



MTUS: Time Use Variables and Using Weights

Learning goals

- Become familiar with using the MTUS-X system
- Browse system-created time use variables for inclusion in your data file
- Understand the importance of weights by comparing unweighted and weighted estimates

Summary

In this exercise, you will create a data file using MTUS-X that includes data from the 2005 and 2014 UK samples. You will use these data to compare understand the importance of weights for time diary data and will generate weighted estimates of paid work on weekends and weekdays.

Part 1: Understand ACT_WORK

1. Find ACT_WORK on the “TIME USE” drop down menu under “Activity Coding Structure”
2. What are the activities included in ACT_WORK? *Hint: Click on the variable name.*

Part 2: Create an extract

- Add the IPUMS-created time use variable ACT_WORK to your extract
- Select the 2005 and 2014 United Kingdom data files
- Add the variables SAMPLE, COUNTRY, DAY, and PROPWT to your extract

Part 3: Analyze data

3. How many individuals are in the 2005 UK data? _____ How many individuals are in the 2014 UK data? _____

Note: the 2014 UK sample straddles two years, 2014 and 2015. This exercise references the entire 2014 UK sample (both years).

4. How many people have diaries on weekends and weekdays in the 2005 UK data?
Weekends: _____ Weekdays: _____

Hint: recode DAY to easily distinguish between weekends and weekdays.

5. How many people have diaries on weekends and weekdays in the 2014 UK data?
Weekends: _____ Weekdays: _____

Part 4: Understand the importance of weights

6. If every day were equally represented, what fraction of weekend days would you expect to see in the data? _____
7. What is the unweighted percentage of individuals completed the survey on a weekend during each sample year? 2005 _____ 2014 _____
8. What is the weighted percentage of individuals completed the survey on a weekend during each sample year? 2005 _____ 2014 _____



9. Compare the weighted and unweighted share of weekend days in the 2014 data. What are the weights doing to the distribution of weekends and weekdays?

Part 5: Compare time spent working for pay on weekdays versus weekends

10. What is the weighted average number of minutes spent working on weekends and weekdays in the two samples?

2005: weekday _____ weekend _____
2014/2015: weekday _____ weekend _____

11. What is the weighted average number of minutes spent working on weekends and weekdays in 2005 and 2014 restricting your analysis to people who worked on that day?

2005: weekday _____ weekend _____
2014: weekday _____ weekend _____



Part 1 Answers: Understand ACT_WORK

2. What are the activities included in ACT_WORK? *Hint: Click on the variable name.*
Paid work-main job (not at home); Paid work at home; Second or other job not at home; Unpaid work to generate household income; Travel as a part of work; Work breaks; Other time at workplace; Look for work
3. How many individuals are in the UK2005 sample? 4,941 How many individuals are in the UK2014 sample? 16,533

Part 3 Answers: Create Extract

4. How many people have diaries on weekends and weekdays in the 2005 UK data?
Weekends: 3,555 Weekdays: 1,386
5. How many people have diaries on weekends and weekdays in the 2014 UK data?
Weekends: 8,245 Weekdays: 8,288

Part 4 Answers: Understand the Importance of Weights

6. If every day were equally represented, what fraction of weekend days would you expect to see in the data? 2/7
7. What is the unweighted percentage of individuals completed the survey on a weekend during each sample year?
2005: 28.05% 2014: 49.87%
8. What is the weighted percentage of individuals completed the survey on a weekend during each sample year?
2005: 28.57 % 2014: 29.19%
9. Compare the weighted and unweighted share of weekend days in the 2014 data. What are the weights doing to the distribution of weekends and weekdays?

In the UK 2014 data, weekend days were oversampled. Using weights, weekend days in this sample are brought closer to the true proportion of weekend days in a week.

Part 5 Answers: Compare time spent working for pay on weekdays versus weekends

10. What is the weighted average number of minutes spent working on weekends and



weekdays in the two samples?

2005: weekday: 215.1 weekend: 62.3
2014: weekday: 179.3 weekend 56.6

11. What is the weighted average number of minutes spent working on weekends and weekdays in 2005 and 2014 restricting your analysis to people who worked on that day?

2005: weekday: 443.7 weekend: 372.4
2014: weekday: 431.0 weekend: 348.1

