Lab Exercise #1: Time Use Variables

Learning goals

- Become familiar with MTUS-X time use variable documentation
- Learn different ways to create customized time use variables
- Brows the time diary characteristics that you can use to create time use variables

Summary

In addition to offering a broad set of time use variables, IPUMS also allows you to create your own, more complex time use variables. In this exercise, you will explore the IPUMS Time Use feature that allows you to create customized time use variables based on the underlying time diary data. You will identify the different components of the time diary that you can use to build time use variables and become familiar with the associated documentation describing the components.

Part 1: Browse the system-defined time use variables

1. How many "Activity coding structure" time use variables are available through IPUMS MTUS? _____

2. What three activities are included in ACT_CIVIC? *Hint: click on the ACT_CIVIC link to view the characteristics of this variable.*_____

_____

3. Is there any information in the ACT_CIVIC documentation about timing information? For example, using only ACT_CIVIC could you compare adult care in the morning with adult care in the afternoon? _____

4. If you have navigated away from the activities that are included in ACT_CIVIC, return to the list of activities that ACT_CIVIC includes. Click on the "Adult care" link to learn more about country-specific details regarding adult care activity coding. How comparable is adult care for the United Kingdom 2000 and Spain 2002? _____

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Part 2: Learn more about time use variables

5. Navigate to the MTUS home page and click on "ABOUT MTUS-X". Click on "Creating and selecting time use variables." What are the three main actions related to time use variables? _____

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6. After navigating back to the MTUS home page, click on "Get Data" then click on "Create Time Use Variable." For creating a new time use variable, you can either load an existing one and use it as a template or create one from scratch. How do you use an existing time use variable as a template? How do you create a time use variable from scratch?

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7. Create a time use variable from scratch. What are the activity-level characteristics you can use to create time use variables? *Hint: tabs represent different activity-level characteristics you can use to create a time use variable.* _____

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8. What filters do you need to create a time use variable that captures time spent in adult care from 8 am to noon? _____

Part 1: Browse the system-defined time use variables

1. How many "Activity coding structure" time use variables are available through IPUMS MTUS? <u>12</u>

2. What three activities are included in ACT_CIVIC? *Hint: click on the ACT_CIVIC link to view the characteristics of this variable.* <u>Adult care; voluntary, civic, organizational act; worship and religion</u>

3. Is there any information in the ACT_CIVIC documentation about timing information? For example, using only ACT_CIVIC could you compare adult care in the morning with adult care in the afternoon? <u>No, adult care is not separable from volunteering or worship and is not differentiated by time of day.</u>

4. If you have navigated away from the activities that are included in ACT_CIVIC, return to the list of activities that ACT_CIVIC includes. Click on the "Adult care" link to learn more about country-specific details regarding adult care activity coding. How comparable is adult care for the United Kingdom 2000 and Spain 2002? <u>UK 2000 includes help to both household and non-household adults while Spain 2002 only includes help to adult household members. These do not appear to be directly comparable. UK 2005 includes help to both household and non-household adults, and seems comparable to UK 2000.</u>

Part 2: Learn more about time use variables

5. Navigate to the MTUS home page and click on "ABOUT MTUS-X". Click on "Creating and selecting time use variables." What are the three main actions related to time use variables? <u>Selecting an existing one; modify an existing one; create a new one</u>

6. After navigating back to the MTUS home page, click on "Get Data" then click on "Create Time Use Variable." For creating a new time use variable, you can either load an existing one and use it as a template or create one from scratch. How do you use an existing time use variable as a template? <u>How do you create a time use variable from scratch? To use an existing time use variable as a template, click on "Load" next to the time use variable name that you want to use as your starting point. To create a new one from scratch, click on "Create Variable From Scratch."</u>

7. Create a time use variable from scratch. What are the activity-level characteristics you can use to create time use variables? *Hint: tabs represent different activity-level*

characteristics you can use to create a time use variable. Activity, time of day, secondary activity, location, with whom

8. What filters do you need to create a time use variable that captures time spent in adult care from 8 am to noon? Activity and time of day

Lab Exercise #2: Variable Documentation

Learning goals

- Explore the information available in different variable-level tabs

Summary

In this exercise, you will browse the IPUMS Time Use variable-level documentation for several different variables. You will explore various features of the documentation to help you become familiar with where different kinds of variable-level information is located in the IPUMS system.

Part 1: Browse the available variables

1. Which level (drop down menu) contains information about the time diary? _____

2. Which level (drop down menu) contains information about the individuals who completed the time diaries? _____

Part 2: Reviewing variable details

3. Browse the documentation for the weights available in MTUS (PROPWT and OCOMBWT under Person → Weights). Which weight is appropriate for creating estimates comparing two or more countries? _____

4. Review the documentation for EDTRY and EDUCA, both of which are available under Person → Core Demographic. What is the difference between EDTRY and EDUCA? Which is best for comparing the relationship between education and time use between Hungary in 2009 and Spain in 2009? _____
_____

5. Find the AGE variable, which is under Person → Core Demographic. Do any datasets report respondent ages in bins instead of reporting specific ages? If so, which country and year? _____

6. Review the HEALTH variable under Person → Health. How many respondents from Bulgaria 2001 reported being in "poor" health? _____

7. Respondents can report being with a child as part of their time diary. This information is available to users in the variable CHILD, available under Activity → Who Else is Present during Activity. Does being with a child in the time diary mean the same thing in the most recent US data as it does in the UK 2014 data? Why?

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_____

Part 1: Browse the available variables

1. Which level (drop down menu) contains information about the time diary? activity

2. Which level (drop down menu) contains information about the individuals who completed the time diaries? person

Part 2: Reviewing variable details

3. Browse the documentation for the weights available in MTUS (PROPWT and OCOMBWT under Person → Weights). Which weight is appropriate for creating estimates comparing two or more countries? PROPWT

4. Review the documentation for EDTRY and EDUCA, both of which are available under Person → Core Demographic. What is the difference between EDTRY and EDUCA? Which is best for comparing the relationship between education and time use between Hungary in 2009 and Spain in 2009? EDTRY is harmonized across countries while EDUCA has labels specific to each country. EDTRY is a better variable for cross-country comparisons.

5. Find the AGE variable, which is under Person → Core Demographic. Do any datasets report respondent ages in bins instead of reporting specific ages? If so, which country and year? Canada 2010

6. Review the HEALTH variable under Person → Health. How many respondents from Bulgaria 2001 reported being in "poor" health? 1,697. This information is on the "codes" tab and is visible by selecting "case-count view" option.

7. Respondents can report being with a child as part of their time diary. This information is available to users in the variable CHILD, available under Activity → Who Else is Present during Activity. Does being with a child in the time diary mean the same thing in the most recent US data as it does in the UK 2014 data? Why?
    No. In the most recent US data, a child is defined as someone under 18. In the UK 2014 data, a child is someone who is age 7 or under.

Lab Exercise #3: Understanding the data 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.*

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_____

_____

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?

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_____

_____

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_____

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

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

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.

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

Lab Exercise #4: Work and Meals in US, UK, Netherlands, and Spain

Learning goals

- Create time use variables using time filters
- Compare work time across four countries
- Compare work and meal timing across countries

Summary

In this exercise, you will use the MTUS to conduct comparative analyses of work and meals on weekends and weekdays using the 2005 data from the US, UK, and Netherlands as well as Spain 2009. You will make comparisons across countries of how much time is spent in paid work. You will also compare across countries how much time is spent in meals at different times of the day.

Part 1: Create time use variables

Note: Time use variables are automatically added to your cart when you create them.

1. Create four time use variables to capture paid work: *under the main category of "Paid work" select all detailed sub-categories ranging from "Paid work for the main job" to "Look for work".* Variables should be defined as follows:
    a. Total time
    b. Time between 06:00 and 14:00 (6am to 2pm)
    c. Time between 14:00 and 22:00 (2pm and 10pm)
    d. Time between 22:00 and 06:00 (10pm and 6am)

2. Create five meal variables: *under the main category of "Personal Care" select "Meals at work or school" and "Meals or snacks in other places".* Variables should be defined as follows:
    a. Total time
    b. Time between 11:00 and 13:00 (11am and 1pm)
    c. Time between 13:00 and 15:00 (1pm and 3pm)
    d. Time between 17:00 and 20:00 (5pm and 8pm)
    e. Time between 20:00 and 23:00 (8pm and 11pm)

Hint: As a shortcut, you can load your "total time" variables and simply restrict the time using the "time of day" filter rather than having to choose activities again and apply a time filter.

Part 2: Select samples and variables

3. Add the variables DAY and EMPSTAT to your extract
4. Select the 2005 US, UK, and Netherlands datasets as well as the 2009 Spain dataset
5. Submit your data extract

Part 3: Analyze data

6. Complete the following table by generating average minutes per day spent in paid work for each country and by weekend/weekday for the entire sample and for full-time employees only. Remember to use weights.

PAID WORK BY DAY OF WEEK						
	Full Sample			Full-Time Employees		
	Total	Weekend	Weekday	Total	Weekend	Weekday
NETHERLANDS						
SPAIN						
UK						
US						

7. Which country spends the most time in paid work on weekends for the full sample? _____ For full-time employees? _____

8. Complete the following table by generating average minutes per day spent in paid work for each country by time of day for the entire sample and for full-time employees only. Remember to use weights.

PAID WORK BY TIME OF DAY						
	Full Sample			Full-Time Employees		
	Morning	Afternoon	Evening	Morning	Afternoon	Evening
NETHERLANDS						
SPAIN						
UK						
US						

9. Which country spends the most time working in the evening for the full sample? _____ For full-time employees? _____

10. Complete the following table by generating average minutes per day spent in meals for each country by time of day. Remember to use weights.

MEALS BY TIME OF DAY					
	Total	11am-1pm	1pm-3pm	5pm-8pm	8pm-11pm
NETHERLANDS					
SPAIN					
UK					
US					

11. Which country spends the most time in meals? _____ Between 8pm and 11pm? _____

Part 3: Analyze data

6. Complete the following table by generating average minutes per day spent in paid work for each country and by weekend/weekday for the entire sample and for full-time employees only. Remember to use weights.

PAID WORK BY DAY OF WEEK						
	Full Sample			Full-Time Employees		
	Total	Weekend	Weekday	Total	Weekend	Weekday
NETHERLANDS	159.6	41.9	206.6	330.4	61.7	437.7
SPAIN	144.7	54.7	180.6	354.1	128.3	447.4
UK	171.4	62.3	215.1	321.8	108.3	406.6
US	209.0	72.9	263.4	347.4	111.8	440.9

7. Which country spends the most time in paid work on weekends for the full sample? US For full-time employees? Spain

8. Complete the following table by generating average minutes per day spent in paid work for each country by time of day for the entire sample and for full-time employees only. Remember to use weights.

PAID WORK BY TIME OF DAY						
	Full Sample			Full-Time Employees		
	Morning	Afternoon	Evening	Morning	Afternoon	Evening
NETHERLANDS	94.5	60.0	4.9	196.8	124.5	9.2
SPAIN	84.9	52.4	7.4	206.7	129.1	18.3
UK	99.2	64.1	8.1	184.7	121.5	15.6
US	122.4	74.9	11.6	205.4	122.5	19.5

9. Which country spends the most time working in the evening for the full sample? US For full-time employees? US

10. Complete the following table by generating average minutes per day spent in meals for each country by time of day. Remember to use weights.

MEALS BY TIME OF DAY					
	Total	11am-1pm	1pm-3pm	5pm-8pm	8pm-11pm
NETHERLANDS	76.2	13.5	6.4	26.4	5.2
SPAIN	100.0	2.9	26.4	6.4	30.8
UK	64.1	6.3	7.4	20.5	6.4
US	54.0	10.5	5.0	16.4	4.4

11. Which country spends the most time in meals? Spain Between 8pm and 11pm? Spain