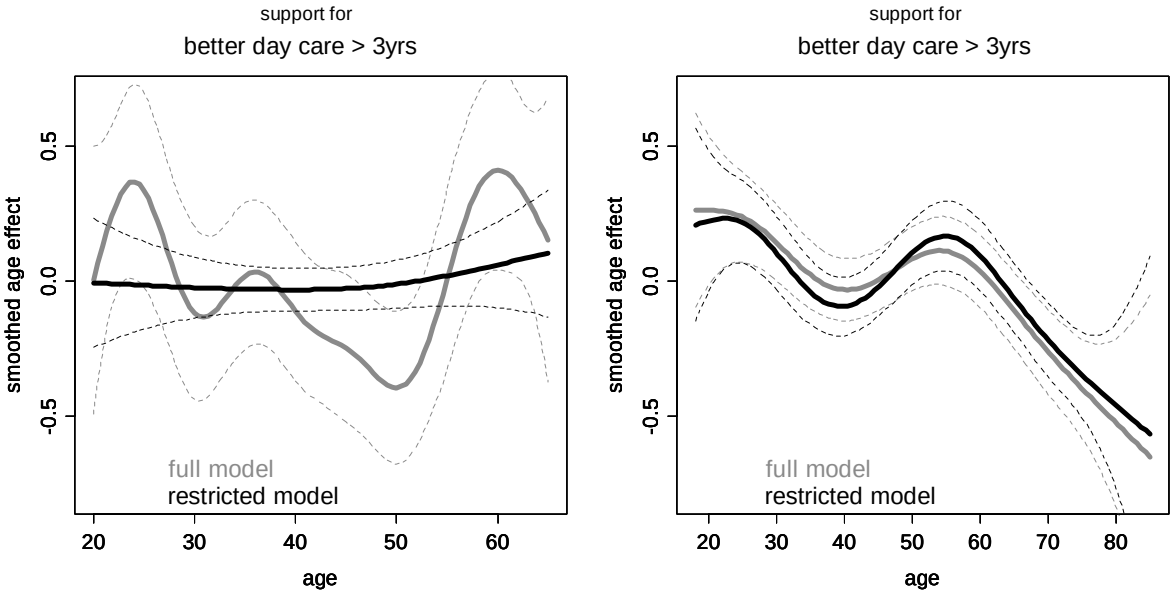
The second group of public downward transfers include policies designed to provide parents and families with more time, facilitating better childcare and parent-child relations. This transfer type includes the following family policies: better marital leave schemes for working mothers (1), better childcare facilities for children under the age of three (3), better childcare facilities for children from the age of three to the age of primary school entry (4), care facilities for children of school age for the time before and after school hours, as well as during school holidays (9), flexible working hours for working parents with small children (10) and more and better part-time work opportunities for parents with children (11).[1]

Policies (1), (3), (10) and (11) mostly follow some U-shape trajectory (parent and grandparent hump), but with less pronounced age differences than seen for the monetary downward transfers. Results obtained from the two datasets show only marginal differences. In the following, we will focus on policies (4) and (9), as they produce more diverse trajectories (Graphs 4 and 5).

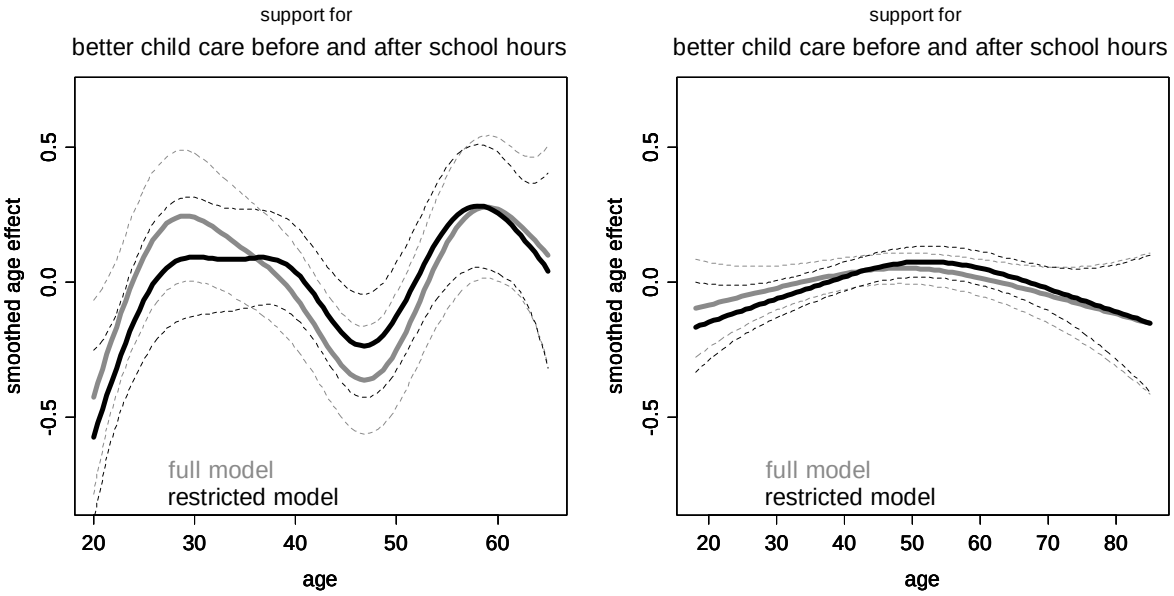
In the linear models applied, we could not find significant or even marginal age effects for support for better childcare facilities for children above the age of three, or for schoolchildren before and after school. This holds for both datasets.

When looking at the graphical results of the additive models, it becomes clear that the linear model will not detect effects where non-linear traits cancel each other out over the whole age span, as is the case for the PPAS dataset. Graphs 4a and 5a display the respective age trajectories, which once again tend to support the hypothesis that preferences for transfer-related policies are highly dependent on the life-course phase the respondent finds him- or herself in. Both trajectories show clear parent and grandparent humps: during the ages in which these demographic effects are more likely, the negative age effect is reversed. In the case of school-related childcare, the first hump covers the age range 25 to 45, which is exactly the period in which respondents are likely to have children of school age. When looking at the age effect on support for better day care for children above the age of three, we can identify a second, smaller parent hump around the age of the parents, at which a potential second child would turn three. These results can be replicated on the basis of the GGS dataset only for preferences regarding the policy "childcare for children above the age of three," and not for school-related childcare (Graphs 4b and 5b).

1 Numbers in parentheses refer to the order of policies in Table 1.



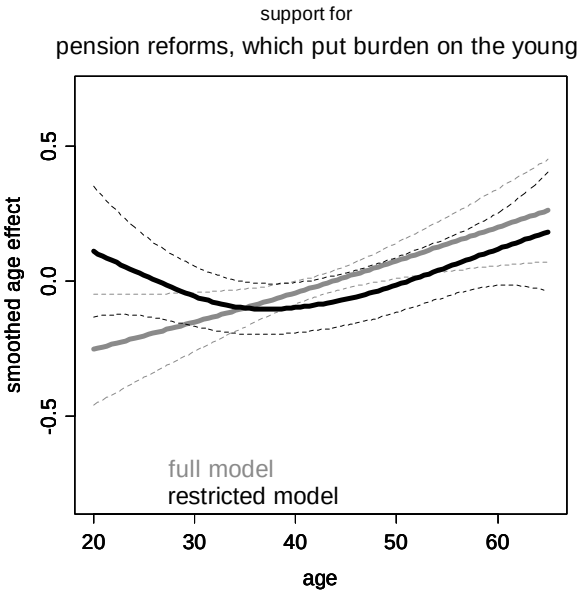
Graphs 4a and b: Smoothed age effect on support for family policies (a=PPAS; b=GGS)



Graphs 5a and b: Smoothed age effect on support for family policies (a=PPAS; b=GGS)

Age trajectories of preferences regarding public upward transfers: pension policies

Finally we look at the graphical results of the GAM analysing the support for upward transfers, which are shown in Graph 6. The baseline model gives a slightly U-shaped trajectory, with support ratios at younger ages being almost as high as the ones at higher ages. This seemingly "altruistic" preference can also be explained from the perspective of self-interest: in a context of reciprocity, young people might be willing to bear a higher burden to help sustain high pension levels because they will be beneficiaries when they are older. However, we also find evidence for our demographic life-course framework: as expected, the baseline-model underestimates the positive age effect with increasing age. When controlled for parenthood, the positive age effect is at a higher level.



Graphs 6: Smoothed age effect on support for upward transfers (pension policies)

V Summary

This paper was prepared in response to growing concerns about an emerging conflict between young and old over public resources in Germany, which is triggered on the one hand by demographic change, and on the other hand by budgetary constraints and social policy shifts. In our introduction, we pointed out that, in contrast to the conventional view, demographic change cannot be reduced to population ageing in the intergenerational context; its effects on family structures (growing numbers of childless and unmarried people) have to be taken into account as well, since they are equally crucial for determining redistributive policy needs.

In order to assess the plausibility of a conflict over public intergenerational transfers, policy preferences of different demographic groups and their underlying motivations are key. Not much research has been devoted to this matter so far. Our literature overview identified a persisting research gap on the question of how demographic factors, particularly age, influence public transfer preferences. Furthermore, the few studies addressing this issue have provided contradictory results, and often frame their analysis using an economic life-cycle perspective. Here, age is conceptualised along phases of labour market participation (education, work, retirement) which constitute the beneficiary groups of different redistributive policies (education, unemployment, pensions). In this context, the underlying motives of related preferences can only be explained through forms of self-interest. As a consequence, the reasons for counterintuitive, possibly altruistic preference outcomes remain open. We therefore suggest extending the conventional economic life-cycle concept by adding a demographic life-course perspective, which allows us to take into account forms of altruistic motivations in explaining seemingly inconsistent findings. In analytical terms, this requires us

to consider further demographic variables (parenthood, grandparenthood, marriage), which so far has hardly been done.

The empirical analyses of this paper were designed accordingly, and were based not only on standard statistical estimation procedures, but also on newer techniques which allowed us to identify possible age trajectories of social policy preferences over the life course. In terms of data, we opted to use a comprehensive set of family policies as proxies for downward transfers, as these appeared to be more suitable for testing our demographic life-course perspective argument than education, which is used by most existing studies. Furthermore, we were able to test the robustness of our findings by applying our models to two large independent surveys.

The results of the standard logistic regression models showed strong and highly significant effects of age, parenthood and grandparenthood on social preferences. In general, older and childless respondents were shown to be less prone to support public transfers to families with children, and more prone to prefer pension policies which place a greater burden on the younger generation. However, the age trajectories of our Generalised Additive Models revealed that there are significant deviations from this finding, especially when looking at grandparents, who tend to support transfers which they do not directly benefit from. Following our concept of a demographic life-course perspective, we attributed this preference, which would be inconsistent in an economic life-cycle view, to dynastic altruism motives. All central findings were highly robust, and could be replicated on the basis of the second dataset.

Future research will further develop the ad hoc theoretical framework provided in this paper, with a special focus on underlying motivations for social policy preferences. As this paper focused on Germany, we recommend extending the analysis to additional countries, and conducting a larger international comparison.

Annex

	Family policy	**Transfer type**
1	Better marital leave schemes for working mothers	Time
2	Lower income taxes for parents of minor children	Money
3	Better childcare facilities for children under the age of 3	Time / Care
4	Better childcare facilities for children from the age of 3 to the age of primary school entry	Time / Care
5	Financial bonus for families with children (means-tested)	Money
6	Financial bonus at birth of a child	Money
7	Financial assistance for mothers or fathers who give up their jobs because they want to look after their minor children	Money
8	A substantial increase of child benefits to € 250 per child and month	Money
9	Care facilities for children of school age for the time before and after school hours, as well as during school holidays	Time / Care
10	Flexible working hours for working parents with small children	Time
11	More and better part-time work opportunities for parents with children	Time
12	Significantly cheaper costs for education	Education / Money
13	Better housing for families with children	Housing / Money

Table 1: Family policies and respective type of transfer
PPAS 2003 and GGS 2005 (item 12 here: "More all day schools")

	Pension policy	Transfer direction
1	Raising the official retirement age	Downward
2	Increase in income taxes	Upward
3	Reduction of monthly pension payments	Downward
4	Force children to support their parents	Upward
5	Abolish early retirement programmes	Downward
6	Make amount of monthly pension payments dependent on number of children	Downward
7	Put extra burden on certain groups within society	Upward
8	Fight unemployment	n.a.
9	More private pension plans	n.a.
10	Pay pensions only to those who paid contributions into the system	Upward

Table 2: Pension policies and respective direction of transfer; PPAS 2003

Age of the respondent
Range: 20 – 65 years (PPAS); 17 – 85 (GGS)

Childlessness
1 if the respondent is childless, 0 if other

Grandparenthood
1 if the respondent has grandchildren, 0 if other (not included in the PPAS data)

Area of residence
1 if West Germany, 0 if East Germany

Current benefits
1 if respondent receives child benefits, 0 if other (not included in the model for pension policies)

Educational level
1 if higher education, 0 if other

Sex
1 for male, 0 for female respondents

Respondent's marital status
1 if married, 0 if other

Conservatism
Proxy for respondent's conservatism; 1 if conservative, 0 if other

Net household income
1 if below the median (€ 2000.--), 0 if above

Net household income (imputed)
1 if below the median (€ 2000.--), 0 if above

Imputation dummy
1 if missing case in the household income variable was replaced by variable mean, 0 if other

Table 3: Independent variables

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Lower Taxes for Parents

	Odds Ratios (Standard Errors in Parentheses)			
Variable	Model 1	Model 2	Model 3	Model 4
Age	0.976 ***	0.976 ***	0.974 ***	0.968 ***
	(0.005)	(0.005)	(0.005)	(0.004)
Childlessness	0.378 ***	0.419 ***	0.427 ***	0.312 ***
	(0.152)	(0.144)	(0.137)	(0.113)
Area of Residence	1.012	0.992		
	(0.123)	(0.120)		
Current benefits	1.632 **	1.774 ***	1.746 ***	
	(0.155)	(0.147)	(0.143)	
Education	1.063	1.079		
	(0.107)	(0.103)		
Sex	0.915	0.928		0.929
	(0.099)	(0.094)		(0.093)
Marital Status	0.866	0.908		1.038
	(0.132)	(0.125)		(0.112)
Conservativism	1.251 *	1.190 °	1.167	
	(0.105)	(0.100)	(0.110)	
HH income	0.933			
	(0.108)			
HH income (imputed)		0.940		
		(0.107)		
Imputation dummy		0.778		
		(0.177)		
Constant	23.162 ***	22.255 ***	21.454 ***	41.557 ***
	(0.308)	(0.292)	(0.262)	(0.212)
Nagelkerke R^2	0.069	0.071	0.068	0.061
Hosmer/Lemeshow	0.118	0.125	0.535	0.536
-2 Log likelihood	2841.444	3097.444	3120.751	3180.487
N	3,718	3,959	3,994	4,059

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 4: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Financial Bonus for Families, Means-tested

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.983 ***	0.982 ***	0.982 ***	0.982 ***
	(0.005)	(0.004)	(0.004)	(0.003)
Childlessness	0.419 ***	0.449 ***	0.403 ***	0.429 ***
	(0.145)	(0.140)	(0.101)	(0.112)
Area of Residence	0.784 *	0.784 *	0.787 *	
	(0.122)	(0.119)	(0.117)	
Current benefits	1.079	1.110		
	(0.138)	(0.133)		
Education	1.116	1.087		
	(0.099)	(0.096)		
Sex	0.883	0.877		0.856 °
	(0.091)	(0.089)		(0.087)
Marital Status	1.126	1.140		1.052
	(0.122)	(0.117)		(0.106)
Conservativism	1.077	1.071		
	(0.096)	(0.093)		
HH income	1.374 **			
	(0.100)			
HH income (imputed)		1.363 **	1.269 **	
		(0.099)	(0.091)	
Imputation dummy		1.254	1.325	
		(0.196)	(0.190)	
Constant	12.484 ***	14.316 ***	17.277 ***	16.584 ***
	(0.246)	(0.278)	(0.217)	(0.195)
Nagelkerke R^2	0.047	0.045	0.040	0.035
Hosmer/Lemeshow	0.042	0.233	0.041	0.008
-2 Log likelihood	3221.225	3483.831	3524.797	3520.403
N	3,683	3,960	4,071	4,061

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 5: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Financial Bonus at Birth

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.978 ***	0.979 ***	0.979 ***	0.980 ***
	(0.004)	(0.004)	(0.004)	(0.003)
Childlessness	0.584 ***	0.623 ***	0.623 ***	0.547 ***
	(0.125)	(0.120)	(0.117)	(0.093)
Area of Residence	0.364 ***	0.359 ***	0.359 ***	
	(0.113)	(0.111)	(0.110)	
Current benefits	1.333 *	1.304 *	1.306 *	
	(0.114)	(0.109)	(0.107)	
Education	0.694 ***	0.675 ***	0.676 ***	
	(0.081)	(0.078)	(0.078)	
Sex	0.721 ***	0.745 ***	0.742 ***	0.758 ***
	(0.077)	(0.074)	(0.073)	(0.071)
Marital Status	1.013	1.014		1.007
	(0.102)	(0.097)		(0.085)
Conservativism	1.438 ***	1.404 ***	1.412 ***	
	(0.082)	(0.078)	(0.076)	
HH income	1.257 **			
	(0.084)			
HH income (imputed)		1.232 *	1.224 *	
		(0.084)	(0.080)	
Imputation dummy		0.766 °	0.771 °	
		(0.143)	(0.142)	
Constant	16.912 ***	16.013 ***	15.973 ***	9.007 ***
	(0.256)	(0.245)	(0.243)	(0.160)
Nagelkerke R^2	0.104	0.098	0.098	0.042
Hosmer/Lemeshow	0.440	0.532	0.672	0.013
-2 Log likelihood	4145.799	4517.201	4526.059	4789.360
N	3,720	3,961	3,971	4,062

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 6: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Benefits for Parents, who give up their Job to take care of Children

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.985 ***	0.986 **	0.987 **	0.978 ***
	(0.004)	(0.004)	(0.004)	(0.004)
Childlessness	0.587 ***	0.627 ***	0.609 ***	0.456 ***
	(0.138)	(0.133)	(0.126)	(0.107)
Area of Residence	0.905	0.900		
	(0.112)	(0.109)		
Current benefits	1.739 ***	1.717 ***	1.720 ***	
	(0.134)	(0.128)	(0.124)	
Education	1.002	0.970		
	(0.095)	(0.091)		
Sex	0.725 ***	0.714 ***	0.705 ***	0.704 ***
	(0.088)	(0.085)	(0.084)	(0.084)
Marital Status	1.073	1.080		1.166
	(0.117)	(0.112)		(0.101)
Conservativism	1.124	1.081		
	(0.093)	(0.089)		
HH income	1.117			
	(0.096)			
HH income (imputed)		1.098		
		(0.095)		
Imputation dummy		1.049		
		(0.174)		
Constant	9.983 ***	9.612 ***	9.545 ***	17.740 ***
	(0.276)	(0.265)	(0.239)	(0.188)
Nagelkerke R^2	0.058	0.054	0.053	0.045
Hosmer/Lemeshow	0.157	0.216	0.108	0.037
-2 Log likelihood	3412.812	3680.074	3720.023	3763.297
N	3,720	3,963	4,027	4,063

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 7: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Significant Increase in Child Benefits up to € 250.--

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.969 ***	0.969 ***	0.968 ***	0.959 ***
	(0.004)	(0.004)	(0.004)	(0.003)
Childlessness	0.510 ***	0.542 ***	0.544 ***	0.325 ***
	(0.127)	(0.122)	(0.117)	(0.099)
Area of Residence	0.503 ***	0.479 ***	0.464 ***	
	(0.111)	(0.109)	(0.107)	
Current benefits	1.946 ***	2.036 ***	1.974 ***	
	(0.120)	(0.115)	(0.112)	
Education	0.786 **	0.802 **	0.799 **	
	(0.086)	(0.082)	(0.081)	
Sex	0.874 °	0.860 *	0.851 *	0.838 *
	(0.080)	(0.077)	(0.076)	(0.075)
Marital Status	1.041	0.993		1.001
	(0.106)	(0.101)		(0.90)
Conservativism	0.926	0.938		
	(0.084)	(0.080)		
HH income	1.116			
	(0.087)			
HH income (imputed)		1.092		
		(0.087)		
Imputation dummy		0.870		
		(0.150)		
Constant	23.002 ***	23.817 ***	26.090 ***	29.292 ***
	(0.262)	(0.251)	(0.239)	(0.175)
Nagelkerke R^2	0.115	0.118	0.117	0.085
Hosmer/Lemeshow	0.033	0.887	0.093	0.052
-2 Log likelihood	3916.147	4236.216	4268.442	4425.017
N	3,719	3,960	4,001	4,061

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 8: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Better Marital Leave Schemes

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.991 °	0.990 *	0.994 *	0.988 **
	(0.005)	(0.004)	(0.003)	(0.004)
Childlessness	0.921	0.952		0.820 °
	(0.146)	(0.140)		(0.110)
Area of Residence	0.806 °	0.801 *	0.784 *	
	(0.116)	(0.113)	(0.109)	
Current benefits	1.212	1.197		
	(0.131)	(0.126)		
Education	0.860	0.879		
	(0.096)	(0.092)		
Sex	0.638 ***	0.653 ***	0.637 ***	0.647 ***
	(0.091)	(0.087)	(0.084)	(0.086)
Marital Status	1.095	1.111		1.115
	(0.118)	(0.112)		(0.101)
Conservativism	1.111	1.096		
	(0.094)	(0.091)		
HH income	1.072			
	(0.098)			
HH income (imputed)		1.096		
		(0.097)		
Imputation dummy		0.950		
		(0.172)		
Constant	9.527 ***	9.788 ***	9.857 ***	10.330 ***
	(0.289)	(0.277)	(0.179)	(0.189)
Nagelkerke R^2	0.023	0.022	0.102	0.102
Hosmer/Lemeshow	0.560	0.398	0.126	0.552
-2 Log likelihood	3335.155	3606.316	4338.568	4695.389
N	3,721	3,963	3,734	3,977

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 9: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Better Day Care for Children under the Age of three

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.996	0.997		0.996
	(0.005)	(0.004)		(0.004)
Childlessness	0.808	0.857		0.796 *
	(0.145)	(0.139)		(0.113)
Area of Residence	0.453 ***	0.449 ***	0.437 ***	
	(0.130)	(0.127)	(0.123)	
Current benefits	0.954	0.981		
	(0.128)	(0.122)		
Education	0.980	0.960		
	(0.095)	(0.090)		
Sex	0.733 ***	0.758 **	0.758 **	0.779 **
	(0.088)	(0.084)	(0.081)	(0.082)
Marital Status	0.859	0.823 °		0.732 **
	(0.115)	(0.110)		(0.099)
Conservativism	0.828 *	0.818 *	0.785 **	
	(0.091)	(0.087)	(0.081)	
HH income	1.031		1.266 **	
	(0.098)		(0.077)	
HH income (imputed)		1.008		
		(0.095)		
Imputation dummy		0.898		
		(0.160)		
Constant	14.981 ***	14.682 ***	11.286 ***	7.450 ***
	(0.291)	(0.279)	(0.128)	(0.182)
Nagelkerke R^2	0.033	0.033	0.030	0.010
Hosmer/Lemeshow	0.176	0.055	0.769	0.735
-2 Log likelihood	3455.221	3759.500	3845.230	3891.051
N	3,717	3,959	4,062	4,059

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 10: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Better Day Care for Children from the Age of three

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.994	0.996		0.994
	(0.005)	(0.005)		(0.004)
Childlessness	0.620 **	0.676 **	0.732 **	0.609 ***
	(0.171)	(0.164)	(0.103)	(0.130)
Area of Residence	0.503 ***	0.499 ***	0.508 ***	
	(0.158)	(0.155)	(0.151)	
Current benefits	1.001	1.069		
	(0.158)	(0.151)		
Education	0.914	0.949		
	(0.113)	(0.109)		
Sex	0.628 ***	0.660 ***	0.637 ***	0.644 ***
	(0.107)	(0.103)	(0.101)	(0.101)
Marital Status	0.920	0.875		0.822
	(0.142)	(0.136)		(0.123)
Conservativism	0.760 *	0.745 **		
	(0.110)	(0.106)		
HH income	0.951			
	(0.115)			
HH income (imputed)		0.936		
		(0.114)		
Imputation dummy		1.128		
		(0.204)		
Constant	33.370 ***	30.128 ***	23.015 ***	16.907 ***
	(0.347)	(0.334)	(0.163)	(0.223)
Nagelkerke R^2	0.039	0.035	0.034	0.102
Hosmer/Lemeshow	0.225	0.046	0.919	0.552
-2 Log likelihood	2591.415	2803.105	2838.608	4695.389
N	3,723	3,964	4,046	3,977

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 11: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Better Childcare Facilities before and after School and during Holidays

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.997	1.000		0.999
	(0.004)	(0.004)		(0.004)
Childlessness	0.643 **	0.711 *	0.720 ***	0.646 ***
	(0.143)	(0.138)	(0.085)	(0.107)
Area of Residence	0.387 ***	0.380 ***	0.381 ***	
	(0.135)	(0.133)	(0.130)	
Current benefits	1.020	1.031		
	(0.130)	(0.125)		
Education	0.975	0.995		
	(0.094)	(0.090)		
Sex	0.602 ***	0.626 ***	0.623 ***	0.631 ***
	(0.088)	(0.084)	(0.083)	(0.083)
Marital Status	0.919	0.943		0.842 °
	(0.117)	(0.112)		(0.100)
Conservativism	0.746 **	0.766 **		
	(0.091)	(0.087)		
HH income	0.952			
	(0.095)			
HH income (imputed)		0.957		
		(0.094)		
Imputation dummy		1.047		
		(0.781)		
Constant	20.438 ***	16.341 ***	16.135 ***	7.355 ***
	(0.291)	(0.279)	(0.139)	(0.182)
Nagelkerke R^2	0.061	0.054	0.054	0.023
Hosmer/Lemeshow	0.097	0.000	0.128	0.010
-2 Log likelihood	3445.706	3742.051	3792.991	3884.508
N	3,715	3,958	4,040	4,059

Table 12: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Better Part-time Work Possibilities for Parents

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Age	0.992	0.992		0.989 *	0.989 *
	(0.005)	(0.005)		(0.005)	(0.004)
Childlessness	0.405 ***	0.432 ***	0.459 ***	0.400 ***	0.398 ***
	(0.172)	(0.167)	(0.106)	(0.134)	(0.120)
Area of Residence	0.731 *	0.749 *	0.773 °		0.776 °
	(0.148)	(0.145)	(0.140)		(0.140)
Current benefits	1.194	1.248			
	(0.169)	(0.165)			
Education	1.263 °	1.232 °	1.298 *		1.273 *
	(0.119)	(0.116)	(0.114)		(0.114)
Sex	0.675 ***	0.674 **	0.636 ***	0.655 ***	0.652 ***
	(0.110)	(0.107)	(0.106)	(0.106)	(0.106)
Marital Status	0.939	0.907		0.980	
	(0.148)	(0.144)		(0.130)	
Conservativism	0.914	0.981			
	(0.114)	(0.111)			
HH income	0.991				
	(0.118)				
HH income (imputed)		0.981			
		(0.117)			
Imputation dummy		1.965 *			
		(0.263)			
Constant	25.347 ***	24.177 ***	35.488 ***	28.515 ***	28.515 ***
	(0.341)	(0.332)	(0.254)	(0.233)	(0.233)
Nagelkerke R^2	0.053	0.052	0.044	0.043	0.047
Hosmer/Lemeshow	0.210	0.001	0.128	0.000	0.005
-2 Log likelihood	2462.534	2599.698	2653.636	2657.372	2647.681
N	3,717	3,960	4,048	4,062	4,048

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 13: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Flexible Working Hours for Parents

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.986 **	0.987 **	0.984 ***	0.983 ***
	(0.005)	(0.005)	(0.004)	(0.004)
Childlessness	0.458 ***	0.493 ***	0.448 ***	0.454 ***
	(0.169)	(0.163)	(0.118)	(0.132)
Area of Residence	0.751 *	0.750 *	0.783 °	
	(0.145)	(0.142)	(0.138)	
Current benefits	1.156	1.238		
	(0.165)	(0.160)		
Education	1.190	1.155		
	(0.119)	(0.115)		
Sex	0.677 ***	0.691 **	0.665 ***	0.670 ***
	(0.109)	(0.106)	(0.105)	(0.105)
Marital Status	1.028	1.009		1.095
	(0.145)	(0.141)		(0.127)
Conservativism	0.878	0.887		
	(0.113)	(0.110)		
HH income	0.899			
	(0.118)			
HH income (imputed)		0.893		
		(0.117)		
Imputation dummy		1.724 *		
		(0.025)		
Constant	32.308 ***	29.586 ***	35.488 ***	28.515 ***
	(0.341)	(0.330)	(0.254)	(0.233)
Nagelkerke R^2	0.045	0.045	0.038	0.036
Hosmer/Lemeshow	0.040	0.199	0.632	0.451
-2 Log likelihood	2494.150	2646.182	2708.778	2700.457
N	3,720	3,961	4,073	4,063

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 14: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Drastically Lower Costs for Education

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.995	0.994		0.990 **
	(0.004)	(0.004)		(0.003)
Childlessness	0.679 **	0.712 **	0.846 °	0.538 ***
	(0.129)	(0.123)	(0.090)	(0.096)
Area of Residence	0.605 ***	0.596 ***	0.603 ***	
	(0.105)	(0.103)	(0.100)	
Current benefits	1.309 *	1.364 **	1.475 ***	
	(0.117)	(0.111)	(0.094)	
Education	0.755 **	0.780 **	0.789 **	
	(0.083)	(0.080)	(0.078)	
Sex	0.843 *	0.886	0.868 °	0.870 °
	(0.078)	(0.075)	(0.074)	(0.074)
Marital Status	0.884	0.877		0.918
	(0.104)	(0.099)		(0.089)
Conservativism	1.047	1.033		
	(0.082)	(0.079)		
HH income	0.912			
	(0.086)			
HH income (imputed)		0.911		
		(0.085)		
Imputation dummy		0.925		
		(0.146)		
Constant	7.735 ***	7.559 ***	4.777 ***	6.399 ***
	(0.255)	(0.243)	(0.112)	(0.163)
Nagelkerke R^2	0.038	0.036	0.034	0.020
Hosmer/Lemeshow	0.585	0.731	0.889	0.673
-2 Log likelihood	4074.188	4424.440	4465.255	4561.952
N	3,713	3,954	3,995	4,056

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 15: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Downward Transfers: PPAS 2003
Family Policy: Better Housing for Families

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Age	0.988 **	0.989 **	0.990 **	0.991 **
	(0.004)	(0.004)	(0.003)	(0.003)
Childlessness	0.559 ***	0.573 ***	0.567 ***	0.612 ***
	(0.132)	(0.128)	(0.092)	(0.099)
Area of Residence	1.720 ***	1.751 ***	1.748 ***	
	(0.096)	(0.093)	(0.092)	
Current benefits	0.983	0.979		
	(0.119)	(0.114)		
Education	0.786 **	0.744 ***	0.739 **	
	(0.086)	(0.082)	(0.081)	
Sex	0.793 **	0.782 **	0.787 **	0.758 ***
	(0.081)	(0.078)	(0.077)	(0.076)
Marital Status	1.106	1.095		0.980
	(0.107)	(0.103)		(0.169)
Conservativism	0.986	0.975		
	(0.085)	(0.082)		
HH income	1.370 ***			
	(0.089)			
HH income (imputed)		1.353 **	1.332 **	
		(0.089)	(0.083)	
Imputation dummy		0.769 °	0.806	
		(0.155)	(0.152)	
Constant	4.729 ***	4.547 ***	4.619 ***	6.907 ***
	(0.255)	(0.244)	(0.190)	(0.169)
Nagelkerke R^2	0.039	0.041	0.040	0.019
Hosmer/Lemeshow	0.070	0.404	0.199	0.367
-2 Log likelihood	3868.838	4178.107	4245.557	4324.034
N	3,720	3,962	4,049	4,063

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 16: Support for public downward transfers, regression results; PPAS 2003

Binary Logit Models Predicting Support for Upward Transfers: PPAS 2003
Policy-Mix: Reforming the Pension System by Putting More Burden on the Young

Odds Ratios (Standard Errors in Parentheses)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Age	1.009 *	1.011 *	1.010 **	1.011 **	1.012 **
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Childlessness	1.760 ***	1.653 ***	1.675 ***	1.599 ***	1.709 ***
	(0.127)	(0.122)	(0.107)	(0.119)	(0.121)
Area of Residence	0.575 ***	0.571 ***	0.562 ***		0.564 ***
	(0.118)	(0.115)	(0.111)		(0.112)
Education	0.946	0.944			
	(0.105)	(0.101)			
Sex	0.919	0.880		0.863	0.855 °
	(0.097)	(0.094)		(0.093)	(0.093)
Marital Status	0.985	0.975		0.936	0.965
	(0.125)	(0.120)		(0.108)	(0.109)
Conservativism	0.969	0.923			
	(0.102)	(0.098)			
HH income	1.040				
	(0.106)				
HH income (imputed)		1.041			
		(0.106)			
Imputation dummy		1.057 °			
		(0.192)			
Constant	0.218 ***	0.222 ***		0.138 ***	0.210 ***
	(0.250)	(0.239)		(0.204)	(0.219)
Nagelkerke R^2	0.025	0.024	0.023	0.012	0.024
Hosmer/Lemeshow	0.656	0.537	0.742	0.265	0.751
-2 Log likelihood	2782.566	2988.268	3039.899	3051.163	3026.186
N	2,736	2,905	2,950	2,943	2,943

°$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Table 17: Support for public upward transfers, regression results; PPAS 2003

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