Researching Crime and Criminal Justice

Seminar 4: Data Manipulation in SPSS

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Seminar Aims

- To learn useful data manipulation techniques:
  - Select cases
  - Recode variables
- To carry on analysing your survey data
- To answer any SPSS or Assignment 1 related questions

Seminar Structure

1. Selecting/Filtering Cases
2. Recoding a variable
3. Work with your own data

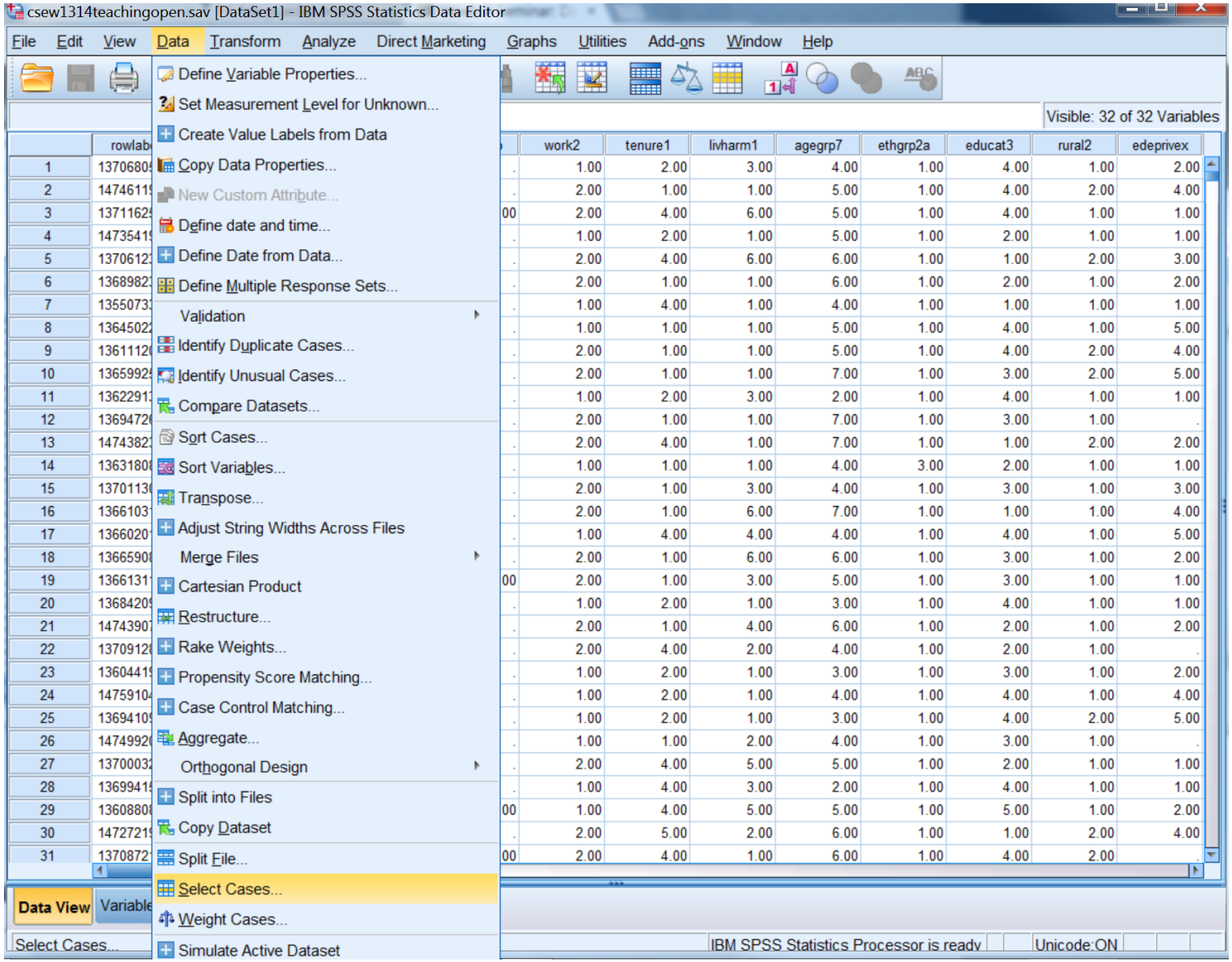
Getting Started

1. Seat next to your group members and get a computer for every two students (three max)
2. Log on and open SPSS
   - All Programs → IBM SPSS Statistics → IBM SPSS Statistics 25
   - Close the menus that pop up so you just get an empty spreadsheet
3. Open the CSEW from SPSS (if you did not save it you can download it from Minerva)
   - File → Open → Data

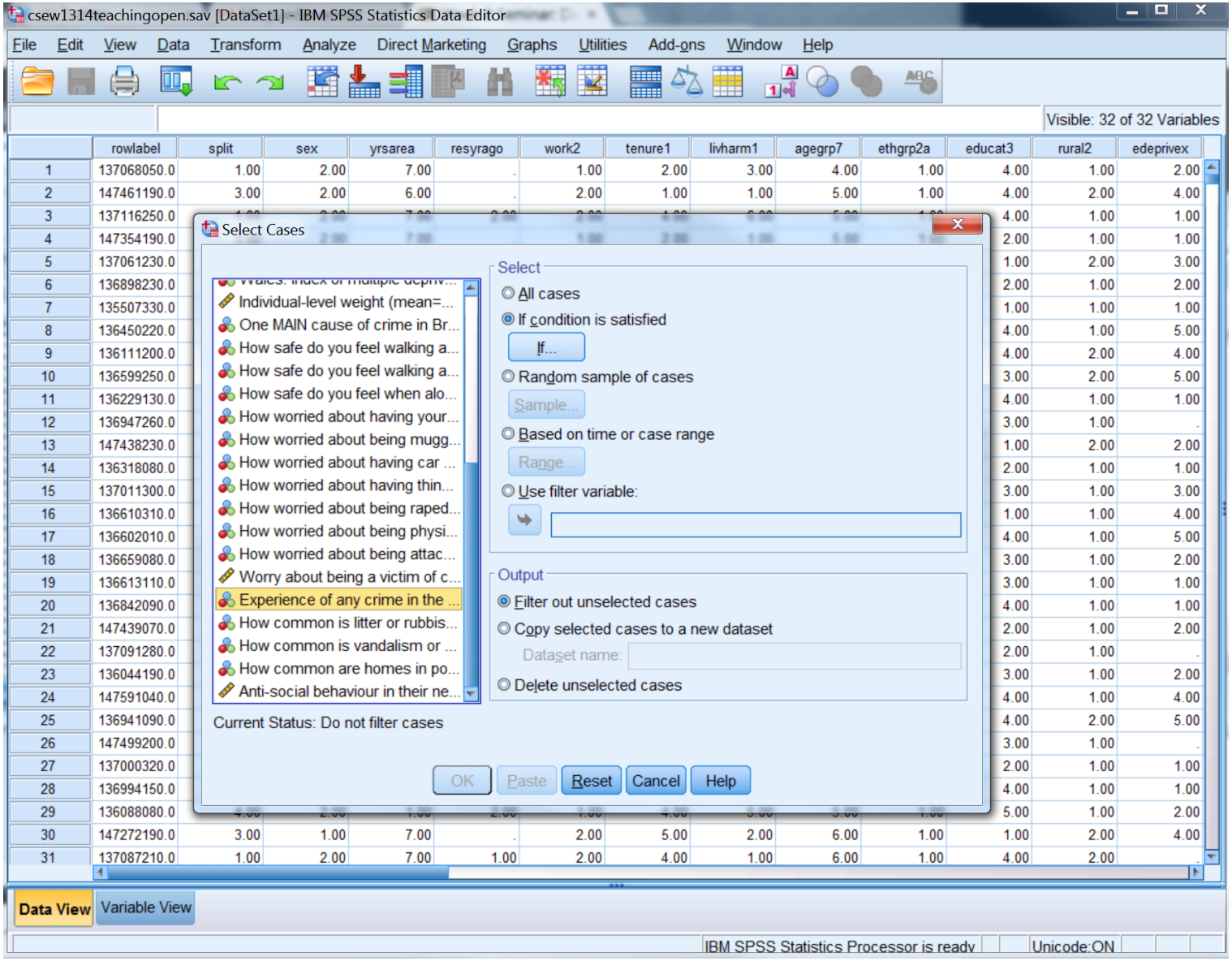
Task 1: Selecting/Filtering Cases

- Sometimes you just want to analyse a specific subsample of your full sample
  - e.g. you might be interested in subjects who are older than 30
  - or those who have been victims of a crime
- We can do this using the 'Select Cases' option in SPSS
- Let's look at responses to *How safe do you feel walking alone after dark?* but only amongst those who answered *yes* to *Experience of any crime in the last 12 months*
- We need to tell SPSS to keep only cases that satisfy the following condition, $bcsvictim = 1$ (see *Values* within *Variable View*)

Task 1: Selecting/Filtering Cases



Task 1: Selecting/Filtering Cases



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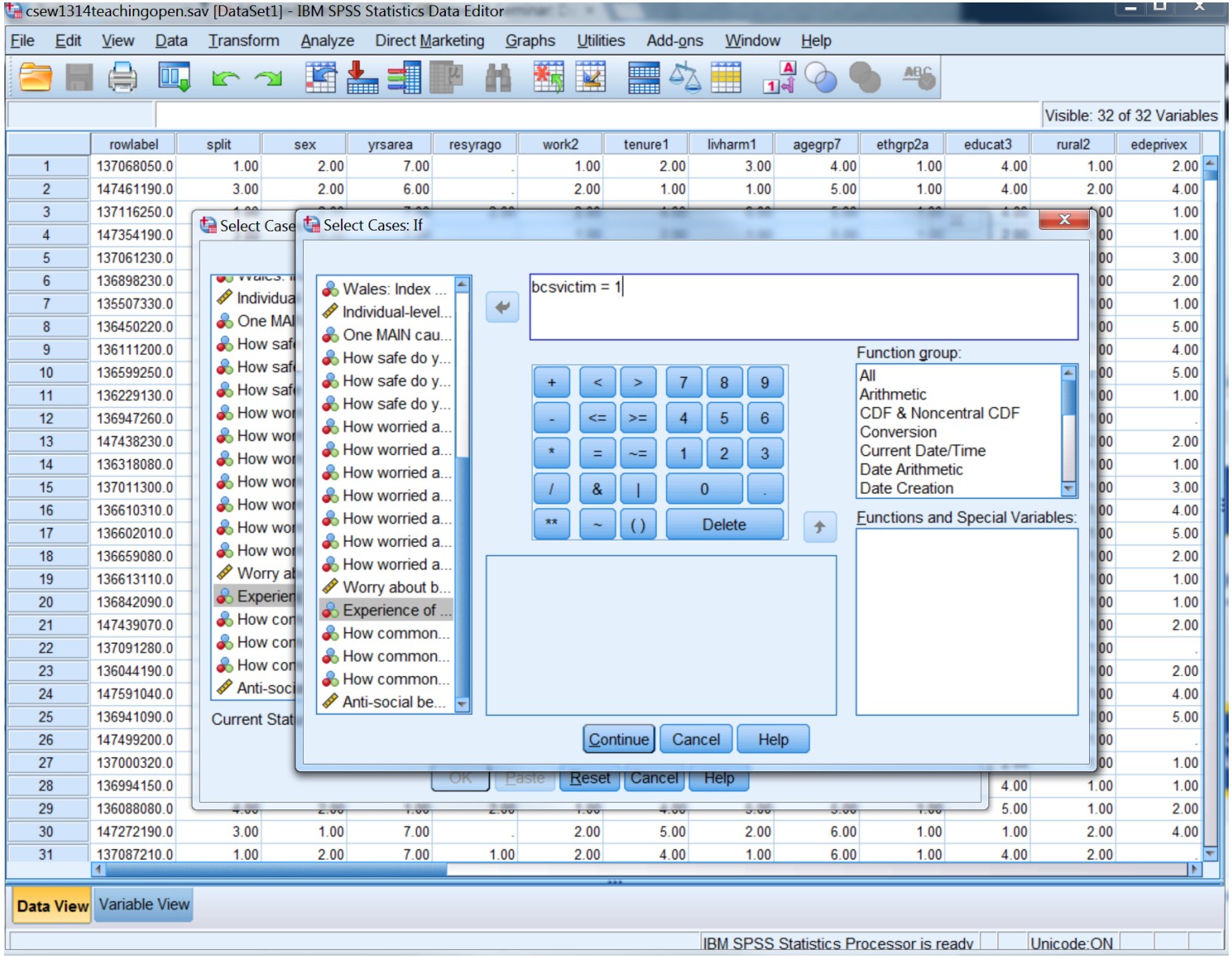

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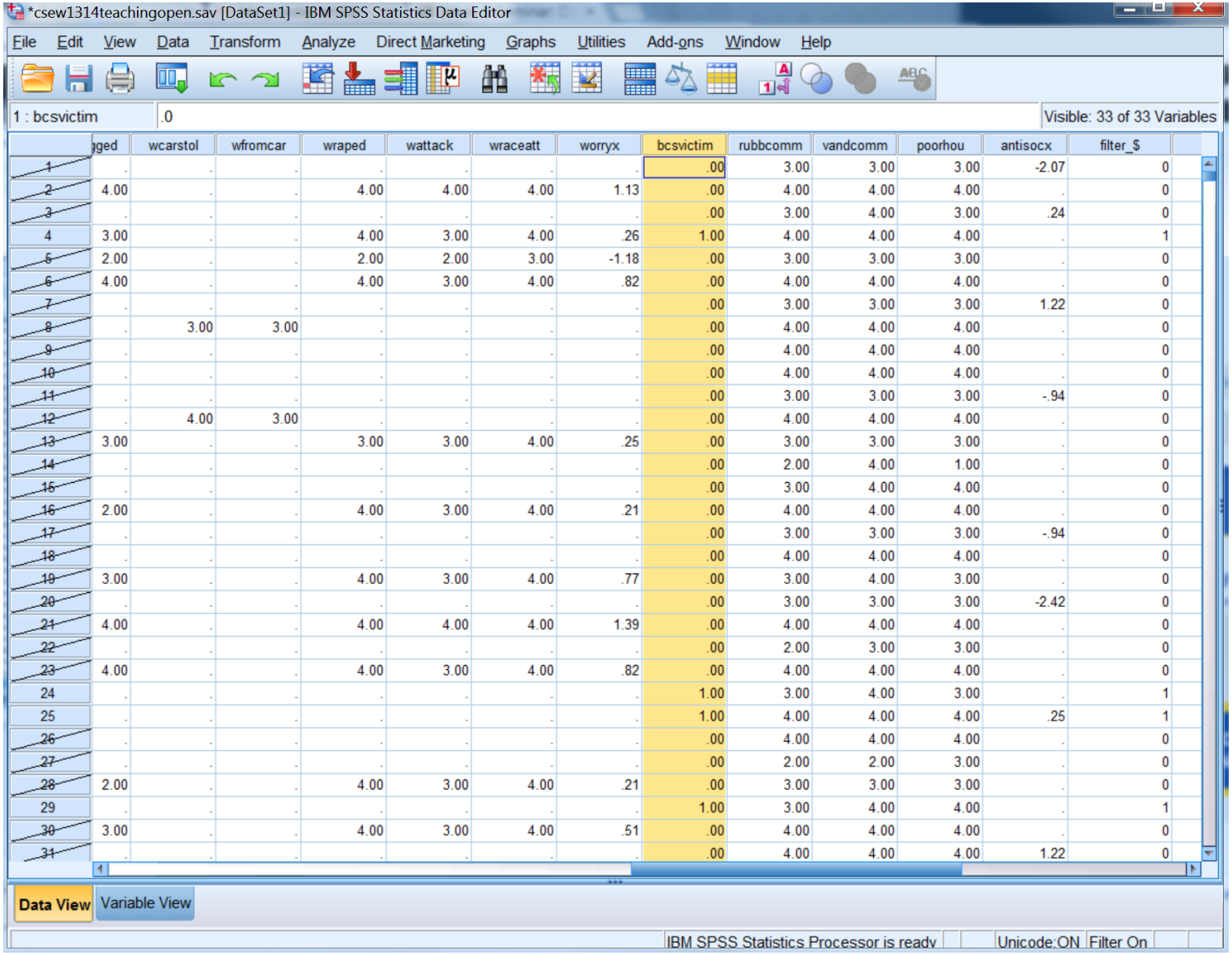

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3	.	.	.	.	.	.	.	.00	3.00	4.00	3.00	.24	0
4	3.00	.	.	4.00	3.00	4.00	.26	1.00	4.00	4.00	4.00	.	1
5	2.00	.	.	2.00	2.00	3.00	-1.18	.00	3.00	3.00	3.00	.	0
6	4.00	.	.	4.00	3.00	4.00	.82	.00	4.00	4.00	4.00	.	0
7	.	.	.	.	.	.	.	.00	3.00	3.00	3.00	1.22	0
8	.	3.00	3.00	.	.	.	.	.00	4.00	4.00	4.00	.	0
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12	.	4.00	3.00	.	.	.	.	.00	4.00	4.00	4.00	.	0
13	3.00	.	.	3.00	3.00	4.00	.25	.00	3.00	3.00	3.00	.	0
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16	2.00	.	.	4.00	3.00	4.00	.21	.00	4.00	4.00	4.00	.	0
17	.	.	.	.	.	.	.	.00	3.00	3.00	3.00	-.94	0
18	.	.	.	.	.	.	.	.00	4.00	4.00	4.00	.	0
19	3.00	.	.	4.00	3.00	4.00	.77	.00	3.00	4.00	3.00	.	0
20	.	.	.	.	.	.	.	.00	3.00	3.00	3.00	-2.42	0
21	4.00	.	.	4.00	4.00	4.00	1.39	.00	4.00	4.00	4.00	.	0
22	.	.	.	.	.	.	.	.00	2.00	3.00	3.00	.	0
23	4.00	.	.	4.00	3.00	4.00	.82	.00	4.00	4.00	4.00	.	0
24	.	.	.	.	.	.	.	1.00	3.00	4.00	3.00	.	1
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26	.	.	.	.	.	.	.	.00	4.00	4.00	4.00	.	0
27	.	.	.	.	.	.	.	.00	2.00	2.00	3.00	.	0
28	2.00	.	.	4.00	3.00	4.00	.21	.00	3.00	3.00	3.00	.	0
29	.	.	.	.	.	.	.	1.00	3.00	4.00	4.00	.	1
30	3.00	.	.	4.00	3.00	4.00	.51	.00	4.00	4.00	4.00	.	0
31	.	.	.	.	.	.	.	.00	4.00	4.00	4.00	1.22	0

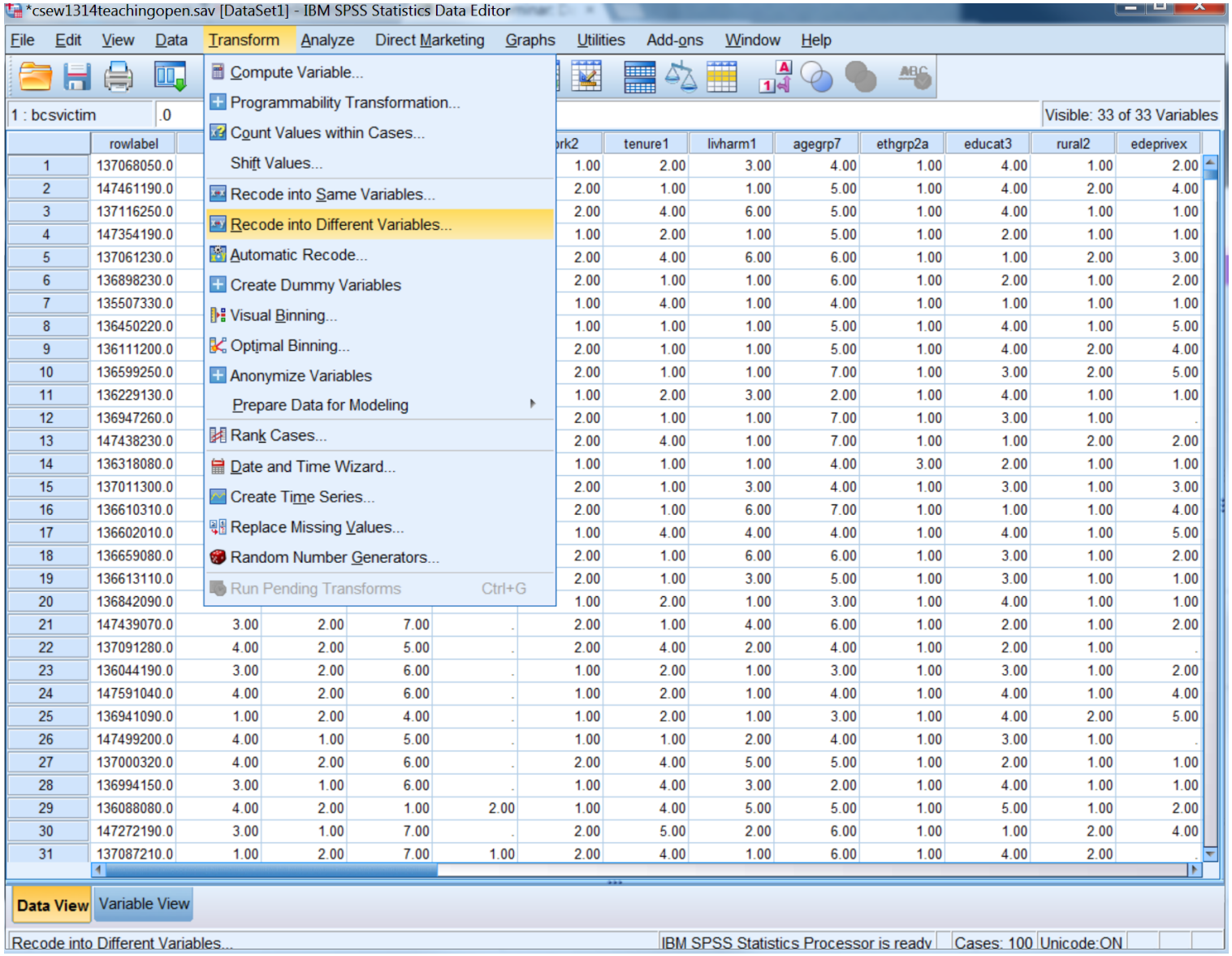
Task 1: Selecting/Filtering Cases

- Notice how respondents who reported not having been a victim are deactivated (with a diagonal cross in the first column of the *Data View* display)
- Any analyses you do under the current settings will only include those who meet the selection criteria ($bcsvictim = 1$)
- You can go back to your original full sample by clicking:
  - Data → Select Cases → All Cases
- Calculate a frequency table for *How safe do you feel walking alone after dark?* (*walkdark*) with and without the filter
  - Analyze → Descriptive Statistics → Frequencies

Task 2: Recoding Variables

- Sometimes you might want to transform one of your variables
- For example, you might want to compare two age groups but the variable capturing interviewees' age is divided in seven bands
- There are ways to carry out such transformations automatically
- Hence, eliminating the tediousness and coding errors associated with imputing variables manually (e.g. case by case)

Task 2: Recoding Variables



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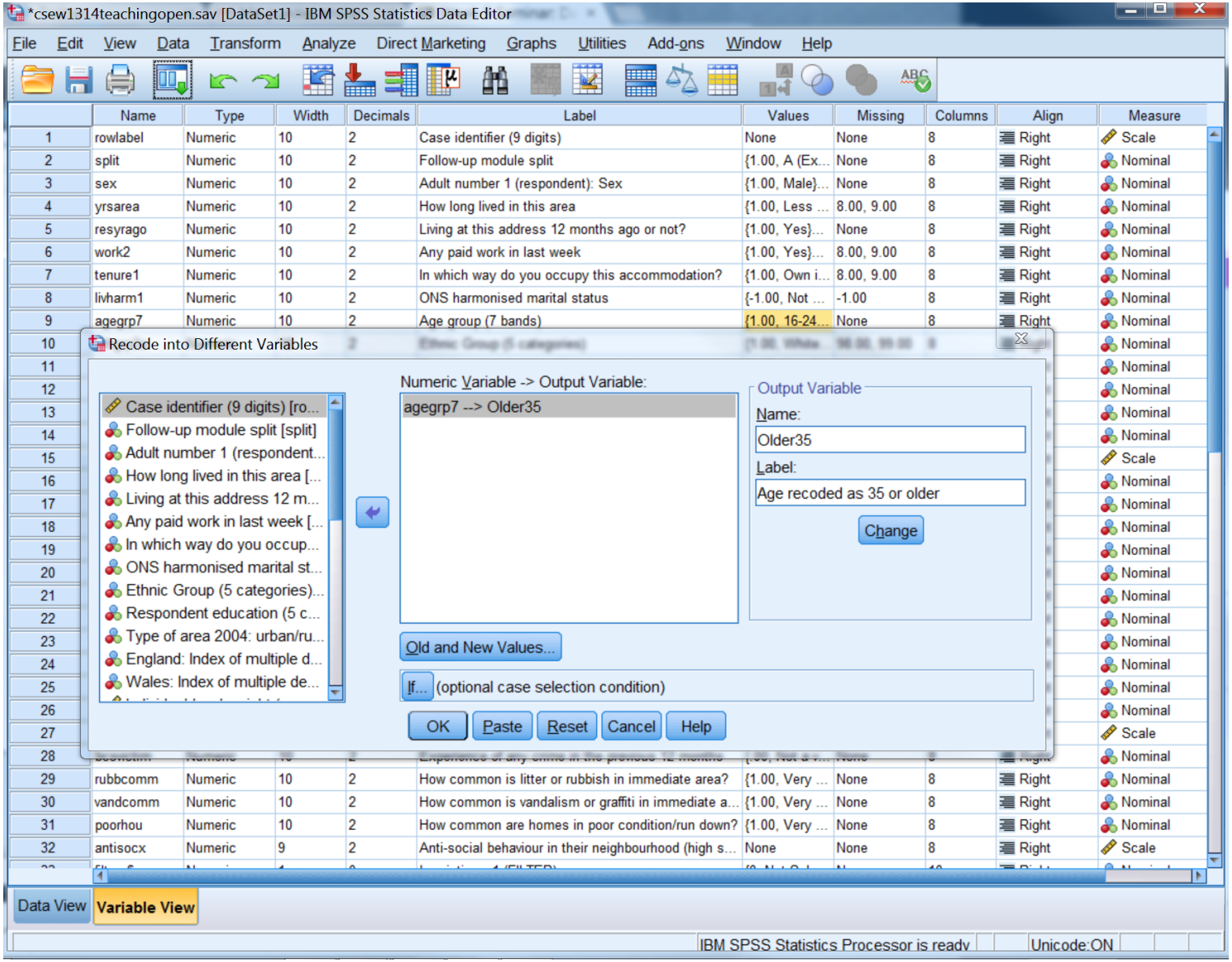
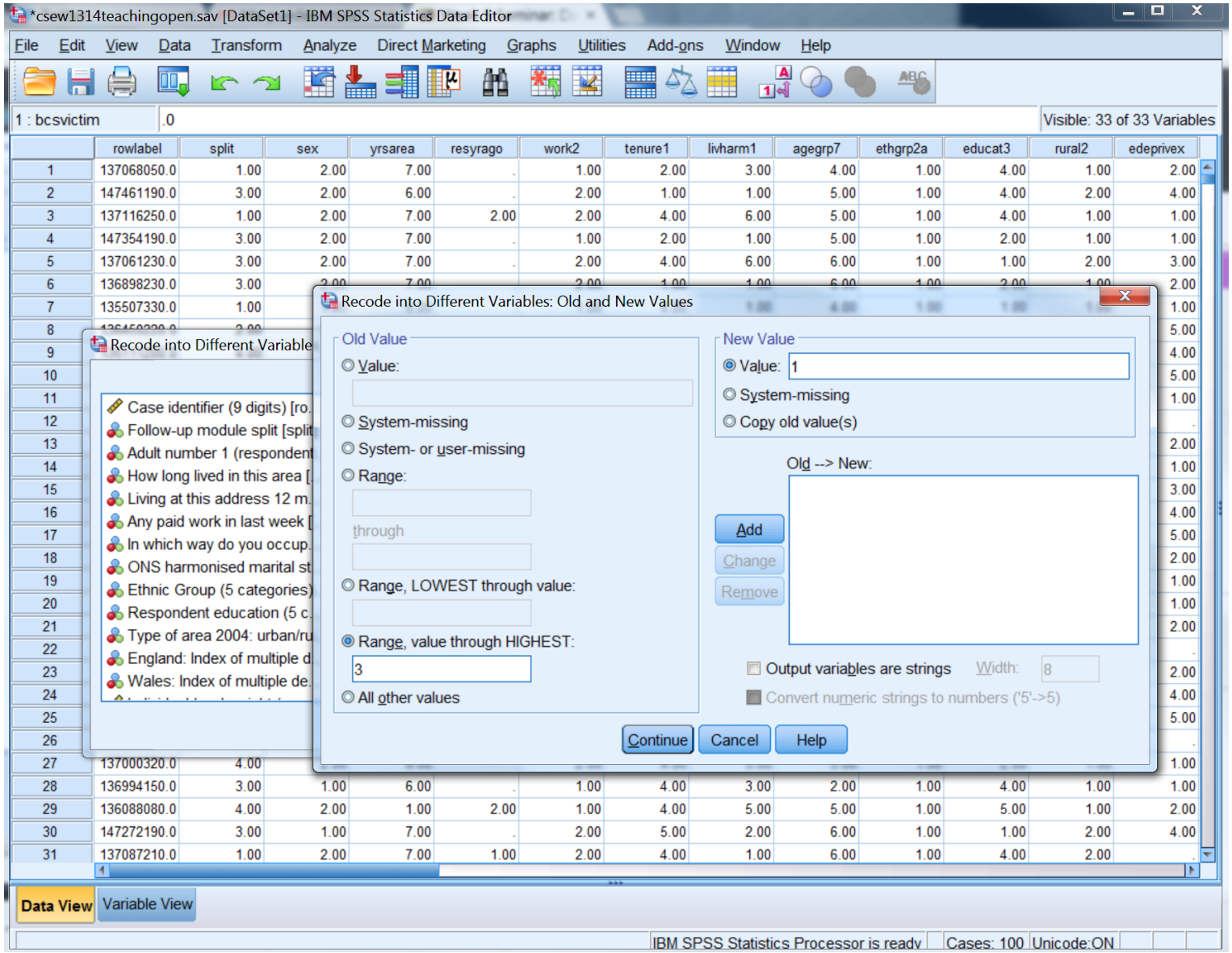


Task 2: Recoding Variables

- Once in the *Recode into Different Variables* menu:

1. Click twice on the variable to be recoded (*agegrp7*) to get it into the main box
2. On *Output Variable* write down a name and a label for the new variable
3. Click *Change* and then click *Old and New Values*
4. We indicate SPSS to code values equal or bigger than 3 (those older than 35) as a 1
5. And everything else as a 0
6. Click *Add* and *Continue*
7. Lastly, check that the new recoded variable has been created correctly

Task 2: Recoding Variables



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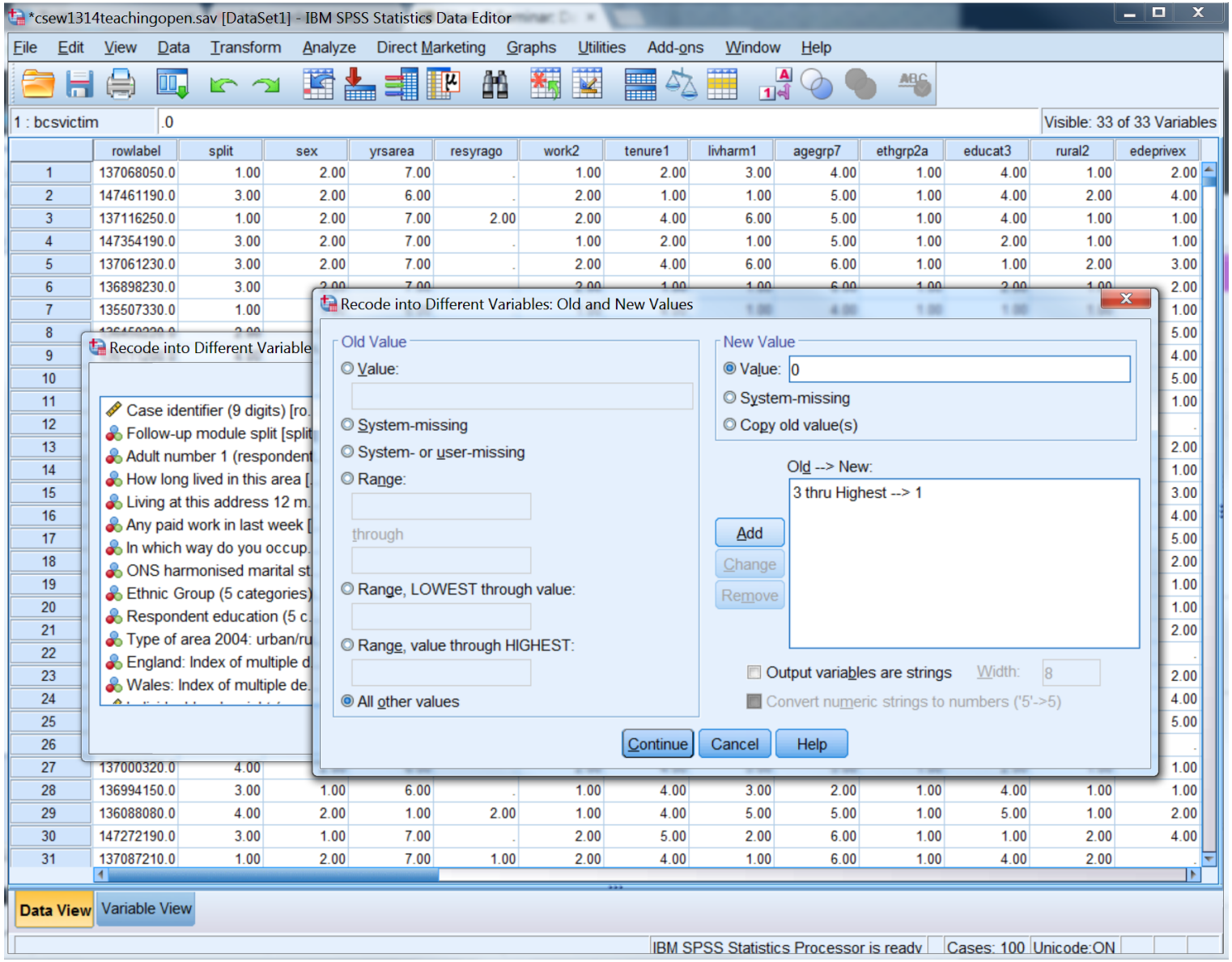

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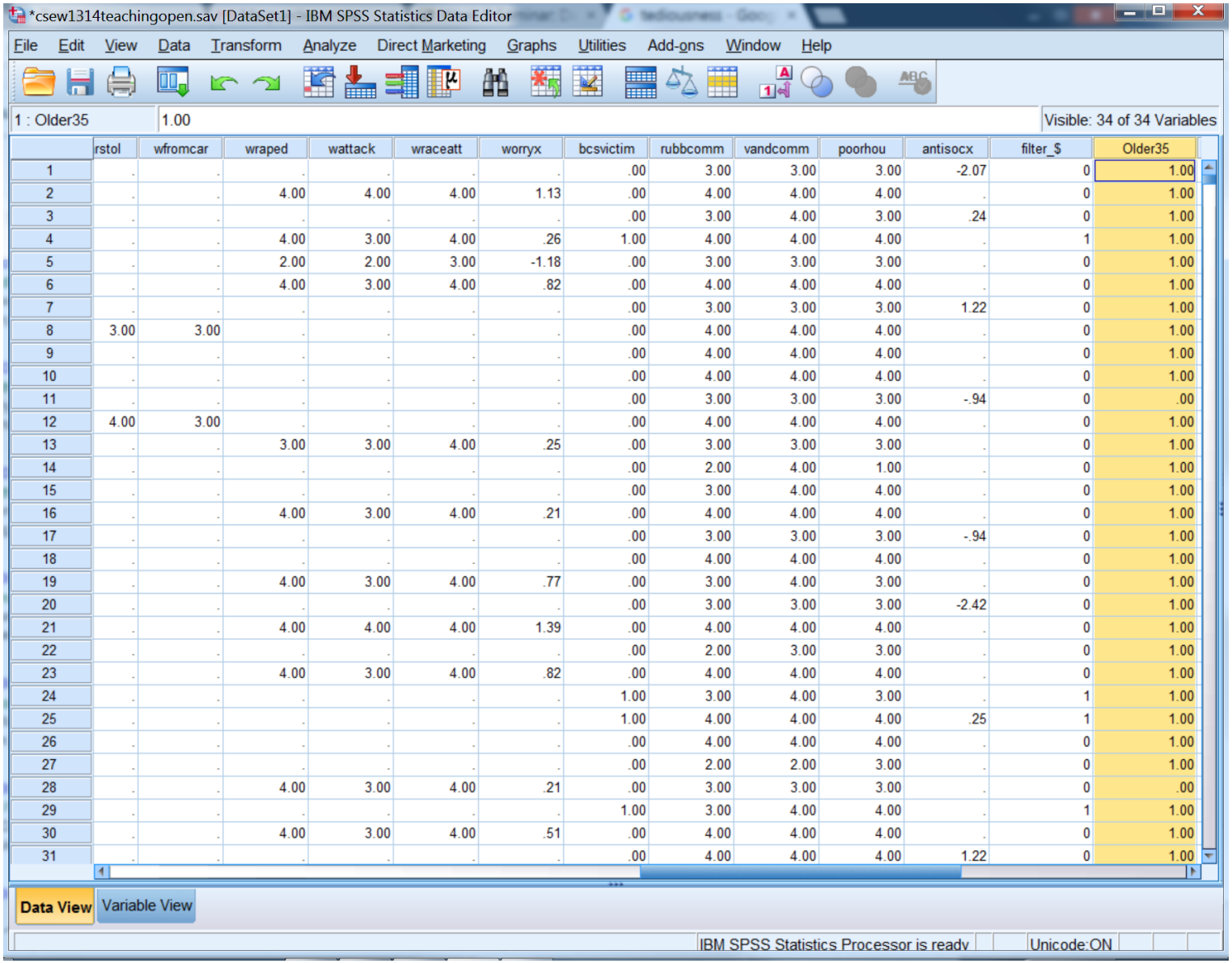

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3	.	.	.	.	.	.	.00	3.00	4.00	3.00	.24	0	1.00
4	.	.	4.00	3.00	4.00	.26	1.00	4.00	4.00	4.00	.	1	1.00
5	.	.	2.00	2.00	3.00	-1.18	.00	3.00	3.00	3.00	.	0	1.00
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8	3.00	3.00	.	.	.	.	.00	4.00	4.00	4.00	.	0	1.00
9	.	.	.	.	.	.	.00	4.00	4.00	4.00	.	0	1.00
10	.	.	.	.	.	.	.00	4.00	4.00	4.00	.	0	1.00
11	.	.	.	.	.	.	.00	3.00	3.00	3.00	-.94	0	.00
12	4.00	3.00	.	.	.	.	.00	4.00	4.00	4.00	.	0	1.00
13	.	.	3.00	3.00	4.00	.25	.00	3.00	3.00	3.00	.	0	1.00
14	.	.	.	.	.	.	.00	2.00	4.00	1.00	.	0	1.00
15	.	.	.	.	.	.	.00	3.00	4.00	4.00	.	0	1.00
16	.	.	4.00	3.00	4.00	.21	.00	4.00	4.00	4.00	.	0	1.00
17	.	.	.	.	.	.	.00	3.00	3.00	3.00	-.94	0	1.00
18	.	.	.	.	.	.	.00	4.00	4.00	4.00	.	0	1.00
19	.	.	4.00	3.00	4.00	.77	.00	3.00	4.00	3.00	.	0	1.00
20	.	.	.	.	.	.	.00	3.00	3.00	3.00	-2.42	0	1.00
21	.	.	4.00	4.00	4.00	1.39	.00	4.00	4.00	4.00	.	0	1.00
22	.	.	.	.	.	.	.00	2.00	3.00	3.00	.	0	1.00
23	.	.	4.00	3.00	4.00	.82	.00	4.00	4.00	4.00	.	0	1.00
24	.	.	.	.	.	.	1.00	3.00	4.00	3.00	.	1	1.00
25	.	.	.	.	.	.	1.00	4.00	4.00	4.00	.25	1	1.00
26	.	.	.	.	.	.	.00	4.00	4.00	4.00	.	0	1.00
27	.	.	.	.	.	.	.00	2.00	2.00	3.00	.	0	1.00
28	.	.	4.00	3.00	4.00	.21	.00	3.00	3.00	3.00	.	0	.00
29	.	.	.	.	.	.	1.00	3.00	4.00	4.00	.	1	1.00
30	.	.	4.00	3.00	4.00	.51	.00	4.00	4.00	4.00	.	0	1.00
31	.	.	.	.	.	.	.00	4.00	4.00	4.00	1.22	0	1.00

Task 2: Recoding Variables

- Here we have turned a continuous variable into a categorical variable
- You can now use the new recoded variable to carry out types of analyses suitable to categorical variables:
  - univariate analyses such as frequency tables
  - bivariate analyses such as crosstabs or comparison of means
  - graphs like barplots, etc.

Recap

- Over the course of the last three seminars we have seen how to:
  - create a dataset
  - manipulate cases and variables
  - calculate univariate and bivariate statistics
  - design graphs
- You are now well equipped to carry out Assignment 1
- Using the data you have collected and your knowledge of SPSS you will be able to answer the given research question