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The Temporal Welfare State: A Crossnational Comparison*

JAMES MAHMUD RICE, ROBERT E. GOODIN and ANTTI PARPO *Social and Political Theory, Australian National University*

ABSTRACT

Welfare states contribute to people's well-being in many different ways. Bringing all these contributions under a common metric is tricky. Here we propose doing so through the notion of *temporal autonomy*: the freedom to spend one's time as one pleases, outside the necessities of everyday life. Using income and time use surveys from five countries (the USA, Australia, Germany, France, and Sweden) that represent the principal types of welfare and gender regimes, we propose ways of operationalising the time that is strictly necessary for people to spend in paid labour, unpaid household labour, and personal care. The time people have at their disposal after taking into account what is strictly necessary in these three arenas – which we christen *discretionary time* – represents people's temporal autonomy. We measure the impact on this of government taxes, transfers, and childcare subsidies in these five countries. In so doing, we calibrate the contributions of the different welfare and gender regimes that exist in these countries, in ways that correspond to the lived reality of people's daily lives.

Introduction

In assessing the varying impacts of different countries' welfare states, it would be frightfully handy if actually we had some direct measure of

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people's welfare. Alas, we do not. All we have are more or less indirect objective and subjective indicators. Income, familiarly, is one. Time, we suggest, could be another.

Welfare state researchers commonly use people's income as a proxy for welfare. They do so knowing it is not a perfect proxy (Ringen 1988). Income is, at most, a measure of potential welfare – a measure of command over resources. For purposes of public policy, a millionaire is counted as rich by virtue of her command over resources, regardless of her actual consumption.

Many of the same things that are said to justify treating income as a proxy for welfare could equally well be said for treating time as a proxy for welfare. Time and money are conjoined in the production function for welfare, just as labour and capital are conjoined in the production function for commodities. It takes money to buy goods, but it takes time to consume them. Time is an important resource – arguably, the 'ultimate scarce resource' (Zeckhauser 1973) – required for producing welfare. Having more command over time increases your potential welfare: being richer in time terms increases your potential welfare in ways strictly analogous to the ways in which being richer in money terms does. Of course, as with income so too with time: whether one is counted as rich or poor, in terms of time just as in terms of money, ought (for public-policy purposes, anyway) to depend on one's command over resources, not on one's consumption of resources.

Here we operationalise the notion of command over time through a notion of discretionary time, constructed on the basis of income and time use surveys.[1] This is related to, but importantly different from, the conventional time use category of spare time. The latter is a function of how much time people *actually* spend in paid labour, unpaid household labour, and personal care; spare time is in that respect more akin to a measure of one's consumption of the resource of time. Discretionary time is a function of how much time people strictly *need* to spend in those activities. Measuring as it does the extent to which their allocation of time is not dictated by strict necessity, discretionary time is an indicator of people's control over the resource of time.

We will elaborate those concepts and describe their operationalisation in subsequent sections of this paper. Then we turn to data from five countries – the USA, Australia, Germany, France, and Sweden – to illustrate their usefulness as measures of the varying impact of welfare regimes of very different sorts. Sweden is often regarded as *the* classically social-democratic welfare state (albeit under a rare period of conservative rule during the time period covered by our data); the USA and Australia are typically regarded as classically liberal welfare states; and Germany and France are typically seen as classically corporatist welfare states.

Furthermore, each welfare regime is associated with a distinct gender and family regime, as elaborated in the following section. The tax-transfer and childcare policies derived from the various regime imperatives are shown in subsequent sections to impact strongly and differentially on the amount of discretionary time – on people's control over the resource of time – in each of those countries.

Regime imperatives: welfare, gender, family

Welfare state researchers typically talk of the 'three worlds of welfare capitalism' (Esping-Andersen 1990; cf. Titmuss 1974; Castles 1998; Goodin, Headey, Muffels and Dirven 1999; Goodin and Mitchell 2000, vol. 2). Of course there are important variants within each of the three major clusters, there are important cases that do not fit within any of them, and no country fits any of the ideal types perfectly (Castles and Mitchell 1992). Still, the basic features of the main three worlds are familiar points for orienting comparative welfare state studies. And while the corresponding gender and family regimes overlap those welfare regimes only imperfectly, there are some general patterns that do nonetheless stand out (Lewis 1992; Gauthier 1996; Gornick, Meyers and Ross 1996; Sainsbury 1996; Esping-Andersen 1999, ch. 4; O'Connor, Orloff and Shaver 1999; Korpi 2000; Gornick and Meyers 2003). The time use patterns found within countries are likely to reflect, at least in part, the prevailing welfare, gender, and family regimes (Gershuny 2000).

The *liberal* regime, exemplified by the USA and Australia, is a residualist welfare regime. The main mechanism for promoting people's welfare in a liberal regime is the capitalist, market economy. The liberal state is classically relegated to safeguarding the conditions of free exchange and fair competition and correcting market failures. Poor relief in a liberal regime is a matter of charity, initially a religious duty that has now been assumed by the state. Categorical welfare benefits, sometimes of a moderately generous sort, go to the 'deserving poor' (such as the old, the young, and the disabled) who are excused from paid labour as a matter of public policy. Otherwise, however, liberal welfare benefits are targeted tightly on the poor and they are paid at a rate only barely adequate to alleviate the worst of their distress, for fear of creating disincentives against participation in paid labour.

The liberal approach to gender relations and the family is dominated by the stark individualism that rests at its core. Liberal regimes might intervene with anti-discrimination legislation, but they do so purely to prevent anti-competitive practices in the paid labour market, in ways that are assiduously gender-blind. And while the poverty of lone mothers might be addressed as a matter of poor relief, liberals basically regard the

family as falling decisively on the private side of the public-private dichotomy, unfit as the subject for any substantial public intervention.

The corporatist regime, exemplified by Germany, France, and other countries of Continental Europe is a *conservative* welfare regime (van Kersbergen 1995). Society is seen as a cooperative venture, with various groups (labour and capital, men and women, etc.) each having their distinctive role to play. The task of corporatist public policy is to underwrite social cohesion and social stability. Welfare benefits are typically earnings-related and hence status-preserving. Fiscally, corporatist regimes tend to engage in a substantial amount of churning, giving back to people in benefits roughly what they take from them in taxes.

The family, and traditional gender roles within it, have historically been lynchpins of corporatist social thinking. The male's role in a classically corporatist society is that of breadwinner for the family as a whole; the female's role is that of homemaker. Marriage and childbearing are strongly encouraged. Lone motherhood, in particular, is strongly discouraged.

The *social democratic* regime, exemplified by Sweden and other countries in Scandinavia, is a highly egalitarian welfare regime. Characterised by class politics and socialist economics, social democratic regimes strive toward social equality in a multitude of ways (Korpi 1983). One is through macroeconomic management, promoting high levels of employment and earnings. Another is through redistributive taxes and generous welfare benefits, typically of a universal kind.

The egalitarianism of social democrats extends to their approach to gender relations and the family. They strive to bring women into the paid labour force fully on a par with men, with public employment being one major mechanism used to this end. Partly in furtherance of women's participation in the paid labour market, social democrats typically provide a generous system of public care for children under school age. More generally, social democratic family policy is strongly oriented toward the interests of 'the next generation', and provides myriad forms of support to children and their carers out of a combination of egalitarian and pro-natalist concerns.

Some features are commonly present across all three of these welfare and gender regimes. Each, for its different reasons, shares a concern for the welfare of those who are especially disadvantaged, and strives to provide some kind of social safety net as a result. This is seen by liberals as a matter of poor relief, by corporatists as a way of manifesting and promoting social cohesion, and by social democrats as an expression and instrument of social equality. Whichever the rationale, redistributing toward the bottom (to a greater or lesser extent) is a common feature across all three regimes.

So too is a concern with freedom and autonomy, although once again the meanings of those terms vary. The freedom liberals promote is the negative liberty of free markets: freedom from purposive intervention by particular others in one's affairs. What liberals see as 'freedom to choose' (Friedman and Friedman 1980) socialists deride as 'freedom to lose' (Roemer 1988). What social democrats promote is not 'freedom from' but rather 'freedom to', by providing people with the resources that would allow them to actually implement their preferred choices. Corporatists see freedom in more Hegelian terms, in which people are freed to realise their true nature as fundamentally social beings living in organic groups (first and foremost, the family).

Measuring welfare

The provision of welfare is a complex process involving a range of institutions, including the state, the market, and the family (Peattie and Rein 1983; Rose 1986a, 1986b). Welfare itself is a vague term, meaning different things to different people over the years. It has, correspondingly, been examined through a wide variety of measures. These include objective measures of various types, as well as various subjective measures, such as happiness as measured in the now-conventional way by responses to surveys asking people, 'All things considered, how is your life going these days?' (Frey and Stutzer 2002a, 2002b; Layard 2005). This paper will focus on objective measures of welfare, the impact of discretionary time on happiness is explored in a companion paper (Eriksson, Rice and Goodin 2006).

Measures of welfare – of the objective type – are most commonly based on income: per capita GDP, for example, or post-government transfer household income adjusted by equivalence scales to take into account economies of scale in consumption and the differing needs of households of different sizes.

Welfare, however, derives not only from money but also from time. A measure of welfare would ideally incorporate information on both. The construction of more inclusive measures of this kind has of course been attempted. Most prominent among these efforts has been the construction of measures of full income, which assign monetary values to non-monetary items – such as leisure time and time spent in unpaid household labour – and then add the assigned monetary values of these items to an income measure to yield full income (Nordhaus and Tobin 1973a, 1973b; Singer, Bernolak, Usher, Denison and Meyer 1973; Beckerman 1978; Travers and Richardson 1993; OECD 1995; Holloway, Short and Tamplin 2002; Abraham and Mackie 2005). Combining

information on both income and time use in these ways yields assessments of welfare that are more inclusive than those based on income alone.

Temporal dimensions of welfare are sometimes investigated through studies of the incidence and distribution of spare time and leisure. At the theoretical level, spare time and leisure are usually conceptualised as those activities for which the direct pleasures of performing the activity are greater than the indirect pleasures subsequently made possible by the changes performing the activity brings about in the state of the world (Hawrylyshyn 1977; Juster, Courant and Dow 1985).

At the empirical level, spare time and leisure are usually operationalised in a far cruder manner. Spare time, in hours per week, is typically defined as: spare time = 168 – actual paid labour time – actual unpaid household labour time – actual personal care time. This approach presupposes that paid labour, unpaid household labour, and personal care are activities in which the direct pleasures are always less than the indirect pleasures, and it classifies time spent in those activities accordingly (specifically, as not being time which is spare for leisure). That is probably by and large true, but it is not invariably so. Paid labour is sometimes enjoyable, sometimes so much so that it yields more direct pleasure than indirect pleasure. The same is true of time spent in unpaid household labour and personal care. In those cases paid labour, unpaid household labour, and personal care should be treated as instances of spare time or leisure. Ideally, a measure of spare time would be able to distinguish two components within actual time in paid labour, unpaid household labour, and personal care – one component that is an instance of spare time or leisure, and another component that is not.

In this paper we suggest a different measure, which we believe measures something important in its own right (temporal autonomy) and which we also believe is a superior indicator of welfare. Ours is a measure that incorporates information on income and information on time use, but which (unlike full income measures) operates on a temporal rather than a monetary metric. Temporal metrics have the advantage of being more readily comparable across time and space than their monetary counterparts: no one has more than 24 hours a day; an hour is pretty much the same to everyone everywhere. Furthermore, our measure of welfare is an autonomy-based measure, reflecting people's control over the resource of time rather than (as with the spare time indicator) how they actually use that resource. Discretionary time, as we shall call it, measures temporal autonomy and the welfare associated with it.

Temporal autonomy is the freedom to spend one's time as one pleases, outside the necessities of everyday life. A person enjoys temporal autonomy to the extent that he or she has time during which he or she

is free to choose the activities in which he or she participates. That, of course, is constrained by everyone's need to spend some time in certain necessary activities of everyday life. Everyone needs to spend some time in personal care (eating and sleeping, for example) and most people need to spend some time in paid labour and unpaid household labour as well. Our measure of temporal autonomy, discretionary time, takes account of people's necessities in those three arenas of everyday life – paid labour, unpaid household labour, and personal care.

A person's discretionary time, as we define it, is the time during which it is not necessary for that person to participate in paid labour, unpaid household labour, or personal care. In other words, it is the time that person has at his or her disposal, after taking into account the time he or she strictly needs to spend in those three sorts of activities. Hence, we define the number of hours of discretionary time per week as follows: discretionary time = 168 – necessary paid labour time – necessary unpaid household labour time – necessary personal care time.

This definition of discretionary time is morphologically very similar to the definition of spare time mentioned earlier. Both focus on the time a person has at his or her disposal, after taking into account time in paid labour, unpaid household labour, and personal care. The difference is that, whereas the measure of spare time focuses on the time a person *actually* spends in these three activities, the definition of discretionary time focuses on the time a person *needs* to spend in these activities. This is the crucial difference that makes discretionary time a superior indicator of welfare.

Consider a monetary analogy. Calling someone 'time-poor' (Vickery 1977; Schor 1991; 2000) by virtue of the small amount of time he or she has left over after all the time he or she actually spends in paid labour, unpaid household labour, and personal care is rather like calling a spendthrift millionaire 'money-poor' by virtue of the small amount of money she has left over after all the money she actually spends on highly extravagant food, clothing, and shelter – dinner at exclusive restaurants, designer outfits, multiple mansions, and such like. But surely that is absurd. A better approach would be to assess the millionaire's welfare on the basis of the money she has at her disposal after taking into account what she *needs* to spend on food, clothing, and shelter. As with money, so too with time: a person's welfare could be measured on the basis of the time that person has at his or her disposal after taking into account the time he or she *actually* spends in paid labour, unpaid household labour, and personal care. But a better approach would be to measure a person's welfare on the basis of the time that person has at his or her disposal after taking into account the time he or she *needs* to spend in these three activities.

The task of developing an empirical operationalisation of the theoretical definition of discretionary time just described will be taken up in the following section. It is worth noting here, however, that necessary time in paid labour, unpaid household labour, and personal care would ordinarily be expected to be less than actual time in these three activities. Of course, it is always possible for any given person to spend less time than necessary in paid labour (thus having a below-poverty income), less time than necessary in unpaid household labour (thus having a filthier house than socially acceptable), or less time than necessary in personal care (thus being less kempt than socially acceptable). But an operationalisation of necessity that identifies a majority of people as doing less paid labour, unpaid household labour, or personal care than deemed necessary – especially in relatively privileged societies like the USA, Australia, Germany, France, and Sweden – would be a distinctly strange notion of necessity.

Because necessary time is generally less than actual time in paid labour, unpaid household labour, and personal care, our methodology thus allows us to distinguish two components within actual time spent in each of those activities: one component that is necessary, and another component that is not necessary, but rather discretionary.[2]

Operationalising the key variables: data sources and methods

Having described that notion of discretionary time from a theoretical point of view, we now turn to the task of developing an empirical operationalisation.

A. Data sets

In order to operationalise discretionary time in the five countries under investigation, two multinational data sets have been used: the Luxembourg Income Study (LIS) and the Multinational Time Use Study (MTUS) (Gershuny 2000; LIS 2005, 2006; MTUS 2005, 2006). Both the LIS and the MTUS collect together, harmonise, and standardise surveys from a range of countries and time periods for the purpose of facilitating comparative research. The purview of these two multinational data sets is different, however: the LIS focuses on income surveys, the MTUS on time use surveys.

The MTUS was the original source for all of the time use variables used in the analysis presented in this paper. Spare time was calculated on the basis of the MTUS alone. The MTUS was also the source of the basic parameters used in the calculation of necessary time in unpaid household

labour and necessary time in personal care. These parameters were then used to calculate necessary time in unpaid household labour and personal care for the observations contained in the LIS.

We used only those surveys in these two data sets that contained sufficient information to be usable for our purposes, and which had a usable near-contemporaneous counterpart in the other data set. This limited our analysis to five countries, and to one period in each country, as listed in Table 1.

B. Sample restrictions

Two separate samples were used at different points in our analysis. Sample A consisted of all households. This sample was used in the calculation of various figures relating to notions of necessity: the poverty line; necessary time in unpaid household labour; and necessary time in personal care. Sample B consisted of a more restricted set of households. These were households that included either: (1) a husband and a wife who were both of prime working age (that is, between 25 and 54 years of age), who did not live with any other adults, and at least one of whom was an

TABLE 1: *Income and time use surveys*

	Time period to which income and time use data relate	Sample size[a]	Source[b]
USA			
Current Population Survey – March Supplement	2000	17,419	LIS
American Time Use Survey 2003	2003	9,546	MTUS
AUSTRALIA			
1990 Survey of Income and Housing Costs and Amenities	1989	6,179	LIS
Time Use Survey Australia 1992	1992	4,238	MTUS
GERMANY			
German Socio-Economic Panel	1994	2,684	LIS
1991/92 Time Budget Survey of the Federal Republic of Germany	1991/1992	7,273	MTUS
FRANCE			
Household Budget Survey 1995	1994	3,090	LIS
Time Use Survey	1998/1999	4,575	MTUS
SWEDEN			
Income Distribution Survey	1992	6,184	LIS
Time Use Survey 1990/1	1990/1991	4,694	MTUS

Notes: [a]Sample B, respondents aged 25–54 years.
[b]LIS = Luxembourg Income Study, MTUS = Multinational Time Use Study.
Sources: Luxembourg Income Study (LIS) (2005, 2006) and Multinational Time Use Study (MTUS) (2005, 2006).

earner; or (2) a single man or woman who was of prime working age (between 25 and 54 years of age), who did not live with any other adults, and who was an earner. These households could either include children or not include children. The discretionary time and spare time calculations reported in this paper are based on this sample, as are certain steps in the calculation of necessary time in paid labour. Sample sizes for Sample B are given in Table 1.

We restrict our focus in Sample B to prime working-aged people, because one of our principal concerns is with people's ability to achieve a balance between work and family life, and how well different welfare and gender regimes facilitate that. The people for whom that is primarily an issue are those of prime working age, which is also prime child-rearing age as well. Other restrictions in Sample B are introduced for methodological reasons. We restrict the sample to households with no adults apart from the household head and the head's spouse (if there was one), in order to avoid complications surrounding how responsibilities for paid labour and unpaid household labour might be shared in households with more complex structures. Sample B also had to be restricted to households with at least one earner in order to facilitate the determination of necessary time in paid labour.

C. Necessary time in paid labour

Everyone needs to access income, whether through paid labour, property ownership, occupational pensions, government, private charitable organisations, relatives, or some other source. Exactly how much income people need to access is a controversial issue. In this paper we adopt a standard, if conservative, figure as the amount of income people need to access – namely, the poverty line.

There are many ways of calculating a poverty line. The USA alone in the OECD has an official poverty line defined in absolute monetary terms. Elsewhere, particularly in Europe, when governments and especially public policy analysts talk about poverty, they define it relative to the distribution of income within a society (Atkinson 1998).

We follow what is by now the most conventional way of defining the poverty line, which is as 50 per cent of median equivalent income across all people in a country (Atkinson 1998, 31–34). A person's equivalent income is calculated by dividing the household income of that person's household by an equivalence scale, for which we have used the square root of the number of people in the household.

Following standard practice, when calculating the poverty line we operationalise household income as post-government household income, that is, household income net of the impact of government taxes and

transfers. Thus, for example, we calculate the poverty line on the basis of household income after taxes have been paid and after welfare benefits have been received.

The impact of welfare and gender regimes is not confined to taxes and transfers, however. Through the provision of subsidies for childcare, welfare and gender regimes can affect the cost of childcare faced by households. With this in mind, we make one further adjustment to household income, estimating household income net of household childcare costs. Since most of the surveys we used did not contain information on household childcare costs, we were forced to impute them.

We did so through the following procedure. Firstly, we determined the number of hours actually spent in paid labour, excluding travel to and from work, by the adult in the household who actually spent the least time in paid labour, once again excluding travel to and from work. We then estimated household childcare costs for children under 3 years of age by multiplying this number of hours in paid labour, excluding travel to and from work, by the product of the number of children under 3 in the household and the hourly cost to households of acquiring childcare for a child under 3, after taking into account government subsidies. Household childcare costs for children between 3 and 5 years of age were estimated in a similar manner. Household childcare costs, lastly, were estimated by adding together household childcare costs for these two age groups of children. Household childcare costs were estimated to be zero under certain circumstances: if there was no child in the household; if there was an adult in the household who actually spent no time in paid labour; or if the hourly cost to households of acquiring childcare, after taking into account government subsidies, was zero. Figures for the hourly cost of childcare, comparable across countries and time periods, are hard to come by; we describe the procedure we used to estimate these figures in a later section of this paper.

In order for a household to meet the poverty line, it needs a total income equal to the poverty line multiplied by the equivalence scale, which in our case is equal to the square root of the number of people in the household.

One of the ways a household can acquire the income it needs is through paid labour. However, that is not the only way. In order to meet the poverty line, the amount of income a household needs to acquire through paid labour specifically (or the household's necessary paid labour income) is equal to the amount of total income it needs, minus the amount of income it would receive from alternative sources (property ownership, occupational pensions, government taxes and transfers, transfers from private charitable organisations, transfers from relatives, child support, and alimony) if it was around the poverty line.

A household's income from property ownership and occupational pensions is unlikely to change if its income were to move toward the poverty line as a result of its income from other sources changing (as our procedure for estimating necessary time in paid labour assumes). Consequently, for our purposes the most appropriate estimate of the amount of income a household would receive from property ownership and occupational pensions is simply the amount that the household actually receives from these sources.

The same is not necessarily true, however, for government taxes and transfers, transfers from private charitable organisations, transfers from relatives, child support, and alimony. The amount of income a household receives from these sources might well change if its income were to move toward the poverty line as a result of its income from other sources changing. Consequently, for our purposes the most appropriate estimate of the amount of income a household would receive from these sources is not what the household actually receives, but rather what similar households around the poverty line receive. We thus determined the mean amounts of income from these sources that were received by households that were both around the poverty line (that is, households whose members had equivalent incomes between 25 and 75 per cent of median equivalent income across all people) and similar to the households on which our subsequent analyses focus (that is, households that were part of Sample B described earlier). These mean amounts of income reflect a combination of, firstly, entitlement amounts and, secondly, mean take-up rates.

For government taxes and transfers, transfers from private charitable organisations, and transfers from relatives, we calculated separate means for different groups of households, with the aim of capturing some of the variation that exists in the allocation of income from these sources. We first distinguished households with at least one child from those with no child. Among households with at least one child, we then further distinguished between single earners, two-earner couples, and one-earner couples. Unfortunately, because of small numbers of observations it was not possible to make these further distinctions among households with no child. The figure used for the amount of income a household would receive from these sources if it was around the poverty line was set to the mean for whichever of these different groups the household belonged to.

For child support and alimony, we calculated separate means for two different groups of households: those that received child support or alimony; and those that did not (although for those that did not receive child support or alimony, the mean was of course zero). It was not possible to make any further distinctions, because of the small number of observed households that received child support or alimony. The

estimate used for the amount of income a household would receive from these sources if it was around the poverty line was set to the mean for households that received child support or alimony if the household actually did receive child support or alimony. If the household actually did not receive child support or alimony, this figure was set to the mean for households that did not receive income from these sources (that is, it was set to zero).

As mentioned earlier, the income a household would receive from these alternative sources if it was around the poverty line is deducted from the total income it needs in order to meet the poverty line, to yield the household's necessary paid labour income.

How much income each member of the household needs to acquire through paid labour was determined in the following way. Firstly, though children in the household might contribute to the household's income, they were assumed to have no responsibility for the household's strictly necessary paid labour income. Secondly, the proportional responsibility that each adult in the household bears for the household's necessary paid labour income was set at the proportion that he or she contributes to the total earnings (income from wages, salaries, and self employment) actually received by all the household's adults combined. Thus, how much income each member of the household needs to acquire through paid labour was equal to zero for children and, for adults, equal to the household's necessary paid labour income multiplied by the adult's actual earnings relative to the total actual earnings of all the adults in the household.

The time a person needs to spend in paid labour, excluding travel to and from work, was calculated by dividing the amount of income that person needs to acquire through paid labour by that person's wage rate (that is, the person's earnings divided by the hours he or she spends at work).[3]

The amount of income a person needs to acquire through paid labour as just described is net of household childcare costs. If a household incurs childcare costs in the course of meeting its income needs, adults in the household will need to acquire more income through paid labour. When calculating a person's necessary time in paid labour, excluding travel to and from work, we took into account the additional time a person needs to spend in paid labour in order to meet his or her responsibilities in relation to those further costs. Household childcare costs were estimated as described earlier (except that these costs were indexed to the time people need to spend in paid labour, excluding travel to and from work, rather than the time people actually spent in paid labour, excluding travel to and from work). A person's proportional responsibility for household childcare costs was calculated in the same way as a person's

proportional responsibility for his or her household's necessary paid labour income.

Finally, the time a person needs to spend in paid labour (a person's necessary time in paid labour) was calculated by taking the time that person needs to spend in paid labour, excluding travel to and from work, as just described, and adding to this the time that person needs to spend in travel to and from work. The time a person needs to spend in travel to and from work was calculated by first determining the number of days that person needs to spend at work (given the time that person needs to spend in paid labour, excluding travel to and from work, and assuming that this time is concentrated into standard 8–hour work days) and then multiplying this number of days by the mean time actually spent in travel to and from work during work days.

D. Necessary time in unpaid household labour

The time a person needs to spend in unpaid household labour (a person's necessary time in unpaid household labour) is estimated in a manner strongly analogous to the conventional way of calculating (via the poverty line) the amount of income people need to access.

We first calculated the total amount of time actually spent in unpaid household labour by all the people in a person's household combined. In order to take into account economies of scale in consumption and the differing needs of households of different sizes, we divided this by an equivalence scale, for which, as earlier, we used the square root of the number of people in the household. In this way, we estimated a person's equivalent unpaid household labour time. We then calculated poverty lines for unpaid household labour for each of four household types, with each poverty line for unpaid household labour being defined as 50 per cent of median equivalent unpaid household labour time across all of the people within each household type.

These different household types reflect differing amounts of unpaid household labour associated with childcare. Households with a child under 5 years of age must do substantially more childcare (a component of unpaid household labour) than households with no child or only older children. Furthermore, how much time the adult or adults themselves need to spend in childcare for a child under 5 depends on whether there is a stay-at-home adult or whether all adults are employed.[4] Thus we calculate separate poverty lines for unpaid household labour for four household types, first distinguishing households with at least one child under 5 from those with no child under 5 and then further distinguishing between households in which all adults are in paid labour from those in which not all adults are in paid labour.

The total amount of time all the people combined in a person's household need to spend in unpaid household labour (or the household's necessary time in unpaid household labour) is equal to the poverty line for unpaid household labour for that person's household type, multiplied by the equivalence scale (the square root of the number of people in the household).

A person's necessary time in unpaid household labour was then determined in the following way. Firstly, while children might help with unpaid household labour, they were assumed to have no responsibility for the household's strictly necessary time in unpaid household labour. Secondly, the proportional responsibility of each adult in the household was taken to be equal to the proportion that he or she contributes to the total amount of time actually spent in unpaid household labour by all the adults in the household combined. Thus, a person's necessary time in unpaid household labour was equal to zero for children and, for adults, equal to the household's necessary time in unpaid household labour multiplied by the adult's actual time in unpaid household labour relative to the total amount of time actually spent in unpaid household labour by all the adults in the household combined.

E. Necessary time in personal care

The time a person needs to spend in personal care (a person's necessary time in personal care) is estimated in a manner similar to the conventional way of calculating (via the poverty line) the amount of income people need to access. More specifically, we assign each person a necessary time in personal care equal to a given percentage of median actual time in personal care across all people. In the case of personal care, however, the percentage we use is 80 per cent rather than the 50 per cent used in the case of paid labour and unpaid household labour. In theory, we could use 50 per cent rather than 80 per cent when estimating necessary time in personal care. However, doing so yields estimates that are simply not plausible. In the five countries under investigation here, median time in personal care is around 70 hours per week; taking 50 per cent of this would yield estimates of necessary time in personal care of around 35 hours per week, or around 5 hours per day. But surely people require far more than that to sleep, eat, and undertake other personal care activities. Using 80 per cent rather than 50 per cent yields estimates of necessary time in personal care closer to 55 hours per week, or around 8 hours per day.[5]

In all these various ways, necessity in paid labour, unpaid household labour, and personal care are interpreted in ways that are relative rather than absolute. Necessity in each of these three arenas of everyday life is

interpreted as what you need to do in order to meet minimal social standards, as determined by what other people in your society do, rather than what you need to do in order to meet bare, physical requirements.

F. The cost of childcare

Figures for the hourly cost of childcare are hard to come by. For each of the five countries under investigation here, we estimated them through the following procedure.

On the basis of information provided by the Organisation for Economic Co-operation and Development (OECD) (1993, 1996, 1997), we calculated a figure for annual expenditure on early childhood education per student in public and private institutions based on full-time equivalents. We then divided this figure by the 1,920 hours per year that constitute full-time childcare (40 hours per week, 48 weeks per year). The result was an estimate of hourly expenditure on early childhood education per student in public and private institutions.

The resulting estimates relate to the cost of providing childcare. In the absence of government subsidies for childcare, it is likely that these estimates will approximate the hourly cost to households of acquiring childcare in the private market.[6]

Governments, however, typically do provide subsidies for childcare. They do so to a degree that varies from country to country, however. In Sweden – but not in any of the other countries under investigation here – there was an entitlement or guaranteed access to publicly funded early childhood education and care for children under 3 years of age. In Germany, France, and Sweden – but not in the USA or Australia – there were equivalent entitlements or guaranteed access for children between 3 and 5 years of age. Even if there were no such entitlements or guaranteed access, some children were nevertheless enrolled in publicly funded early childhood education and care, with the extent of this enrollment varying from one country to another (Gornick, Meyers and Ross 1996; Gornick and Meyers 2003).

In order to estimate the hourly cost to households of acquiring childcare for a child under 3 years of age, after taking into account government subsidies, we adopted the following strategy. We first estimated the likelihood that a household that would like to enrol a child of this age in publicly subsidised childcare would actually be able to do so. If there was an entitlement or guaranteed access to publicly funded early childhood education and care for children under 3, we assumed that this likelihood was 100 per cent. If there was no such entitlement or guaranteed access, we estimated this likelihood by dividing the percentage of children under 3 enrolled in publicly funded early

childhood education and care by the percentage of children under 3 living in households in which all the adults were either employed or studying (and which, as a result, had the greatest need for childcare). We then estimated the likelihood that a household that would like to enrol a child under 3 in publicly subsidised childcare would actually *not* be able to do so, which, of course, is equal to 1 minus the likelihood just discussed.

With these likelihoods in hand, we took the hourly cost to households of acquiring childcare for a child under 3, after taking into account government subsidies, as being equal to its expected value, given these likelihoods and given the hourly cost to households of acquiring childcare in the private market, in the absence of government subsidies, and the hourly cost to households of acquiring publicly subsidised childcare. The hourly cost to households of acquiring childcare in the private market has already been discussed. We assumed that the hourly cost to households of acquiring publicly subsidised childcare was negligible. We adopted a similar strategy in order to estimate the hourly cost to households of acquiring childcare for a child between 3 and 5 years of age, after taking into account government subsidies.

For both of these age groups of children, information on entitlements and guaranteed access to publicly funded early childhood education and care and on percentages of children enrolled in publicly funded early childhood education and care was derived from Gornick, Meyers, and Ross (1996) and Gornick and Meyers (2003). Information on percentages of children living in households in which all the adults were either employed or studying was derived from the LIS.[7]

G. Pre-government and post-government discretionary time

As mentioned earlier, discretionary time is calculated by subtracting necessary time in paid labour, unpaid household labour, and personal care from 168. Up to this point, necessary time in these activities – and hence discretionary time – have been described in a way that takes into account the activities of welfare-gender regimes. That is to say, up to this point we have been dealing with *post-government* discretionary time. Since the focus of this paper is on the impact that welfare-gender regimes have on the temporal autonomy of their citizens, we need to imagine what necessary time in paid labour, unpaid household labour, and personal care – and hence discretionary time – would be in the absence of the activities of welfare-gender regimes. That is to say, we need to estimate *pre-government* discretionary time. Pre-government discretionary time, then, is the amount of discretionary time a person would have at his or her disposal in the absence of such items as government taxes, transfers,

and childcare subsidies; post-government discretionary time, in contrast, is the amount of time the person has at his or her disposal net of those. The difference between post-government and pre-government discretionary time can then be taken as an indicator of the impact that welfare-gender regimes have on the temporal autonomy of their citizens.

Pre-government discretionary time was estimated in the same manner as post-government discretionary time, except that the following three adjustments were put into effect.

Firstly, the amount of income a household would receive from government taxes and transfers if it was around the poverty line was set to zero.

Secondly, our estimates of the hourly cost to households of acquiring childcare in the private market, in the absence of government subsidies, were used in place of our estimates of the hourly cost to households of acquiring childcare, after taking into account government subsidies.

Thirdly, for German and French households in which the age of the youngest child was between 3 and 5 years and at least one adult was not employed, the household's necessary time in unpaid household labour was increased. This is because, in Germany and France, children between 3 and 5 years or age were quite likely to be enrolled in publicly subsidised childcare, even if they lived in households in which at least one adult was not employed. In contrast, children between 3 and 5 were quite unlikely to be enrolled in publicly subsidised childcare in the USA, Australia, and Sweden if they lived in households in which at least one adult was not employed. The same was true for children under 3 years of age in all of the countries under investigation here. A child who lived in a household in which at least one adult was not employed and who was enrolled in publicly subsidised childcare would no longer be so enrolled in the absence of the activities of welfare-gender regimes. In this situation, the stay-at-home adult would presumably take on the childcare responsibilities that were shouldered by publicly subsidised childcare. In this way, the household's necessary time in unpaid household labour would increase.

The extent of this increase was calculated on the basis of estimates – derived from Gornick, Meyers, and Ross (1996), Gornick and Meyers (2003), and the LIS – of the number and age of children in the household, the mean hours of publicly subsidised childcare provided per week, and the likelihood that children of different age groups would be enrolled in publicly subsidised childcare if they lived in households in which at least one adult was not employed. According to our estimates, this latter likelihood was negligible except in the case of children between 3 and 5 years of age in Germany and France, as alluded to earlier.[8]

Discretionary time and spare time: overall patterns

We will now, in this section and the next, describe the basic patterns that emerge from the distributions of discretionary time and spare time within the five countries under study. Table 2 presents, for these five countries, overall means for spare time and discretionary time among prime working-aged adults in households with at least one earner. Pre-government discretionary time is the amount of discretionary time these adults would have had in the absence of government taxes, transfers, and childcare subsidies; post-government discretionary time is the amount of time they have net of those. Table 2 lists means for both of those and the differences between them for each country. The table also includes standard deviations, as indicators of dispersion.

Looking first at mean spare time, prime working-aged adults in Australia, France, and Sweden have the least spare time, while those in Germany have the most. Adults in the USA enjoy a middling amount of spare time.

A notably different crossnational ranking emerges when we look instead at discretionary time. Both mean pre-government and mean post-government discretionary time are lowest in France and highest in Sweden. The differences are considerable. In Sweden prime working-aged adults enjoy 7.35 hours per week more discretionary time than their counterparts in France pre-government, rising to 9.14 hours per week more post-government.

The impact of welfare-gender regimes, specifically, on the temporal autonomy of their citizens is measured by the difference between

TABLE 2: *Overall mean spare time and mean discretionary time*

	Spare time (hours per week)	Discretionary time (hours per week)		
		Pre-gov't	Post-gov't	Difference
USA, 2000–03	33.48	81.97	80.29	− 1.68
	(22.34)	(23.19)	(22.05)	(6.21)
Australia, 1989–92	29.62	78.51	78.15	− 0.37
	(16.56)	(15.87)	(15.37)	(2.34)
Germany, 1991–94	35.73	84.31	81.08	− 3.24
	(17.59)	(11.80)	(13.51)	(4.10)
France, 1994–99	29.99	77.04	76.08	− 0.96
	(19.80)	(17.38)	(16.67)	(4.48)
Sweden, 1990–92	30.19	84.39	85.22	0.83
	(16.16)	(19.62)	(18.13)	(5.23)

Note: Standard deviations appear in parentheses.

Sources: MTUS: Sample B, respondents aged 25–54 years (spare time); LIS and MTUS: Sample B, respondents aged 25–54 years (discretionary time).

post-government and pre-government discretionary time. In the USA, Australia, Germany, and France, the effect of welfare-gender regimes is on average to decrease the discretionary time that adults have at their disposal – considerably in Germany, marginally in Australia. The Swedish welfare-gender regime, alone among those represented in this study, actually increases the discretionary time that adults have at their disposal.

These countrywide means, however, only tell part of the story here. Within each of these countries, there is noteworthy dispersion around each mean. Within each country, certain groups will find themselves above the mean, while others will find themselves below; certainly the standard deviations presented in Table 2 are notable in size relative to the means. We will now explore the incidence and distribution of discretionary time and spare time in different household types within each of these countries, which is the source of much of this overall within-country dispersion.

Discretionary time and spare time in different household types

Means for spare time and pre-government and post-government discretionary time among prime working-aged men and women in different types of households with at least one earner are given in Appendix Table A1. That table also lists the differences between the means for post-government and pre-government discretionary time among these men and women. The table also includes standard deviations, as indicators of dispersion. These figures are presented for eight groups of men and women identified on the basis of various household characteristics: whether or not the household has at least one child; whether the household is constituted by a single earner, a two-earner couple, or a one-earner couple; and in one-earner couples, whether the man or woman is an earner or a non-earner.

Focusing on the means for spare time and post-government discretionary time, some crossnationally consistent patterns clearly emerge across our five countries. One is that, in all of these countries, the same particular groups of men and women occupy the extreme ends of the distributions of spare time and post-government discretionary time. More specifically the following patterns can be identified.

Firstly, in all of these countries mothers in two-earner couples have very small amounts of spare time. Secondly, in all of these countries non-employed men in childless, one-earner couples have the most spare time. Non-employed women in childless, one-earner couples and non-employed fathers in one-earner couples have the next most spare time.[9]

Thirdly, single mothers consistently have very low levels of post-government discretionary time. The same is true of employed mothers in one-earner couples. Fourthly, non-employed men in childless, one-earner couples consistently enjoy the most post-government discretionary time. Men in childless, two-earner couples and non-employed fathers in one-earner couples also consistently enjoy very high levels of post-government discretionary time.

The following more general patterns can also be delineated.

Firstly, non-employed men and women in one-earner couples almost invariably have more spare time than their employed counterparts both in one-earner couples and in the other household types.[10] The same is true in relation to post-government discretionary time.[11] For example, non-employed mothers in one-earner couples almost invariably have relatively large amounts of both spare time and post-government discretionary time in comparison to employed mothers in one-earner and two-earner couples, as well as in comparison to single mothers. Secondly, men and women in households with at least one child almost invariably have less spare time than their counterparts in households with no child.[12] The same is true in relation to post-government discretionary time.[13] Thirdly, men and women in two-earner couples consistently have more post-government discretionary time than their employed counterparts in the other household types. Fourthly, males almost invariably have more post-government discretionary time than their female counterparts.[14]

On the whole, the groups of men and women with comparatively small amounts of spare time are not necessarily the same as those with relatively low levels of post-government discretionary time. Similarly, the groups of men and women with comparatively high levels of post-government discretionary time are not necessarily the same as those with relatively large amounts of spare time. This counts as crossnational confirmation of a pattern we found in earlier research on Australia alone (Goodin, Rice, Bittman and Saunders 2005).

The impact of welfare and gender regimes on different household types

The previous two sections have described the basic patterns that emerge from the distributions of discretionary time and spare time within the five countries under study here. In this and the following section, we turn specifically to the impact the various welfare-gender regimes have on the discretionary time of particular groups within these countries. Taking the difference between post-government and pre-government discretionary time as an indicator of the impact that welfare-gender regimes have on the temporal autonomy of their citizens, what does Appendix Table A1

suggest about each of the countries under study here and their respective regimes?

The welfare-gender regime in the USA appears to be a regime that has marginal or negative effects on the temporal autonomy of its citizens – with the exception, that is, of highly targeted, positive effects on single parents. The actions of the welfare-gender regime in the USA work to increase the discretionary time at the disposal of single mothers by 6.18 hours per week. This can be interpreted as indicating that, in the absence of the activities of the welfare-gender regime in the USA, single mothers would on average need to spend an extra 6.18 hours per week in paid labour in order to raise their families to the poverty line. The welfare-gender regime in the USA also increases the discretionary time enjoyed by single fathers, by 2.58 hours per week.

The welfare-gender regime in Australia echoes that in the USA. The Australian welfare-gender regime, like its counterpart in the USA, has highly targeted, positive effects on the temporal autonomy of single parents. The Australian welfare-gender regime works to increase the discretionary time at the disposal of single mothers by 6.92 hours per week, while the discretionary time enjoyed by single fathers is also increased, by 5.11 hours per week.

The welfare-gender regime in Germany could be characterised as temporally natalist and supportive of families – but only in a way that is highly selective. In Germany, men and women in one-earner couples face smaller government-imposed penalties in terms of temporal autonomy if they have a child than if they do not. This contrasts with the situation confronted by men and women who are single or in two-earner couples, who either face larger government-imposed temporal penalties if they have a child, or else face more or less the same temporal penalties. Notably, the German welfare-gender regime increases the discretionary time experienced by non-earners in one-earner couples with at least one child, while having little effect on the discretionary time of non-earners in one-earner couples with no child. Through its impact on the discretionary time experienced by different groups of men and women, the German welfare-gender regime encourages men and women in one-earner couples to have children, while at the same time discouraging those in two-earner couples from doing so and providing little encouragement to men and women who are single. The German welfare-gender regime also encourages the formation of couples, reserving its largest penalties in terms of temporal autonomy for single men and women, whether with or without a child (it decreases the discretionary time single men and women have at their disposal by between 5.14 and 6.78 hours per week).

Like the welfare-gender regime in Germany, the French welfare-gender regime emerges as one that is characterised temporally by natalist tendencies and the provision of significant levels of support for families. While the French welfare-gender regime is particularly supportive of families with only one earner, it is nevertheless temporally natalist and supportive of families in a much broader and more powerful way than is the German regime. Without exception, fathers and mothers in France experience more positive impacts on their temporal autonomy as a result of the actions of the French welfare-gender regime than do their counterparts in households with no child. These differences are particularly pronounced for those in households with only one earner, that is, single earners and those in one-earner couples. For example, whereas the actions of the French welfare-gender regime increase the discretionary time at the disposal of single mothers by 4.85 hours per week, they decrease the discretionary time experienced by single women with no child by 4.12 hours per week. Similarly, while the French welfare-gender regime increases the discretionary time of earners in one-earner couples with at least one child by between 3.83 and 5.43 hours per week, it decreases the discretionary time of earners in one-earner couples with no child by between 4.05 and 4.50 hours per week. Notably, the French welfare-gender regime – like its German counterpart – increases the discretionary time experienced by non-earners in one-earner couples with at least one child, while having little impact on the discretionary time experienced by non-earners in one-earner couples with no child. The differences between fathers and mothers and men and women in households with no child are more subdued for those in two-earner couples, although they still operate in favour of fathers and mothers.

The Swedish welfare-gender regime is characterised temporally by powerful natalist tendencies and the provision of significant levels of support for families. The welfare-gender regime in Sweden generally impacts positively on the temporal autonomy of men and women with at least one child, but negatively on those with no child. The sole exception to this pattern is that the Swedish welfare-gender regime has little effect on the discretionary time experienced by non-earners in one-earner couples, irrespective of whether they have a child or not.

The impact of welfare and gender regimes on groups of regime-specific concern

As discussed earlier, different welfare-gender regimes take particular interest in the welfare of different groups within society. To assess welfare-gender regimes' differential impact on those of most concern to them, we need to conduct a group-by-group assessment of their impact on temporal autonomy.

Liberal welfare-gender regimes, recall, would traditionally be expected to concentrate their largesse first and foremost on the 'deserving poor' (the old, the young, and the disabled) and, secondly, on the poor. Other welfare-gender regimes with more pro-natalist orientations might consider motherhood, even single motherhood, a deserving status in its own right. Earlier liberal welfare regimes might have done likewise; witness US Aid to Families with Dependent Children and the Australian Sole Parent Pension (still extant during the time period here under discussion: Barrett 2001). But even after ceasing to count single mothers among the 'deserving poor', liberal welfare-gender regimes would still be expected to concentrate benefits on single mothers and their children as the 'poorest of the poor'. For that reason if no other, we ought to expect that, while some (but not other) welfare-gender regimes ought be expected to assist single mothers, liberal regimes ought be expected to help them and largely them alone.

Figure 1 offers evidence on that point. This figure describes the impact of welfare-gender regimes on the discretionary time of prime working-aged single, working mothers. Here the impact of welfare-gender regimes is measured by the difference between post-government and pre-government discretionary time. From this figure we see that the liberal welfare-gender regimes in the USA and Australia do indeed have significant positive impacts on the discretionary time of single mothers (as foreshadowed in the previous section of this paper). Both regimes give single mothers more than 6 extra hours a week, about the same as the regime in Sweden and notably more than the regimes in the other countries. That performance ought be set in context, of course: single mothers in the USA and Australia had less discretionary time, pre-government, than single mothers in any of the other countries (see Appendix Table A1). Even after the relatively strong performance in assisting single mothers provided by the welfare-gender regimes in the USA and Australia, single mothers in the USA still end up with notably less discretionary time, post-government, than their counterparts in all the other countries, while single mothers in Australia end up with less post-government discretionary time than their counterparts in all the other countries bar Germany. Still, if we are judging welfare-gender regimes by the priorities they set, the liberal regimes in the USA and Australia run true to the expectations previously outlined.

Corporatist welfare-gender regimes, as conservative regimes, would be expected to be particularly concerned to promote traditional family structures, leading them to take a particular interest in stay-at-home mothers. An inspection of Appendix Table A1 shows that of the welfare-gender regimes studied here the corporatist regimes in Germany and France are indeed the only ones to have any impact at all on the

amount of discretionary time enjoyed by prime working-aged stay-at-home mothers in one-earner couples. Of the two, the regime in France makes the most difference in absolute terms (5.34 hours per week). The contribution to stay-at-home mothers' discretionary time made by the regime in Germany is less in absolute terms (2.82 hours per week); but it should be noted that the German regime treats them better than virtually any other group, virtually all of the others being net losers in discretionary-time terms from German regime interventions.[15] Once again, stay-at-home mothers have more discretionary time, in absolute terms, in other countries (particularly, the USA and Sweden) than they do in Germany and France. But in terms of the difference government taxes, transfers, and childcare subsidies make, those of the corporatist welfare-gender regimes make the greatest positive differences to the discretionary time of stay-at-home mothers, just as would ordinarily be expected.

Finally, social democratic welfare-gender regimes would traditionally be expected to combine a concern with pro-natalism with a concern for gender equality. The first of these concerns would be expected to lead them to promote the interests of parents over those of non-parents. The second would be expected to lead them to focus most particularly upon the equal participation of men and women in the paid labour market,

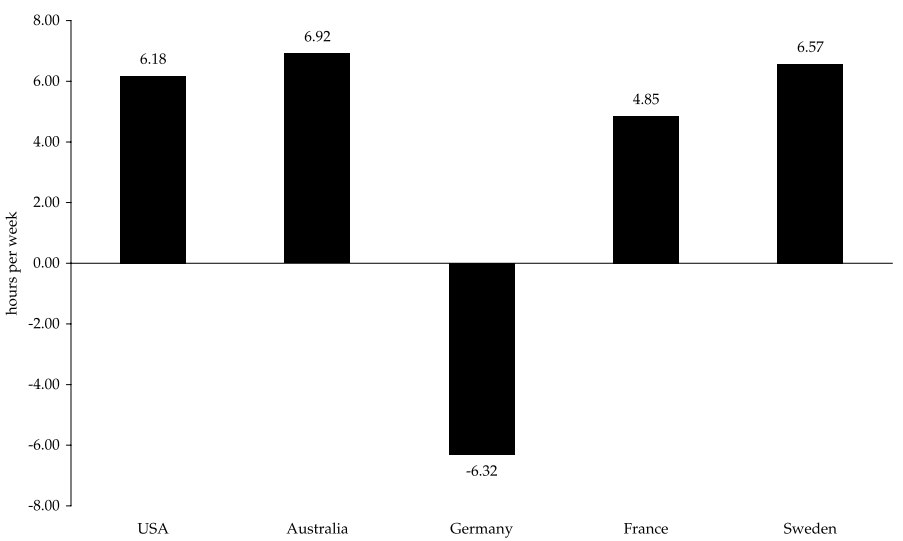

FIGURE 1: *The impact of welfare and gender regimes on the discretionary time of single, working mothers*

Sources: LIS and MTUS: Sample B, women aged 25–54 years with at least one child who are single and earners.

even (or perhaps especially) if they have children. The combination of these two considerations leads us to expect social democratic welfare-gender regimes to be particularly supportive of two-earner couples with children.

That expectation is borne out by evidence from Appendix Table A1. There we see that in Sweden all categories of parents who are in paid labour are net gainers in discretionary-time terms post-government compared to pre-government (as alluded to in the previous section of this paper). Among the countries under study, Sweden is unique in that respect. In all the other countries, many (in some countries, most) categories of parents in paid labour are net losers in discretionary time terms from welfare-gender regime interventions. The closest that any other country comes to achieving the same record as Sweden is France, where all categories of parents in paid labour are net gainers, except those in two-earner couples. The case of parents in two-earner couples is the litmus test that distinguishes the pro-natalism of France's corporatist regime from the gendered-egalitarian pro-natalism of Sweden's strongly social democratic one.

Figure 2 offers evidence on that score. This figure describes the impact of welfare-gender regimes on the discretionary time of prime working-aged parents in two-earner couples. The impact of welfare-gender regimes is measured by the difference between post-government and pre-government discretionary time. From Figure 2 we see that the social democratic welfare-gender regime in Sweden is the only regime that has a positive impact on the discretionary time available to parents in two-earner couples. There we also see that the magnitude of the Swedish regime's impact on the discretionary time of the household as a whole (adding together the impacts on the father and the mother) is broadly on a par with the positive impacts other regimes have on their favoured groups; and, recalling Figure 1, this is also broadly on a par with the impact the Swedish regime has on single mothers.

Conclusion

The familiar welfare and gender regimes can indeed be replicated looking at time rather than money. The great advantage of doing so is to help us see, in ways that are meaningful to one and all, just how big the differences between those regimes actually are. If I hear that the government gave someone $5,000, it is hard to immediately know what to make of that information. Is it a lot? Is it a little? If I hear that, thanks to the government, someone has an extra 5 hours a week to spend as he or she pleases, that is information to which I can relate: I know what 5 hours is and what could be done with it. Time is a

metric that is interpersonally comparable as well as personally deeply meaningful.

Moving from France to Sweden, you would gain around 9 extra hours of discretionary time per week – time to spend as you please. Think of it as having Monday off work each week. That constitutes a substantial difference in temporal autonomy.

The specific tax-transfer and childcare arrangements of different welfare and gender regimes make much less of a difference. On average, those arrangements give people nearly an hour extra a week of discretionary time in social democratic Sweden, whereas they actually reduce discretionary time on average in all the other regime types and by as much as 3 hours a week in Germany.

But countrywide averages tell only part of the story here. Each welfare and gender regime prioritises certain groups over others; and those who are singled out for special treatment in this way tend to get around 5 hours a week more discretionary time from that regime's tax-transfer and childcare system. Stay-at-home mothers are favoured in this way in corporatist France (and to a lesser extent in Germany). Parents in two-earner couples, adding together the increases in discretionary time for both partners, are favoured to about the same extent in social democratic Sweden. Lone mothers are favoured to about the same extent in all countries (except in corporatist Germany); but lone mothers benefit

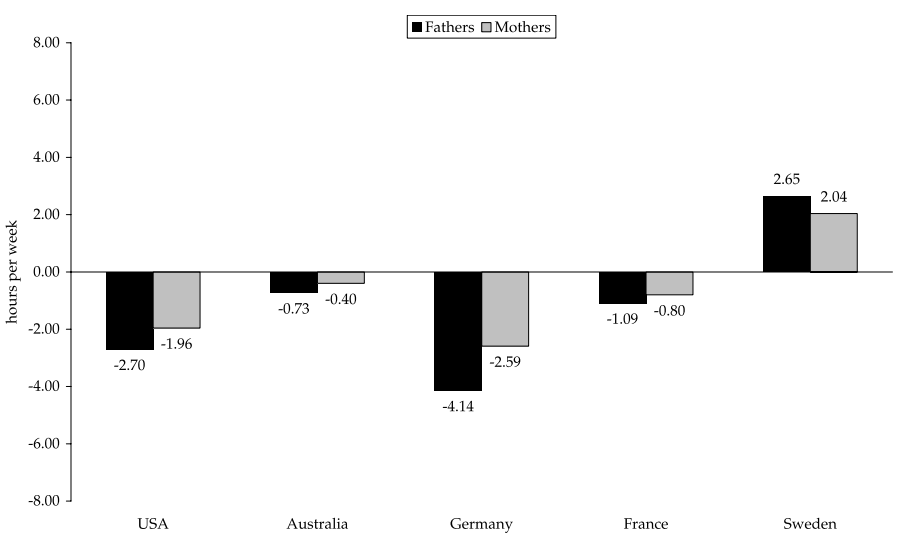

FIGURE 2: *The impact of welfare and gender regimes on the discretionary time of parents in two-earner couples*

Sources: LIS and MTUS: Sample B, respondents aged 25–54 years who are in two-earner couples with at least one child.

most from the highly targeted, liberal welfare and gender regimes in the USA and Australia, and from social democratic Sweden's strongly pro-natalist, gendered-egalitarian one.

All the welfare and gender regimes thus run true to form, favouring in temporal terms precisely the groups that we have always thought they favoured in their tax-transfer and childcare provisions. Together, the impact of those arrangements is to increase the discretionary time available to the groups favoured by each regime by about 5 hours a week. Having a half day more a week is a not inconsiderable contribution to one's temporal autonomy. Thinking of the impact of government interventions in these sorts of temporal terms helps us see, in a particularly vivid way, just what they are worth to us in our daily lives.

Appendix Table A1: *Mean spare time and mean discretionary time in different household types*

					One-earner couples			
	Single earners		Two-earner couples		Earners		Non-earners	
	Men	Women	Men	Women	Men	Women	Men	Women
Households with no child (hours per week)								
USA, 2000–03								
Spare time	38.30	33.93	36.73	32.98	34.77	33.03	64.14	55.10
	(24.33)	(22.61)	(22.38)	(19.99)	(23.73)	(21.94)	(28.40)	(20.67)
Discretionary time								
Pre-gov't	82.09	81.52	96.23	94.85	86.14	75.14	101.00	97.38
	(16.87)	(17.35)	(8.99)	(7.05)	(21.06)	(25.56)	(0.00)	(0.00)
Post-gov't	77.97	77.29	94.37	93.27	82.77	70.29	101.00	97.38
	(19.30)	(19.36)	(10.32)	(8.13)	(23.26)	(27.96)	(0.00)	(0.00)
Difference	− 4.12	− 4.23	− 1.86	− 1.58	− 3.38	− 4.85	0.00	0.00
	(3.14)	(3.06)	(1.38)	(1.13)	(2.86)	(3.38)	(0.00)	(0.00)
AUSTRALIA, 1989–92								
Spare time	34.15	33.81	29.96	28.87	38.18	42.66[a]	51.38[a]	44.56
	(19.39)	(18.88)	(17.15)	(14.65)	(18.67)	(10.41)[a]	(7.03)[a]	(13.43)
Discretionary time								
Pre-gov't	80.28	77.68	91.45	87.23	80.51	79.39[a]	93.59[a]	88.05
	(15.98)	(22.71)	(6.23)	(5.01)	(12.41)	(9.48)[a]	(0.00)[a]	(0.00)
Post-gov't	79.75	77.09	91.15	86.99	79.92	78.93[a]	93.59[a]	88.05
	(16.07)	(22.85)	(6.38)	(5.16)	(12.75)	(9.69)[a]	(0.00)[a]	(0.00)
Difference	− 0.53	− 0.59	− 0.30	− 0.25	− 0.59	− 0.46[a]	0.00[a]	0.00
	(0.35)	(0.50)	(0.22)	(0.22)	(0.39)	(0.23)[a]	(0.00)[a]	(0.00)
GERMANY, 1991–94								
Spare time	44.18	35.31	35.20	32.58	39.99	42.67[a]	62.29[a]	45.25
	(18.87)	(16.96)	(18.26)	(16.10)	(20.36)	(28.90)[a]	(21.78)[a]	(16.01)
Discretionary time								
Pre-gov't	85.73	83.65	95.55	92.69	89.22	80.20[a]	96.27[a]	89.82
	(8.55)	(10.93)	(4.91)	(3.71)	(11.28	(4.14)[a]	(0.00)[a]	(0.00)

APPENDIX TABLE A1: *Continued*

	Single earners		Two-earner couples		One-earner couples: Earners		One-earner couples: Non-earners	
	Men	Women	Men	Women	Men	Women	Men	Women
GERMANY, 1991–94								
Discretionary time								
Post-gov't	79.90	76.86	92.66	90.27	84.26	74.57[a]	96.27[a]	89.82
	(12.26)	(15.68)	(6.37)	(4.87)	(14.78)	(5.34)[a]	(0.00)[a]	(0.00)
Difference	− 5.83	− 6.78	− 2.89	− 2.43	− 4.95	− 5.63[a]	0.00[a]	0.00
	(3.75)	(4.80)	(1.53)	(1.23)	(3.55)	(1.23)[a]	(0.00)[a]	(0.00)
FRANCE, 1994–99								
Spare time	36.45	31.03	30.50	24.77	31.41	40.63[a]	58.99[a]	40.55
	(22.36)	(19.33)	(19.95)	(17.37)	(21.72)	(18.16)[a]	(13.99)[a]	(18.52)
Discretionary time								
Pre-gov't	78.71	76.27	89.04	86.54	78.62	69.56	92.15	85.63
	(10.99)	(22.78)	(5.79)	(4.76)	(12.21)	(23.33)	(0.00)	(0.00)
Post-gov't	74.67	72.15	86.95	84.83	74.57	65.07	92.15	85.63
	(13.60)	(23.53)	(6.68)	(5.53)	(14.02)	(27.31)	(0.00)	(0.00)
Difference	− 4.04	− 4.12	− 2.10	− 1.72	− 4.05	− 4.50	0.00	0.00
	(2.66)	(2.83)	(1.00)	(0.85)	(2.10)	(4.04)	(0.00)	(0.00)
SWEDEN, 1990–92								
Spare time	36.83	35.10	31.43	29.12	31.50	37.84	58.44[a]	45.79
	(18.91)	(17.35)	(16.08)	(13.15)	(18.67)	(14.43)	(17.69)[a]	(13.22)
Discretionary time								
Pre-gov't	80.82	82.05	96.99	95.26	70.41	70.14[a]	100.12[a]	92.50
	(24.26)	(20.84)	(6.56)	(4.73)	(42.29)	(38.16)[a]	(0.00)[a]	(0.00)
Post-gov't	78.34	79.82	95.92	94.38	67.64	67.85[a]	100.12[a]	92.50
	(25.91)	(21.15)	(7.14)	(5.14)	(44.02)	(37.92)[a]	(0.00)[a]	(0.00)
Difference	− 2.48	− 2.23	− 1.08	− 0.88	− 2.77	− 2.29[a]	0.00[a]	0.00
	(2.52)	(1.23)	(0.65)	(0.48)	(2.79)	(1.13)[a]	(0.00)[a]	(0.0)
Households with at least one child (hours per week)								
USA, 2000–03								
Spare time	33.90	29.64	31.02	28.69	30.04	26.80	49.66	36.83
	(24.68)	(20.47)	(22.20)	(19.46)	(22.15)	(17.83)	(27.61)	(19.16)
Discretionary time								
Pre-gov't	64.71	42.03	84.42	82.25	75.28	53.22	94.89	86.12
	(31.50)	(46.94)	(17.60)	(15.48)	(26.84)	(38.76)	(2.03)	(3.31)
Post-gov't	67.28	48.21	81.72	80.29	73.84	50.93	94.89	86.12
	(26.06)	(39.00)	(17.27)	(14.39)	(27.76)	(39.79)	(2.03)	(3.31)
Difference	2.58	6.18	− 2.70	− 1.96	− 1.44	− 2.29	0.00	0.00
	(13.63)	(19.31)	(4.84)	(4.37)	(1.17)	(1.63)	(0.00)	(0.00)
AUSTRALIA, 1989–92								
Spare time	28.88[a]	30.45	27.91	26.48	27.50	34.36[a]	48.41[a]	31.62
	(15.90)[a]	(18.13)	(17.02)	(14.20)	(16.74)	(17.91)[a]	(20.22)[a]	(13.88)
Discretionary time								
Pre-gov't	63.79	53.52	80.83	76.04	69.66	53.58[a]	87.62[a]	76.21
	(12.98)	(27.72)	(15.48)	(12.82)	(18.98)	(30.92)[a]	(3.35)[a]	(4.03)

Appendix Table A1: *Continued*

	Single earners		Two-earner couples		One-earner couples: Earners		One-earner couples: Non-earners	
	Men	Women	Men	Women	Men	Women	Men	Women
AUSTRALIA, 1989–92								
Discretionary time								
Post-gov't	68.90	60.44	80.10	75.64	67.76	51.22[a]	87.62[a]	76.21
	(11.37)	(22.75)	(14.73)	(11.89)	(19.81)	(32.68)[a]	(3.35)[a]	(4.03)
Difference	5.11	6.92	− 0.73	− 0.40	− 1.90	− 2.36[a]	0.00[a]	0.00
	(2.15)	(7.90)	(2.20)	(1.99)	(1.13)	(1.84)[a]	(0.00)[a]	(0.00)
GERMANY, 1991–94								
Spare time	34.32	30.64	34.44	31.40	35.31	27.45[a]	48.54[a]	35.79
	(14.05)	(15.64)	(17.37)	(15.40)	(17.09)	(9.92)[a]	(19.52)[a]	(14.56)
Discretionary time								
Pre-gov't	77.72[a]	64.11	87.11	83.50	75.82	47.80[a]	89.17[a]	78.40
	(2.04)[a]	(32.62)	(8.21)	(7.20)	(12.69)	(28.75)[a]	(3.42)[a]	(5.68)
Post-gov't	72.58[a]	57.79	82.97	80.91	72.37	44.67[a]	92.24[a]	81.21
	(3.01)[a]	(32.30)	(9.78)	(8.45)	(14.55)	(32.30)[a]	(2.01)[a]	(3.75)
Difference	− 5.14[a]	− 6.32	− 4.14	− 2.59	− 3.44	− 3.13[a]	3.07[a]	2.82
	(0.98)[a]	(3.44)	(2.06)	(1.80)	(2.56)	(5.18)[a]	(2.44)[a]	(3.73)
FRANCE, 1994–99								
Spare time	22.82[a]	27.79	29.41	24.26	32.08	28.51	49.65	32.72
	(10.16)[a]	(16.80)	(20.42)	(17.09)	(21.44)	(16.16)	(19.69)	(15.73)
Discretionary time								
Pre-gov't	71.60[a]	56.29	80.31	75.48	62.47	50.99	87.38	74.61
	(6.81)[a]	(27.16)	(12.34)	(11.84)	(26.93)	(24.42)	(4.54)	(8.90)
Post-gov't	73.54[a]	61.14	79.22	74.68	66.30	56.41	90.19	79.94
	(6.25)[a]	(26.28)	(10.89)	(10.24)	(26.35)	(22.89)	(1.75)	(3.55)
Difference	1.94[a]	4.85	− 1.09	− 0.80	3.83	5.43	2.81	5.34
	(0.76)[a]	(4.54)	(3.19)	(3.30)	(2.79)	(5.44)	(4.90)	(8.38)
SWEDEN, 1990–92								
Spare time	24.74	27.89	27.64	27.11	27.69	19.89[a]	51.92[a]	31.09
	(11.90)	(16.00)	(14.89)	(14.85)	(16.37)	(10.24)[a]	(20.01)[a]	(15.07)
Discretionary time								
Pre-gov't	70.74	61.60	86.71	84.08	67.04	60.58[a]	93.59[a]	82.18
	(21.17)	(36.29)	(14.18)	(11.25)	(36.27)	(23.49)[a]	(2.02)[a]	(4.75)
Post-gov't	75.19	68.18	89.36	86.12	73.74	68.00[a]	93.59[a]	82.18
	(17.88)	(30.75)	(10.33)	(7.77)	(31.23)	(19.50)[a]	(2.02)[a]	(4.75)
Difference	4.45	6.57	2.65	2.04	6.70	7.42[a]	0.00[a]	0.00
	(5.63)	(11.39)	(5.41)	(4.90)	(5.93)	(4.18)[a]	(0.00)[a]	(0.00)

Notes: Standard deviations appear in parentheses.

[a]The number of observations in this cell is less than 30.

Sources: MTUS: Sample B, respondents aged 25–54 years (spare time); LIS and MTUS: Sample B, respondents aged 25–54 years (discretionary time).

NOTES

1. Precursors are found in Goodin, Parpo and Kangas (2004) and Goodin, Rice, Bittman and Saunders (2005): we stand by the rationales offered there, although over the course of this evolving project some of the finer points of methodology have been altered.
2. How well this distinction corresponds to that mentioned earlier (between one component that is an instance of spare time or leisure and another that is not) would be an interesting question for future research.
3. There are theoretical grounds for supposing that one's wage rate might be a function of the time one spends in paid labour, excluding travel to and from work. We explored this possibility by first estimating an equation that treated a person's wage rate as a function of the time that person spent in paid labour, excluding travel to and from work, in addition to various human capital and other characteristics, and then incorporating this equation into the determination of the time a person needs to spend in paid labour, again excluding travel to and from work. This did not change our basic results very much, so we omitted these complications from our further analyses.
4. Households with a child under 5 in which all adults are employed will meet some of those needs by purchasing childcare; and the time adults in such households themselves need to spend in unpaid household labour will be reduced accordingly (although the time they need to spend in paid labour to pay for this extra childcare will increase accordingly, as reflected in our calculations of necessary time in paid labour). In households in which at least one adult is not employed, all the extra unpaid household labour associated with the care of a child under 5 would be performed in-house by the stay-at-home adult.
5. When necessary time in personal care is estimated in this much more plausible manner, across the five countries under study here the percentage of people who spend less time than necessary in personal care ranges between a minimum of 8.27 per cent (in Sweden) and a maximum of 12.04 per cent (in the USA). These percentages line up well against more conventional poverty rates based on income, that is, the percentages of people who access less income than necessary as defined by the poverty line. Across the countries under study here, the poverty rate ranged between a minimum of 6.42 per cent (again in Sweden) and a maximum of 17.67 per cent (once again, in the USA) .
6. Reassuringly, this does indeed seem to be the case. In the case of Australia, for example, Teal (1992) argues that in 1988 the mean hourly amount paid by parents who used private long day care centres was $1.88 per child. Our estimate of the hourly cost to Australian households of acquiring childcare in the private market, in the absence of government subsidies, approximates this other estimate very nicely, at $2.01 per child.
7. Once again, reassuringly, our estimates seem to approximate other estimates. In the case of Australia, for example, the Australian Institute of Health and Welfare (2001) suggests that, in relation to two-earner couples on 1.75 average weekly earnings with one child in long day care in 1991, the mean hourly cost of childcare borne by parents (which equals the fee charged by childcare providers minus the cost of childcare borne by government, that is, the amount of government assistance payable) ranged between $1.44 and $1.61, depending on the type of long day care used (in community-based centres, in private centres, or family day care) and the amount of time long day care was used for (20 or 40 hours per week). Our estimates of the hourly cost to Australian households of acquiring childcare, after taking into account government subsidies, are, at $1.91 per child under 3 and $0.87 per child between 3 and 5, consistent with these other estimates.
8. For a child who lived in a household in which all the adults were employed and who was enrolled in publicly subsidised childcare, the childcare responsibilities shouldered by publicly subsidised childcare would, in the absence of the activities of welfare-gender regimes, presumably be taken on by childcare in the private market. This is taken into account via the second adjustment listed here.
9. Except in France, where employed women in childless, one-earner couples have less spare time than the latter group, but marginally more spare time than the former group.
10. With the exception of non-employed women in childless, one-earner couples in France and non-employed women in one-earner couples with at least one child in Australia.
11. With the exception of non-employed women in childless, one-earner couples in Germany and Sweden and non-employed women in one-earner couples with at least one child in Sweden.
12. With the exception of employed men in one-earner couples in France.
13. With the exception of employed men and women in one-earner couples in Sweden.
14. With the exception of single men and women with no child and employed men and women in childless, one-earner couples in Sweden.

15. The only exceptions are non-earners in childless, one-earner couples (on whom the German interventions have no impact either way) and non-employed fathers in one-earner couples (for whom the impact is positive and of the same order of magnitude as that for stay-at-home mothers in one-earner couples, although the figure for fathers is based on observations too few in number to be entirely reliable).

REFERENCES

Abraham, K.G. and Mackie, C. (eds.) (2005) *Beyond the Market: Designing Nonmarket Accounts for the United States*. Report of the Panel to Study the Design of Nonmarket Accounts, Division of Behavioral and Social Sciences and Education, National Research Council. Washington, D.C.: National Academies Press.

Atkinson, A.B. (1998) *Poverty in Europe*. Oxford: Blackwell.

Australian Institute of Health and Welfare (2001) Trends in the Affordability of Child Care Services. Welfare Division Paper #29. Canberra: Australian Institute of Health and Welfare.

Barrett, G.F. (2001) The Dynamics of Participating in Parenting Payment (Single) and the Sole Parent Pension. Policy Research Paper #14. Canberra: Department of Family and Community Services, Commonwealth of Australia.

Beckerman, W. (1978) *Measures of Leisure, Equality and Welfare*. Paris: OECD.

Castles, F.G. (1998) *Comparative Public Policy: Patterns of Post-war Transformation*. Cheltenham: Elgar.

Castles, F.G. and Mitchell, D. (1992) Identifying welfare state regimes: the links between politics, instruments and outcomes, *Governance*, 5, 1, 1–26.

Eriksson, L., Rice, J.M. and Goodin, R.E. (2006) Temporal aspects of life satisfaction, *Social Indicators Research*, forthcoming.

Esping-Andersen, G. (1990) *The Three Worlds of Welfare Capitalism*. Oxford: Pol'ity Press.

Esping-Andersen, G. (1999) *Social Foundations of Postindustrial Economies*. Oxford: Oxford University Press.

Frey, B.S. and Stutzer, A. (2002a) *Happiness & Economics*. Princeton, N.J.: Princeton University Press.

Frey, B.S. and Stutzer, A. (2002b) What can economists learn from happiness research? *Journal of Economic Literature*, 40, 2, 402–435.

Friedman, M. and Friedman, R. (1980) *Free to Choose*. Harmondsworth, Mddx.: Penguin.

Gauthier, A.H. (1996) *The State and the Family: A Comparative Analysis of Family Policies in Industrialized Countries*. Oxford: Clarendon Press.

Gershuny, J. (2000) *Changing Times: Work and Leisure in Postindustrial Society*. Oxford: Oxford University Press.

Goodin, R.E., Headey, B., Muffels, R. and Dirven, H.-J. (1999) *The Real Worlds of Welfare Capitalism*. Cambridge: Cambridge University Press.

Goodin, R.E. and Mitchell, D. (eds.) (2000) *The Foundations of the Welfare State*. Aldershot: Edward Elgar.

Goodin, R.E., Parpo, A. and Kangas, O. (2004) The temporal welfare state: the case of Finland, *Journal of Social Policy*, 33, 4, 531–552.

Goodin, R.E., Rice, J.M., Bittman, M. and Saunders, P. (2005) The time-pressure illusion: discretionary time vs. free time, *Social Indicators Research*, 73, 1, 43–70.

Gornick, J.C. and Meyers, M.K. (2003) *Families that Work: Policies for Reconciling Parenthood and Employment*. New York: Russell Sage Foundation.

Gornick, J.C., Meyers, M.K. and Ross, K.E. (1996) Supporting the Employment of Mothers: Policy Variation across Fourteen Welfare States. Luxembourg Income Study Working Paper #139.

Hawrylyshyn, O. (1977) Towards a definition of non-market activities, *Review of Income and Wealth*, 23, 1, 79–96.

Holloway, S., Short, S. and Tamplin, S. (2002) *Household Satellite Account (Experimental) Methodology*. London: Office of National Accounts, National Statistics. Available at: http://www.statistics.gov.uk/hhsa/hhsa/resources/fileattachments/hhsa.pdf (accessed 25 April 2003).

Juster, F.T., Courant, P.N. and Dow, G.K. (1985) A conceptual framework for the analysis of time allocation data, in F.T. Juster and F.P. Stafford (eds.) *Time, Goods, and Well-Being*. Ann Arbor: Institute for Social Research, University of Michigan.

Korpi, W. (1983) *The Democratic Class Struggle*. London: Routledge and Kegan Paul.

Korpi, W. (2000) Faces of inequality: gender, class, and patterns of inequalities in different types of welfare states, *Social Politics*, 7, 2, 127–191.

Layard, R. (2005) *Happiness: Lessons from a New Science*. London: Allen Lane.

Lewis, J. (1992) Gender and welfare regimes, *Journal of European Social Policy*, 2, 159–173.

Luxembourg Income Study (LIS) (2005) Micro database. Luxembourg: Luxembourg Income Study. Available through: http://www.lisproject.org.

Luxembourg Income Study (LIS) (2006) Luxembourg Income Study Website. http://www.lisproject.org (accessed 10 April 2006).

Multinational Time Use Study (MTUS) (2005) Version 5.5.2. Colchester: Institute for Social and Economic Research, University of Essex. Available through: http://www.iser.essex.ac.uk/mtus.

Multinational Time Use Study (MTUS) (2006) Multinational Time Use Study Website. http://www.iser.essex.ac.uk/mtus (accessed 10 April 2006).

Nordhaus, W.D. and Tobin, J. (1973a) Is growth obsolete?, in M. Moss (ed.) *The Measurement of Economic and Social Performance*. New York: National Bureau of Economic Research.

Nordhaus, W.D. and Tobin, J. (1973b) Reply, in M. Moss (ed.) *The Measurement of Economic and Social Performance*. New York: National Bureau of Economic Research.

O'Connor, J.S., Orloff, A.S. and Shaver. S. (1999) *States, Markets, Families: Gender and Social Policy in Australia, Canada, Great Britain and the United States*. Cambridge: Cambridge University Press.

Organisation for Economic Co-operation and Development (OECD) (1993) *Education at a Glance: OECD Indicators*. Paris: OECD.

Organisation for Economic Co-operation and Development (OECD) (1995) *Household Production in OECD Countries: Data Sources and Measurement Methods*. Paris: OECD.

Organisation for Economic Co-operation and Development (OECD) (1996) *Education at a Glance: OECD Indicators*. Paris: OECD.

Organisation for Economic Co-operation and Development (OECD) (1997) *Education at a Glance: OECD Indicators*. Paris: OECD.

Peattie, L. and Rein, M. (1983) *Women's Claims: A Study in Political Economy*. Oxford: Oxford University Press.

Ringen, S. (1988) Direct and indirect measures of poverty, *Journal of Social Policy*, 17, 351–365.

Roemer, J.E. (1988) *Free to Lose*. Cambridge, Mass.: Harvard University Press.

Rose, R. (1986a) Common goals but different roles: the state's contribution to the welfare mix, in R. Rose and R. Shiratori (eds.) *The Welfare State East and West*. New York: Oxford University Press.

Rose, R. (1986b) The dynamics of the welfare mix in Britain, in R. Rose and R. Shiratori (eds.) *The Welfare State East and West*. New York: Oxford University Press.

Sainsbury, D. (1996) *Gender, Equality and Welfare States*. Cambridge: Cambridge University Press.

Schor, J.B. (1991) *The Overworked American: The Unexpected Decline of Leisure*. New York: Basic Books.

Schor, J.B. (2000) Working hours and time pressure: the controversy about trends in time use, in L. Golden and D.M. Figart (eds.) *Working Time: International Trends, Theory, and Policy Perspectives*. London: Routledge.

Singer, S.F., Bernolak, I., Usher, D., Denison, E.F. and Meyer, J.R. (1973) Comment, in M. Moss (ed.) *The Measurement of Economic and Social Performance*. New York: National Bureau of Economic Research.

Teal, F. (1992) The use and cost of child care in Australia, *Australian Economic Review*, 97, 3–14.

Titmuss, R.M. (1974) *Social Policy*. London: Allen & Unwin.

Travers, P. and Richardson, S. (1993) *Living Decently: Material Well-being in Australia*. Melbourne: Oxford University Press.

van Kersbergen, K. (1995) *Social Capitalism: A Study of Christian Democracy and the Welfare State*. London: Routledge.

Vickery, C. (1977) The time-poor: a new look at poverty, *Journal of Human Resources*, 12, 27–48.

Zeckhauser, R.J. (1973) Time as the ultimate source of utility, *Quarterly Journal of Economics*, 87, 668–675.

JAMES MAHMUD RICE
ROBERT E. GOODIN
ANTTI PARPO
Social & Political Theory Program
Research School of Social Sciences
Australian National University
Canberra ACT 0200
Australia
e-mail: jmrice@coombs.anu.edu.au; goodinb@coombs.anu.edu.au; antti.parpo@stakes.fi