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# Leisure

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## I. Introduction

Some people may think leisure is the time left over after market work is subtracted from the 24 hours in a day. From this standpoint, it may be questionable whether statistics on leisure per se need to be collected at all. However, we spend considerable amounts of time on other activities besides market work such as housework, child care and nursing care. This means that if outsourcing and more advanced household appliances help to reduce the amount of time spent on household labor, it is possible for leisure to increase even if hours spent on market work also increase.<sup>1</sup> On the other hand, when an aging society causes more people to cut market work so as to care for family members, the decrease in working hours may appear to improve work-life balance, but if the people in question are spending the bulk of their time providing nursing care, they may have little or no actual leisure time.

In recent years there has been a lively debate over what sorts of statistics should be collected in order to assess quality of life (for example, Stiglitz, Sen, and Fitoussi [2009], OECD [2011, 2013]). Researchers have varying opinions on whether there is any viable replacement for the GDP (gross domestic product), which has long been the conventional yardstick for prosperity, and on whether it is necessary or appropriate to attempt to quantify happiness. Few would deny that GDP statistics alone do not provide a complete picture of public well-being. For instance, countries where the income effect has led to a decrease in time spent on market work, and people devote a portion of the economic benefits they have reaped to leisure-time activities that do not entail consumption, will lag in terms of GDP behind countries where continually increasing working hours fuel rising consumption. However, the former may well be ahead in terms of well-being. Thus, researchers who examine only statistics on market work to gauge public well-being may end up with a distorted picture of reality. In the future, as we seek to improve quality of life at all levels of society, it will become ever more important to perform comprehensive, multifaceted measurements and examinations of people's lifestyles.

With this in mind, section II examines Japanese statistics useful in assessing leisure from multiple angles, and section III discusses the types of information that can be gleaned from time-use surveys, the most frequently employed method of collecting leisure statistics.

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<sup>1</sup> See, for example, Aguiar and Hurst (2007). In Japan, Kuroda (2010) found that while women's weekly market work remained virtually unchanged between 1986 and 2006, weekly hours spent on household labor fell by three hours over the same period, indicating that women's leisure per week increased by three hours.

## II. Statistics on Leisure

This section introduces two methods of measuring leisure. One is to measure leisure over shorter units of time, such as one day or one week, while the other measures relatively longer periods of time such as one month or one year.

### 1. Leisure Time in One Day or One Week

The statistical method most often used to measure leisure is the time-use survey. A time-use survey reports data on how individuals spend their time within a 24-hour period. Generally the day is divided into 10- or 15-minute blocks, and the subjects write the activities they engaged in during each of those blocks. The resulting data is sometimes referred to as time diary data, as the survey resembles a diary of time use. There are two types of time-use surveys, one employing a pre-coding system (multiple-choice style) in which respondents select the type of activity from a list of options prepared in advance, and the other employing an after-coding system (free-answer style) in which respondents write freely on the questionnaire and their responses are then classified according to predefined criteria and assigned a code during tabulation.

In Japan, the Bureau of Statistics of the Ministry of Internal Affairs and Communications has been conducting a survey known as the Survey on Time Use and Leisure Activities since 1976. It is conducted every five years, in the year following the national Population Census (also conducted by the Ministry of Internal Affairs and Communications), and two types of questionnaires are currently in use: Questionnaire A, using a pre-coding system, and Questionnaire B, using an after-coding system. Below is a brief explanation of the characteristics of Questionnaires A and B.

With Questionnaire A, 6,000 or 7,000 “enumeration districts” (blocks of 50 or so households) are selected out of the nearly one million districts demarcated for the Population Census, and from these, between 200,000 and 270,000 individuals aged 10 and up (until 1991, aged 15 and up) from between 70,000 and 100,000 households are selected. The scale of the survey is quite large, though the number of households and individuals varies from year to year. This survey was first conducted in 1976, and then in 1981, 1986, 1991, 1996, 2001 and 2006. The latest available survey data is from the eighth survey in 2011. With the exception of the 1981 survey,<sup>2</sup> all surveys were conducted over a nine-day period from late September to October, with each enumeration district assigned two consecutive days during which each individual respondent was to keep track of his or her own activities. This means the total number of samples (each covering a 24-hour period) is approximately double the number of respondents. All days of the week are covered, so with a sufficient number of samples, the data can be used to assess meta-patterns over a one-week period as

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<sup>2</sup> The 1981 survey was conducted over only three days, October 1 (Thursday), October 3 (Saturday), and October 4 (Sunday), and each household was only asked to keep track of its activities for a single day.

well.

In addition to the large-scale survey using pre-coded Questionnaire A, since the sixth survey in 2001 a survey using after-coded Questionnaire B has been performed as well. It is a smaller survey, covering approximately 10,000 individuals. However, Questionnaire B has advantages in that it features a greater number of more precisely defined activity categories allowing more detailed monitoring of time use, and it is well suited to international comparisons of time use patterns, as the majority of time use and leisure activities surveys conducted overseas employ the same type of after-coding system.<sup>3</sup> Also, while Questionnaire A tabulates only the “primary activity” when the respondent is engaged in two or more activities at once, Questionnaire B allows for simultaneous activities, and is also geared toward contemporary lifestyles with survey items such as whether or not the activity in question entails Internet use. Thanks to these two types of surveys, Japan possesses a wealth of statistics on time use. The data from pre-coded Questionnaire A enables chronological tracking of time-use trends since the 1970s, while Questionnaire B provides more in-depth information and enables international comparisons. Detailed information on the Survey on Time Use and Leisure Activities and survey results can be viewed on the Bureau of Statistics website (<http://www.stat.go.jp/english/data/shakai/index.htm>).

Questionnaire A designates a total of 20 time use classifications. These are: sleep, personal care, meals, commuting to and from school or work, work, schoolwork, housework, caring or nursing, child care, shopping, moving (excluding commuting), watching TV, listening to the radio, reading newspapers or magazines, rest and relaxation, learning, self-education, and training (except for schoolwork), hobbies and amusements, sports, volunteer and social activities, social life, medical examinations or treatments, and other activities. In addition to time use, it tabulates other basic data such as respondents’ age, educational background, marital status, number of children (if any), number of members in household, and household income (from the 2011 survey onward, a separate entry is provided for individual income), number of employees in workplace, occupation, general health condition, and number of hours worked per week.

On the basis of these categories, “work” and “commuting to and from work” are designated as market work, while “housework,” “caring or nursing” and “child care” are designated as household labor, with time spent on the remaining 15 categories deemed to be leisure time. When respondents engage in cooking or gardening as a hobby, in some cases it is difficult to judge whether these activities constitute household labor or leisure time, but the pre-coding system employed in Questionnaire A calls on respondents to designate the activities in question as either “housework” or “hobbies and amusements,” meaning that classification difficulties can be avoided to a certain extent.

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<sup>3</sup> These include the American Time Use Survey (<http://www.bls.gov/tus/>) conducted by the U.S. Bureau of Labor Statistics, and the Harmonized European Time Use Survey (<https://www.h2.scb.se/tus/tus/Default.htm>), designed to allow the greatest possible ease of comparison between 15 European nations.

In Japan, in addition to the governmental statistics, there is another time-use survey, the NHK Japanese Time Use Survey (conducted by the national public broadcaster NHK). This survey was launched in 1941 to keep track of trends among radio listeners, modeled on a survey conducted by the British Broadcasting Corporation (BBC) in the UK. Since then it has been carried out every few years, and is a highly valuable source of data on the Japanese public's time use prior to the 1970s.<sup>4</sup>

## 2. Leisure Time in One Month or One Year

Leisure time can also be measured in terms of the number of vacation days or periods of leave taken within longer periods such as one month or one year. The following paragraphs discuss statistics on number of vacation days or periods of leave taken within these longer periods.

In Japan, the most frequently cited source of public statistics on vacation days and periods of leave is the General Survey on Working Conditions conducted by the Ministry of Health, Labour and Welfare. Carried out annually since the 1960s, albeit under different names, the survey brings together a range of statistics on wage systems, work time systems and related topics, serving as a valuable resource for tracking the progression of vacation-day data over the years. The General Survey on Working Conditions provides information on the number of paid vacation days allotted per year and the number actually used, number of days off per week, and special leave systems (such as volunteer service leave and refreshment leave.) Figures cited for the percentage of annual vacation days actually used in Japan are generally derived from the results of this survey.

However, this survey's scope is limited to enterprises with at least 30 regular employees, and there are some caveats regarding its results. The vacation day usage rate is calculated by dividing the total number of vacation days actually taken by full-time employees by the total number of vacation days allotted to them, meaning that the outcome only indicates the average for all workers. This means that if the figure for percentage of allotted vacation days actually used stands at 50%, it is impossible to judge whether all workers are roughly equal, taking about half of their allotted vacation days, or whether there is a polarity with around half of them taking nearly 100% of the days while the other half take almost none. Also, while the number of companies providing a five-day work week has been increasing since the late 1980s, some employers may call on employees to work on their days off during extremely busy periods, but this state of affairs is not reflected in the survey results.

For these reasons, to gain a clear picture of vacation days and leave periods at the individual level, it is necessary to amass statistics on households and individuals in addition to

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<sup>4</sup> However, it is necessary to exercise caution when examining data from the NHK Japanese Time Use Survey chronologically, as in some survey years, all the time people spend on various activities is added up even when they are engaged in two or more activities at once, meaning that in these survey years the number of hours in a day adds up to more than 24 hours.

corporate surveys and employment system surveys like the one described above. However, until recently, public household-by-household statistics on individuals' number of vacation days or periods of leave have been largely unavailable. To address this, a survey item on annual number of vacation days taken was added to the Survey on Time Use and Leisure Activities in 2011. In addition, in January 2013 the new survey items "Number of days worked during the final week of the month" and "Number of days worked per month" were added to the Labor Force Survey (conducted by the Bureau of Statistics of the Ministry of Internal Affairs and Communications), which will enable tabulation of individuals' number of days off per month. Until now, Japan has lacked public statistics on number of vacation days for any period shorter than a year, but with the new Labor Force Survey items, it will be possible to assess the number of days off Japanese people take per week or per month.

It should be noted that as in Japan there are no provisions for sick leave separate from paid vacation leave, it is common for workers to use paid vacation days when they have colds or other brief illnesses. This means that to gain a more accurate picture of public well-being, in the future it will be necessary to consider gathering statistics that divide vacation day use into pure leisure, such as travel, and sick days or other non-leisure applications.

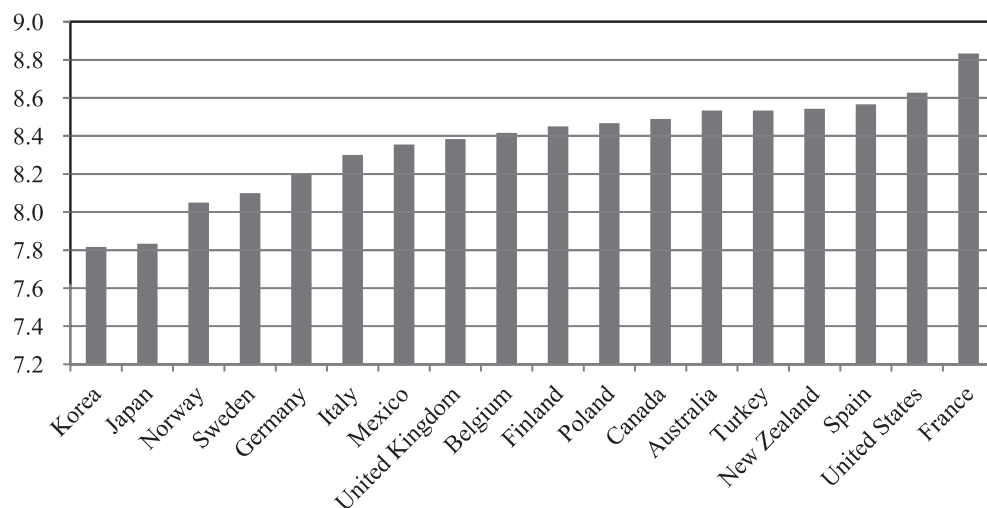
### **III. Other Leisure-Time Indicators**

The remainder of this article discusses various aspects of leisure, besides the total amount of leisure, which can be gauged from the results of time-use surveys.

#### **1. Breakdown of Leisure Time Use**

The results of time-use surveys tell us not only about change in the total amount of leisure time taken, but also in how people use it. For example, Kuroda (2010) examined individual data for the "sleep" category, which is one of the classifications of leisure time in the Survey on Time Use and Leisure Activities, and reported that Japanese people's average hours of sleep have been trending continually downward since the 1970s. Compared to 30 years ago, the average Japanese man sleeps four fewer hours per week, and the average Japanese woman sleeps three fewer hours. There is also a report (OECD 2009) that compares average hours of sleep internationally, an excerpt of which is shown in Figure 1. The figures should be viewed with reservations, as countries differ in various aspects such as population demographics, but they show Japan's average hours of sleep as the second shortest, after South Korea, out of 18 countries, with Japanese people sleeping approximately one hour less per day than people in countries with the longest sleeping hours. The data on Japan in the OECD report comes from the Survey on Time Use and Leisure Activities, and this is an example of how time-use survey data can be used to make international comparisons. Cross-referencing statistics like these with public welfare statistics on health conditions and so forth is seen as an effective means of gauging the impact of time use patterns on public health.

Hours of sleep per day



Source: OECD (2009).

Note: Prepared on the basis of time-use survey data from each country available as of 2006.

Note that in France the definition of sleep differs somewhat from that of other nations, as long break periods are included in sleep time.

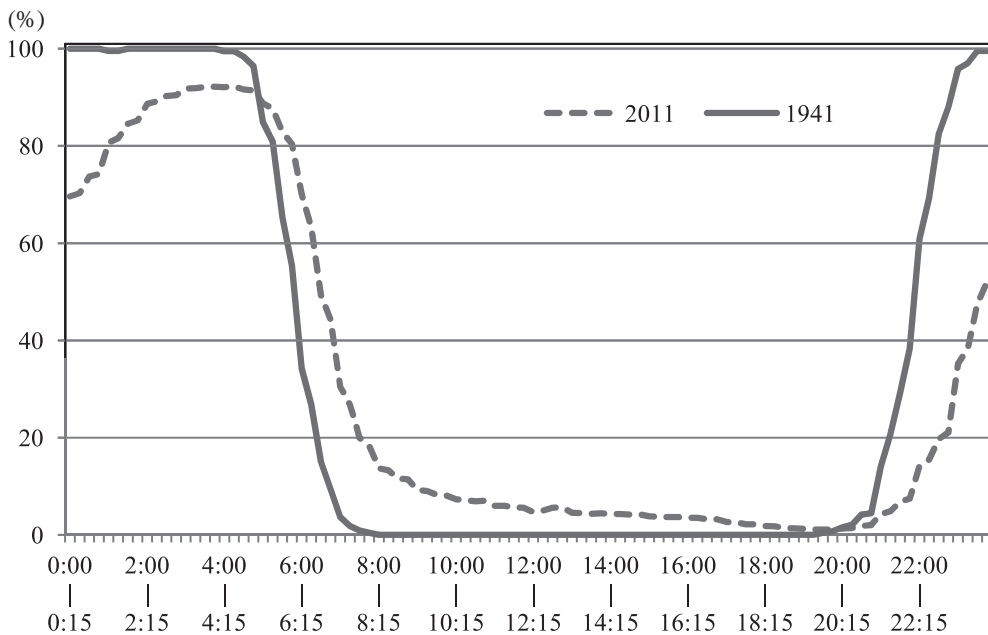
Figure 1. International Comparison of Average Daily Hours of Sleep

## 2. Times of Day When Activities Are Conducted

To obtain a statistical picture of public well-being, it is essential to track not only the total amount of leisure time people have, but also what activities they engage in at what times of day. As previously stated, the length of time Japanese people sleep has been trending downward for several decades, but has the timing of day when people sleep changed as well? As we can see in Figure 2, which compares the percentages of people sleeping at certain times of day<sup>5</sup> as measured by the 2011 Survey on Time Use and Leisure Activities and the 1941 NHK Japanese Time Use Survey, people's lifestyles have drastically changed over the last 70 years.

Also, information related to work time systems (including flextime systems and discretionary work systems, etc.) has been newly included in the 2011 Survey on Time Use and Leisure Activities, and it is now possible to analyze the effects different work time systems have on behavior at various times of day, as well as on household labor, leisure time use patterns and so on.

<sup>5</sup> The NHK Japanese Time Use Survey (November 1941) limits people to one primary activity at a time and ensures that the lengths of time spent on various activities in a day will add up to 24 hours. In terms of survey timing it is similar to the Survey on Time Use and Leisure Activities, which is conducted each time in or around October.



Sources: 1941 NHK Japanese Time Use Survey (NHK), 2011 Survey on Time Use and Leisure Activities (Bureau of Statistics, Ministry of Internal Affairs and Communications).

Note: Both surveys sample men of working age on weekdays (1941: aged 30–45, 2011: aged 30–39).

Figure 2. Percentage of People Asleep, by Time of Day

### 3. Who People Spend Leisure Time with

Who people spend their leisure time with has a major impact on their quality of life. From the results of the Survey on Time Use and Leisure Activities it is possible to see with whom people engaged in various activities. Based on this information, Genda (2013) ascertained that in Japan the number of SNEP (Solitary Non-Employed Persons, defined as “people aged 20–59 who are not undergoing education, are unmarried and unemployed, and have no social contacts to speak of outside their families”) has topped 1.6 million, an increase of over 500,000 since 2006. In Japan, as in many other countries with a low birthrate and aging population, the number of single-person households is expected to continue growing. Henceforth it will be necessary to turn attention to indicators such as these in order to gain an accurate picture of public well-being.

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