

4. Profiling the generational welfare contract

Welfare states can be analysed in different ways. The research questions of this book require detailed institutional information on age-related social policy programs. In this chapter, we use new comparative data on legislated social citizenship rights covering social risks during different stages of human life. The following questions are addressed. Are welfare states becoming more generationally balanced? Which of the ideal-typical configurations of generational welfare contracts discussed in the previous chapter can be empirically discerned? Is there evidence of age-related trade-offs in policymaking, or can we find support for positive-sum solutions in generational politics?

To recapitulate the theoretical discussion from preceding chapters; we expect that the generational structure of social citizenship is closely tied to the extensiveness of public commitments in areas of social policy. Social citizenship rights that are generationally balanced (providing similar levels of protection for different age-related social risks) are hypothesized to also improve redistribution of state-legislated programs for all citizens irrespective of age, thus increasing the overall comprehensiveness of social policy. The reduced likelihood of generational trade-offs in the presence of such balanced welfare contracts suggests that more well-developed social citizenship rights for one particular age group do not necessarily imply weaker social protection for other age-related risks. Instead of fueling conflicting claims and social divisions across generations, balanced generational welfare contracts are expected to encourage coalition formation between age groups of relevance for the sharing of risks and resources in society.

In the following we discuss data on social citizenship rights and propose a way to measure and analyse positive-sum solutions in social policymaking. Thereafter, we initiate the empirical investigations of this book and analyse developments over time and between countries, first, by investigating changes in social citizenship rights from 1960 up to 2010; and second, by outlining the generational welfare contracts depicted by our data. We then perform regression analysis to further test our hypothesis about positive-sum solutions in generational politics.

SOCIAL POLICY INDICATORS

The social citizenship rights approach to comparative welfare state analysis was originally developed by scholars to improve the possibilities of causal inferences in policy and overcome analytical limitations associated with social expenditure data (Esping-Andersen, 1990; Korpi, 1989). The Social Policy Indicators Database (SPIN) used throughout this book has been developed within this tradition. SPIN is a major research infrastructure based on theories of social citizenship, established at the Swedish Institute for Social Research (SOFI), Stockholm University. The rights-based character of social citizenship implies that policies should at least be publicly mandated and recognized in legal frameworks, and SPIN data is thus explicitly developed to facilitate institutional analyses of welfare states (Ferrarini et al., 2013). Indicators are defined and measured in a coherent and consistent methodological manner to facilitate analyses between countries, over time and across program areas.

SPIN is a continuation of the internationally renowned Social Citizenship Indicator Program (SCIP) (Korpi, 1989), but extended to a broader set of social policy programs, more countries and further waves of data. SPIN includes detailed information on financing, eligibility and entitlements of major social benefits, quantified into empirical variables. The database includes up to 47 countries and, as noted in the introductory chapter, we draw on data for 18 long-standing welfare democracies from 1960 to 2010, which is the most recent wave of data. Data is available for every fifth year. For more information about SPIN, see www.sofi.su.se/spin.

SPIN is particularly well suited for generational analyses of welfare states because it includes core programs of immediate relevance for different age-related social risks. Conceptually, we share similarities with earlier studies on reciprocal support between generations (Bengtsson and Achenbaum, 1993; Walker, 1996), albeit our focus is on legislative institutional structures rather than informal redistribution based on kinship, which typically involves sharing of economic resources or services between members of the extended family.

Measurements

Notwithstanding the complexity and multidimensional nature of welfare states and social policy, we use income replacement in major age-related social insurance schemes to measure and analyse the generational structure of social citizenship. Income replacement is the only indicator of social citizenship that covers all our countries over a longer time period, and that also enables systematic comparisons of different programs that address

major age-related social risks. We do not deny that other facets of welfare states certainly may be important to consider as well, including how countries have organized care and other forms of public services. However, we believe that income replacement in social insurance to a certain extent also functions as a proxy for more general commitments of countries (and their underlying principles of justice) to provide welfare for their citizens. Income replacement in social insurance has previously been associated with a wide range of outcomes both at individual and societal levels, including poverty (Bäckman, 2009, Bäckman and Ferrarini, 2010; Nelson, 2003), material deprivation (Nelson, 2012), subjective health (Ferrarini et al., 2014), unemployment (Sjöberg, 2000), job insecurity and subjective well-being (Sjöberg, 2010), employment commitment (Esser, 2005), mortality (Ferrarini and Norström, 2010; Nelson and Fritzell, 2014; Palme and Norström, 2010), gender equality (Korpi, 2000; Korpi et al., 2013) and fertility (Billingsley and Ferrarini, 2014; Ferrarini, 2006).

To measure the degree of income replacement for each age-related social risk we use SPIN entitlements data, calculated on the basis of national legislation using model family techniques. In comparative research, model family techniques are commonly used to enable comparisons between countries and across social policy programs (Bradshaw and Finch, 2002; Bradshaw et al., 1993; Eardley et al., 1996). Model family techniques are also used by international organizations to monitor cross-national variation and long-term social policy developments. One example is the joint European Commission/Organisation for Economic Co-operation and Development (OECD) project to analyse the effects of taxes and benefits on household incomes and incentives to work (Carone et al., 2003).

For each age-related social risk, entitlements are calculated net of taxes and expressed as percentages of an average production worker's net wage. In cases where entitlements are established with reference to previous wages, benefits are calculated at the wage level of an average production worker. It should be noted that income replacement in social insurance not only reflects the ways in which benefit formulas are defined. The number of waiting days, duration and taxation of benefits may also influence the extent to which social insurance replaces work income. Table 4.1 summarizes the calculation of income replacement in social insurance for each age-related social risk. For the childhood risk category, we take into account a benefit package including child allowances, child tax allowances, child tax credits, post-natal parental leave benefits and maternity grants paid in relation to childbirth. We use the yearly net benefits paid to a family with two adults and two young children. One of the parents in this model family is assumed to work full-time. The other parent is expected to be out of employment performing care work in the home for the whole

Table 4.1 Measurements of income replacement in social insurance corresponding to three age-related social risks

Age risk category	Benefit programs (where applicable)	Model family	Duration	Index
Childhood	Child allowances, child tax allowances, child tax credits, post-natal parental leave benefits, maternity grants	Two adults (one in work and one on parental leave) and two children (one below 1 year and one aged 5 years)	52 weeks	No
Working age	Unemployment insurance, sickness insurance	Single person household	1 week and 26 weeks	Yes, additive four components index of unemployment and sickness net replacement rates, each measured for two periods of duration
Old age	Old-age retirement benefits	Single retired person and a retired married couple (one person receiving standard pension corresponding to 40 years of prior work, spouse only qualified for minimum pension if applicable)	52 weeks	Yes, additive two components index of a single retired person and a married retired couple

year. See Billingsley and Ferrarini (2014) for further discussion about the calculation of income replacement for families with children.

For working-age risks we include unemployment insurance benefits and sickness insurance benefits. Because income replacement sometimes varies over the duration in receipt of benefits, we assume two periods of unemployment and sick leave: 1 week and 26 weeks. In order to avoid confusion with other age-related needs, unemployment insurance and sickness insurance benefits are calculated solely based on entitlement structures of a single person model family. Income replacement for working-age risks

is an additive index of unemployment and sickness insurance net replacement rates over the two periods of duration. For further information concerning measurements of unemployment and sickness insurance benefits, see Ferrarini et al. (2012a).

For old-age risks we use the yearly pension benefit of two model families; a single retired person and a married retired couple. In both instances, the breadwinner is assumed to have a 40-year employment record. The non-working spouse only qualifies for a minimum pension, if applicable. Income replacement for old-age risks is an additive index of the net pension replacement rate of the two model families. Palme (1990) gives more details concerning measurements of pension entitlements.

Although we try to analytically avoid confusion of social citizenship rights across different age-related risks, for example, by including family benefits only in the childhood phase, it should be noted that many benefit programs have effects that go beyond their associated risk category. One reason is of course that households often include family members belonging to different overlapping generations. Unemployment insurance is one example where benefits are likely to be important not only for the economic position of jobless people of working age, but also for child well-being (Morris et al., 2005).

WELFARE STATE REGIMES

Our analyses on the generational structure of social citizenship rights cover the period 1960–2010. However, by the early postwar period most OECD countries had begun developing systems of protecting citizens against market failures. Because it is common to portray welfare states as being path-dependent, with institutional structures showing high degrees of stickiness over time (Pierson, 2001), it is useful to recapitulate some of the broad welfare state regime patterns that were already in place at the time our empirical investigation began. Regime-based analyses are widely used in comparative research, perhaps due to their simplicity. Typically, regime-based analyses are premised on Esping-Andersen's (1990) three-partite categorization of welfare states into social democratic, liberal and conservative regimes, sometimes including additional models for the Southern European countries (Ferrera, 1996) and Central and Eastern Europe (Fenger, 2007).

The strongest path dependency is found in countries where the first laws of social insurance followed state-corporatist lines, including the conservative regimes of Austria, Belgium, France, Germany, Italy, Japan and the Netherlands (Korpi, 2001). Eligibility in state-corporatist systems

is based on a combination of contributions and membership of specified occupational categories, with benefits often being clearly earnings-related. Sometimes there are no maximum earnings ceilings for benefit purposes, and social insurance may also lack minimum benefits for low-wage workers or people outside the labor force. The fragmentation of citizens into different occupational risk pools limits coverage of benefits. Groups positioned outside the labor market have historically been excluded from benefits.

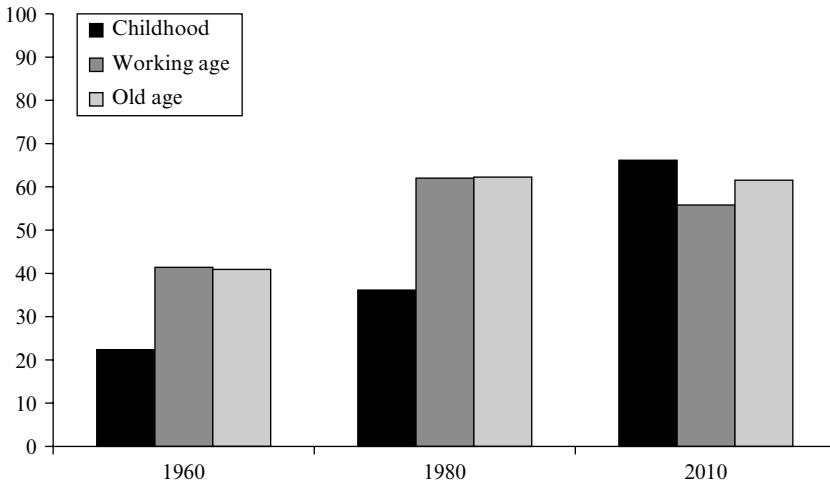
Other countries, normally associated with the liberal welfare state regime, rely on targeted approaches or comparatively meager flat-rate social insurance benefits.¹ While the former restricts eligibility to low-income families, the latter often includes all (or nearly all) citizens. Countries that in the early postwar period had organized social insurance mainly along targeted and flat-rate benefit principles include Australia, Canada, Denmark, Ireland, New Zealand, the United Kingdom and the United States. Many of these countries still operate such basic security systems (Korpi and Palme, 1998). Finland, Norway and Sweden reformed their social insurance systems in the late 1950s and 1960s when universal flat-rate benefits were combined with more generous earnings-related entitlements for the employed (Esping-Andersen and Korpi, 1986).

Although regime classifications may be useful in comparative research as heuristic devices to compare major country differences in policy designs, they nevertheless obscure changes over time that may alter the generational balance. Many of these changes are likely to be gradual rather than systemic in nature, and thus policy may change although regime labels remain static. Regime classifications often also conceal important institutional differences between policy programs within countries, something that makes it difficult to assess how welfare states respond to different age-related needs. Thus, a generational analysis of social citizenship rights requires that we instead begin our analysis of policy designs at program level.

EMPIRICAL ANALYSIS

Age-related Social Citizenship Rights 1960–2010

When shifting the analytical focus from broad regime types to our social policy indicators, detailing programmatic institutional designs, we can discern important developments in policymaking of relevance for the generational structure of social citizenship. Figure 4.1 shows income replacement in social insurance at three points in time; 1960, 1980 and 2010. Programs are separated by their age-related profile (childhood, working age and old age) and only averages for our 18 OECD countries are shown.



Source: The Social Policy Indicators Database (SPIN), own calculations.

Figure 4.1 Income replacement in social insurance for three age-related social risks (averages for 18 OECD countries)

Evidently, the generational structure of social citizenship became more balanced between 1960 and 2010, at the same time as levels of income replacement for the three age-related social risks increased. The continued development towards greater generational balance in social citizenship between 1980 and 2010 is foremost a consequence of family policy being raised higher up political agendas, in parallel with stabilized income protection for working-age and old-age risks. In the 1960s and up to 1980, income replacement for childhood-related social risks substantially lagged behind developments in other policy areas. However, by 2010 family policy had become more extensive and income replacement for childhood-related risks even slightly higher than those pertaining to working age and old age.

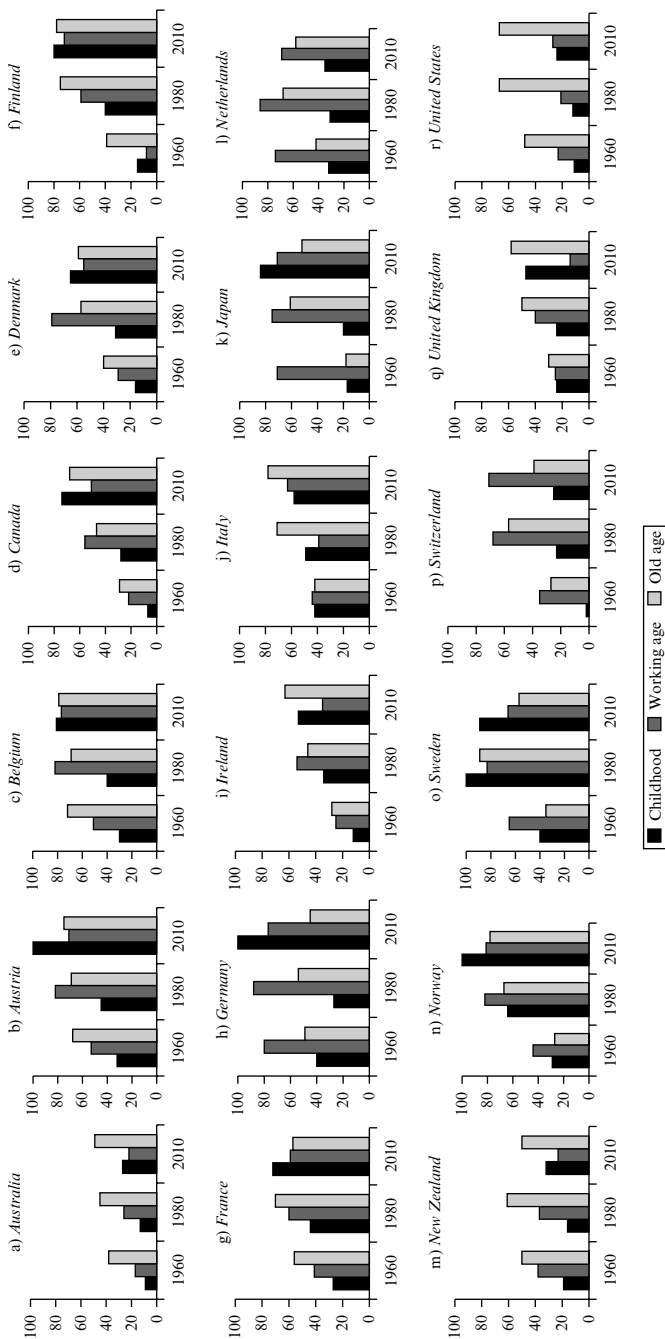
The striking expansion of family policy from 1980 is due to a series of reforms in paid parental leave, child benefits and tax deductions for economically dependent spouses. Whereas Nordic countries were pioneers in the introduction and development of paid parental leave (Ferrarini, 2006), so-called marriage subsidies have commonly been used in Continental European countries to subsidize families for caring needs (Montanari, 2000). A more recent tendency in the development of family policy concerns the fiscalization of child benefits, primarily in English-speaking countries. Transferring child benefits from social policy to the tax system has in several instances strengthened elements of selectivity in family

policy, transforming child benefit programs and making them more concerned with the provision of minimum subsistence levels among households in lower parts of the income distribution (Ferrarini et al., 2012b).

Benefits for unemployment and sickness have also changed in many countries, although reforms are somewhat less dramatic than in family policy. The expansion of sickness and unemployment insurance came to a halt in many countries in the mid 1970s, roughly at the same time as family policy was expanded. From 1980 and onwards, developments in unemployment and sickness insurance are in many countries characterized by stagnation, although it is possible to observe cutbacks primarily in unemployment insurance in some countries (Montanari et al., 2007). However, despite elements of retrenchment in social policy, income replacement in unemployment and sickness insurance has on average stabilized at levels far above those observed in the 1960s.²

Old-age pensions are also considerably higher in 2010 than they were in the 1960s. Nonetheless, retirement benefits have not been exempt from changes. Many countries have replaced pay-as-you-go systems with defined contribution plans, in which personal pension accounts determine retirement benefits. Sweden was a forerunner in this regard, with the defined contribution plan involving a funded component, something that was later introduced in other countries as well. Several countries have also tied benefits to changes in life expectancy (Whiteford and Whitehouse, 2006). Although not fully captured by our data due to maturation effects, all of these changes in old-age benefits are likely to have repercussions for the generational balance of social citizenship. This is not only due to the introduction of individual risk-taking in programs originally supposed to pool risks and resources between different generations and over the individual's life cycle (Palme, 2003), but also because pension benefits nowadays are more directly linked to macro-economic and demographic developments. The shift from defined benefit formulas to notionally defined contribution plans is also changing the generational contract in different ways by making each generation contribute the same proportion of their income to the pension system.

Although the overall trends analysed above show that income replacement in social insurance has become more generationally balanced and comprehensive, country averages of course conceal national differences. Four countries deserve further comment in this respect: Austria, Germany, Italy and the United Kingdom (Figure 4.2). In Austria and Germany, extensive reforms were introduced to paid parental leave benefits between 2005 and 2010, increasing age-related imbalances in social insurance. In Italy, it is rather the first year of observation that is extraordinary. In 1960, social insurance net replacement rates hardly varied across programs in



Source: The Social Policy Indicators Database (SPIN), own calculations.

Figure 4.2a-r Income replacement in social insurance for three age-related social risks in 18 OECD countries

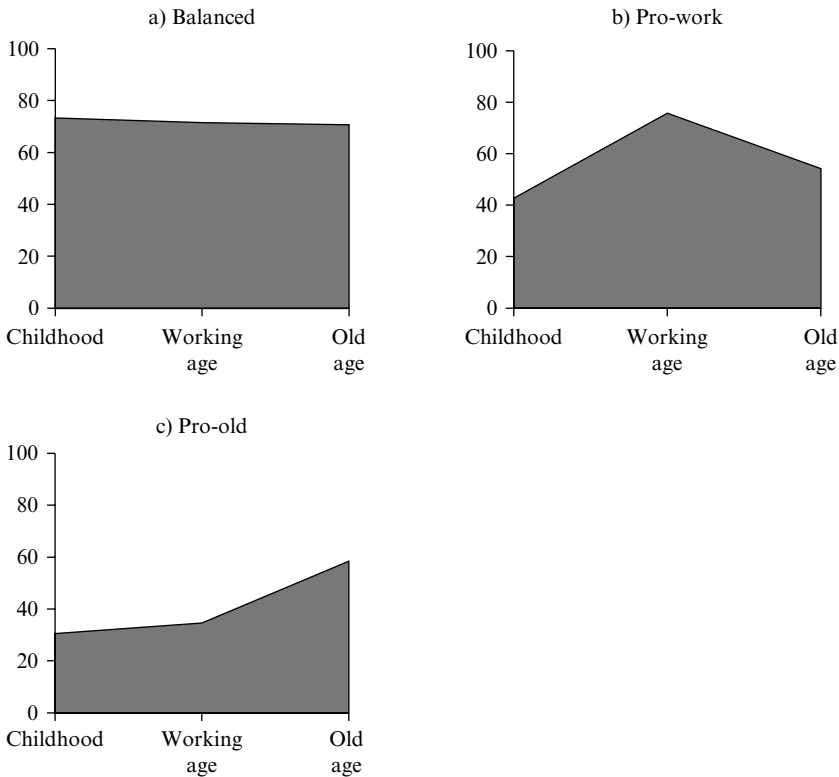
Italy, whereas up to 1980 they developed in a more unbalanced direction. In the United Kingdom, income replacement in age-related social insurance became more unbalanced mainly due to cutbacks in benefits for working-age risks, particularly under the Thatcher governments in the 1980s, but also during more recent decades.

Profiling the Generational Welfare Contract

Although we can observe different phases involving expansion, stagnation and stabilization in welfare state development, the overall patterns analysed show that social citizenship rights have become more generationally balanced. Protection for all major age-related social risks has also improved considerably since 1960. However, despite these developments, which would appear to support our main hypothesis of positive-sum solutions in generational politics, countries have organized social policy differently. We will now concentrate less on changes over time and more closely investigate major cross-country differences in the generational structure of social citizenship.

Figure 4.3 depicts the three broad types of generational welfare contracts that can be empirically observed in our data: balanced, pro-work and pro-old. We have pooled data for each country over the period 1980–2010. Several of the outcomes that we will study in subsequent chapters of this book are most likely manifestations of how generational policy has been carried out over a longer period of time, reflecting different values and priorities. By pooling data for different years we also improve validity of results by making our descriptive data analyses less sensitive to particularities of single measurements. The three age-related social risk groups (childhood, working age and old age) are shown along the horizontal axis, while the vertical axis designates the level of income replacement in social insurance. Countries are categorized as having different generational welfare contracts on the basis of the dominant shape of their generational profiles, and only country group averages of each contract are shown.

As discussed previously in Chapter 3, the distinction between balanced and unbalanced profiles is central for our analysis of generational welfare contracts. The cut-off used to determine whether social citizenship rights are balanced or not is of course to some extent arbitrary. We have for each country analysed differences in income replacement between the three age-related risk categories by calculating a straightforward statistical measure of dispersion. We decided that it is reasonable to categorize profiles of income replacement in age-related social insurance with a relative standard deviation below 20 percent as balanced.³ A higher relative standard deviation thus indicates that income replacement in social insurance differs



Note: The balanced contract includes Austria, Belgium, Denmark, Finland, France, Sweden and Norway. The pro-work contract includes Germany, Japan, the Netherlands and Switzerland. The pro-old contract includes Australia, Canada, Ireland, Italy, New Zealand, the United Kingdom and the United States.

Source: The Social Policy Indicators Database (SPIN), own calculations.

Figure 4.3a–c The generational welfare contract(s): income replacement in social insurance for three age-related social risks (averages for 18 OECD countries, 1980–2010)

more extensively across age-related risk categories (i.e. that the generational structure of social citizenship is unbalanced).

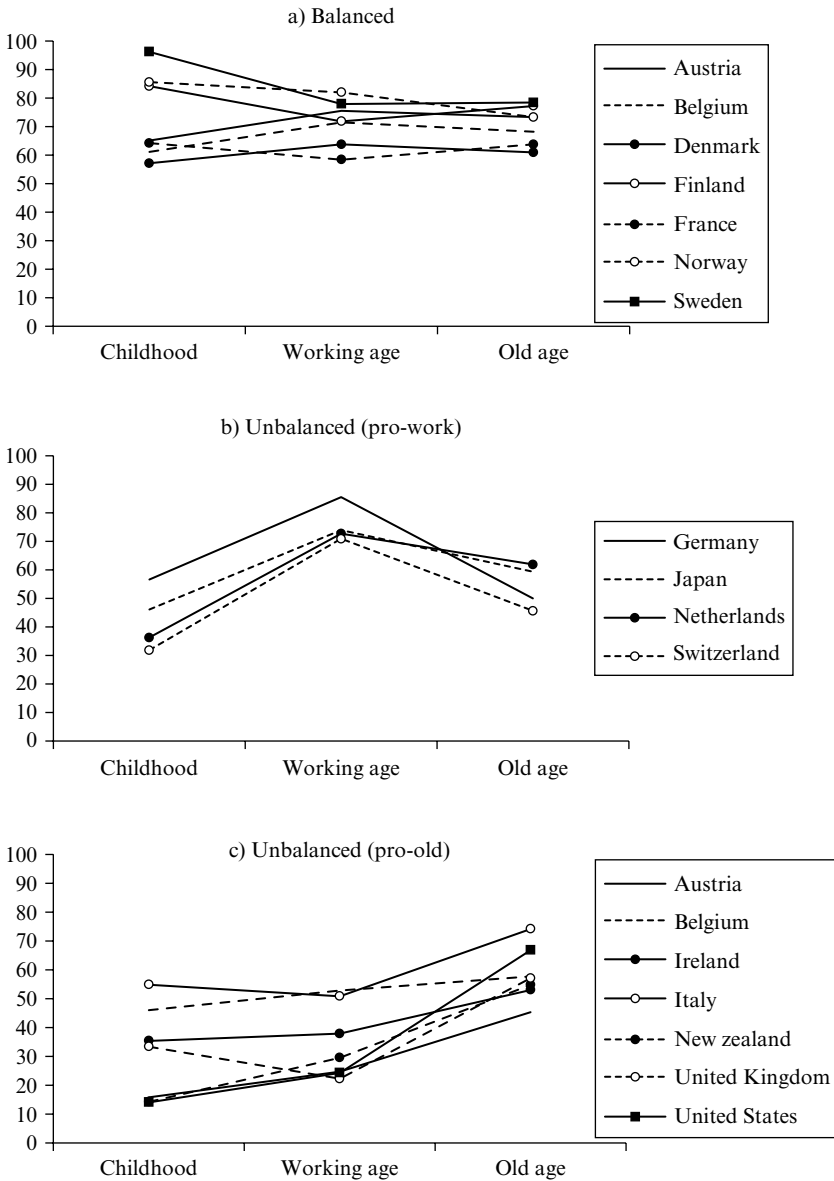
Our data clearly shows that there has not been a uniform development towards greater balance in the generational structure of social citizenship. To some extent, the equalization of social citizenship across age-related social risks has largely been driven by changes introduced to social insurance in countries where income replacement for an extended period of

time evidently has become more generationally balanced. Income replacement in social insurance over the period is balanced and fairly similar across age-related social risks in seven of our countries, which can be said to have balanced generational welfare contracts: Austria, Belgium, Denmark, Finland, France, Norway and Sweden. The slightly higher income replacement for childhood-related risks in this group of countries is mainly explained by family policy developments in some of the Nordic countries, where both paid parental leave and universal child benefits have been comparatively generous for a long time.

The remaining 11 countries have unbalanced generational profiles of either pro-work or pro-old types. A closer inspection reveals that we can empirically observe two of the three major variants of unbalanced generational welfare contracts that we theoretically outlined in Chapter 3: pro-work and pro-old contracts. Generational welfare contracts of the pro-work type are peak-shaped as income replacement is highest for working-age risks. The unbalanced profiles of Germany, Japan, the Netherlands and Switzerland are of this subtype. In systems of the pro-old type, income replacement increases with each subsequent age-related social risk, with profiles thus being positively tilted towards the retired. Australia, Canada, Ireland, Italy, New Zealand, the United Kingdom and the United States have generational welfare contracts of the latter type.

Returning to our hypothesis of an association between the generational structure of social citizenship and the overall comprehensiveness of the system, the profiles of different generational welfare contracts provide further evidence. Income replacement is higher in countries where social insurance provides more even protection against age-related social risks. In these countries social insurance on average replaces about 70 percent of earnings (net of taxes) for all three age-related social risks. Income replacement is lower in countries with unbalanced profiles. One exception is for working-age risks, where the pro-work subtype reaches a level of income replacement that is slightly above that of the balanced generational profile. However, this pattern is largely explained by the single case of Germany, where unemployment and sickness insurance replacement rates are well above other countries in this group (Figure 4.4). It should be noted that the redistributive potential of the German system is somewhat reduced due to incomplete coverage of social insurance, similar to many other countries that have implemented state corporatist principles in their welfare states.

It is not possible to observe a generational profile that for an extended period of time can be categorized as pro-child, which was the third ideal-typical unbalanced generational welfare contract discussed previously in Chapter 3. In certain years, however, a few countries come closer to having unbalanced generational profiles of this pro-child subtype, including



Source: The Social Policy Indicators Database (SPIN), own calculations.

Figure 4.4a–c Generational welfare contracts in 18 OECD countries: income replacement in social insurance for three age-related social risks (averages for the period 1980–2010)

Austria, Germany, Japan and Sweden in 2010, France in 1995 and Norway in 2005 (not shown).⁴ We should also mention that Canada appears to be a borderline case between unbalanced and balanced generational profiles. Income replacement in Canada describes a flatter generational profile than other countries with pro-old generational welfare contracts, although replacement rates are substantially lower than in countries with clearly balanced contracts.

Regression Analyses

The generational profiles described above are certainly valuable for identifying broad, long-term patterns in the generational structure of social citizenship. To further test our hypothesis on positive-sum solutions in generational policymaking, we will now move beyond categorizations of countries into different groups, and carry out a more detailed empirical analysis on the same data. For this purpose, we perform a series of statistical regressions. Besides taking greater advantage of cross-country variations and changes over time in individual countries, we can control for confounding factors that may influence the results. We may thus evaluate whether the link between generational balance in social citizenship and overall comprehensiveness characterizing the generational welfare contracts is statistically spurious or not.⁵

Table 4.2 shows the results from a series of pooled cross-sectional and time-series regressions.⁶ Due to the different phases in the development of social citizenship noted above, we analyse two time periods; 1960–2010 and 1980–2010. In the methodological appendix, we provide a short explanation of how to interpret results from regression tables. The degree to which income replacement in social insurance is balanced across the three age-related risk categories depicts the generational structure of social citizenship and constitutes the main explanatory variable. To make the results more accessible and easier to interpret, throughout this book we simply invert the relative standard deviation (see above). Higher values on this inverted measure of dispersion show that income replacement in social insurance is generationally more balanced.⁷ The overall level (arithmetic mean) of income replacement in social insurance for the three age-related risk categories is used to measure the comprehensiveness of social citizenship and is the dependent variable.

Several of the confounding variables are noted in the literature on generational justice. The gross domestic product (GDP) per capita is measured in thousands of purchasing power adjusted US dollars. A variable measuring the size of the civilian labor force is used, expressed as a percentage of the population 15–64 years. We also include the unemployment rate,

Table 4.2a–b Balance and levels of income replacement in age-related social insurance; country-fixed effects regressions for 18 OECD countries

a) 1960–2010

	Levels of income replacement			
	Overall	Childhood	Working age	Old age
Balance of income replacement	0.224** (0.071)	0.419** (0.145)	0.303* (0.111)	0.139* (0.056)
GDP per capita	0.307 (0.537)	0.850 (1.003)	−0.494 (0.476)	0.597 (0.416)
Unemployment	0.269 (0.473)	0.262 (0.680)	−0.097 (0.552)	0.541 (0.542)
Service sector employment	0.094 (0.377)	0.312 (0.675)	0.405 (0.406)	−0.404 (0.307)
Old-age dependency ratio	0.162 (0.249)	0.873 (0.565)	−0.348 (0.413)	−0.298 (0.231)
Civilian labor force	0.021 (0.402)	0.103 (0.568)	−0.274 (0.492)	0.113 (0.350)

b) 1980–2010

	Levels of income replacement			
	Overall	Childhood	Working age	Old age
Balance of income replacement	0.193* (0.081)	0.442* (0.164)	0.075 (0.116)	0.063 (0.072)
GDP per capita	0.203 (0.542)	0.813 (1.075)	−0.507 (0.438)	0.303 (0.427)
Unemployment	0.035 (0.481)	0.326 (0.794)	−0.172 (0.479)	−0.049 (0.542)
Service sector employment	−0.093 (0.366)	0.136 (0.774)	−0.041 (0.465)	−0.373 (0.333)
Old-age dependency ratio	0.341 (0.237)	1.049 (0.784)	0.402 (0.451)	−0.427 (0.318)
Civilian labor force	−0.070 (0.300)	0.165 (0.654)	−0.255 (0.419)	−0.122 (0.282)

Note: * $p < 0.05$; ** $p < 0.01$ using cluster robust standard errors (in parentheses). Constants are not shown.

measured in civilian labor force and expressed as a percentage. Two other factors are the old-age dependency ratio and service sector employment (indicating the degree of deindustrialization). The former is defined as the population older than 65 years in percent of the population aged 15–64, while the latter is measured as a percentage of the civilian labor force. All confounding factors are from the OECD.

The regression results basically confirm our descriptive data analysis above. Balance in the generational structure of social citizenship and overall comprehensiveness of the system are indeed associated, also in the presence of confounding factors. In countries where income replacement in social insurance is more evenly distributed across age-related social risks, the overall level of income replacement tends to be higher. Notably, for the period 1960–2010 this positive association also appears when analyses on income replacement in social insurance are disaggregated by age-related risk category (childhood, working age and old age), thus providing clear support for our hypothesis about positive-sum solutions in generational politics.

Although the generational structure of social citizenship continued to develop in a more balanced direction after 1980, it is evident that many countries now had entered a second and more mature phase in welfare state development when further expansion of social citizenship rights was mainly for families with children. For the period 1980–2010, generational balance in the system of social insurance is positively related only to income replacement for childhood-related risks. For working-age and old-age risks, the corresponding estimates are also positive, but not statistically significant. However, it is important to note that improvements in social protection of families with children from 1980 did not necessarily come at the expense of people in other age groups, whose citizenship rights by this time had stabilized at fairly high levels. In fact, results from the regression analyses mirror those of the descriptive data analysis above. Protection against working-age and old-age risks was hardly affected by changes to family policy in this latter period, something that added to the generational balance of social citizenship.

The presence of generational trade-offs in policymaking would severely reduce the likelihood of observing such developments in social citizenship. If people in different age groups indeed have competing interest concerning how social entitlements are distributed across generations, we would expect a slower process of catching-up in the area of family policy, or alternatively more substantial reductions in other types of policies. However, none of the latter scenarios are supported by our analyses. Instead, we find clear evidence of positive-sum solutions in generational politics from 1980 brought about by the combination of substantially increased income

replacement for childhood risks and stabilized protection for working-age and old-age needs. Notably, none of the confounding variables have any statistically significant effects on income replacement in social insurance. The absence of an association between the old-age dependency ratio and income replacement is particularly noteworthy. Evidently, population ageing appears to be unrelated to developments in social citizenship in our analysis, something that raises additional doubts in relation to claims about unavoidable generational conflicts in social policymaking.

Social assistance and social minimums

Our analysis on the generational structure of social citizenship concentrates on developments in major age-related social insurance schemes. However, even in the most comprehensive welfare states, social insurance does not cover every person in need. In studying how the generational structure of social citizenship is related to levels of social protection available for people of all life stages, we also need to consider the role of social assistance and other forms of means-tested minimum income benefits that are often triggered when social insurance fails to meet its objectives. Although these benefits are not part of the age-related social citizenship rights that we focus on in this book, they are important to take into account in a discussion of how generational welfare contracts may affect levels of income support available for low-income groups. The aim of establishing a solid and adequate income floor for persons who lack any other sources of income speaks to values and concerns expressed in all the three perspectives on generational justice discussed previously in Chapter 2, including aims of providing access for all citizens to the normal opportunity range for their life stage (the prudential lifespan approach); to guarantee the resources needed to walk tall and interact as equals with other citizens at all times (relational equality); and – if sustainable over time – to maintain a social minimum to enable current and future generations to effectively exercise their basic liberties and political agency (just savings for future generations).

Guaranteeing social assistance as a strategy for the provision of a social minimum also plays a central role in more general debates on social justice and fairness (Schaller, 1998), including Rawls's (1971) second principle of justice – the so-called difference principle. Rawls's influential idea that socio-economic inequalities should be permitted only to the extent that they improve (via economic incentives for productive activities) the prospects of the least advantaged brings a natural focus to means-tested social assistance. One common interpretation of the difference principle in comparative research is that welfare states should be primarily evaluated in terms of their pro-poorness and needs of the least advantaged (Kangas, 2000).

Table 4.3 Income replacement in age-related social insurance and social assistance; country-fixed effects regressions for 17 OECD countries 1990–2010

	Social assistance
Overall level of income replacement in age-related social insurance	0.684* (0.310)
GDP per capita	-1.320 (0.694)
Unemployment	-0.136 (0.491)
Service sector employment	0.055 (0.610)
Old-age dependency ratio	1.078 (0.533)
Civilian labor force	0.329 (0.551)

Note: * $p < 0.05$; ** $p < 0.01$ using cluster robust standard errors (in parentheses). Constant is not shown. Italy is excluded from analysis.

In this discussion about social assistance and social minimums we believe that it is important to recognize the wider policy context defined by social insurance (an issue that we will return to in Chapter 5).⁸ Due to the pooling of risks and resources in welfare states, it is reasonable to expect that countries with extensive social citizenship rights in social insurance not only achieve high degrees of income redistribution via contributory benefits, but that legitimacy is also increased for spending on means-tested benefits outside the social insurance system (Nelson, 2006). Income replacement in social insurance may therefore be closely entwined with the amount of money provided exclusively to the poor.

Table 4.3 shows the results from regression analyses that use income replacement in social assistance as the dependent variable and the overall level of income replacement in social insurance as the main explanatory variable.⁹ Thus, we analyse here whether income replacement in social insurance more formally can be linked to social assistance. Availability of social assistance data restricts the empirical analysis to the period 1990–2010. The results are quite clear. Income replacement in social insurance is positively related to social assistance. Thus, countries with more extensive systems of social insurance tend to also have more comprehensive social assistance benefits. Conversely, countries with less developed social citizenship rights not only perform poorly in terms of income replacement

in social insurance, but also tend to have more modest social assistance benefits. There is thereby no empirical evidence suggesting that meager social insurance payments are compensated for by higher social assistance benefits. Quite the contrary, our empirical findings lend support to the idea of positive-sum solutions in policymaking outside social insurance.

CONCLUSION

In this chapter we have empirically investigated the generational structure of social citizenship using new comparative data on income replacement in social insurance directed at three different age-related social risks: childhood, working age and old age. Greater balance in the generational structure of social citizenship seems to improve the overall comprehensiveness of the system as well as levels of income replacement in social insurance for each separate age-related social risk; thus supporting our hypothesis of positive-sum solutions in generational politics. Even in the presence of the challenges raised by population ageing, we find a general development towards greater balance in the generational structure of social citizenship, as levels of income replacement in social insurance over time have become more evenly distributed across age-related risks. However, cross-country differences are substantial and largely correspond to the ideal-typical configurations of generational welfare contracts that were outlined in Chapter 3.

Based on income replacement data in major age-related social insurance schemes for the period 1980–2010, three types of generational welfare contracts have been empirically discerned among our 18 OECD countries. Balanced generational welfare contracts are found in seven countries where income replacement in social insurance is fairly similar across age-related social risks. Austria, Belgium, Denmark, Finland, France, Norway and Sweden are included in this category of balanced generational welfare contracts. Unbalanced contracts of a pro-work type are found in four countries. The generational structure of social citizenship is here tilted in favor of protecting working-age risks. Germany, Japan, the Netherlands and Switzerland are included in this pro-work category. In the remaining seven countries, generational welfare contracts of a pro-old type have been developed. Income replacement in age-related social insurance is most extensive for the retired in such pro-old contracts. Included here are Australia, Canada, Ireland, Italy, New Zealand, the United Kingdom and the United States. The main task for the coming chapters of this book is to examine how the different types of generational welfare contracts identified above and their underlying institutional structures are empirically

linked to various social outcomes of importance for generational justice and welfare state sustainability.

NOTES

1. In cases where entitlements are formally earnings-related, the income ceilings for benefit purposes are often so low that benefits in practice become flat-rate in character.
2. The cutbacks introduced to social insurance have attracted considerable attention in academia. Not only has the magnitude of retrenchment been intensively discussed, but also its nature (Nelson, 2007; Pierson, 1996). The exact causes for the turnaround in welfare state development, with stagnation and in some countries also retrenchment in social insurance beginning in the 1980s, have been continuously debated in comparative research. Among the various factors explored are partisan politics (Korpi and Palme, 2003; Montanari and Nelson, 2013), globalization (Garrett and Mitchell, 2001; Tanzi, 2002), deindustrialization and slow economic growth (Iversen, 2001; Iversen and Cusack, 2000; Pierson, 2001) and population ageing (Castles, 2004).
3. The relative standard deviation is equal to the absolute value of the coefficient of variation. The latter is obtained by multiplying the coefficient of variation by 100. The coefficient of variation is defined by the ratio of the standard deviation to the arithmetic mean.
4. In these years, income replacement for childhood-related social risks was higher than income replacement for working-age and old-age risks, while the relative standard deviation of income replacement in major age-related social insurance schemes was above (or close to) 20 percent.
5. In statistics, a spurious relationship exists when two variables are falsely related to each other due to the presence of a third unrecognized factor.
6. All analyses include country-fixed effects and cluster robust standard errors. Country-fixed effects in pooled cross-sectional time-series analyses are commonly used when we suspect that omitted variables may cause biased estimates. Bias is the difference between the expected value of an estimate and the true value of the parameter being estimated. Panel data allows us to control for variables that we fail to measure or cannot observe. The basic idea is that bias caused by omitted variables will not vary across time, and hence its effects on our results will be constant or fixed (in our case picked up by the country dummies used in all pooled cross-sectional time-series regressions in this book). Fixed effects regressions are only suitable to analyse the impact of variables that vary from each point in time to the next, largely ignoring any long-term effects and cross-country difference in levels. Robust standard errors are commonly used when we might suspect that some underlying assumptions of the regression models are violated. In cases where residuals are independently distributed, standard errors obtained from robust estimation are consistent even in the presence of heteroscedastic residuals, which are common in cross-sectional and time-series data. In statistics, the residual of an observed value is defined in relation to the estimated value. If not appropriately adjusted for, heteroscedastic residuals may invalidate statistical tests of significance that assume modeling errors to be uncorrelated and uniform, thus making us falsely accept or reject hypotheses. When observations are clustered on panels (in our case on countries), cluster robust standard errors are also autocorrelation consistent. This means that our estimates are adjusted for the fact that many of our variables are correlated with themselves at different points in time (i.e. levels of income replacement in social insurance at time 2 are likely related to income replacement at time 1).
7. The inverted relative standard deviation is obtained by calculating the difference between 100 and the relative standard deviation.
8. Comparative research on social assistance has steadily grown, in part due to the strengthened role of minimum income benefits in the European social inclusion process (Bahle et al., 2011; Bradshaw and Finch, 2002; Bradshaw et al., 1993; Eardley et al., 1996; Frazer

and Marlier, 2009; Guibentif and Bouget, 1997; Holsch and Kraus, 2006; Immervoll, 2010; Kemp, 1997; Matsaganis et al., 2003; OECD, 1998a, 1998b, 1999; Palme et al., 2009; Van Mechelen, 2009). However, most large-scale comparative investigations on social assistance and other forms of minimum income benefits are descriptive in nature, with little or no reference to political dynamics or wider policy contexts.

9. Data on social assistance is from the Minimum Income Protection module included in the SPIN database. This data on minimum income benefits is also based on model family techniques and for social assistance we use two model families, a single person and a two-parent family with two children. None of the model families are assumed to have any work income or access to contributory benefits, such as social insurance. Besides social assistance, the benefit package of each model family includes child benefits, housing benefits and refundable tax credits, where applicable.