

Gender (Person Level)

Goal

In doing any estimation, it is important to be careful about the unit of analysis. In research focusing on women, you must take into account whether the data you are using are individual- or household-specific.

Using individual-level data allows you to identify individual-specific income, but problems may arise in estimation depending on your research question. Some of these issues are general, but others are specific to the LIS database. First, some income sources are common to the household (such as child benefits or housing allowances) and are not available at the individual level. In LIS, certain individual income sources (invalidity and work accident pensions, sickness and maternity allowances, means-tested benefits, social transfers) are reported in detail only in the household file. The information is present in the person-level file in an aggregated form.

In this exercise, we introduce income analysis by gender. Using the person-level file, we will focus only on earned income amounts, not considering social transfers.

Activity

Examine the working-aged population (25 to 60, inclusive) in the UK in 1999 and the US in 2000. Compare the percentage of working men to that of working women, defined as those with positive earnings from any employment. Calculate the average total income by gender of both the total working-aged population and the working population. Estimate the gender earnings gap for both the working-aged population and for those who work.

Guidelines

- For this exercise, define the “working-aged” population as those aged 25 to 60, inclusive, and the “working” population as those with positive earnings from paid and/or self-employment (*pgwage* + *pself*).
- The gender income gap is defined as the ratio of average total earnings (*pgwage+pself*) of males to females.
- To simplify the analysis in this exercise, set negative values of *pself* to missing before calculating the “working” population. Failure to do so may result in self-employed with negative incomes being counted as not working, or negative incomes being considered in the average for the population.
- You may also find the SPSS commands **temporary** in combination with **select if** useful to get your results. To obtain descriptives for subsets, you can either run the program twice, or use the **temporary** to apply a filter which serves the same purpose as the selection. Please remind that the temporary only applies to the command that immediately follows.
- For most of the next exercises, when percentages are asked, simply use the calculator.

Program

```
title "*** DEMOGRAPHICS AND EDUCATION - Exercise 6 ***" .

define dofiles () .
weight by pweight .
if pself lt 0 pself = $sysmis .
compute ttearn = pgwage + pself .
temporary .
select if psex eq 1 and (page ge 25 and page le 60) .
frequencies variables = ttearn
    / statistics = mean
    / format = notable .
temporary .
select if psex eq 2 and (page ge 25 and page le 60) .
frequencies variables = ttearn
    / statistics = mean
    / format = notable .
temporary .
select if psex eq 1 and (page ge 25 and page le 60) and ttearn gt 0 .
frequencies variables = ttearn
    / statistics = mean
    / format = notable .
temporary .
select if psex eq 2 and (page ge 25 and page le 60) and ttearn gt 0 .
frequencies variables = ttearn
    / statistics = mean
    / format = notable .
!enddefine .

get file = uk99p
    / keep = pweight page psex pgwage pself .
dofiles .

get file = us00p
    / keep = pweight page psex pgwage pself .
dofiles .
```

Results

	<i>UK99</i>		<i>US00</i>	
	Males	Females	Males	Females
Percentage of individuals with positive earnings in working-aged population	<i>11,359,337 / 13,906,081 = 81.7%</i>	<i>9,429,261 / 13,906,112 = 67.8%</i>	<i>60,066,557 / 66,098,374 = 90.9%</i>	<i>53,819,001 / 68,821,548 = 78.2%</i>
Average total earnings (working-aged population)	<i>£ 19,101</i>	<i>£ 8,543</i>	<i>\$ 44,133</i>	<i>\$ 22,062</i>
Average total earnings (working population)	<i>£ 23,384</i>	<i>£ 12,599</i>	<i>\$ 48,565</i>	<i>\$ 28,212</i>
Gender earnings gap (working-aged population)	<i>19,101 / 8,543 = 2.24</i>		<i>44,133 / 22,062 = 2.00</i>	
Gender earnings gap (working population)	<i>23,384 / 12,599 = 1.86</i>		<i>48,565 / 28,212 = 1.72</i>	

Comments

- Please note that this exercise examines only individual earnings. Allocation of earnings (and other income) among household members is not considered. Income gender analysis becomes much more demanding and requires many more assumptions about the allocation of total household income when other household members are present.
- It is interesting to note that the earnings gap is lower when the employment rate is higher. While a two-country statistical snapshot does not provide enough information to draw conclusions, these types of summary statistics often provide researchers with new questions to investigate.