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Cooking and Caring, Building and Repairing

Unpaid Work around the World

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Chapter 1

Cooking and Caring, Building and Repairing: Unpaid Work around the World[1]

Unpaid work and well-being

Families devote substantial unpaid time to productive activities such as cooking, cleaning and caring. This unpaid work increases overall consumption of goods and services and represents implicit income (Becker, 1965). As countries industrialise, a large part of the household production of food, clothing and caring for family members may be transferred to markets and purchased by families. At a national level, well-being is often proxied by aggregate income or production per head (*e.g.* GDP per capita) and changes in well-being by the corresponding growth rate. But levels of well-being will be under-reported if there is a considerable amount of unpaid work. Additionally, well-being gains will be over-reported if GDP growth occurs because of reductions in unpaid work and increases in paid work (Stiglitz *et al.*, 2009).

Ignoring home production may also bias measures of income inequality and poverty rates (Abraham and Mackie, 2005). For instance, families where one parent does the cooking and cleaning and looks after the children will have a higher disposable income than households with the same income and hours worked, but where both parents do paid work and buy cleaning and childcare services in the market. While standard income-based living standards treat these two families as identical, Frazis and Stewart (2010) show that an inequality measure including valuation of family production is more equally distributed as unpaid work varies much less than paid work across households.

In addition to unpaid work within the home, people also carry out vital unpaid work for relatives and for the wider community. Voluntary work, such as helping out neighbours, caring for people of all ages with or without disabilities, supporting charities, assisting immigrants, training sports teams, and administering schools, also contribute directly and indirectly to societal well-being.

This special chapter sheds light on the importance of unpaid work as an important well-being indicator by making use of detailed time-use surveys for 26 OECD countries, and for China, India and South Africa.

What is unpaid work?

Unpaid work is the production of goods and services by family members that are not sold on the market. Some unpaid work is for consumption within the family, such as cooking, gardening and house cleaning. The products of unpaid work can also be consumed by people not living in the household, *e.g.* cooking for visiting friends, mowing lawns of an elderly relative, or coaching the local children's football team.

The boundary between unpaid work and leisure is determined by the "third-person" criterion. If a third person could be paid to do the activity, it is considered to be work. Cooking, cleaning, childcare, laundry, walking the dog and gardening are therefore all examples of unpaid work. On the other hand, someone else cannot be paid to watch a movie, play tennis, or silently read a book on another's behalf as the benefits of the activity would accrue to the doer (the third person), and not to the hirer (Ironmonger, 1996). Consequently these latter activities are considered to be leisure.

Some unpaid work, *e.g.* playing with children, walking the dog, cooking or tending a garden, is often enjoyable (see *Society at a Glance 2009* on reported enjoyment of various activities). This form of satisfaction is a benefit that cannot be transferred to another person. Thus the level of enjoyment of the person doing the activity cannot be used to distinguish between work and leisure (Hill, 1979).

Measuring unpaid work

Time-use surveys record how people allocate their time, typically using a 24-hour diary. In addition, these surveys provide information on the context of the activity – where people did it, with whom they did it and what other activities they did at the same time, the frequency of the activity – and the socio-economic characteristics of the person and their family.

Several issues may significantly affect country comparability of time-use data, including the collection methodology, the length of diary time slots, and the number of days on which diaries are completed (Miranda, 2011). Ideally, time-use surveys are spread over the whole year and thus contain a representative proportion of weekdays and weekend days, as well as public and school holidays. Some countries, however, only cover particular periods in the week or year, typically chosen to avoid seasonal biases such as those due to public holidays or annual leave for workers. This is the case, to varying degrees, for Canada, China, Denmark, France, Ireland, Japan, Korea, Mexico and South Africa. Excluding holiday periods leads to an over-estimation of annual paid working time and an under-estimation of unpaid work and leisure time for these nine countries. Second, Ireland and Mexico use a simplified variant of the time-use diary. Thus, time-use estimates for Ireland and Mexico are much less precise than for other countries. In addition, in the Mexican time-use survey, respondents are asked about their time use during the seven days prior to the interview. Given the large time lapse between the activity and the interview, responses are likely to be rougher estimates of the true time use. As time-use surveys were taken in different years, with countries at different stages in the economic cycle and with access to different levels of technology, this may be another reason for between-country variations observed.

To improve cross-country comparability, where possible, data consider populations aged 15-64. Activities are aggregated into five main categories: 1) unpaid work; 2) paid work or study; 3) personal care; 4) leisure; and 5) other time use. "Unpaid work" includes activities like routine household work (*e.g.* cooking, cleaning and gardening), caring for children and other family and non-family members, volunteering, and shopping. "Paid work or study" covers full-time and part-time jobs, unpaid work in family business/farm, breaks in the workplace, time spent looking for work, time spent in education, and homework. "Personal care" covers sleep, eating and drinking, and other household, medical, and personal services (hygiene, grooming, visits to the doctor, etc.). "Leisure" includes hobbies, watching television, computer use, sports, socialising with friends and family, attending cultural events, and so on. "Other" contains religious activities and civic obligations, as well as unspecified time use.

Time spent on travel is treated as a derived activity and classified in the same category as the activity to which it is linked, even though, strictly speaking, travelling does not follow the third-person criterion of unpaid work, as it is not possible to hire someone to travel on one's behalf. Journeys can, however, also have multiple destinations. Often people try to save time by combining travel to work with dropping off their children at school or shopping on the way home. As a rule, travelling time is recorded in the time-use surveys

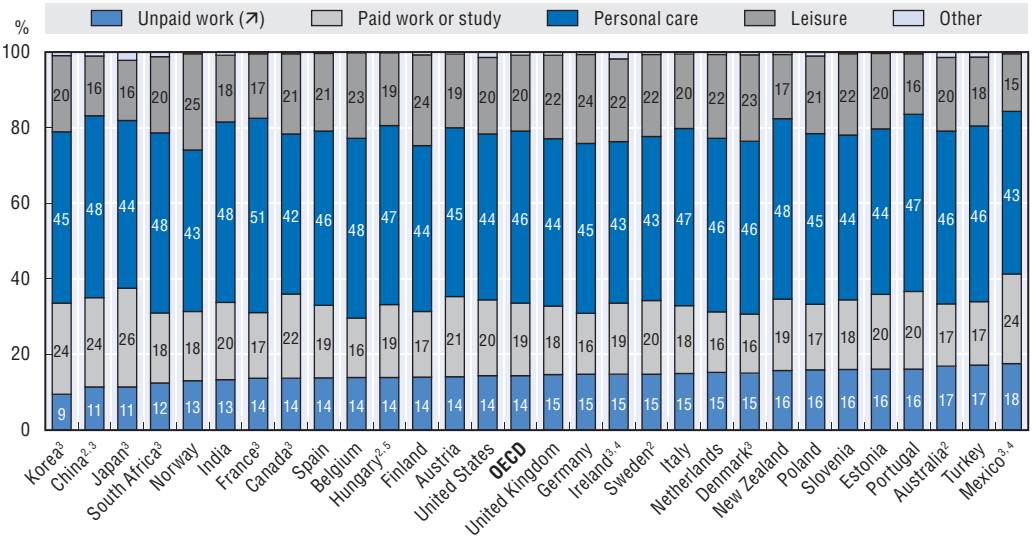
according to the destination. For example, driving from home to work is regarded as travel related to paid work, from work to school as travel related to childcare, from school to the grocery store as travel related to shopping, and from the grocery store to home as travel related to shopping.

Time use in OECD countries and emerging economies

Across the 29 countries for which data are available (all OECD averages used here are unweighted averages of the countries presented in the charts), people average 3.4 hours per day (24-hours) on unpaid work, or 14% of the day (Figure 1.1). There is much variation in unpaid work between countries. Mexicans spend the most time on unpaid work, about four and a half hours per day. People in Japan, Korea and China do the least unpaid work, about half the time of Mexicans. In all countries, personal care, including sleeping and eating, takes up most of people's time, accounting for 46% of a 24-hour day on average. The remaining time is spent on leisure (20% of people's total time) and in paid employment or study (on average 19% of people's time). Less than 1% of a day is devoted on average to religious activities and other unspecified time use.

Figure 1.1. **People spend one-tenth to one-fifth of their time on unpaid work**

Time use by main activity in percentage of total time use for the population aged 15-64 over the period 1998-2009[1]



1. Australia: 2006; Austria: 2008-09; Belgium: 2005; Canada: 2005; China: 2008; Denmark: 2001; Estonia: 1999-2000; Finland: 1999-2000; France: 1998-99; Germany: 2001-02; Hungary: 1999-2000; India: 1999; Italy: 2002-03; Ireland: 2005; Japan: 2006; Korea: 2009; Mexico: 2009; the Netherlands: 2006; New Zealand: 1998-99; Norway: 2000-01; Poland: 2003-04; Portugal: 1999; Slovenia: 2000-01; South Africa: 2000; Spain: 2002-03; Sweden: 2000-01; Turkey: 2006; the United Kingdom: 2000-01; the United States: 2008.
2. For a number of countries it was not possible to restrict the sample to the population aged 15-64. The age limits are Australia: 15+; China: 15-74; Hungary: 15-74; Sweden: 20-64. A different upper age limit is unlikely to affect time use significantly. A lower age limit will diminish the importance of unpaid work.
3. Surveys for Canada, China, Denmark, France, Ireland, Japan, Korea, Mexico and South Africa do not cover a complete calendar year and thus, to varying degrees, under-represent holidays. As people do more unpaid work on weekends, excluding holidays overestimates paid work and underestimates unpaid work and leisure.
4. Ireland and Mexico use a simplified time-use diary. Mexicans are also asked about their time use during the seven days prior to the interview. Hence, estimates for Ireland and Mexico are less precise.
5. For Hungary, only pre-prepared tables on time use are available and the categories are not always entirely comparable with the aggregations used for the other countries. The comparison of Hungary with other countries should thus be interpreted with caution.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011, for more details).

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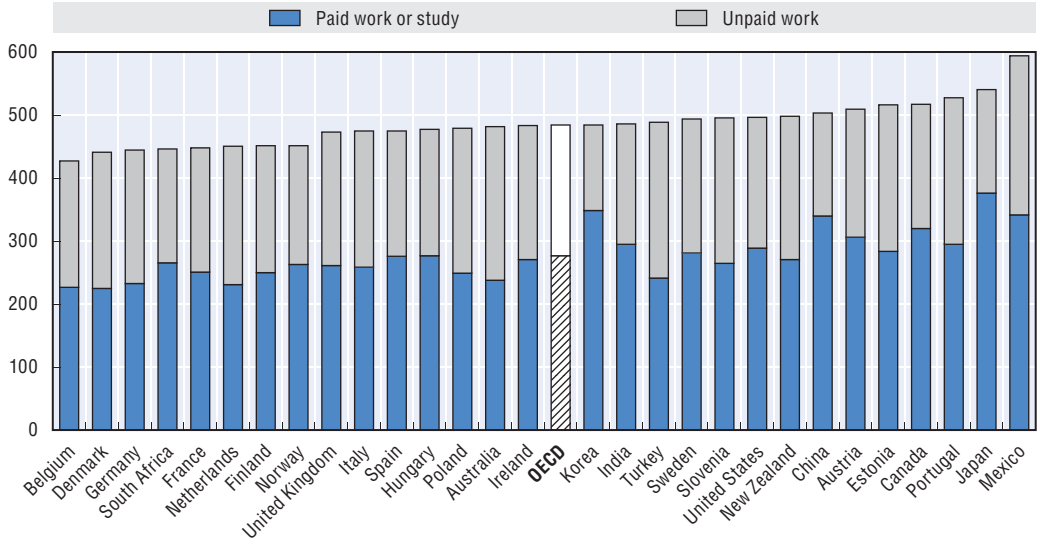
Be it paid or unpaid, people spend about one-third of their time working. Total working time is lowest in Western Europe and South Africa and highest in Japan and Mexico (Figure 1.2). In Japan and Mexico, people work respectively nine and ten hours per day in total. People in Belgium, Denmark, Germany, and South Africa work about seven to seven and a half hours per day. In most countries, time spent on paid work exceeds time spent on unpaid work, with the exceptions of Australia and Turkey. While the average paid working time may seem low, it should be borne in mind that the figures cover weekdays, weekends and holidays, and include the employed and non-employed.

Figure 1.2. **Total working time is lowest in Western Europe and highest outside Europe**

Total minutes worked, paid and unpaid, per day



Note: Travelling time related to paid and unpaid work is included in the respective categories. See Figure 1.1 for country-specific notes.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011).

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Countries with high paid work time, like China, Japan and Korea, tend to have low unpaid working time. The opposite is true for Western Europe, Australia, New Zealand and Turkey (Figure 1.3). The apparent trade-off between unpaid and paid work is also reflected in the lower variation for total working time across countries compared with that of paid work and unpaid work.

Differences between men and women

In all countries women do more unpaid work than men (Figure 1.4). The gender gap averages 2.5 hours per day. But there is significant divergence in the gender gap across countries. For instance, Turkish, Mexican and Indian women spend per day 4.3-5 hours more on unpaid work than men, while the difference is only a little over one hour in the Nordic countries. Indian and Mexican gender differences are driven by the long hours women spend in the kitchen and caring for children. In Southern Europe, Korea and Japan, women also do considerably more unpaid work than the men.

Figure 1.3. **Trade-offs between paid and unpaid work**

Minutes of paid and unpaid work

Note: Travelling time related to paid and unpaid work is included in the respective categories. See Figure 1.1 for country-specific notes.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011).

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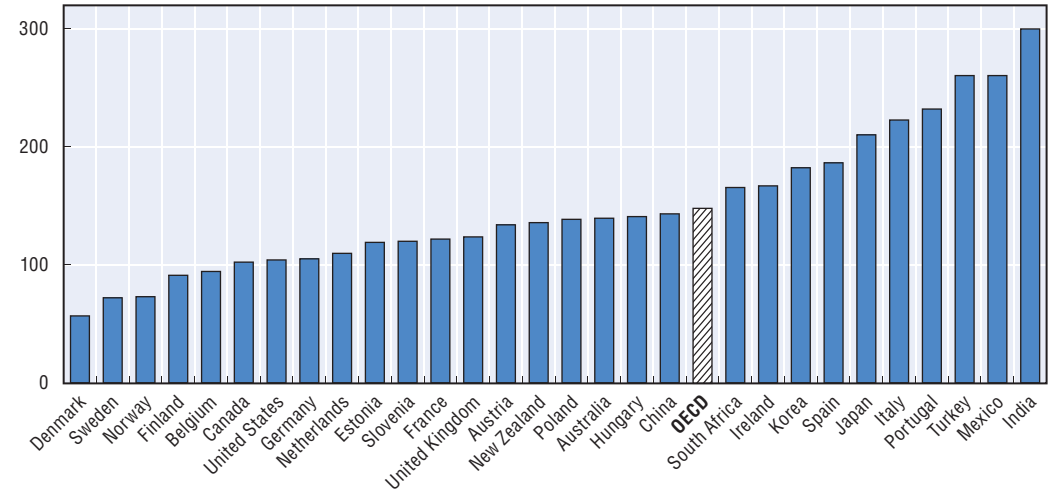
Figure 1.4. **Women do more unpaid work than men in all countries**

Female less male unpaid working time in minutes per day



Note: See Figure 1.1 for country-specific notes.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011).

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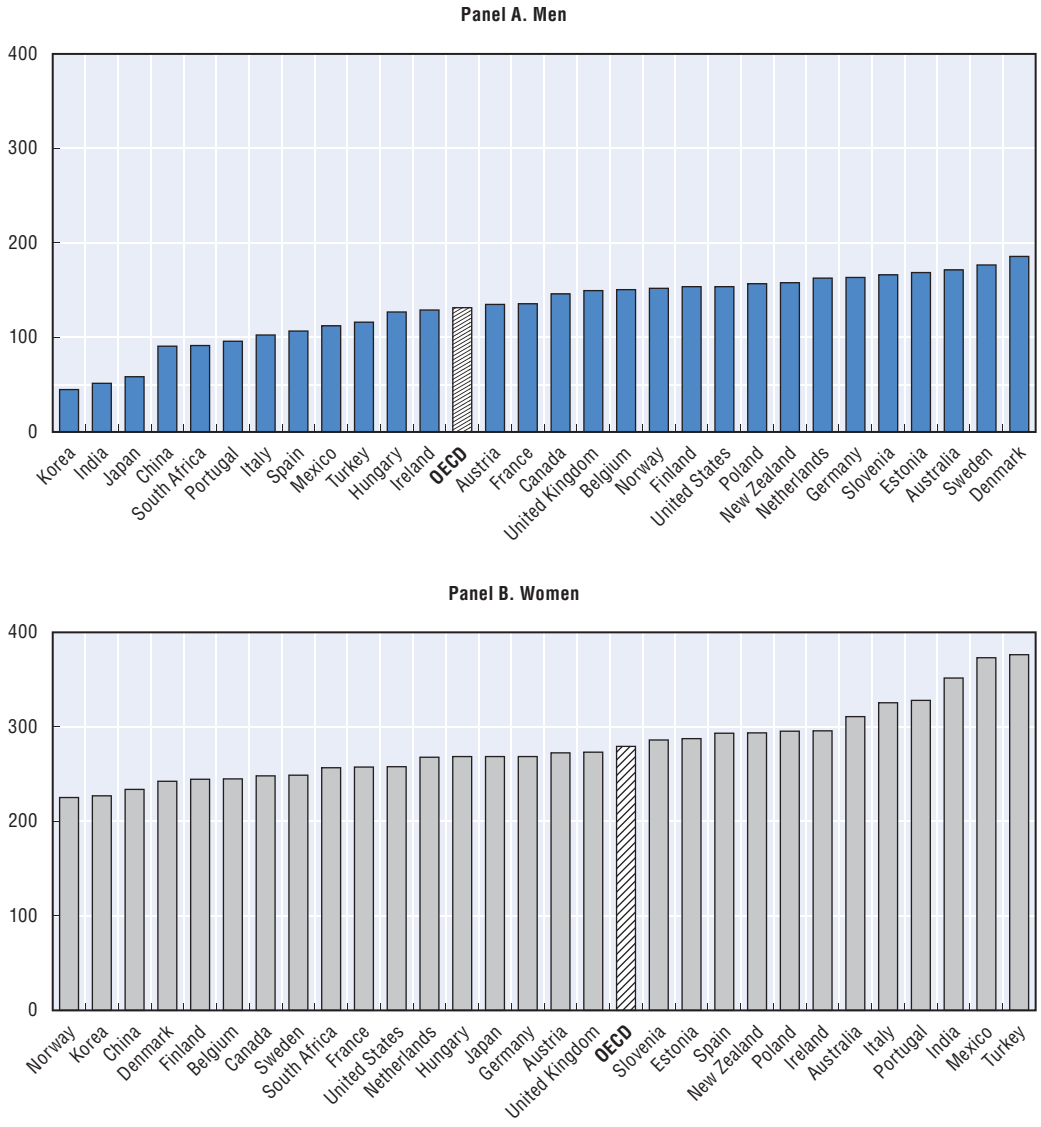
Countries with the largest gender gap in unpaid work are also those countries where men devote relatively little time to unpaid work (Figure 1.5, Panel A). Men's unpaid working time averages less than an hour a day in Korea, India and Japan, 1.5 hours in China and South Africa, nearly two hours in Turkey, Italy, Mexico, Portugal and Spain, and 2.5 hours in the rest of the countries shown here. The low amount of men's unpaid work is not always compensated by high amounts for women (Figure 1.5, Panel B). In China, for instance, both men and women spend very little time on unpaid work in comparison with other countries. In Australia, on the other hand, both sexes are at the top of the unpaid work ranking.

Figure 1.5. **Asian men spend the least hours in unpaid work, Mexican and Turkish women the most**

Minutes of unpaid work per day



Note: See Figure 1.1 for country-specific notes.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011).

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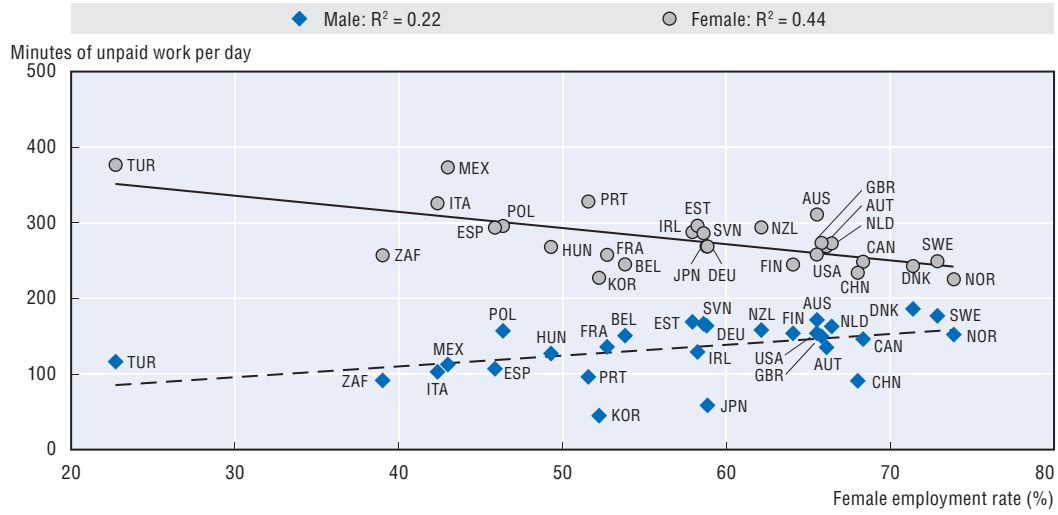
What drives large gender differences in unpaid work? Women have become increasingly active in the paid labour market over the past few decades and have decreased their unpaid working time. There is a strong negative correlation between a country's female employment rate and women's average unpaid working time (Figure 1.6). Part of women's reduced unpaid work is picked up by men, as shown by the positive correlation between a country's female employment rate and men's average unpaid working time. But even in the country with the highest unpaid working time among men – Denmark – men still devote less time to unpaid work than women in Norway, the country with the lowest female unpaid working time.

Figure 1.6. **Men do more unpaid work as women do more paid and less unpaid work**



Note: The female employment rates are for the population aged 15-64 years and correspond to the year during which the time-use survey was undertaken. See Figure 1.1 for country-specific notes.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011) and OECD Labour Force Surveys for female employment rates.

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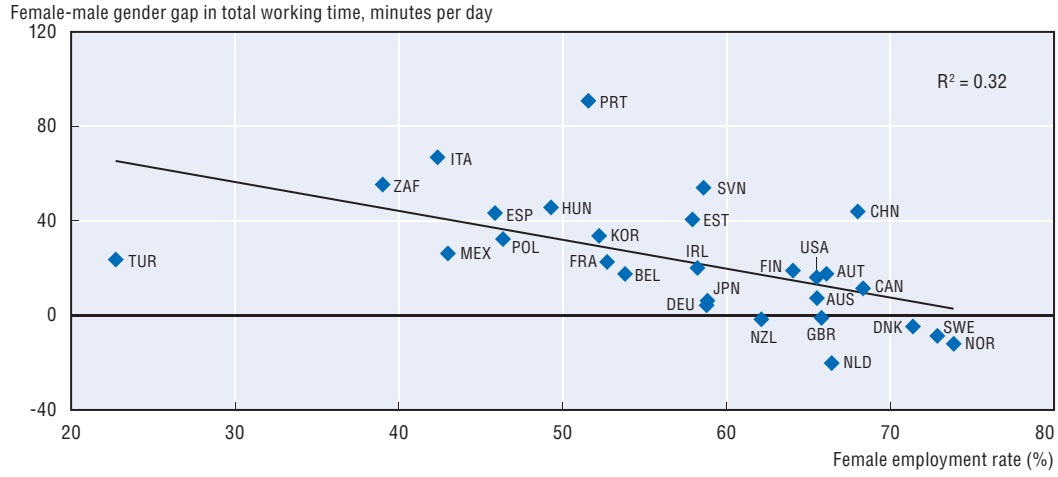
Part of the reason for women's higher share of unpaid work is their shorter time in paid work. As shown in Figure 1.7, the gender difference in total working time – the sum of paid and unpaid work, including travelling time – is close to or below zero for countries with high female employment. Longer hours spent on housework and caring by women are compensated with shorter paid work hours. Part-time paid work for women is common in Australia, Germany, Japan, the Netherlands, and the United Kingdom, where more than 40% of women work on a part-time basis (OECD, 2007). In countries with a relative lack of

Figure 1.7. **Countries with high female paid employment have a more equal gender division in total working time**



Note: The female employment rates are for the population aged 15-64 years and correspond to the year during which the time-use survey was undertaken. See Figure 1.1 for country-specific notes.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011) and OECD Labour Force Surveys for female employment rates.

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opportunity for part-time work, particularly in Southern Europe, the presence of children is an important factor associated with women's exit from the labour market (Lewis *et al.*, 2008). These countries are also those were women work much longer hours in total (Figure 1.7).

Government policies, such as working-time regulations, family policies and gender equality initiatives, can influence women's roles in unpaid work (Baker, 1997; Gornick and Meyers, 2003; and Hook, 2006). On the one hand, publicly subsidised formal childcare relieves mothers of some childcare responsibilities and encourages their paid work. On the other hand, long parental leave arrangements are primarily used by women, reinforcing traditional gender roles and damaging mothers' labour attachment. Non-transferable paternal entitlement to paid leave increase chances of more equal leave sharing between mothers and fathers, but so far there is no evidence of the longer-term effect on the division of housework (OECD, 2011).

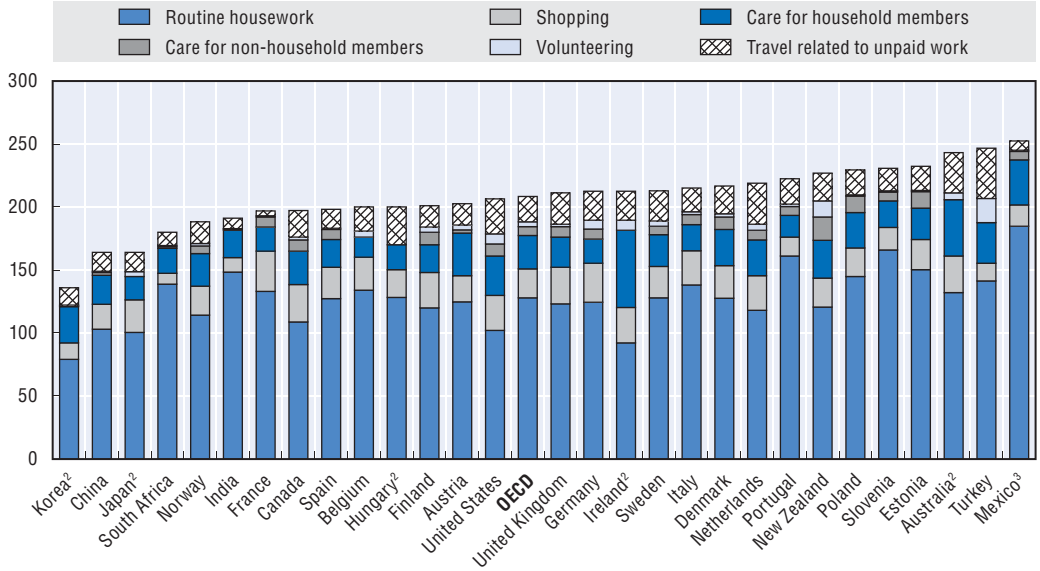
Types of unpaid work

Routine housework

Most unpaid work is routine housework – cooking, cleaning, gardening and home maintenance. Across the 29 countries, people spend on average two hours and eight minutes per day on housework (Figure 1.8). The total duration varies, however, greatly across countries, as does the importance of routine housework within total unpaid work. For instance, Koreans spend only 1.4 hours per day on housework, but it accounts for 60% of their total time spent on unpaid work. Australians, on the other hand, devote on

Figure 1.8. **Routine housework is the largest component of unpaid work**[1]

Minutes of unpaid work per day by main categories



1. See Figure 1.1 for additional country notes.
2. For Australia, Hungary and Ireland, care for household members cannot be separated from care for non-household members. In the Korean and Japanese time-use surveys, there is no distinction between care for household members and care for non-household members. Instead they make a distinction between family care and care for others. All care for family members is consequently included in the category care for household members, irrespective of whether the family members live in the household.
3. For Mexico, travelling time cannot be separated from the activity to which it is linked, except for some travel related to childcare. Each of the sub-categories is thus slightly overestimated.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011).

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average more than two hours to routine housework but it represents only half of their total unpaid working time. Compared with the other components of unpaid work, there is less variation across countries in routine housework (coefficient of variation of 0.17).

Care for household members and shopping are typically the next largest unpaid work categories, lasting respectively 26 and 23 minutes per day on average. The relative importance of both time categories differs across countries, but there is less variation in shopping (coefficient of variation of 0.26) than in caring (coefficient of variation of 0.34). The variation across countries is largest for voluntary work (coefficient of variation of 1.10), with the average daily volunteering time ranging from less than one minute in India and Korea to 8 minutes in Ireland and the United States.

Childcare

Childcare is often combined with other activities, *e.g.* cooking while a child is playing in another room. Time-use surveys deal with multitasking by recording both "primary" activities ("what were you doing?") and "secondary" activities ("were you doing anything else at the same time?"). One limitation of such an approach is that primary activities tend to be meticulously tracked while secondary ones are usually overlooked (and in some countries not even collected). Some surveys encourage respondents to report their secondary activities by listing clear examples on the diary form. However, as not all countries do such priming, recording of secondary activities can vary across countries (Folbre and Yoon, 2007).

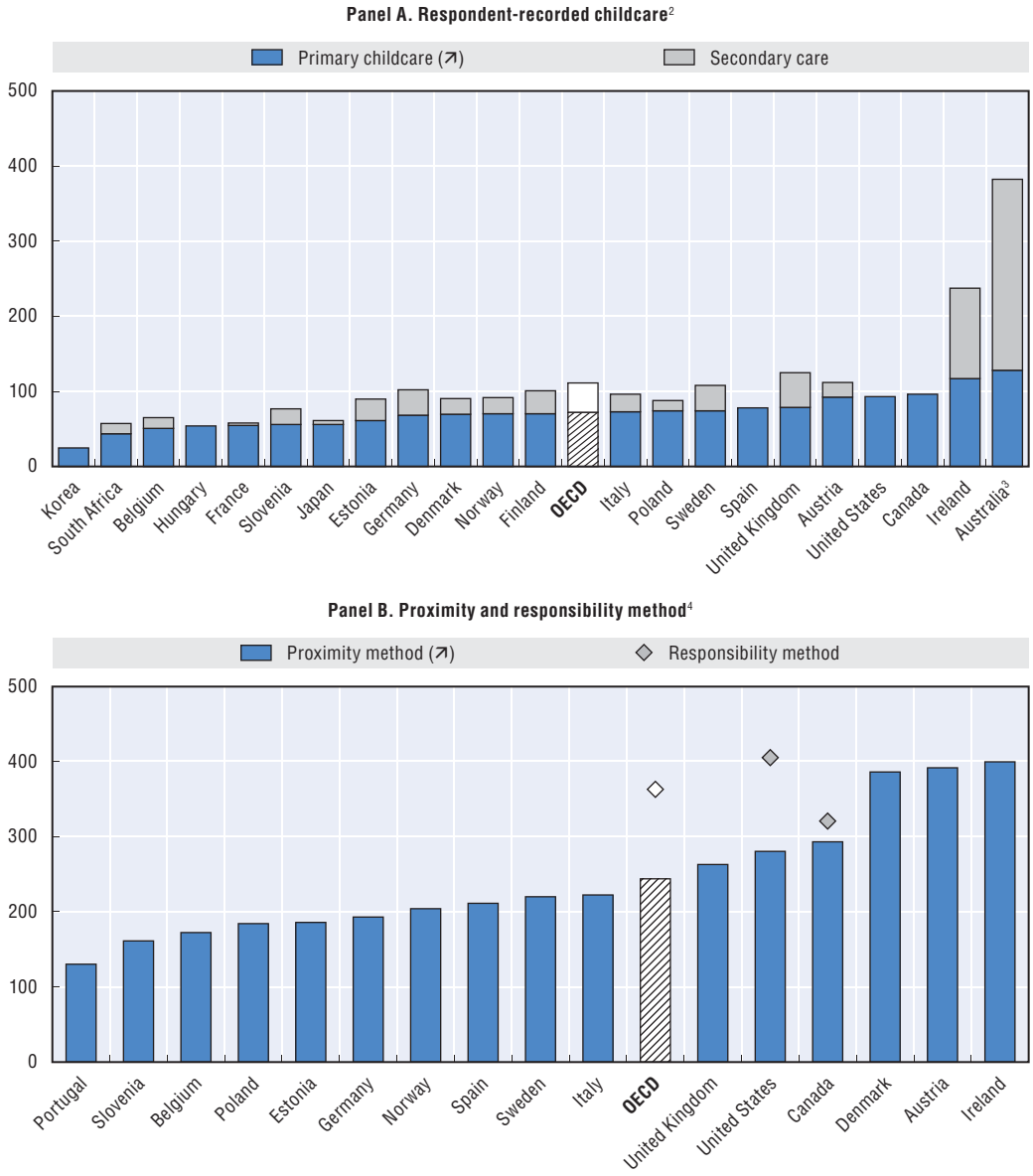
Several surveys try to capture the diffuse nature of childcare by including additional childcare questions. These questions are defined either as the time spent in the proximity of a child (*e.g.* "who was with you?") or as the time being responsible for a child (*e.g.* "was a child in your care?" or "were you looking after a child?"). The advantage of such questions is that they are more likely to pick up respondents who would otherwise not record their responsibility. They also better capture passive childcare, which is fundamentally different from active childcare as it constrains other activities rather than being an activity in itself (Budig and Folbre, 2004). On the other hand, both the proximity method and the responsibility method may overstate childcare when several adults share the caring responsibility for the child.

Figure 1.9 sets out the different methodologies of measuring childcare: the respondent-recorded method in Panel A and the proximity and responsibility method in Panel B. Across the 22 countries for which consistent data are available,[2] parents average 1 hour and 12 minutes per day on childcare as a primary activity. Adding secondary childcare raises the average substantially to almost two hours per day.[3] Total time devoted to (primary) childcare is lowest in Korea, Belgium and Hungary – occupying less than one hour per day – and highest in the Anglophone countries. The impact of priming respondents is visible in the extremely high childcare estimates for Australia. The Australian time diary gives clear examples of secondary childcare which encourage parents to record passive childcare. The largest category of secondary childcare in Australia is child minding, accounting for almost four hours per day for parents of children under 15 years of age.

Panel B of Figure 1.9 compares two measures of *passive* childcare. In the 16 countries which added a proximity question to their time-use survey, parents spend on average four hours per day with their children. The responsibility method (asked only in two countries) provides even higher estimates of childcare, reaching 6.7 hours per day in the United States and 5.3 hours in Canada, although the difference with the proximity

Figure 1.9. **Parents' active and passive childcare**

Minutes of childcare per day[1]



1. See Figure 1.1 and Figure 1.8 for additional country-specific notes.
2. Respondent-recorded childcare refers to the amount of time spent on childcare that respondents report themselves in their time-use diaries, either as a primary or secondary activity. The estimates refer to care for children under the age of 18, except for Australia and Canada (less than 15 years).
3. Estimates for Australia also include time spent on care of non-household children. However, this is unlikely to affect the results significantly as such care tends to be low. For instance, in the United States, parents devote on average 77 minutes per day to care for children of their own household, compared with two minutes for non-household children.
4. The proximity method measures passive childcare by time spent in the presence of a child. The responsibility method measures passive childcare based on the amount of time respondents are responsible for the care of a child. Unfortunately, the age cut-off for both methods differs significantly across countries: 10 years in most European countries – with the exception of Denmark (18 years), Ireland (18 years), and Portugal (14 years) – 15 years in Canada and 13 years in the United States.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011).

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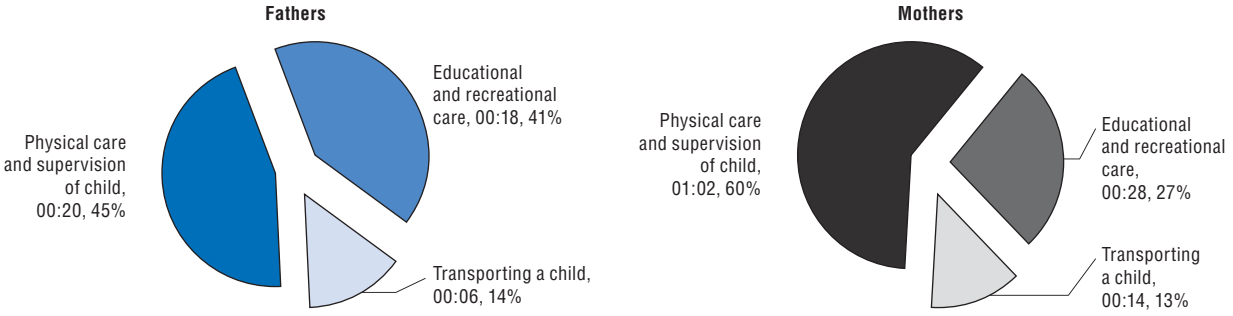
method is minimal for Canada. The country ranking of passive childcare is very similar to the active childcare measures in Panel A, with Slovenia and Belgium at the bottom and Austria, Denmark and Ireland at the top.

Not only does the total amount of time devoted to childcare differ by parental gender, but it also differs by type of activities. A distinction can be made between: 1) *physical care*, such as meeting the basic needs of children, including dressing and feeding children, changing diapers, providing medical care for children, and supervising children; 2) *educational and recreational childcare*, such as helping children with their homework, reading to children, and playing games with children; and 3) *travel* related to any of the two other categories, *e.g.* driving a child to school, to a doctor or to sport activities. Mother's childcare time is dominated by physical childcare and supervision, accounting for 60% of their childcare activities (Figure 1.10). Fathers, on the other hand, spend proportionally more time in educational and recreational activities than mothers, *i.e.* 41% of their total childcare time compared with 27% of mothers' total childcare time. Still, mothers spend more than twice as much time in childcare than do fathers, a pattern which holds for all countries and the different subgroups. On average in the 22 countries for which data are available, childcare takes up 42 minutes per day for fathers whereas it occupies 1 hour and 40 minutes of mothers' time.

Figure 1.10. **Women devote most of their time to physical childcare, while men devote most of their time to teaching, reading and playing with their children**

Time devoted to different types of primary childcare



Note: The figures are unweighted averages over the 21 countries for which data is available. The estimates refer to care for children under the age of 18, except for Australia and Canada (under 15). See Figure 1.1 and Figure 1.8 for country-specific notes.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011).

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Caring for adults

Caring for adults is part of the insurance function of families and of great importance in an environment where populations are ageing rapidly. Care for adults receives much less attention in time-use surveys than care for children does. However, many surveys do not even publish caring for the elderly as a separate category. In addition, adult care is not separated by the age of the person that is being cared for, so it is often impossible to make a distinction between care for an ill or disabled spouse or other relative. Only the Korean time-use survey has separate categories for care for parents, spouse and other family members. Differences in definition and presentation thus make the comparison of adult care across countries extremely difficult.

Table 1.1 lists the countries' average duration of adult care according to a range of different classifications used. In the first ten countries, care for adult household members can be separated from care for children, as well as from care for non-household members. In those countries, adult care takes up 0.2 to 6 minutes per day. Similar results can be

Table 1.1. **Different classification of adult care across countries complicates comparison**[1]

Minutes devoted to adult care (excluding travel)

	Total (↗)	Men	Women
Caring for adult household members			
Netherlands	0.2	0.2	0.2
South Africa	0.6	0.2	1.0
Denmark	0.8	0.9	0.8
Austria	1.2	0.5	1.8
India	1.3	0.6	2.1
United States	1.9	1.5	2.4
Canada	2.0	1.0	3.0
Portugal	2.0	0.0	3.0
Turkey	3.4	3.3	3.6
Mexico	6.0	3.0	8.8
Caring for adult family members[2]			
Japan	2.9	1.0	5.0
Korea	4.0	2.0	5.0
Caring for adults[3]			
Ireland	8.0	3.1	13.0
Australia	9.0	7.0	11.0
Other domestic work[4]			
Poland	1.0	1.0	2.0
Slovenia	2.0	2.0	3.0
Finland	4.0	4.0	5.0
France	4.0	4.0	4.0
Italy	4.0	3.0	4.0
United Kingdom	4.0	4.0	4.0
Estonia	5.0	6.0	5.0
Belgium	8.0	7.0	9.0
Germany	9.0	7.0	11.0
Spain	11.0	5.0	16.0
Sweden	11.0	10.0	13.0
Norway	12.0	11.0	13.0

1. See Figure 1.1 and Figure 1.8 for country-specific notes.
2. Care for adult family members also includes care for family members who do not live in the household.
3. Care for adults covers both household adults and non-household adults.
4. Other domestic work includes household management and care for adults.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011).

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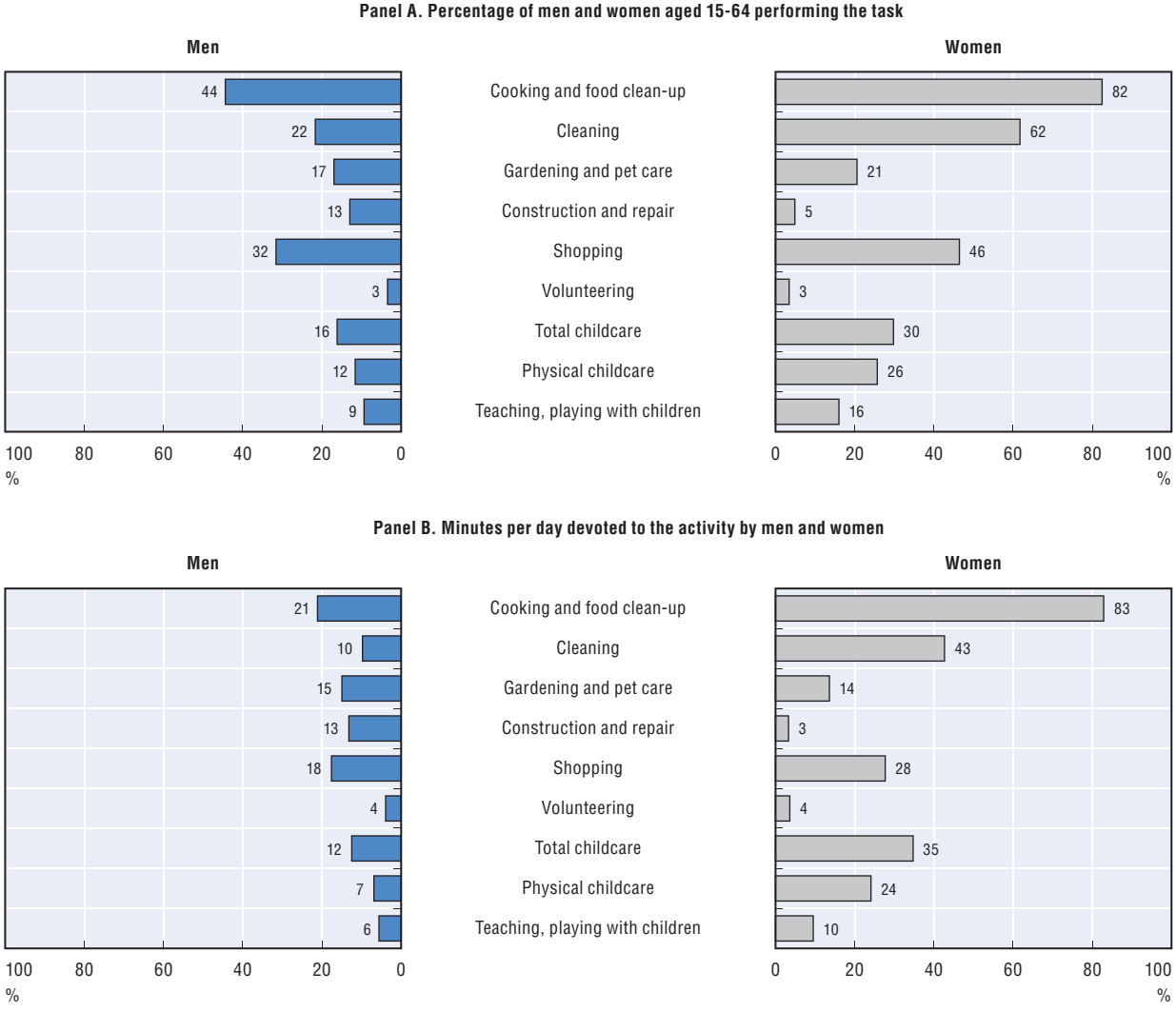
found for Japan and Korea, where these numbers also cover care for family members who do not live in the household. In the Australian and Irish time-use surveys, care for household adults cannot be separated from care for non-household adults and the average time spent on adult care is visibly higher. For the twelve European countries of the Harmonised European Time Use Survey (HETUS), adult care is classified together with household management under the category "Other domestic work". For most countries, the total time spent on these activities is noticeably higher than in the previously discussed countries. However, in Poland and Slovenia, and to a lesser extent in Finland, France, Italy and the United Kingdom, the total minutes devoted to other domestic work are very low (one to four minutes per day), suggesting that people spent very little time in adult caring. Finally, women devote on average more time to adult caring than men irrespective of the classification used (with the exception of Estonia). But the difference is much smaller than for childcare.

Women cook, clean and care and men build and repair

Men and women do different sorts of unpaid work. Typical male tasks are construction and repair work (Figure 1.11). Men also devote slightly more time to gardening, pet care and volunteering, but their participation rates in these activities are equal to those of women. Tasks that have traditionally been thought of "women's work" (*e.g.* cooking and cleaning) continue to be primarily performed by women. In the countries surveyed, 82% of women prepare meals on an average day, while only 44% of men do. The average time spent by women on cooking is four times the time spent by men (Figure 1.11, Panel B).

Figure 1.11. **Women cook, clean and care while men build and repair**



Note: See Figure 1.1 and Figure 1.8 for country-specific notes. The percentages are unweighted averages over the 29 countries for which data is available. The statistics presented in Panel B reflect the average time use for *all* people, including those who do not perform the task.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011).

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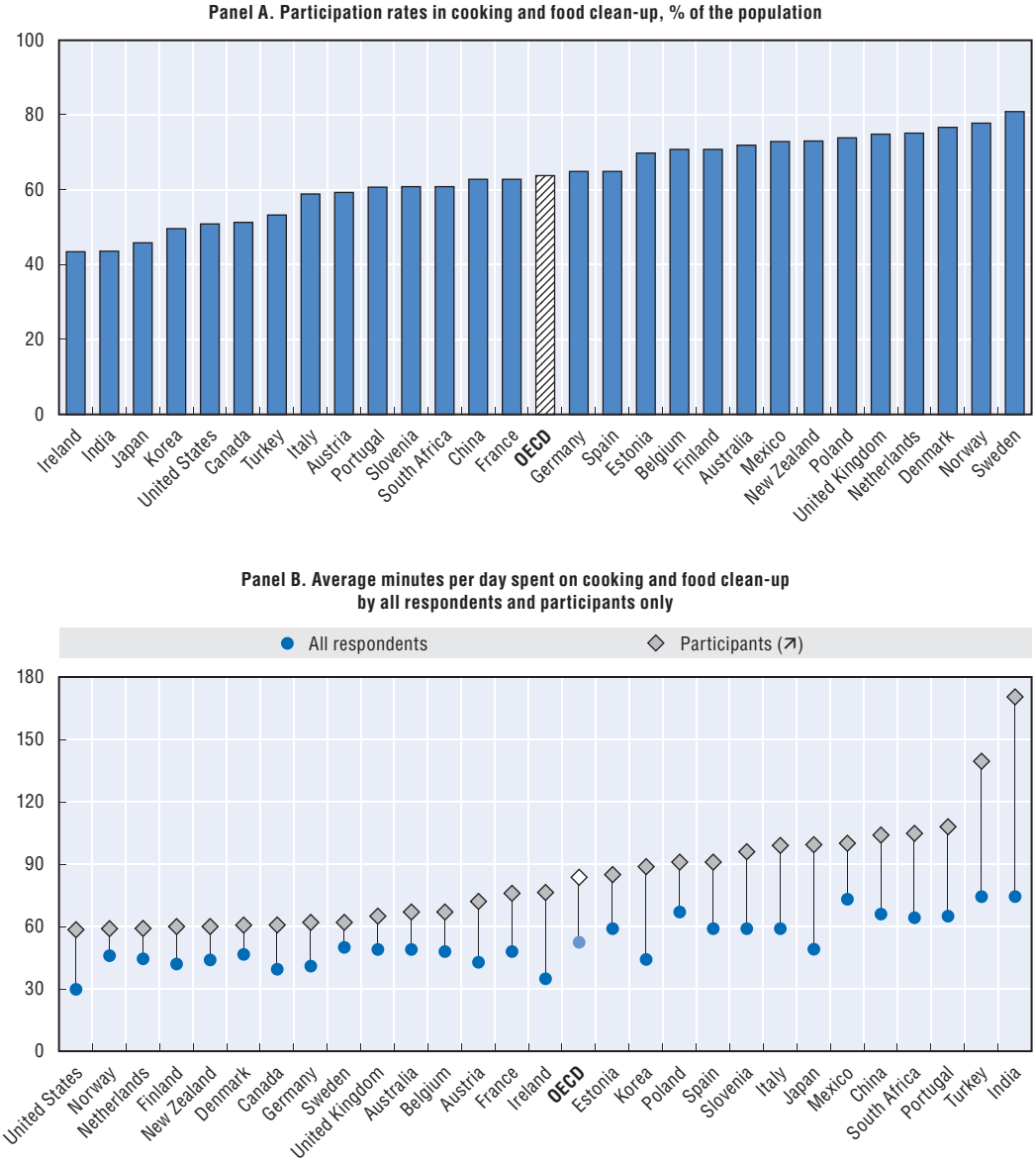
Who cooks and for how much time?

The data presented in the previous sections provide information on the average time use for *all* people. However not everybody does unpaid work. It is thus interesting to look at both the participation rates in different types of unpaid work and the time spent in those

activities by those who perform the activity. This section focuses on cooking, the predominant type of unpaid work.

In the 28 countries for which data are available, nearly two-thirds of people cook on an average day. But the participation rate ranges from a minimum of 44% in Ireland and India to more than 75% in the Nordic countries.[4] Yet conditional on participation, the opposite ranking is found for the actual cooking time (Figure 1.12, Panel B). While less than half of the adults cook in India, those who do cook spend nearly three hours per day in the kitchen. In Norway and Denmark, on the other hand, the large majority of the population engages in cooking, but they devote barely one hour to it.

Figure 1.12. **Fewer people cook in India, but those who do, cook a lot**



Note: See Figure 1.1 for country-specific notes.

Source: OECD's Secretariat estimates based on national time-use surveys (see Miranda, 2011).

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The United States is the only country where both the participation rate and mean time for cooking are at the bottom of the ranking. In other words, the American population attaches on average little importance to cooking relative to the other surveyed countries. The United States is also one of the countries where relatively little time is spent eating as a primary activity and where obesity rates are amongst the highest in the OECD (see *Society at a Glance 2009*).[5]

Valuing unpaid work

There are two approaches for imputing a monetary value to unpaid work. The *opportunity-cost approach* values the work at the market wage of the household member doing the time. The underlying assumption is that the household member has foregone earnings for home production. This approach may overstate values since much household production does not demand high skills. For instance, applying a brain surgeon's wage to value the time spent walking the family dog attributes a high price to a low-skilled activity. Besides, some household production is done by people who do not earn a market wage. Although their wage rate could be imputed using wages rates of workers with similar education and other observed characteristics, as these people are not working they may have some characteristics preventing them from earning this observed market wage. The *replacement-cost approach* considers what it would cost to hire a worker to perform the activity. Using a specialist's wage for each household task – *e.g.* a plumber's wage to fix a leak – overestimates the value of the input since specialists work more efficiently and need less time to perform the same task. The generalist wage approach applies the wage rate of a domestic servant or handyman to value the time devoted to all household unpaid activities.

This chapter uses both the opportunity-cost approach and the replacement-cost approach. In the former, a country's average hourly wage is used to value unpaid household work, while the average hourly wage cost for unregistered (informal) activities is used in the latter. In both cases, estimates of hourly wages are *net* of taxes and social contributions and only primary activities are taken into account.[6]

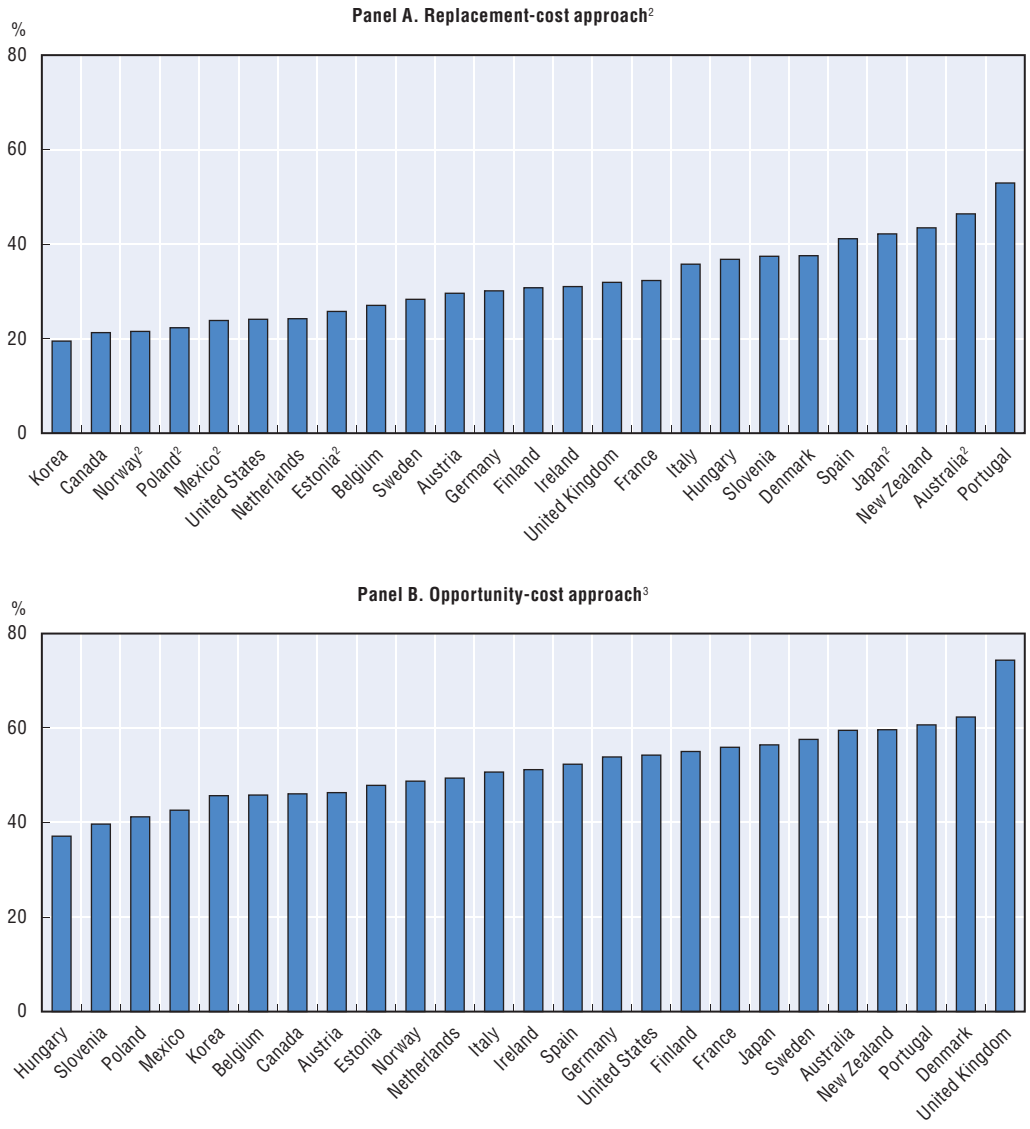
Figure 1.13 presents the value of labour devoted to household production of non-market services as a percentage of GDP for the 25 OECD countries for which data are available. The contribution of unpaid work varies greatly between countries. The replacement-cost approach suggests that the labour devoted to unpaid work accounts for 19% of GDP in Korea up to 53% of GDP in Portugal. The upper-bound estimates are provided by the opportunity-cost approach. Simple country averages of both approaches suggests that between one-third and half of all valuable economic activity in the OECD area is not accounted for in the system of national accounts. To the extent that those large populations under age 15 and over age 64 undertake unpaid work, these will be under-estimates.

Conclusion

Unpaid work matters a great deal. As shown in this chapter, unpaid work – largely dominated by cooking, cleaning and caring – is an important contributor to societal well-being in ways that differ both between countries and between men and women in different countries. The contribution of unpaid work to well-being is both in terms of current consumption (*e.g.* cleaning) and improving future well-being (*e.g.* parental investments in raising children). In all countries, women do more of such work than men, to some degree balanced – by an amount varying across countries – by the fact that they do less market work.

Figure 1.13. **Unpaid work accounts for one-third of GDP in the OECD member countries**[1]

Measured as a percentage of GDP



1. Time-use estimates for the population aged 15-64 over the period 1998-2009 are used and only primary activities are taken into account. See Figure 1.1 for country notes.
2. A country's average hourly wage cost for unregistered (informal) activities is used to value unpaid household work. For several countries, this information was not available. Instead, the following wage costs are used: wages costs for registered activities adjusted for tax and social security contributions (Australia and Japan); 50% of the average net wage for the total economy (Estonia and Mexico and Poland); the average hourly wage of a childcare worker adjusted for tax and social contributions (Norway).
3. The country's average hourly wage is used to value unpaid household work.

Source: OECD's Secretariat estimates based on national time-use surveys (see Ahmad and Koh, 2011).

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The question whether GDP growth via greater female labour force participation is a consequence of marketisation of unpaid work, rather than attributable to a rise in productivity, is not directly addressed in this chapter, although the country cross-sectional data suggest that such processes occur. It is likely that the extent of this trade-off varies across the countries considered here. It is in addressing this sort of question that the

regular collection of time-use data can be of tremendous value. Equally, consideration of unpaid work for relative inequality and for inequality over time has not been addressed here. Such work may be part of a future agenda for the OECD as new time-use surveys become available for many countries in the next few years.

Notes

1. This special chapter is a summary of a longer working paper by Miranda (2011), which can be consulted for more detail, including on technical issues.
2. There are no data on parents' childcare activities for China, India, Mexico, the Netherlands, New Zealand and Turkey. For Portugal there is only information on the proximity measure of parents' childcare.
3. Time-use surveys in Canada, Hungary and the United States do not ask about secondary activities. For Spain, estimates on secondary childcare are not available.
4. Participation rates for cooking and clean-up are not available for Hungary.
5. From a cross-country perspective, the relationship is less clear-cut. The correlation coefficient for cooking time and eating is –0.05 for all respondents.
6. For more detailed information on the methodology and data sources, see the forthcoming OECD Statistics Directorate Working Paper: *Incorporating Household Production into International Comparisons of Material Well-Being* (Ahmad and Koh, 2011).

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