



INFORMATION ON EQUALITY AND SOCIAL JUSTICE IN ISRAEL  
מידע על שוויון וצדק חברתי בישראל  
מרכז "אדפה" - מידע על השוויון והצדק החברתי בישראל

# Time Use Surveys and Gender Equality

Jocelyn Gross and Barbara Swirski

October 2002

This report was written and published with the aid of grants from the following organizations:

**Heinrich Boell Foundation,**

**Ford Foundation**

**MAZON: A Jewish Response to Hunger**

# **Table of Contents**

Introduction

Background

Methodology

Findings

Applications of Time Use Surveys

Bibliography

## **Introduction**

*Women are "half the world's economic population but put in two thirds of the working hours, grow half the food, but receive one tenth of the wages and own only one percent of the world's property;" women's invisibility in national accounts "belittles our role in the economy and society, chips away at our self-esteem, leads policy makers to overlook the impact of decisions on women's lives, and makes it difficult for women to achieve equality in our society,"* - UN analysis on women, quoted by Mary Collins, Minister Responsible for the Status of Women in Canada at International Conference on the Measurement and Valuation of Unpaid Work in Ottawa in 1993 (Fleming and Spellerberg, 1999).

This paper is designed to introduce the subject of time use surveys and the impact that the statistics generated from such surveys can have on the advancement of gender equality around the world.

A brief history and background of time use surveys is provided, as are the basic facts about how time use surveys are conducted. A section on the major findings of time use surveys in seven different countries, some of them developed, some of them developing, is also included.

Following the findings, some of the implications of time use surveys are discussed briefly, including the implications of time use statistics for government policy making and the valuation of unpaid household labor.

## **Background**

What does it mean to perform a laborious task on a daily basis, but not receive payment for it? Is that work? In order for an activity to be considered work, does one need to receive remuneration for it? Without payment, is an arduous routine activity merely an activity? Does such an activity have any impact on the economy or society?

Household maintenance is an activity that requires a lot of hard work -- preparing meals, doing laundry, cleaning up, tending to the garden, paying the bills, etc. In some places, such as in South Africa, it even includes collecting fuel and water daily, by foot, from faraway locations. A household water collector spends an average of one hour per day collecting water, and the same for fuel. In South Africa, this activity is not considered work.

Childcare is at least as taxing -- feeding, bathing, supervising, nursing children through illnesses, taking them to the doctor, the dentist -- the list goes on and on. Elderly care -- taking care of one's own or one's spouse's parent/s or other elderly relative/s -- is also time-consuming, and it is definitely not a leisure-time activity. Household maintenance and care work are prime examples of labor performed without a wage. Their performers are carrying out tasks that are necessary for the

wellbeing and continuity of both the society and the economy. Without them, society as we know it would cease to function.

One also cannot forget what is termed the informal sector of the economy: working as a nanny or as a house cleaner for money *under the table*.

Work in the informal sector, care work and household maintenance are all prime examples of work that is ignored, not acknowledged in a country's Gross Domestic Product (GDP), or in traditional employment statistics gathered by government bodies. Does the lack of mention mean that this work is irrelevant or unimportant?

Who is it that is responsible for the arduous unvalued tasks carried out in the framework of every household? Who is it that works for no pay? Overwhelmingly, it is women who are providing such services, without the service provision being considered work and without the value of that work being recorded. Even in developed countries, women are consistently found to spend more time than men on household responsibilities and childcare - even if women are employed full-time in a paid job.

It is no secret that women have traditionally performed unpaid labor. So, why is it important to know just how much more housework women do than men? Or how much more time women spend on caring for children? What does it matter if women's domestic work is valued or not?

**There are a number of arguments in support of valuing and recording the previously unacknowledged labor undertaken by women.**

There are many issues of gender inequality in the workforce that could at least be brought to light through proper recording and valuing of unpaid labor. For example, women are usually not the parent/spouse who will be able to stay late at the office, as they are almost always expected to come home as soon as possible to tend to household/childcare responsibilities. Women therefore cannot commit to the additional workload (hours) that men can at their place of employment. Many argue that the result of this discrepancy is that women are disadvantaged in terms of growth in position, promotion, and salary, and that until men share the household responsibilities with women in a more balanced manner, the workforce will remain biased against women.

Countries like Canada have developed systematic gender statistics that help demonstrate inequality between the sexes in areas such as household responsibility and childcare. Through analysis of such statistics, Canadians aim to change social policies and to narrow the gender gap in domestic responsibilities, so that one day women will be afforded the same opportunities as men in the workplace.

The work that women do in the home is not recognized sufficiently by policy makers. If women's work in the household were properly valued, and if it were included in satellite accounts or calculated into the Gross Domestic Product, policy makers would then have a more comprehensive picture of how social policy affects women and men. Recognizing women's work is especially relevant to policy making in the areas of education, employment, social services, transportation, urban planning, and welfare.

As well, since women's work is not valued, and as they are less likely than men to be members of the paid workforce, they may not have access to social services like health care and vocational training, in contrast to men, who are more likely to be members of the paid workforce.

Since unpaid work is not part of the national accounts from which the GDP is calculated, many sociologists and researchers are in favor of creating satellite accounts in order to establish -- and publish - a value for unpaid domestic duties. Creating satellite accounts would give recognition to this forgotten labor. It would be a step in the direction of acknowledging the magnitude and importance that unpaid work plays in the very functioning of society. Going one step further, if national accounts included unpaid labor, the overall Gross Domestic Product would be a more accurate representation of the productivity of a country. In fact, if household work was included in national accounts worldwide, the total world value of GDP worldwide would grow by between 25 and 30 percent and the total participation rate of time spent on labor (whether paid or unpaid) by women and men would then be found to be more-or-less equal (International Labor Organization, "Remuneration for Women's Work: A Curious Paradox," 1996: 2). As things stand today, men are represented and thus perceived as working much more than women.

### **The Beijing Conference**

The lack of recognition of women's active participation in the world economy was addressed in four World Conferences on Women, (1975, 1980, 1985 and 1995), held under the auspices of the United Nations. These conferences helped to raise issues of gender inequality, not just within the realm of labor, but in many other areas as well. During the most recent conference, held in Beijing in 1995, ten distinct topics that concern women were discussed: poverty; education and health; violence against women; the effects of armed or other kinds of conflict; economic participation; power-sharing; insufficient mechanisms to promote women's advancement; human rights; mass media; and environment and development.

*(Conference to Set Women's Agenda into Next Century, 1994)*

The Beijing Platform for Action of the Fourth United Nations World Conference on Women was very clear in its call for better gender statistics, particularly those that document the true magnitude of women's work and its contribution to the world economy.

### **Time Use Surveys**

Gender statistics regarding how an individual spends his/her time are generated through a time-tested method of developing social indicators and conducting social research: time use surveys. The first time use surveys were conducted at the beginning of the 1900s, when gender equality was not a major concern. Today time use surveys serve to document, among other things, the disproportionate amount of time women dedicate to unpaid labor.

The United Kingdom conducted time use studies around the turn of the last century that focused on issues such as unemployment and poverty among women. These early

studies were not necessarily government-run, but were instead initiated by a variety of players, such as non-governmental associations or doctoral students conducting thesis work. In the United States, the first time use surveys, conducted in the early 1900s, were designed to survey topics like unemployment, urban living and the non-market activity of farm families, while the first time use studies in the Netherlands were conducted in the 1920s and concentrated on leisure and recreation.

Beginning in 1912, Statistics Norway was the first government bureau to estimate the monetary value of unpaid household labor. In 1943, Statistics Norway calculated estimates for unpaid household work between 1935 and 1943, which it proceeded to include in the national accounts, in an attempt to accurately assess women's economic contribution to society. For these estimations, Statistics Norway did not perform time use surveys, the only source of information on women's household labor being the national census. By the late 1980s, however, Statistics Norway was estimating the value of women's unpaid household labor with the aid of recurrent national time use surveys.

In the 1960s time use surveys received a boost when the first multinational time use study was conducted (1965 and 1966). This multinational study led to the development of a standardized sampling procedure, diary format and data collection procedure. In the original study, twelve nations from North/South America and Europe participated, and many others have since replicated this study.

Time use surveys are designed to record the daily activities of members of a household. Often diaries include specific time intervals on which the main activity, or activities, for that interval are recorded. These surveys show how paid and unpaid labor duties are divided up among family members; how care work is provided for; how much time individuals devote to leisure and personal needs; and how much time is spent on transportation (among other things). Once gathered, the data are processed and disaggregated by gender and other variables, among them age, ethnicity and marital status.

Currently, many countries are conducting a series of time use surveys over an extended period of time in order to chart changes in behavior and in order to identify trends. Comparing time use surveys conducted in different periods allows one to assess changes that have occurred in areas such as equality in the domestic arena.

Time use researchers around the world have joined forces to harmonize time use diary data collected over the past four decades. Harmonizing time use data means bringing time use survey data from a variety of countries together in a manner that enables researchers to make comparisons across countries (each country's time use survey is conducted a bit differently than the others and has different variables).

The Multinational Time Use Study (MTUS) began developing a harmonized database in the 1980s. This database currently covers studies conducted between 1961 and 1998. The new common data file is called "WORLD5.5"; it contains 50 sample surveys from 24 countries. Expansion on the MTUS project continues (Fisher, Gershuny, Gauthier and Victorino, 2000: 1-3).

In the late 1990's, Eurostat produced guidelines on how to conduct harmonized time use surveys, in an effort to create a uniform survey format for European countries.

### **Organizations**

Due to the growing publicity given to gender inequality, particularly through the UN World Conferences on Women, a variety of well established organizations have begun to promote and develop ideas and programs to improve gender statistics, chiefly through time use surveys.

The United Nations Statistics Division (UNSD), the United Nations Development Program (UNDP) and the International Development and Research Center/Canada (IDRC) are three such organizations that collaborated to create a project entitled: "Gender Issues in the Measurement of Paid and Unpaid Work." Among the aims of the project: to encourage developing countries to conduct time use surveys and to develop international guidelines for time use statistics.

As mentioned above, Eurostat is involved in time use studies through its development of Harmonized European Time Use Study (HETUS) data collection guidelines. Between 1996 and 1998, 20 countries piloted these guidelines. Additional countries have since followed suit.

The Multinational Time Use Studies of the 1960s gave birth to an organization created specifically to further the study and research of time use, The International Association for Time Use Research (IATUR). IATUR was founded by a group of scholars from a variety of nations at a meeting of the International Sociological Association in Bulgaria in 1970. IATUR's main objective is to keep fellow scholars and researchers informed of one another's work. To achieve this, they post on-going events regarding time-use research and organize time use conferences and meetings through their web-site.

### **Background Information on Time Use Survey Experience by Country**

<u>Countries</u>	<u>When was the first Survey conducted?</u>	<u>Motivation</u>	<u>Number of large scale, national time use surveys conducted</u>	<u>Who initiates the surveys?</u>
Australia	1992	<ol style="list-style-type: none"> <li>1. To create a current time use profile for Australia</li> <li>2. To examine paid/unpaid labor</li> <li>3. To identify trends/changes in time</li> </ol>	Two: 1992 and 1997  Expected to conduct a third in: 2005-2006	Australian Bureau of Statistics

		use over a period of time		
Canada	Autumn 1986	<ol style="list-style-type: none"> <li>1. To provide updated social statistics in areas such as health, education and employment through annual <b>General Social Surveys (GSS)</b> in order to monitor changes in Canadian society over time.</li> <li>2. Part of the <b>Gender Equality Indicators</b> - - to measure the equality between Canadian women and men regarding income, <b>work</b> and learning.</li> <li>3. To provide information on particular social issues of interest (current and upcoming)</li> </ol>	<p>Three: In 1986, 1992 and 1998.</p> <p>(Each Time Use Survey was conducted as a theme survey of the GSS for the above years).</p>	<ol style="list-style-type: none"> <li>1. <b>Statistics Canada</b>, as part of the annual GSS, is to conduct a Time Use Survey once every 5 years.</li> <li>2. <b>Status of Women Canada</b> (with Statistics Canada) develop/ed Economic Gender Equality Indicators to measure equality between men and women -- relevant to time use surveys when considering labor.</li> </ol>



India	1998-1999	To better calculate <u>Gross Domestic Product</u> -- to better value household production.	One Pilot Study:  Data was gathered from July 1998 until June 1999.	Central Statistical Organization of the Ministry of Statistics and Program Implementation; Centre for Development Alternatives
-------	-----------	--	---	---

<u>Countries</u>	<u>When was the first Survey conducted?</u>	<u>Motivation</u>	<u>Number of large scale, national time use surveys conducted</u>
Italy	1988  *2002/2003 currently underway	To better develop gender statistics and studies on quality of life in Italy.	As part of the Multipurpose Social Sur-- periodic time use survey is conducted.
Mexico	1996	The Women's National Program requested from the National Institute of Statistics, Geography and Information (INEGI) to perform a time use survey. This initiative was a largely inspired by the Beijing Platform.	Two:  1996 and 1998  Both studies were done as part of National Household Income and Expenditures Surveys (ENIGH) for those .
New Zealand	1998/1999	<ol style="list-style-type: none"> <li>1. To improve policy making and advice to policy makers</li> <li>2. To improve program development (health, education and welfare)</li> <li>3. To provide data to be used for improvements to the national accounts</li> </ol>	Pilot study: 1990  One official study: 1998/1999.
Palestinian Authority	1999-2000	As part of the Gender Statistics Program (created in 1996) of the Palestinian Central Bureau of Statistics (PCBS) in order to better measure equality between men and women, and to better develop gender sensitive policy formulation.	One:  The data was collected from May 8 <sup>th</sup> 1999 until May 7 <sup>th</sup> 2000.

<u>Countries</u>	<u>When was the first Survey conducted?</u>	<u>Motivation</u>	<u>Number of large scale, national time use surveys conducted</u>
------------------	---	-------------------	---

	<u>Survey conducted?</u>		
South Africa	2000	<ol style="list-style-type: none"> <li>1. To measure unpaid labor</li> <li>2. To better measure the informal economy/other unaccounted forms of economic activity</li> <li>3. To inform government policy makers</li> </ol>	<p>One Pilot Study: 1999</p> <p>One Official Study: 2000</p>
The Netherlands	Began in the 1930s, but since the mid-70s the focus of study has expanded.	<p>1950-1960s : to measure leisure</p> <p>1970: to learn different aspects of media use</p> <p>1975: expanded on the 1970 survey as new agencies took part</p> <p>1987-1988: by the SCP to better measure GDP/GNP</p> <p>1997-1999: as part of larger social survey</p> <p>2000: most recent large scale SCP Time Use Survey</p>	<p>Numerous surveys have been conducted. There have been series of time budget studies conducted each decade from the 1950s until present.</p> <p>The current SCP Time Use Survey began in 1975 and has been repeated every five years since.</p>
The United Kingdom	Have been conducted since the turn of the century	The most recent survey was conducted with the intention of providing information for policy makers, academics, social researchers, advertisers and retailers. The UK is also developing a satellite account to value household production.	<p>Two small scale studies: 1995, 1999</p> <p>One large scale study: 2000</p> <p>-</p>

**Note:** All of the above information was gathered from various country publications that are cited in the bibliography.

## **Methodology**

Time use studies are usually conducted by government agencies, almost always a national bureau of statistics. Due to the gender significance of time use surveys, it is not uncommon to find women's organizations or women's ministries playing a leading role in the planning and execution of national level time use surveys. In some instances, a time use survey may be sponsored by an international organization like the United Nations. For example, in 1990/1991, a study of women's and men's use of time in Thailand was organized by the Food and Agriculture Organization of the United Nations.

A variety of methods are used by the different bureaus. The number of participants chosen for the survey varies from country to country, as does the response rate to invitations to participate in the survey. In South Africa's 2000 time use study, 14,553 individuals were chosen for the study, and the response rate was 94 percent. This contrasts with the latest time use survey conducted in the Netherlands, where some 1800 individuals were chosen for the study, and the response rate was only 25 percent (Multinational Time Use Study (MTUS), Institute for Social and Economic Research, website). The minimum age for participation in the surveys also varies from country to country. In the Italian pilot time use survey of 1996, household members aged three and older were included (ISER-MTUS). This is rare, however, as many countries fix the minimum age for participation at ten.

A diary for recording the respondent's activities is the most common survey instrument in time use studies. These diaries come in different forms. A self-completed current diary is popular in regions where literacy is high. A recall interview/retrospective diary is often used in regions where illiteracy is commonplace. Some countries use a combination of the two techniques mentioned above. In its 1998 time use survey, Canada did recall interviews using computer aided telephone interviewing software to manage the data collection.

The time-use diary is designed for respondents to record their activities in their own words, during specific time intervals, over a pre-determined period of time. The main activity is always recorded, usually along with simultaneous (second and even possibly third) activities. Time intervals vary: 5-minute intervals, 15-minute intervals, 30-minute intervals, etc. Some countries request a record of all activities engaged in over a 24-hour or 48-hour period, whereas other countries require recording over a longer period of time: The Netherlands has traditionally requested a full week's worth of activities. The diaries have a set start and finish time for each reference day. In countries that require recording for a 24 or 48-hour time period, specific days are chosen during the week or on weekends, in order to get a better representative average day in the participant's regular routine.

Recording simultaneous activities is considered very important, as by doing so, often many activities that may be overlooked, particularly childcare activities, are in fact recorded. For example, if a woman is preparing dinner, and a child is in his/her playpen, the woman would most likely write "cooking" as her activity for that particular time slot; however, if given the opportunity to include simultaneous activities, she could include also "childcare." This is especially important for examining the overall workload, paid and unpaid, of women compared to men. Along

the same lines, the diary will in many countries include a slot for "with whom" an activity took place. This also allows for the reporting of additional activities that might not have been included if only the main activity was recorded.

Countries also vary in the period of time dedicated to conducting time use surveys. Some countries conduct the survey over a period of two months, while other countries may choose to conduct the survey over a full year. Holidays and the season of the year are both important factors that are taken into consideration when choosing the time period for conducting time use surveys.

An interviewer for the time use study is dispatched to the participants' homes at the start of the survey. He/she gives instructions on how to record activities in the time use diaries, if a self-completed diary is being used. He/she also fills out background questionnaires containing variables such as age, sex, marital status, household composition and work status. Depending on the country, variables like household appliances and location of water/fuel sources might also be included. Following the designated days for recording, the interviewer returns to the individual's house and collects the diary, or, as in the case of the recalinterview/retrospective diary, conducts an additional interview to record the information for the respondent. In some cases, a gift of appreciation is awarded to the respondent for his/her participation.

Once the data are collected, the activities are coded. At the present time, the classification of activities varies from country to country. As noted above, standardized classification systems are in the process of being developed and tested.

Below is a simplified version of India's classification system.

The first three categories are based on the **System of National Accounts (SNA)**, a United Nations trial classification developed by the United Nations Statistical Commission:

**SNA Activities:**

- A. Primary Production Activities -- for example, crop farming, animal husbandry, fishing, collection of water/fruit/fuel, processing and storage, and mining;
- B. Secondary Activities -- construction activities and manufacturing activities; and
- C. Trade, Business and Services -- for example, petty trade and petty services (such as a domestic servant).

**(All of the above forms of labor are included in calculation of India's Gross Domestic Product)**

**Extended SNA Activities:**

- D. Household maintenance; and
- E. Care for children, the sick, the disabled and elderly.

**(Domestic responsibilities - not included in GDP calculation)**

## **Non-SNA activities -- nonproductive activities**

- F. Community services and help to other households;
- G. Learning;
- H. Social and cultural activities and mass media consumption, etc.; and
- I. Personal care and self-maintenance.

(Pandey, *Country Report*, 2000: 29-34 & Pandey, *Operational Issues*: 6)

Each of the activities reported by Indian respondents are placed in one of the above categories and sub-categories. A classification system can include hundreds of categories and subcategories.

The simplest and most commonly accepted way to distinguish between household work (unpaid labor) and personal care or leisure activities is through the "third-person criterion." This means that if a third person can be hired to perform the tasks in question, then it is considered work. A servant can be hired to do laundry and iron clothes; a nanny can be hired to care for children while the parents are away from the home; a cook can be hired to prepare all the meals and do the food shopping for the household. Thus, these activities are classified as unpaid labor. In contrast, a third person cannot sleep for you, bathe for you, ride a bike for you, etc. Thus these activities are not classified as unpaid labor but as personal care and leisure activities (Aslaksen and Koren, 1996: 68).

### Harmonizing the European Time Use Surveys

Over the past decade, a movement for harmonizing time use surveys throughout Europe has been underway in order to facilitate comparisons of time use statistics across borders. The UN has hosted expert meetings on methods for conducting time use surveys, at which researchers refer to the experiences of a number of European nations that have piloted time use studies utilizing the methodological guidelines recommended by Eurostat.

Following the pilot time use surveys conducted in 1997 in Finland, Italy, Luxembourg and Slovenia, Eurostat initiated a Household Satellite Accounts project, which was led by Statistics Finland. The main goal of this project is to examine how well the statistics gathered in the standardized time use surveys are suited for calculation of unpaid labor and to create a harmonized satellite system on household production.

### Measuring of Results

What is being measured when time use statistics are examined is gender equality, as well as equality between other social groups. For example, New Zealand not only examines the gender differences in society as a whole, but also breaks down the statistics so as to compare Maori (indigenous) and non-Maori (those of British decent) women and men.

By examining the hours spent by both men and women in paid and unpaid labor, one obtains a good picture of the productivity of both sexes, where "productivity" refers both to paid labor and to tasks such as household maintenance and childcare.

Time use statistics are generally reported in **hours** spent or **percentage of time** spent on work. The simplest and most commonly presented statistics are the number of hours devoted to given activities. Simple comparisons are made such as: on average men perform X number of hours a week on paid labor activities, while women perform only Y number of hours a week on paid labor activities. An example of a percentage measure would be: on average, X percent of a man's time is spent on unpaid labor each day, while Y percent of a woman's time is spent on unpaid labor each day.

An interesting alternative to presenting average time use statistics is the use of gender equality indexes, developed by Statistics Canada. In Canada, time use surveys are conducted to determine the extent of gender inequality in three specific areas: income, work and learning. Notably, Status of Women Canada worked with Statistics Canada to develop indicators designed to gauge the extent of inequality between the sexes in the above categories. In 2000, the second edition of the resulting publication (*Economic Gender Equality Indicators 2000*), based on a time use survey conducted in 1998, was published.

The index used by Canada works as follows: when the index settles at 1.0, it means that men and women are equal or balanced in time spent on a given activity. When the index goes above 1.0, it means that women spend more time than men on the activity being measured. If the index goes below 1.0, it means that women spend less time than men on the activity being measured. The index is a simple way to show how much closer or further apart women and men are in regards to income, work and learning.

## Findings

In this section, time use survey findings for the following countries will be presented: Canada, India, Israel, New Zealand, Palestinian Authority, South Africa and The Netherlands. The six countries other than Israel were chosen, as together they comprise a good mix of both developing and developed countries. While the findings for this type of survey are often very extensive, here a brief summary is provided only in regards to gender differences found in three categories of time use activity: paid labor, unpaid labor and non-productive activities. The findings presented on Israel are more detailed than those of the other countries.

The following terms will be used repeatedly throughout this section:

1. **Paid labor** refers to time spent on productive activities for which the individual receives payment in exchange for labor. Activities in this category are calculated into a country's national accounts.
2. **Unpaid labor** refers to time spent on productive activities in which the individual does not receive payment. This category predominantly refers to household maintenance and care work, including care for children, disabled and elderly persons.

3. **Total workload** refers to the average amount of hours an individual spends in both paid and unpaid labor.
4. **Domestic responsibilities** refer to household maintenance and care work combined.
5. **Non-productive activities** refer to personal and recreational activities such as learning, leisure and personal hygiene. Activities falling in this category are not part of the economy.

When reviewing the findings, it is interesting to note the similarities and differences among the various countries. For example, in each of the countries mentioned above, women performed more unpaid labor (domestic responsibilities) than men, while the men spent more time on paid labor than women. Digging deeper, it can be seen that in some cases the gender gap is very wide and in others the gap is much narrower.

Women have advanced significantly in recent decades, giving those of us in modern, westernized countries a sense that men and women are closing the gender gap between them, especially in the work arena. Time use survey findings tell us a different story. That story is that women worldwide perform the vast majority of domestic tasks, including both household maintenance and childcare, even when they are employed part or full time. This work continues to go unvalued by policy makers and by officials calculating the national accounts

## **I. Canada**

### **Methodology**

Statistics Canada conducted major time use surveys in 1986, 1992 and 1998.

Each survey was conducted as part of the Canadian General Social Surveys, which are sample surveys that have been conducted annually since 1985.

Unique to Canada is the use of a childcare diary that specifically records childcare episodes to ensure that as many childcare activities are recorded as possible. Childcare activities are frequently "lost" in the standard diary procedure, as they are often considered secondary activities, occurring while another activity is taking place. Canada also uses direct questions that specifically ask the respondent about the amount of time spent on a number of activities over a seven-day/one month period of time. The activities in question concern unpaid work and are not common enough to be captured on a 24-hour diary.

The data for the most recent Canadian time use survey were collected between February 1998 and January 1999. The interviews were conducted seven days a week. There were 10,749 respondents, each aged 15 or older. Each respondent was assigned at random a day of the week to monitor their activities. One major difference between this survey and other time use surveys in both Canada and worldwide, was the use of computer-aided telephone interviews to collect data (Paton, 2000: 5-6).

### **Major Findings:**

The Canadian method is to present findings not only in hours but also in indexes.

Index:

A ratio of 1.0 means that men and women spend an equal amount of time on a given activity.

A ratio below 1.0 means that women spend less time than men on a given activity.

A ratio above 1.0 means that women spend more than men on a given activity.

(*Economic Gender Equality Indicators*, Status of Women Canada, 1997)



### Total Workload

In both paid and unpaid activities, Canadian women work an average of 7 hours and 48 minutes a day, while Canadian men average 7 hours and 30 minutes a day. The **total workload index** for 1998-99 is 1.04, compared to 1.08 in 1992, demonstrating a balancing out of the workload between men and women. The 1992 index represents 30 additional minutes of both paid and unpaid work a day, done by women. This may seem insignificant, but in fact over a one-year period it is equal to *five weeks of full-time work*, (*Economic Gender Equality Indicators*, pages 20-21). In 1998, the 1.04 index represented only 15 extra minutes of additional work a day performed by women, or *two and a half weeks of full-time work* over a full year period (Clark, 2000: 4).

It seems that a bigger workload is most common among young women, aged 15-24, whose work index is 1.18, and among women over the age of 65, whose index is 1.11 (ibid: 4).

When examining this workload in terms of paid versus unpaid labor, it becomes apparent just how unequal the workload is. While the gender gap between men and women has narrowed, men are still spending significantly more time than women on **paid work**, while women are still dedicating more hours than men to **unpaid/domestic** work.



### Paid Work

#### Breakdown of household types in Canadian time use research

**Dual Earners:** Refers to households where both spouses work full time and



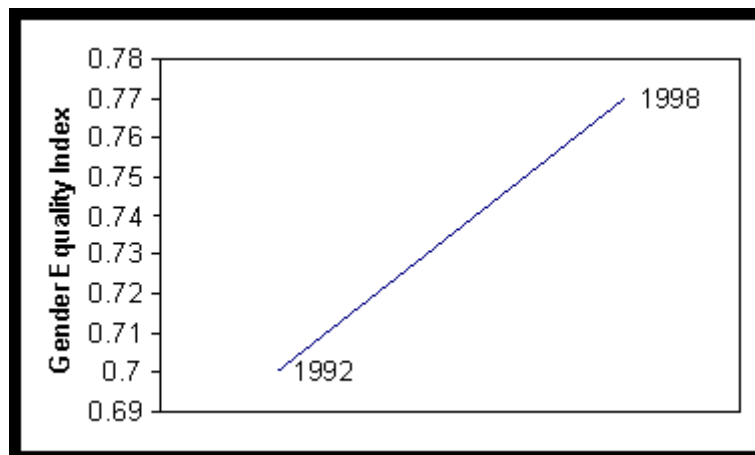
care for at least one child under the age of six.

**Primary Earner:** Refers to households where one spouse works full time and the other does not work or works part time, and together they care for at least one child under the age of six.

**Earners without young children.** (ibid: 5)

Between 1992 and 1998, the gap between men and women in time spent on paid work decreased among dual-earners with children under six years of age: the index narrowed from 0.7 in 1992 to 0.77 in 1998, moving closer to "1" - which represents a balancing of work between women and men. For couples with no young children, the index remained relatively unchanged (ibid: 5).

### Gender Equality Paid Work Index For Dual-Earner Households with Children in Canada, 1992 and 1998



**Notes:** A Gender Equality Index below 1.0 means that men spend more time than women on the activity in question. Gender Equality is achieved when the index reaches 1.0.

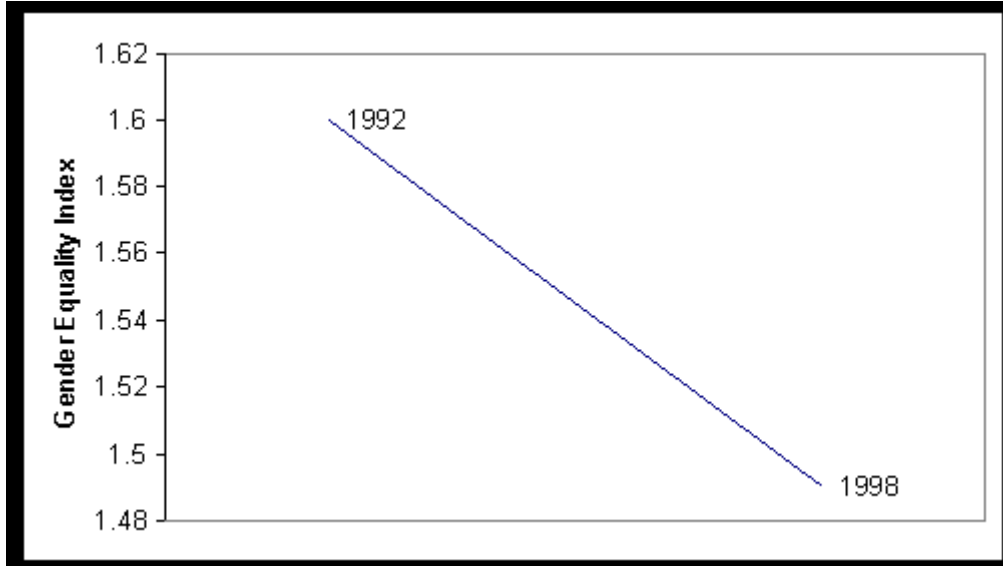
**Source:** Clark, Warren. *Economic Gender Equality Indicators 2000*. Status of Women Canada: 5.



### Unpaid Work

In Canada, between 1992 and 1998, the gender gap in unpaid labor decreased. For dual-earners with young children, the **unpaid work index** narrowed from 1.60 in 1992 to 1.49 in 1998. For primary-earners with young children, the index also improved slightly; for couples with no young children, the index barely changed between the 1992 and 1998 studies (ibid: 6).

## Gender Equality Unpaid Work Index for Dual Earner Households with Children in Canada, 1992 and 1998

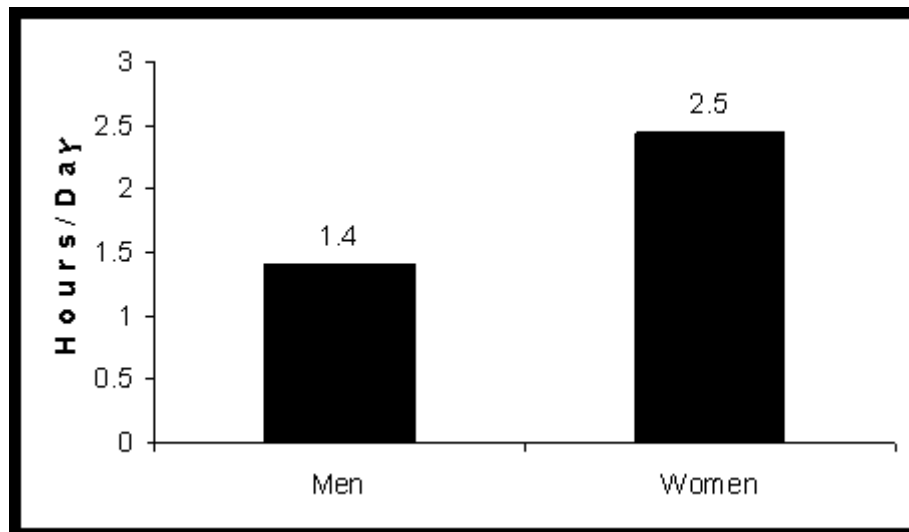


**Note:** A Gender Equality Index above 1.0 means that women spend more time than men on the activity in question. Gender Equality is achieved when the index drops to 1.0.

**Source:** Clark, Warren. *Economic Gender Equality Indicators 2000*. Status of Women Canada: 6.

Canadian households with dual-earners demonstrate very pronounced inequality between men and women in regards to time spent on childcare. In 1998, on average, women from dual-earner households with young children, aged 20 to 44, spent 2 hours and 27 minutes a day on childcare, compared with the 1 hour and 25 minutes a day for their male counterparts. This difference results in a **childcare index** of 1.72. Thus women in dual-earner households spend roughly an additional 72% more time on childcare than men of such households. However, this index is slightly better than the 1992 figure of 1.82 (ibid).

## Average Number of Hours a Day Spent on Dual-Earner Spouses in Canada, Aged 20-44, by Gender



Source: Clark, Warren. *Economic Gender Equality Indicators 2000*. Status of Women Canada: 6.

## II. India

### Methodology

India conducted its first national time use survey between June 1998 and July 1999 in six selected states throughout the country. The survey was conducted in about 18,600 households. Respondents were aged six years and older. Due to the high level of illiteracy, the researchers conducted interviews to collect the data, using the *one-day recall method*. A 24-hour diary was the survey instrument of choice, recording in one-hour time intervals, beginning and ending each day at three in the morning. The collection of data spanned the course of one full year (Pandey, *Operational Issues*: 1-5).

The Indian classification of time use activities uses the following terminology for its classification system. I will be using these terms in the breakdown of the findings for this country only:

- A. **SNA (System of National Accounts) activities** -- includes activities such as farming, animal husbandry, fishing, gardening, hunting, mining, quarrying; construction, manufacturing; trade and business, services.
- B. **Extended SNA (System of National Accounts) activities** -- includes household maintenance and care for children, sick, elderly and disabled individuals from one's own household.
- C. **Non-SNA activities** -- includes community services and help to other households, learning, social and cultural events, mass media consumption, personal care and self-maintenance.

(Ibid: 6 & Pandey, *Country Report*: 29-34)

## Major Findings:



### SNA Activities

The average Indian male spends about 42 hours a week, (or 6 hours a day), in **SNA activities**, whereas the average female spends just barely 19 hours a week, (or about 2.7 hours a day), in paid work (Pandey, *Country Report*: 6).

One interesting difference between the rural and urban females in India is that women from the urban areas devote only 5% of their time to **SNA activities**, while women of the rural areas devote an average of 13% of their time to these activities. The researchers believe that rural women's participation in agriculture contributes to this significant gap, as agricultural activities are intended to be considered **SNA activities** (ibid).



### Extended SNA activities

As could be expected, Indian men spend very little time on **extended SNA activities**, an average of only 3 hours and 39 minutes per week, or 2% of their time, (or 31 minutes a day). Indian women dedicate an average of 34 hours and 38 minutes per week, or about 21% of their time, (or 4 hours and 57 minutes a day), to domestic responsibilities. Women devote about ten times more time than men to extended SNA activities (ibid: 6).

When further breaking down the Extended SNA category (unpaid labor), we find that Indian women spend on average 2 hours and 8 minutes a day cooking food, and 1 hour and 8 minutes a day cleaning the house and utensils. Indian men spend hardly any time at all performing these activities: an average total of about 50 minutes a week on cooking food and cleaning the house/utensils. On average, women in India also spend 3 hours and 10 minutes a week on childcare as a main activity, while men spend an average of only 19 minutes a week on childcare (ibid: 8).

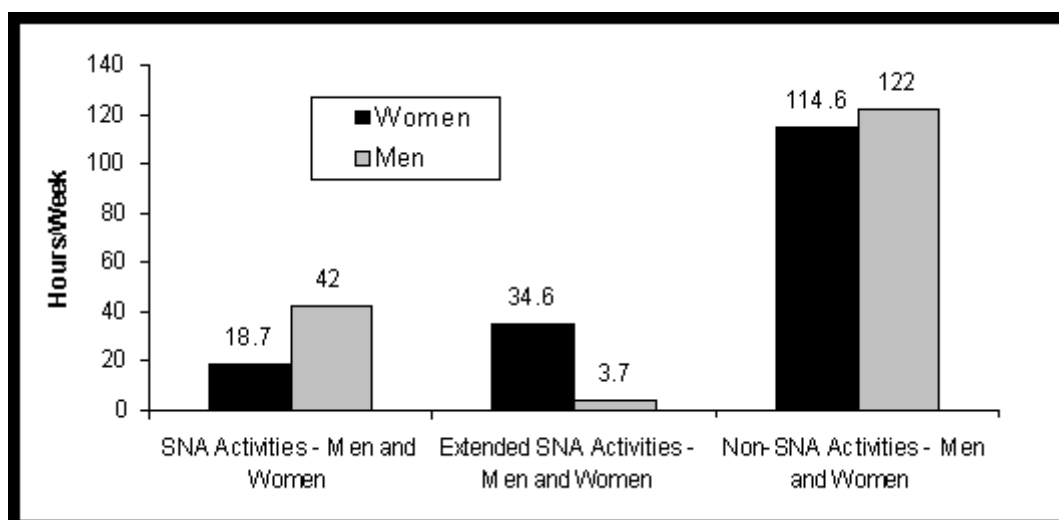


### Non-SNA activities

Women in India allocate about 68% of their week and men 73% of their week on **non-SNA activities** (ibid: 6).

Indian men spend, on average, about eight hours more a week than women on leisure, learning and personal care activities, such as drinking alcohol, engaging in physical exercise, listening to music, smoking and reading the newspaper (ibid). Women and men spend about the same amount of time gossiping/talking with others: 1 hour a day. Women devote a bit more time than men to meditation (ibid: 9).

## Hours/Week Spent on Different Categories of Activities in India, by Gender



**Notes:** System of National Accounts (SNA) classification system is used in India. SNA activities are those that would be included in the calculation of a country's National Accounts. Extended SNA activities refer to household maintenance and care work. Non-Productive Activities refer to non-labor activities such as personal time, leisure care and media use.

**Source:** Pandey, R. N. of Central Statistical Organization, Ministry of Statistics and Program Implementation -- New Delhi, and Hirway, Indira, of Centre for Development Alternatives, Ahmedabad. *Country Report: INDIA; Conducting the Time Use Survey -- Indian Experience*. UNSD Expert Group Meeting on Methods for Conducting Time-Use Surveys 23-27 October, 2000 New York: 6.

### III. Israel

#### Methodology

Israel conducted its first and only time use survey over a decade ago, collecting data between November 1991 and April 1992. The Central Bureau of Statistics conducted the survey with the assistance of the Ministry of Education, Culture and Sport; the Ministry of Labor and Social Welfare; the National Insurance Institute; the Ministry of Tourism; and the Joint Distribution Committee Israel.

A total of 3,082 persons participated in the survey. Each participant was at least 14 years of age. Two different diary techniques were used: one a *recall diary* to record activities from the previous day; and another, a *self-recorded diary* to record activities for a reference day chosen by the field worker.

The 24-hour diaries were divided into 15-minute intervals for the daytime and 30-minute intervals for the nighttime, beginning and ending at 4:00 a.m. Reference days were chosen for all days of the week, each respondent participating on one or two weekdays, or one weekday and two weekend days.

The diaries were used to create "time allocation" statistics for specific activities, while questionnaires were designed to create "frequency of participation" statistics. Family and personal questionnaires were also used to gather figures on activities that might have been missed in a 24-hour diary, as well as details regarding important

background information like education, employment and religiosity. In all, 4,843 diaries and 3,049 personal questionnaires were completed.

The time frame chosen for the fieldwork, November through April, may have influenced the survey findings. These are the wet winter months of Israel, when the weather might limit participation in activities that are commonplace during the rest of the year (*Time Use in Israel, Time Budget Survey 1991/1992*, Special Series No. 996, Central Bureau of Statistics, 1995: 13 & 31-34).

## Major Findings

The survey findings displayed below are broken down into a number of groupings distinctive to Israeli society such as: Day of the Week (in regards to the Jewish Sabbath -- Fridays/Saturdays), Jews and non-Jews, and Level of Religiosity. Other groupings include: Gender, Marital Status, Married Persons with Children, Age, Education Level and Employment Status.



### Total Labor

**Israeli men and women** spent roughly the same percentage of their time on productive activities, both paid and unpaid: women - 26% and men - 26.2%. However, there is a large imbalance between the sexes with regard to paid and unpaid work separately. Israeli men dedicated an average of 19.4% of their time to paid work, which is 2.5 times the amount that women allocated, on average, to paid work (7.6%) (ibid: 15 & 129).

Men and women in Israel between the ages of 30 and 44 allocate the most amount of time, (36%), on total work, both paid and unpaid. However, the men in this age group spent 28% of their time on paid labor activities, whereas the biggest chunk of the women's time, 25%, was spent on unpaid labor (ibid: 17-18).



### Paid Labor

Israelis as a whole spent 13.3% of their week, an average of 22 hours and 17 minutes, on paid labor (ibid: 14).

**Jewish men** in Israel spent an average of 19.4%, or 4 hours and 39 minutes a day, on paid labor; **non-Jewish men** spent about the same amount of their time on paid labor: 20%, or 4 hours and 48 minutes a day. In contrast, **non-Jewish women** were found to only spend 3% of their time on paid labor, or 43 minutes a day (reflecting their low labor force participation), while **Jewish women** spent an average of 8.4% of their time, or 2 hours and 1 minute a day, on paid labor (ibid: 15).

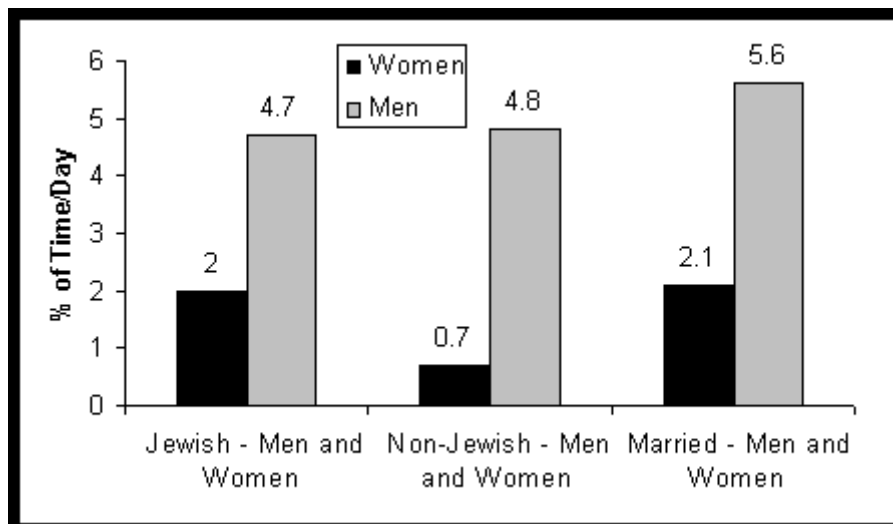
**Israeli men who were never married** were found to spend an average of 2 hours and 43 minutes a day on paid labor, while **women who were never married** spent only 1 hour and 31 minutes a day on paid labor. In other terms, men who were never married

dedicated 11.3% of their daily routines to paid labor, while women who were never married spent only 6.3% of their time on paid labor (*Time Use in Israel, Additional Findings from the Time Budget Survey 1991/1992*, Central Bureau of Statistic Publication NO. 1029, 1996: XVI).

On average, **married men** in Israel worked many more hours than **married women** in the paid workforce: 23.3% of their day, or 5 hours and 36 minutes, compared to only 8.8%, or 2 hours and 6 minutes, for married women. This means that married men allocated about 2.6 times more hours to paid labor than married women, (ibid). In Israel **married men without children** dedicated an average of 15.5% of their day to paid work - 3 hours and 43 minutes - while **married women without children** spent only 6.7% of their day, or 1 hour and 37 minutes, on paid work. **Married men with children** spent 27.2% of their day, or 6 hours and 32 minutes, on paid work, while **married women with children** allocated only 9.7% of their day, or 2 hours and 20 minutes, to paid work (ibid: XVII).

In Israel, Jewish individuals with academic degrees were found to spend 1 1/3 more time on paid labor than persons without **higher education**. Checking the gender divide, academic women spent only 14% of their daily routine in paid labor, while academic males spent 30% of their time on paid labor, more than twice that of women with similar education (*Time Use in Israel*, Special Series No. 996, 1995: 19).

#### Average Number of Hours a Day Spent on Paid Labor in Israel, by Gender



**Notes:** Calculation done by Adva Center. The average number of minutes per day was provided for each activity in the official publications, which we converted to the hourly statistics presented above.  
**Source:** Central Bureau of Statistics, Special Series No. 996, *Time Use in Israel: Time Budget Survey 1991/1992*: 15 and Publication No. 1029, *Time Use in Israel: Additional Findings from the Time Budget Survey 1991/1992*: XVI.



## Unpaid Labor

Overall, Israelis spent an average of 12.8% of their time, or 21 hours and 35 minutes a week, (or 3 hours and 5 minutes a day), on unpaid labor tasks (ibid: 129)

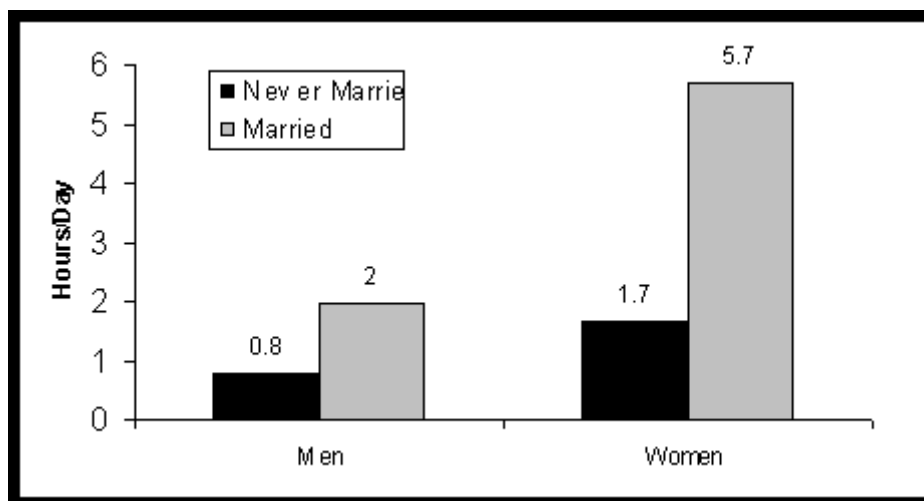
**Israeli women** as a whole performed a much larger portion of unpaid work than their male counterparts: 18.4% compared to 6.7% of their time, or 4 hours and 25 minutes a day, compared to 1 hour and 37 minutes for men (ibid: 129).

**Never-married women** in Israel dedicated 1 hour and 39 minutes a day to unpaid work, while **never-married men** spent only 46 minutes a day on unpaid work, representing 6.9% and 3.2%, respectively, of their daily lives (*Time Use in Israel*, Publication NO. 1029, 1996: XVI).

**Married Israeli men** devoted much less time than their wives to unpaid work, (household maintenance and childcare), averaging 1 hour and 58 minutes a day, of which 31 minutes were dedicated to childcare. This constitutes 8.2% overall of their daily routine, with only 2.2% of each day spent on childcare. **Married Israeli women** dedicated 23.9% of the day to unpaid labor, 6.1% of which was dedicated to childcare, or in other terms, 5 hours and 44 minutes a day is allocated to unpaid labor, of which 1 hour and 28 minutes is spent on childcare (ibid: XVII).

Thus for men, marriage appears to involve comparatively little additional unpaid work (1 hour and 12 minutes for men), while for women, marriage means a significant increase in unpaid labor, (an additional 4 hours and 5 minutes).

### Average Number of Hours a Day Spent on Unpaid Labor in Israel, by Gender and Marital Status



**Notes:** Calculation done by Adva Center. The average number of minutes per day was provided for each activity by group in the official publications, which we converted to the hourly statistics presented above.

**Source:** Central Bureau of Statistics, Publication No. 1029, *Time Use in Israel: Additional Findings from the Time Budget Survey 1991/1992*: XVI-XVII.

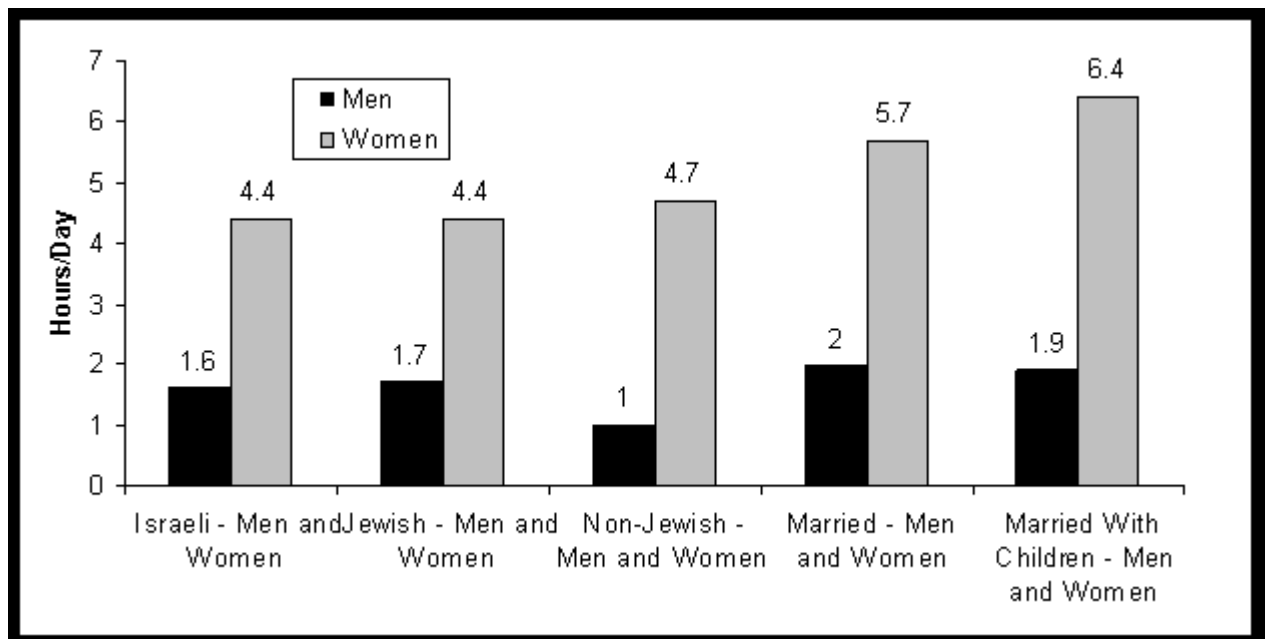


Even after the **age of retirement**, Israeli women were still found to allocate more of their time to domestic responsibilities than men, 17% compared to 11% (*Time Use in Israel*, Special Series No. 996, 1995: 20).

As for **academics**, the higher a woman's level of education, the less time she spent on unpaid work -- household maintenance and care work. However this was only slightly less than the time spent by less educated women on these activities (ibid: 19).

**Jewish men** in Israel spent 7.2% of their day, or 1 hour and 43 minutes, on unpaid labor; **non-Jewish men** spent even less: 4.2% of their day, or 60 minutes. **Non-Jewish women** were found to spend slightly more time than **Jewish women** in unpaid labor: 19.6% and 18.3% respectively: 4 hours and 42 minutes a day compared to 4 hours and 23 minutes a day (ibid: 15 & 129).

**Average Number of Hours a Day Spent on Unpaid Labor in Israel, by Gender, Religion and Marital Status**



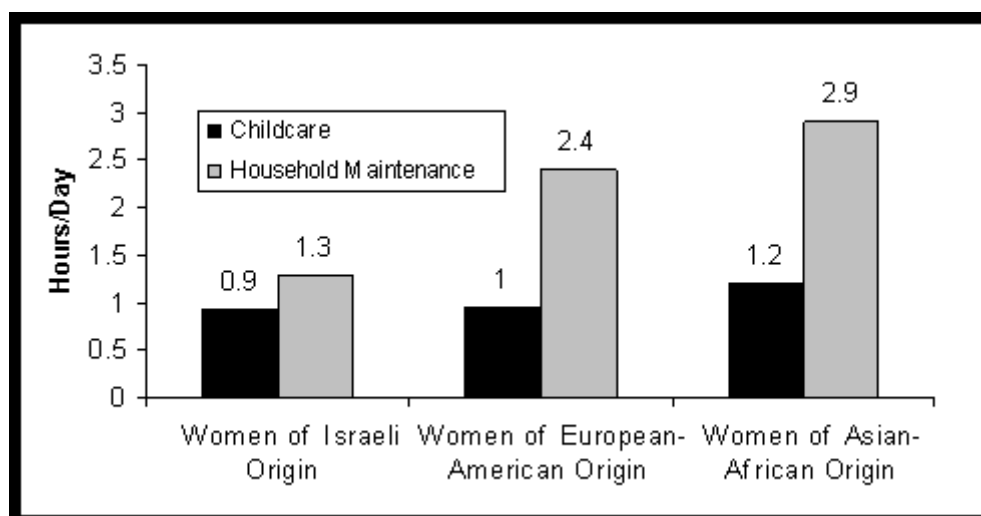
**Notes:** Calculation done by Adva Center. The average number of minutes per day was provided for each activity by group in the official publications, which we converted to the hourly statistics presented above.

**Source:** Central Bureau of Statistics, Special Series No. 996, *Time Use in Israel: Time Budget Survey 1991/1992*: 15 and Publication No. 1029, *Time Use in Israel: Additional Findings from the Time Budget Survey 1991/1992*: XVI-XVII.

The **place of origin** breakdown demonstrates the gender gaps in unpaid labor across ethnic groups within Israeli society. Men of Israeli origin, (meaning that both the individual and the individual's father was born in Israel), spent an average of 21 minutes a day on household maintenance, (not including shopping or other errands), and only 20 minutes a day on childcare, whereas women of Israeli origin spent 1 hour and 17 minutes a day on household maintenance and 55 minutes a day on childcare. Men of Asian-African origin, (meaning that the individual or the individual's father was born in either Asia or Africa), spent an average of 30 minutes a day on household

maintenance, (not including shopping or other errands), and 27 minutes a day on childcare, while their female counterparts spent 2 hours and 53 minutes a day on household responsibilities and 1 hour and 12 minutes a day on childcare. Men of European-American origin, (meaning that the individual or the individual's father was born in either Europe or the Americas), spent, on average, 42 minutes a day on household maintenance, (not including shopping or other errands), and only 19 minutes a day on childcare, while their female counterparts spent 2 hours and 23 minutes a day on household maintenance and 57 minutes a day on childcare (*Time Use in Israel*, Publication NO. 1029, 1996: 51-52).

### Average Number of Hours a Day Women Spent on Household Maintenance and Childcare in Israel, by Ethnic Origin



**Notes:** Calculation done by Adva Center. The average number of minutes per day was provided in the official publications. We divided each sum by the total number of minutes in a day to arrive at the hourly statistics presented above.

**Source:** Central Bureau of Statistics, Publication No. 1029, *Time Use in Israel: Additional Findings from the Time Budget Survey 1991/1992*: 51-52.



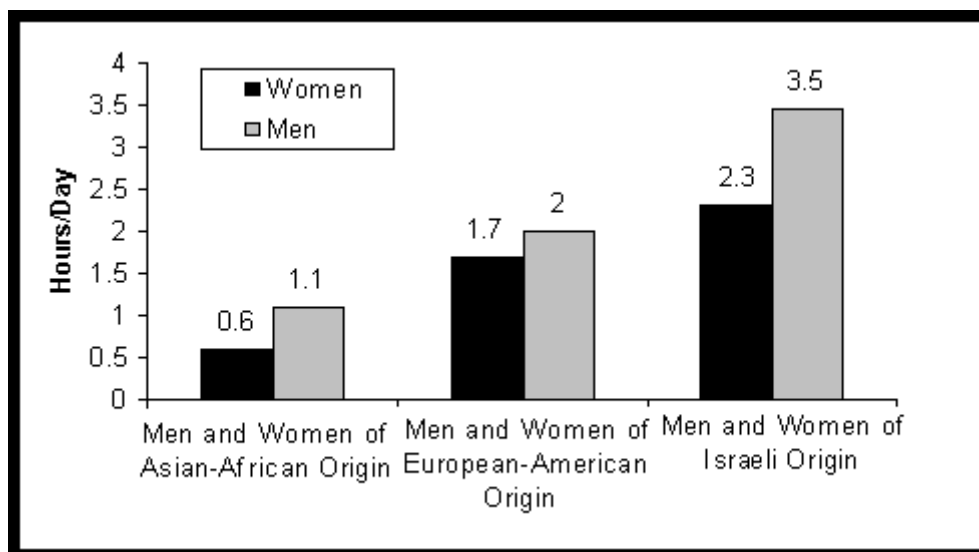
### Non-productive activities

Leisure time was found to be fairly balanced **across gender** and **between Jews and non-Jews in Israel**. **Jewish men and women** spent virtually the same amount of time, about 5.5 hours a day, on leisure activities; **non-Jews** spent an average of 5 hours and 22 minutes a day on leisure (*Time Use in Israel*, Special Series No. 996, 1995: 15).

There was a sizable gap **among ethnic groups in Israel** in terms of time spent on **education and learning**. On the whole, persons of Israeli origin, spent much more time on learning than those of European-American origin or Asian-African origin. Persons of Israeli origin spent an average of 3 hours and 7 minutes a day on learning, compared to 58 minutes a day for persons of European or American origin and 49 minutes a day for persons of Asian or African origin. In Israel, men and women interested in pursuing higher education will most likely do so between the ages of 18 and 29. Men

of Israeli origin in this age group spent an average of 3 hours and 27 minutes a day on education, and men of European-American origin spent 2 hours a day on education. Young men of Asian-African origin spent only 1 hour and 6 minutes a day on education. In regards to women of this age group and these ethnic backgrounds, the differences are parallel to those of their male counterparts (*Time Use in Israel*, Publication NO. 1029, 1996: 51-52).

### Average Number of Hours a Day Spent on Learning in Israel, by Ethnic Origin and Gender, ages 18-29



**Notes:** Calculation done by Adva Center. The average number of minutes per day was provided for each activity in the official publications, which we converted to the hourly statistics presented above.

**Source:** Central Bureau of Statistics, Publication No. 1029, *Time Use in Israel: Additional Findings from the Time Budget Survey 1991/1992*: 51-52.

## IV. The Netherlands

### Methodology

Since 1975 the newly established Social and Cultural Planning Office (SCP) has contributed to a time use study every five years, in cooperation with other organizations and agencies. The 2000 Survey, for example, was undertaken by bodies such as the Tilburg University, the Ministry of Transport and a marketing services organization. The fieldwork is conducted in October of the study year, with an average of 3000 perspective respondents. All participants are at least 12 years of age. Along with completing a *one-week diary*, the respondents are asked to fill in two questionnaires regarding background information and free time activities. At the end of the recording period, the diaries are collected by the interviewer and the respondent is awarded a gift for participation in the survey.

The 2000 survey was of particular interest to researchers, as recent labor statistics demonstrated an increase in women's participation in the work force. In addition, two new laws were enacted in the 1996 providing for greater flexibility of working hours and allowing shops to stay open in the evenings and on Sundays, (the Working Hours Act and the Trading Hours Act) (Breedveld, *Trends in de Tijd*, 2001: 131). Both of these laws were expected to influence the manner in which the Dutch people utilized their time, particularly young parents (both men and women) juggling careers with parenthood.

Unfortunately, to date, the official report on the latest time use survey in the Netherlands is published only in Dutch. I was able to locate some basic findings from the survey, but none of them presented a breakdown by gender. For this section only, I will refer to the country as a whole.

## **Major Findings**



### **Paid Labor**

Comparing the 1995 Survey with the 2000 Survey, on average, the amount of time a Dutch person spent on paid labor increased by roughly 2 hours and 6 minutes, from 17 hours and 18 minutes to 19 hours and 24 minutes a week. According to the SCP publication, this increase in hours represents more individuals entering the workforce, not an increase in hours worked by those that were already employed in 1995. While there was an overall growth of participation in the work force throughout Dutch society, the most significant increases came from women, young people (aged 12-18 years old) and those aged 50-64 (ibid).



### **Unpaid Labor**

As a whole, household maintenance and care work statistics for Dutch persons did not change: an average of 18 hours and 54 a week in 1995 and 19 hours a week in 2000 was dedicated to care work. While it became evident in the 1995 Survey, and again in the 2000 Survey, that Dutch men were beginning to take on more household and childcare responsibilities, women were still found to be performing 2/3 of the overall household and care work tasks (ibid: 132).



### **Personal/Free/Leisure Time**

The 2000 survey found that the average person was sleeping more hours -- going to bed earlier but not waking up earlier (ibid: 133).

This survey also found that the average individual spent 2S fewer hours a week on leisure activities, particularly activities outside of the home. Between 1995 and 2000,

free/leisure time dropped from 47 hours and 18 minutes a week to 44 hours and 48 minutes a week (ibid: 132-134).

## V. New Zealand

### Methodology

The Ministry of Women's Affairs commissioned Statistics New Zealand to conduct New Zealand's first Time Use Survey in 1998/1999. Fieldwork was conducted between July 1998 and June 1999, with 8000 respondents participating. Respondents, who were at least 12 years of age and completed 48-hour time use diaries and questionnaires that inquired about household circumstances and personal characteristics, (Statistics New Zealand, *Time Use Survey Respondents Thanked*, 1999).

One interesting aspect of the New Zealand study is that it breaks down the findings not only by gender but also by ethnicity, into Maori (natives) and non-Maori persons.

### Major Findings



#### Total Workload

Men and women spend an average of 49 hours a week on productive activities, both paid and unpaid. However, 60% of the men's work represents paid labor, while almost 70% of the women's work is in fact unpaid labor.



#### Paid Labor

Looking at society as a whole, men spend an average of 29 hours a week, (or 4 hours and 9 minutes a day), on paid labor, while women spend only 16 hours a week, (or 2 hours and 17 minutes a day) (Statistics New Zealand, *Around the Clock*: 17).

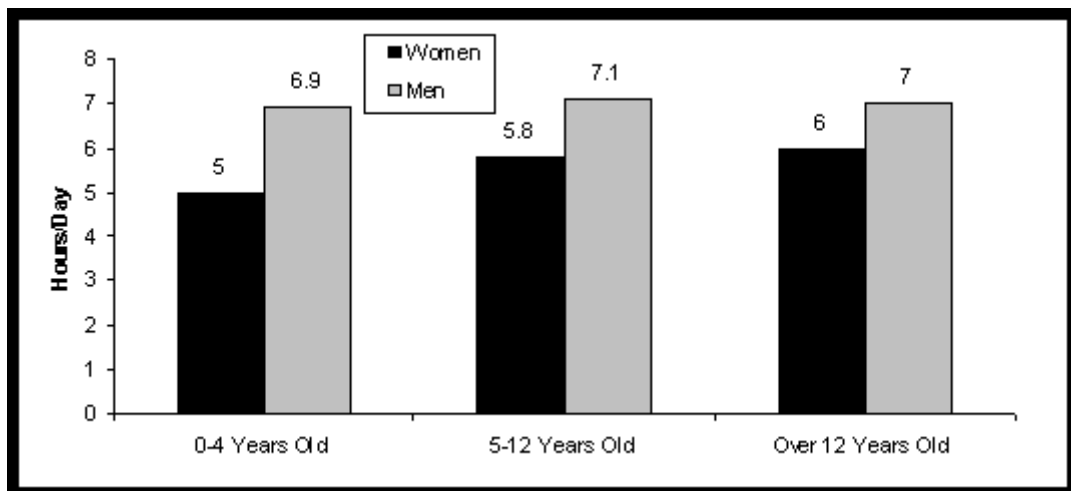
Men in New Zealand that are employed full-time spend on average 8 hours and 42 minutes a day, while their female counterparts spend 8 hours a day on paid labor activities, (Statistics New Zealand, *First Results from Time Use Survey Released*, 1999).

New Zealander men and women in the 45-54 year age group spend the most time on paid labor. On average, men of this age group dedicate 47 hours a week, (or 6 hours and 43 minutes a day), to paid work, while women aged 45-54 allocate 33 hours a week, (or 4 hours and 43 minutes a day), to paid labor, (Statistics New Zealand, *Around the Clock*: 17).

Maori individuals spend less time doing paid work than non-Maori persons.

A working woman in New Zealand, (that engages in paid labor at least 30 hours a week), spends an average of 5 hours a day on paid work if her youngest child is age 4 or younger. If the youngest child is between 5 and 12 years of age, the mother does an average of 5 hours and 48 minutes of paid work per day. And if the youngest child is over 12 years of age, the mother engages in an average of 6 hours of paid work a day. Working men spend longer hours in the workforce than women: on average they work 6 hours and 54 minutes a day if they have a pre-school child; 7 hours and 6 minutes a day if the youngest child is between 5 and 12 years old; and 7 hours a day if the youngest child is over 12 years of age (Statistics New Zealand, *Time Use Survey: Selected Labour Market Results*, 1999).

### Average Number of Hours Spent a Day by Working Parents on Paid Labor in New Zealand, by Gender and Age of Youngest Child



Source: *Time Use Survey: Selected Labour Market Results 1999*, Statistics New Zealand and the Ministry of Women's Affairs, [www.stats.govt.nz](http://www.stats.govt.nz).



### Unpaid Labor

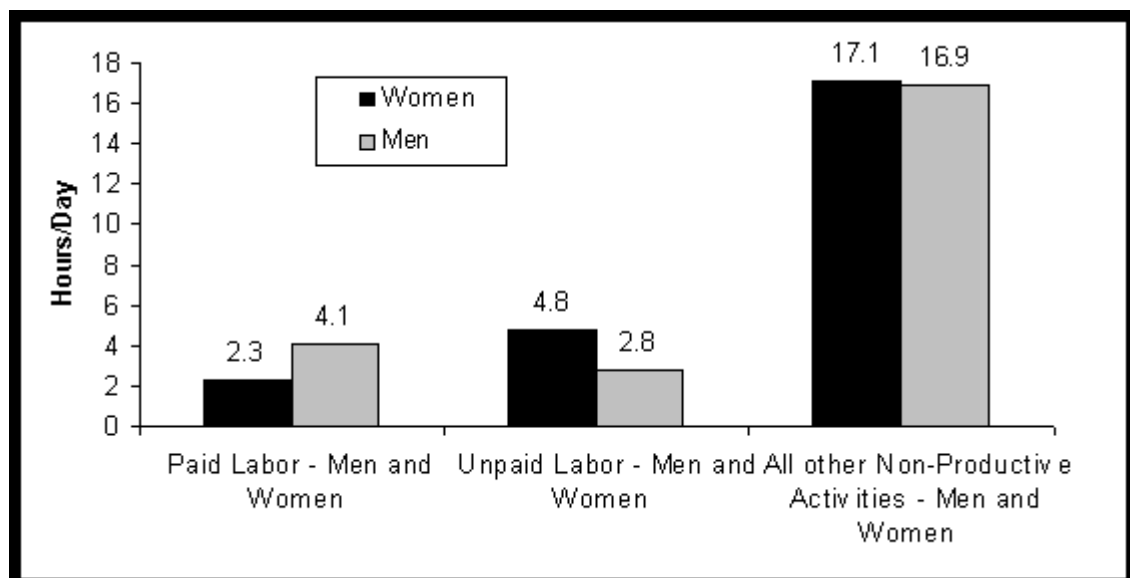
In New Zealand, the average woman spends 4 hours and 48 minutes a day on household maintenance and care work, while the average man dedicates only 2 hours and 48 minutes a day to these activities. Mothers spend more time on childcare and household responsibilities than fathers, most noticeably when children under the age of 4 are concerned (Statistics New Zealand, *Around the Clock*, 2001: 17).

As a whole, the Maori engage in slightly more unpaid labor than non-Maori persons. As a primary activity, Maori women spend 5 hours a day on unpaid labor, while non-Maori women average 4 hours and 42 minutes on unpaid labor. Maori men spend an average of 3 hours and 6 minutes a day on unpaid labor, compared with 2 hours and 48 minutes a day for non-Maori men (Statistics New Zealand, *Time Use Survey Report Released*, May 2001).

In terms of care work, Maori women spend 58 minutes a day care giving as a primary activity, and 8 hours 42 minutes a day care giving as a simultaneous activity. Non-Maori women spend 42 minutes a day on care giving as a primary activity and only 5 hours and 42 minutes a day on care giving as a simultaneous activity (Statistics New Zealand, *Time Use Survey: Welfare and Health*, 1999).

On average, woman in the labor force whose youngest child is of pre-school age, will spend 5 hours a day on unpaid work. In contrast, a man in the labor force who has a child in pre-school devotes only 3 hours a day to domestic responsibilities (Statistics New Zealand, *Time Use Survey: Selected Labour Market Results*, 1999).

### Average Number of Hours a Day Spent on Different Categories of Activities in New Zealand, by Gender



**Note:** Calculation of *all other Non-Productive Activities* done by Adva Center.

**Source:** *Around the Clock*, Statistics New Zealand Publication on the 1998/1999 Time Use Survey in New Zealand, pages 17-18; and Pink, Brian. *Time Use Survey Report Released: May 2001*, Statistics New Zealand.

## VI. Palestinian Authority

### Methodology

The Palestinian Central Bureau of Statistics conducted its first time use study in 1999/2000. The fieldwork took place between May 1999 and May 2000. A total of 8038 individuals participated, half female and half male. Participants were 10 years of age or older. Two questionnaires were distributed to collect household data and personal data. A *24-hour diary* was the main survey tool (Al-Asi, 2000: 2-4).

## Major Findings



### Paid Labor

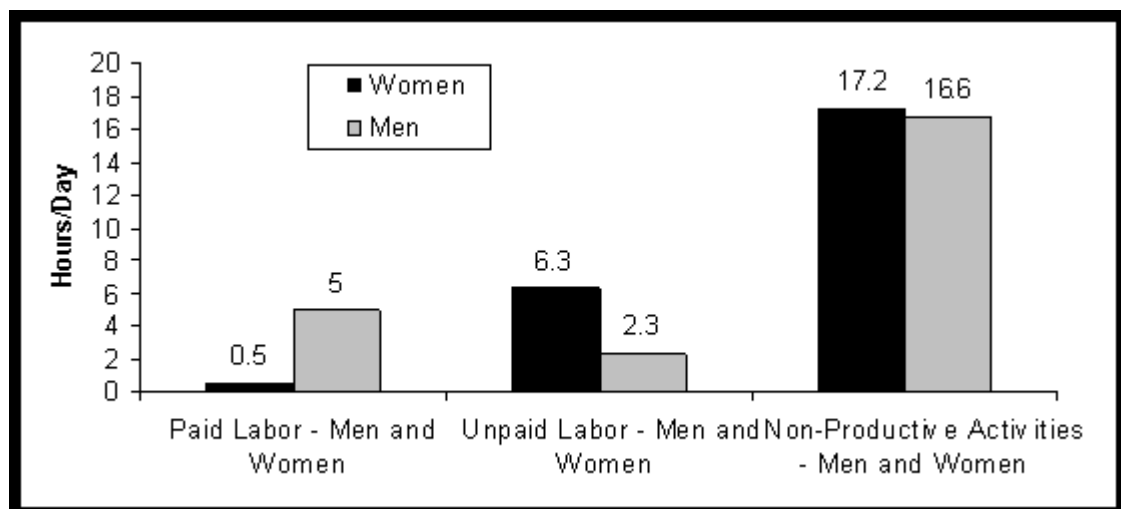
Palestinian men spend an average of 21% of their day on paid labor, while Palestinian women spend only 2% of their day on paid labor (ibid: 9).



### Unpaid Labor

Palestinian women spend, on average, 4 hours and 7 minutes a day on household maintenance, while men spend a mere 1 hour and 20 minutes a day. In regards to care work, men spend 59 minutes a day care giving, while women spend 2 hours and 12 minutes care giving daily (ibid: 10).

### Average Number of Hours a Day Spent on Different Activities in the Palestinian Authority, by Gender



**Note:** Calculation of hour estimates was done by Adva Center. Percentages of time spent per day on the above categories of activities were presented in the official publication.

**Source:** Al-Asi, Sana, (UNSD) *Country Report: Palestine. Time Use Survey-A Palestinian Example*. Palestinian Bureau of Statistics. October 9, 2000: 9-10.

## VII. South Africa

### Methodology

Through the financial assistance of the Norwegian Agency for Development Cooperation (Norad), Statistics South Africa conducted its first national time use survey during the months of February, June and October 2000. A total of 14,553



persons aged 10 years and over participated. The *24-hour diary* that was the main instrument of the study was divided into intervals of 30 minutes each, beginning and ending at four in the morning. The diary was administered through face-to-face interviews with a fieldworker (SSA, *A Survey of Time Use*, 2001: 2).

## Major Findings



### Total Workload

Women in South Africa spend, on average, about 23% of their day performing productive activities, both paid and unpaid. In contrast, South African men are engaged in paid and unpaid labor for only 19% of their day. Not only is the percentage of time spent on labor activities unbalanced between the sexes, but the work that women are engaged in is valued much less, if at all, since the majority of the women's work is unpaid (ibid: 4-5).



### Paid Labor

In South Africa, men spend an average of 13% of their time in the workforce, an average of 3 hours and 10 minutes a day. Women spend only 8% of their time on paid labor activities, or the equivalent of 1 hour and 56 minutes a day (ibid: 36).

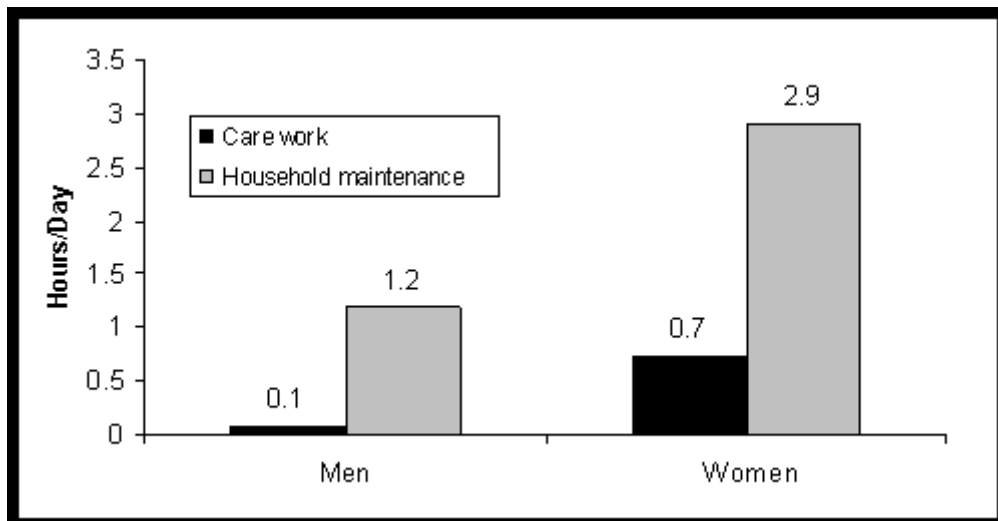


### Unpaid Labor

Men spend only 6% of their daily routine on unpaid labor, whereas women devote a full 15% of their day to household and care work tasks (ibid: 36).

Among employed men and women, the women spend almost 2.6 times as much time as the men on unpaid activities: 3 hours and 30 minutes a day, compared to 1 hour and 22 minutes a day for men (ibid: 39). Breaking this figure down by age, we find that in the case of employed men and women aged 20-39, women do twice as much housework than men: 2 hours and 53 minutes a day, compared to 1 hour and 13 minutes a day for men. Employed women in this age group spend much more time than men in care work: an average of 44 minutes a day, compared to a mere 5 minutes a day for men (ibid: 55).

### Average Number of Hours a Day Employed Individuals Ages 18-29 Spend on Household Maintenance and Care Work, by Gender



**Note:** Calculation of hour estimates was done by Adva Center. Number of minutes spent per day on the above categories of activities were presented in the official publication.

**Source:** Statistics South Africa, *A Survey of Time Use: How South African Women and Men Spend their Time*, 2001, page 55.

Collecting fuel and water is a common daily task in some third world countries, South Africa among them. According to the United Nations System of National Accounts -- 1993, (SNA) the collection of water and fuel are to be considered economic activities. However, to date, Statistics South Africa has not included these activities in the Gross Domestic Product. Women alone are the chief collectors of water, 70% of the time, and of fuel, 74% of the time. In a given household, men are the main collectors of water only 18% of the time, and of fuel, only 16% of the time. The remaining 12% of water collection and 10% of fuel collection per household is performed by both the male and female members (ibid: 63).



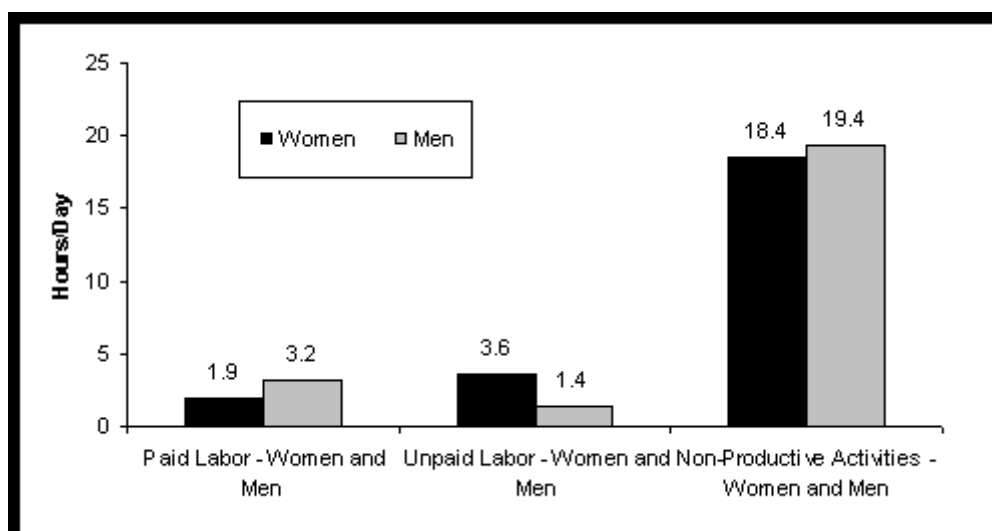
#### **Personal Time**

On average, South African men spend 81% of their day in non-productive activities, such as sleeping, eating and leisure. Women spend 77% of their day on these same activities (ibid: 36).

Employed women spend 16 hours and 9 minutes a day doing non-productive activities, while their male counterparts spend 17 hours and 9 minutes a day doing the same. Unemployed women spend 17 hours and 25 minutes a day on non-productive activities, while unemployed men spend an average of 20 hours a day on the same activities (ibid: 39).

South African men, aged 20-39, spend on average, 2 hours and 18 minutes a day on socializing, while women of this age group spend 1 hour and 52 minutes a day socializing (ibid: 75).

## Average Number of Hours a Day Spent on Activities in South Africa, by Gender



**Notes:** Calculation of estimated hours done by Adva Center. In the official publication, minute figures/day were provided, not hour figures.

Source: *A Survey of Time Use: How South African Women and Men Spend their Time*. Statistics South Africa, 2001: 36.

## Summary

The findings presented above demonstrate very clearly that in many countries, women and men work more or less the same number of hours. Indeed, according to the *1995 Human Development Report* of the United Nations, if both paid and unpaid labor is considered, women in both developed and developing countries perform more work than men (Fleming and Spellerberg, 1999). The most obvious gender difference is the breakdown of paid and unpaid work: men spend significantly longer hours at paid work than women, and women spend significantly longer hours at unpaid work. This finding is not unexpected.

The use of Gender Equality Indexes clearly brings to light advances in gender equality or the lack thereof. As the example of Canada demonstrates, even educated women employed full time are performing the vast majority of domestic responsibilities in the household. Equal opportunity for men and women in the work place will not be achieved until men begin to take on more of the domestic responsibilities of the household, particularly those involving children.

The only time use survey conducted in Israel took place over a decade ago; thus the only gender statistics of this nature for Israel are fairly outdated. In contrast, western countries like Canada and the Netherlands conduct time use surveys every five to six years. As a result, policy makers and those interested in influencing policy makers on issues relevant to women have up-to-date statistics with which to further their causes. Updated time-use statistics could once again acknowledge the unpaid work of Israeli women, allow for comparisons over a decade, and provide a useful tool for groups committed to improving the status of women in Israel.

**Average Hours Spent Daily on Different Categories of Activities, by Country and Gender**

<b>Countries</b>	<b><u>Total Work Load</u></b>		<b><u>Paid Labor</u></b>		<b><u>Unpaid Labor</u></b>		<b>Non-productive activities</b>	
	Male	Female	Male	Female	Male	Female	Male	Female
	hrs/ day	hrs/ day	hrs / day	hrs / day	hrs / day	hrs / day	hrs / day	hrs / day
<b>Canada -- 1998</b>	7.5	7.8						
<b>India -- 1998/1999</b>	6.5	7.7	6	2.7	.5	4.9	17.6	16.3
<b>Israel -- 1991/1992</b>	6.3	6.2	4.7	1.8	1.6	4.4	17.7	17.7
<b>New Zealand -- 1998/1999</b>	7	7	4.2	2.2	2.8	4.8	17	17
<b>Palestinian Authority -- 1999/2000</b>	7.3	6.8	5	.48	2.3	6.3 (4.12+2.2)	16.3	16.8
<b>South Africa</b>	4.6	5.5	3.2	1.9	.4	3.6	19.4	18.5

## **Applications of Time Use Surveys**

Time use surveys can be utilized to obtain a more accurate picture of the national economy, as well as a more accurate picture of the content and quality of women's lives. They can also serve as a tool for the promotion of social policies benefiting women.

### **Measuring National Economies More Accurately**

Regarding the national economies of developed countries, it has been noted that the growth in the Gross Domestic Product (GDP) in the 1970s and 1980s was due primarily to expansion of the ssector. This growth was accompanied by a huge rise in the labor force participation rates of women, who found jobs in the expanding social services: education, health, community and welfare services. Many of these jobs involved what has come to be known as "care work." Indeed, as frequently noted by

feminist scholars, women now do for pay what they used to do without pay: take care of and supervise infants, children, sick and disabled persons, and the elderly.

A number of researchers (Aslaksen and Koren, 1996; Ironmonger, 1996; Cloud and Garrett, 1996) have noted that the growth figures in national accounts for the 1970s and 1980s may have been over-estimated, due to the switch of caretaking services from unpaid to paid work (Aslaksen and Koren, 1996: 70). As most of the care work was previously carried out within the household, it did not figure into the national accounts. The moment women entered the labor force to do care work for pay, however, their labor began to count as labor - and to be counted as part of the national wealth. However, how much more work is actually being done is not clear.

Similarly, the budget cuts of the last decade in many countries may have resulted in the reverse: women doing more care work, due to either lack of services or the lack of money to pay for them. The same amount of work may still be carried out, only whereas formerly it was paid work that counted as work, now it is unpaid work that is not counted as work. Thus, the GDP may now be under-estimated in the national accounts. Benaria insists that "(a)n evaluation of these shifts cannot be made without systematic statistical information on unpaid work," (Benaria, 1999: 12).

Berkowitch (1996: 194) gives another, telling example of the same phenomenon, citing Clark (Clark, 1958): If all the bachelors who hire domestic workers to do their cleaning work were to marry them, there would be a sudden decrease in the GDP, due to the fact that their unpaid work would no longer be included in the national accounts, since it ceased to be paid work!

### **Adding a Dimension to the Study of the Quality of Women's Lives**

Research conducted in the United States as well as in some developing countries has utilized time use studies to show that women who increase their working hours outside the home experience a "time crunch" that may have an adverse effect on their well-being.

Other research has involved developing a poverty measure based not only on disposable income but also on the amount of time at one's disposal. Not surprisingly, it is women who are found to be "time poor" (For example, Fleming and Spellerberg, 1999: 14-15).

### **Changing Social Policy**

Our major interest in time use studies is their application to social policy: time use studies can serve as a tool to promote women-friendly policies and to monitor the differential effects of new policies on women and men and on women from different social groups. Following are some examples of the ways in which time use surveys can be or have been applied to social policy.

#### Norway

In 1992, "care credits" were introduced for social security entitlements, to make up for the time lost in the labor market by persons (usually women) caring for family

members. Work qualifying for care credits included child care for children under seven years of age, and care for elderly and ill persons, if the extent of the care work precluded paid employment. Aslaksen and Koran call the introduction of these credits "the first step towards recognizing the economic value created by unpaid household work as a basis for future income security" (Aslaksen, 1996: 72).

### Canada

Unlike Israel, Canada has a national pension plan. Under this plan, provisions were made to ensure that the pensions of parents are not reduced as a result of their leaving the workforce for certain periods of time to care for young children (Canadian Experience in Gender Mainstreaming, 2000: 18).

Notably, this is also a recommendation of the Israel Forum for a Compulsory Pension Law: See Dov Peleg, "A Pension Law Must Ensure the Continuity of Pension Entitlements," 2001, Adva Center.

In 1998, the federal budget of Canada included a tax credit for unpaid work by caregivers (Canadian Women Making an Impact, 1998: 5), the result of lobbying by feminists with time use statistics at their disposal.

### South Africa

The Women's Budget Initiative of South Africa explored the possibility of the government providing a small contribution to individuals who do the care work for "vulnerable" people. The option was particularly relevant in view of the high level of HIV and AIDS in the country. The rationale was that the payment would serve both as an incentive for people (usually women) to provide care and as an acknowledgement of the social value of the time that care givers (usually women) would devote to the job.

According to Debbie Budlender, a prominent member of the Initiative, the lack of time use statistics prevented the women involved in the Women's Budget Initiative from presenting conclusive evidence for their claims. Such statistics could have supplied them with solid evidence regarding what lengths of time they were talking about and how this time was distributed among different categories of people (Budlender, 2002: 7).

At the heart of this issue is the fact that while under apartheid, institutions were created for whites: for orphans, for the elderly, and for the disabled; following the end of apartheid, the system of institutional care was not expanded to make it equally accessible to black people. The government's Budget Review of 1998 stated that "communities themselves are often able to provide more appropriate social services than institutions . . . community care is also usually a more cost efficient alternative to institutionalization" (ibid). What this meant was that institutional care for all was too expensive, and that community care was "efficient" because it didn't show up in the accounting books. Thus the Women's Budget Initiative attempted to make visible women who saved the government money by doing care work for family members and to get the government to give them at least some remuneration for their work.

In South Africa, time use surveys were also used to monitor a government health clinic building program. It was found that the program did indeed reduce the average time traveled to reach primary care facilities (ibid). In the future, time use surveys are to be used to monitor waiting times at the clinics (ibid).

Another use that the Women's Budget Initiative of South Africa will be making of time use surveys is to show the gain to be made from providing running water to dwellings. The South African Department of Water Affairs and Forestry "saves" costs by not providing running water to households, but in so doing it imposes costs on women and girls, who are largely responsible for fetching water and who spend an average of an hour a day doing so. Time surveys provide a more accurate accounting of the time involved, including, as the survey planners discovered, the time needed to light fires to heat the water for bathing and washing once it was fetched.

### Australia

In Australia, the Office of Women's Affairs of Victoria utilized the results of time use surveys in a publication that reviewed care provision for elderly and disabled persons and the disadvantages suffered by care providers. Using time use data as a measure of unpaid care provision, the publication pointed to policy strategies for alleviating these disadvantages (Fleming and Spillerman, 1999: 20). One such strategy is providing pafor home care. Another strategy that was actually implemented, for child care, was replacing a tax rebate paid primarily to men for dependent spouses with a cash payment for home child care to the full-time child care givers (Sharp and Broomhill, 2002: 40).

### Netherlands

Due to recent legislation, (the Working Hours Act, 1996), stores in the Netherlands are now open until later in the evening and on Sundays. This change allowed women and men to work a full day and still have time in the evening to do their shopping. The most recent time use survey in the Netherlands was interested in monhow the change affected women's work force participation, as well as the participation of men in unpaid household labor. The survey showed that, indeed, between the 1995 and 2000 surveys, more Dutch women have entered the paid work force and that Dutch men are putting in more hours of unpaid household labor. However, equality between the sexes in terms of the division of paid and unpaid labor within a household is far from achieved. This most recent study showed some improvement, but not equality.

## **The Value of Women's Unpaid Labor**

Recognizing the true magnitude of unpaid household labor calls for estimating a monetary value for household work.

Australia has been a pioneer in the valuation of household labor. Economist Duncan Ironmonger developed the concept of the Gross Household Product (GHP), a term referring to the value added to the national economy by unpaid household labor. Ironmonger compared the value added to the national economy by the household economy with the value added by the market economy in Australia.

In determining the value of labor in household production, a number of methods have been employed. The most common method is the housekeeper wage method, which involves valuing the time devoted to household work according to the cost of employing a housekeeper. Another method is to calculate a "specialist wage" for each separate task, like cooking and gardening. Yet another is referred to as the "opportunity cost approach"; it looks at the salary a woman foregoes by spending her time performing unpaid labor at home rather than by doing a paid job. The output method, much less used, calculates the outputs that are produced within the household in a specific time period and then assigns them a dollar value at market prices.

Following Australia's 1992 time use survey, Ironmonger, an economist at Melbourne University, found that household production for 1992 was almost equal to labor market production; that is, the monetary value of what he termed the "Gross Household Product" - "the productive activities conducted by households using household capital and the unpaid labor of their own members to process goods and provide services for their own use" (Ironmonger, 1996: 42) was nearly equal to the monetary value of the Gross Market Product (an adjusted measure of the GDP), \$341 billion compared to \$362 billion (Ironmonger, 1996 : 52). According to Ironmonger's calculations, "half of economic production comes from the household and half from the market" (ibid: 53).

Statistics Canada calculated an estimate of the value of unpaid household work based on their 1992 time use survey: unpaid household labor was estimated at between 31% and 46% of Gross Domestic Product. On an individual level, the value of unpaid work done by the average Canadian woman at home was valued at between \$11,920 and \$16,860 for that year (Women's History Month Newsletter 1998 -- Status of Women Canada: 3).

Budlender and Brathaug carried out a complex exercise for Statistics South Africa that involved calculating the value of unpaid work in South Africa in 2000 by eight different valuation methods. They found considerable variation in their estimates, from 11% of the GDP to 55% of GDP (Budlender and Brathaug, 2002: 21). The researchers also report on a range of valuations found in Norway when calculations of the value of unpaid work were done in different years by different methods: the range was between 37% and 50% of GDP (ibid.).

Finally, Benaria noted that according to most calculations, unpaid work represents between a quarter and a half of the total economic activity in developed countries. Benaria notes that there is some evidence that domestic work is growing at a faster rate than market production, owing, perhaps, to the fact that the number of small households is increasing (Benaria, 1999: 10).

To summarize: time use studies can help to raise awareness of the fact that women do at least half the work in any particular country. They can aid in pointing out which women do more unpaid work and to what extent men are beginning to share the burden of unpaid work. The next step is to calculate the economic value on unpaid work, as has been done in at least eight OECD countries: Australia, Canada, Denmark, Finland, France, Germany, New Zealand and Norway. At the same time, an analysis needs to be done of the ways in which doing unpaid work disadvantages women economically. Finally, analyses based on data from time use surveys can be



utilized to promote social policies that acknowledge women's household work, especially care work, through benefits that compensate for the disadvantages suffered by women engaged in work without pay.

## **Bibliography**

Al-Asi, Sana, *Country Report: Palestine, Time Use Survey – A Palestinian Example*, UNSD Expert Group Meeting on Methods for Conducting Time-Use Surveys, 23-27 October 2000.

Aslaksen, Iulie (Statistics Norway) and Koren, Charlotte (Institute of Applied Social Research), "Unpaid Household Work and the Distribution of Extended Income: The Norwegian Experience," *Feminist Economics* 2 (3), 1996, pp. 65-79.

Benaria, Lourdes, "The Enduring Debate over Unpaid Labour," *International Labour Review*, 138 (3), 1999, pp. 287-309, full text available on the internet.

Berkowitch, Nitza, "Concerning 'The Housewife and the System of National Accounts,'" *Theory and Criticism*, 9, Winter 1996 (Hebrew).

Breedveld, Koen, van den Broek, Andries and Knlust, Wim, *Changing the Unchangeable: Towards a New Dutch Time Budget Study*, 1999, Sociaal en Cultureel Planbureau, the Netherlands. [www.iser.essex.ac.uk/activities/iatur/abstract/abstract1.htm](http://www.iser.essex.ac.uk/activities/iatur/abstract/abstract1.htm)

Breedveld, Koen, van den Broek, de Haan, Jos, de Hart, J., Huysmans, Frank and Niggebrugge, Dono, *Trends in de tijd : een schets van recente ontwikkelingen in tijdsbesteding en tijdsordening*, Netherlands, 2001. [www.tijdsbesteding.nl](http://www.tijdsbesteding.nl)

Budlender, Debbie, "The Policy Implications of Time Use Surveys: Lessons from South Africa," 2002, unpublished manuscript.

Budlender, Debbie and Brathaug, Ann Lisbet, *Calculating the Value of Unpaid Labour: a Discussion Document*, Statistics South Africa, 2002, [www.statssa.gov.za](http://www.statssa.gov.za).

"Canadian Experience in Gender Mainstreaming," Prepared for the Sixth Meeting of Commonwealth Women's Affairs Ministers, New Delhi, India, April 2000.

"Canadian Women – Making an Impact," Women's History Month Newsletter, Status of Women Canada, 1998.

Carniado, Patricia Mendez, *Country Report: Mexico*, Instituto Nacional de Estadística, geografía e Informática, UNSD Expert Group Meeting on Methods for Conducting Time-Use Surveys 23-27 October, 2000.

Clark, Colin, "The Economics of Housework," *Bulletin of Oxford Institute of Statistics*, May 1958, pp. 205-211. Cited in Berkowitch (Hebrew).

Clark, Warren, *Economic Gender Equality Indicators 2000*. Status of Women Canada.

Cloud, Kathleen and Garrett, Nancy, "A Modest Proposal for Inclusion of Women's Household Human Capital Production in Analysis of Structural Transformation," *Feminist Economics* 2(3) 1996, pp. 93-119.

*Conference to Set Women's Agenda into the Next Century*, United Nations Department of Public Information, 1994.

Cook, Len and Lawrence, Judy, *First Results from Time Use Survey Released*, Statistics New Zealand and the Ministry of Women's Affairs, 1999.

Cook, Len, *Time Use Survey Respondents Thanked*, Statistics New Zealand, 1999.  
[www.stats.govt.nz](http://www.stats.govt.nz)

Draft – International Classification of Activities for Time Use Statistics, 2000, UNSD.

Expert Group Meeting on Gender Issues in Labour Force Statistics, UNSD, 1998.

*Economic Gender Equality Indicators*, Status of Women Canada, 1997.

Fisher, Kimberly (Institute for Social and Economic Research), Gershuny, Jonathan (Institute for Social and Economic Research), Gauthier, Anne (Department of Sociology, University of Calgary) and Victorino, Charlemagne (Department of Sociology, University of Calgary), *Exploring New Ground for Using the Multinational Time Use Study*, Paper Number 2000-28, ESRC Research Centre on Micro-Social Change.

Fleming, Robin and Spellerberg, Anne, *Using Time Use Data, A History of Time Use Surveys and Uses of Time Use Data*, Statistics New Zealand, 1999.

[Gopher.undp.org/0/unconfs/women/pim/back/1BCKGRND.TXT](http://Gopher.undp.org/0/unconfs/women/pim/back/1BCKGRND.TXT)

International Labor Organization, *ILO Conventions and Recommendations: Silent Revolution in the Lives of Women*, 1996.  
[www.ilo.org/public/english/bureau/inf/pkits/women4.htm](http://www.ilo.org/public/english/bureau/inf/pkits/women4.htm)

International Labor Organization, *Remuneration for Women's Work: A Curious Paradox*, 1996. [www.ilo.org/public/english/bureau/inf/pkits/women2.htm](http://www.ilo.org/public/english/bureau/inf/pkits/women2.htm)

International Labor Organization, *The Feminization of Poverty*, 1996.  
[www.ilo.org/public/english/bureau/inf/pkits/women3.htm](http://www.ilo.org/public/english/bureau/inf/pkits/women3.htm)

International Labor Organization, *Women and the World of Work: The Social Costs of Progress*, 1996. [www.ilo.org/public/english/bureau/inf/pkits/women1.htm](http://www.ilo.org/public/english/bureau/inf/pkits/women1.htm)

Ironmonger, Duncan, "Counting Outputs, Capital Inputs and Caring Labor: Estimating Gross Household Product," *Feminist Economics*, Volume 2, 1996, pp. 37-63.

Israel Central Bureau of Statistics, *Time Use in Israel, Time Budget Survey 1991/1992*, Special Series No. 996, 1995.

Israel Central Bureau of Statistics, *Time Use in Israel, Additional Findings from the Time Budget Survey 1991/1992*, Publication No. 1029, 1996.

*Measuring Women's Unpaid Work*, PLS Document, United Nations Department of Public Information.

Mpetsheni, Yandiswa and Budlender, Debbie, *Country Paper: South Africa, Time Use Survey 2000*, UNSD Expert Group Meeting on Methods for Conducting Time-Use Surveys, 23-27 October 2000.

Multinational Time Use Study (MTUS), ISER – Institute for Social and Economic Research, University of Essex. [www.iser.essex.ac.uk/mtus/history.php](http://www.iser.essex.ac.uk/mtus/history.php)

National Statistics, The Official UK Statistics Site, *UK 2000 Time Use Survey*. [www.government.gov.uk/themes/social\\_finances/TimeUseSurvey/background.asp](http://www.government.gov.uk/themes/social_finances/TimeUseSurvey/background.asp)

Niemi, Iris, *National Experiences in Carrying out the Harmonized European Time Use Survey*, Statistics Finland, UNSD Expert Group Meeting on Methods for Conducting Time-Use Surveys, 23-27 October 2000.

Osterberg, Christina, (Eurostat), *Methodological Guidelines on Harmonised European Time Use Surveys*, UNSD, Expert Group Meeting on Methods for Conducting Time-Use Surveys, October 2000. [www.un.org/Depts/unsd/timeuse/xptgrpmeet/eurostat.pdf](http://www.un.org/Depts/unsd/timeuse/xptgrpmeet/eurostat.pdf)

Pandey, R. N. of Central Statistical Organization, Ministry of Statistics and Program Implementation – New Delhi, and Hirway, Indira, of Centre for Development Alternatives, Ahmedabad. *Country Report: INDIA; Conducting the Time Use Survey – Indian Experience*. UNSD Expert Group Meeting on Methods for Conducting Time-Use Surveys 23-27 October, 2000.

Paton, David, *Collecting Time-Use Data, Including Context Variables and Simultaneous Activities*, at Statistics Canada, UNSD Expert Group Meeting on Methods for Conducting Time-Use Surveys, 23-27 October, 2000.

Peleg, Dov, "A Pension Law Must Ensure the Continuity of Pension Entitlements," Adva Center, 2001 (Hebrew).

Pink, Brian, *Time Use Survey Report Released*, Statistics New Zealand, 2001.

Sabbadini, Linda Laura, *The Experience with Activity Reporting in the Time Use Survey in Italy*, National Institute of Statistics, Rome, Italy, found on UNSD web-site.

Sharp, Ronda and Broomhill, Ray, "Budgeting for Equality: The Australian Experience," *Feminist Economics* 8(1), 2002, pp. 25-47.

Short, Sandra, *Time Use Data in the Household Satellite Account*, Economic Assessment and Strategy Division, Office for National Statistics, UK, October 2000.

Statistics New Zealand, *Around the Clock - Findings from the New Zealand Time Use Survey (1998-99) - Reference Report*. [www.stats.govt.nz](http://www.stats.govt.nz)

Statistics New Zealand, *First Results from Time Use Survey Released*, 1999.  
[www.stats.govt.nz](http://www.stats.govt.nz).

Statistics New Zealand, *Time Use Survey Report Released*, May 2001.  
[www.stats.govt.nz](http://www.stats.govt.nz).

Statistics New Zealand, *Time Use Survey: Selected Labour Market Results*, 1999.  
[www.stats.govt.nz](http://www.stats.govt.nz).

Statistics New Zealand, *Time Use Survey Respondents Thanked*, 1999.  
[www.stats.govt.nz](http://www.stats.govt.nz).

Statistics New Zealand, *Time Use Survey: Welfare and Health*, 1999. [www.stats.govt.nz](http://www.stats.govt.nz)

Statistics South Africa, *A Survey of Time Use: How South African Women and Men Spend their Time*, 2001.

Swirski, Barbara, *What is a Gender Audit*, Adva Center, August 2002.

Trewin, Dennis, *Information Paper, Time Use Survey, Australia – Confidentialised Unit Record File*, 1997, Australian Bureau of Statistics.  
[www.iser.essex.ac.uk/mtus/studies/australia-1997.php](http://www.iser.essex.ac.uk/mtus/studies/australia-1997.php)