



CPS Paper

Introducing two different approaches for estimating working hours obtained from The Survey on Time Use and Leisure Activities

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Brief Description

This study aims to compare the results of two estimates of working hours obtained from the 2016 Time Use Survey. Japan's Time Use Survey, which shows the types of activities people spend their time on, divides each day into 96 slots of 15 minutes each.

Using the percentage of people participating in each activity helps calculate the percentage of people who are working during each time period of the day, so the number of hours and time periods people spend working each day can be ascertained by occupation.

Furthermore, the amount of time that participants spend working each day and by aggregating data for each day of the week, the number of hours worked per week can be estimated.

Adopting an approach that is different from this estimate of work hours, hours worked can be calculated from "usual working hours per week" obtained from the questionnaire.

A comparison of estimated work hours from these two approaches was roughly consistent with work hours by occupation. In the first method, drawing figures that plot the participation rate of people who work (with the X-axis as the time of day from 0:00 to 24:00 hours and the Y-axis as the participation rate by working persons), is that for office workers who are full-time employees, the participation rate, which is the proportion of people who are working, generally rises starting from 8:00 and falls after 18:00.

In addition, the area covered by this graph provides an estimate of the hours worked per day, so the hours worked per week can be estimated by aggregating the hours worked on weekdays (Monday to Friday), Saturdays, and Sundays. In the second method, Japan's Time Use Survey asks questions about "usual working hours per week." This estimates each person's work hours by giving seven time periods per week, excluding "not fixed." When estimating average work hours by occupation, the median time period entered in the individual's questionnaire is used to calculate their work hours per week. Although the most common method of ascertaining work hours is to use the monthly Labor Force Survey, work hours calculated from the two estimation methods in the Time Use Survey are consistent with the characteristics of work hours by occupation obtained from the results of the Labor Force Survey.

These methods are useful to ascertain the characteristics of the work hours and how much time is spent working on each day of the week, including time periods and other more detailed information.