

Recoding in IBM SPSS versions 21-22

Recoding a variable in SPSS means changing the values of the variable – either to create a new variable or to revise the existing variable. This is one way to create a grouped frequency distribution (an ordinal variable) from a ratio-level variable with many values.

The PRIORS variable in the **Rikers 1989 2.sav** data set has values that range from 0 (no prior arrests) to 71 (71 prior arrests). The following steps can be taken to create A NEW VARIABLE – PRIORSR (for priors recoded).

Step 1. Decide how you will group your values for the new variable. Although the textbook suggests about using consistent intervals for grouped variables, we often make more content-specific choices when we analyze data.

One way of grouping prior arrests would be:

- Group 1 – No Prior arrest, value = 0
- Group 2 – 1 prior arrest, value = 1
- Group 3 – 2 to 5 prior arrests, values = 2, 3, 4 & 5
- Group 4 – 6 to 10 prior arrests, values = 6, 7, 8, 9 & 10
- Group 5 – 11 and more prior arrests

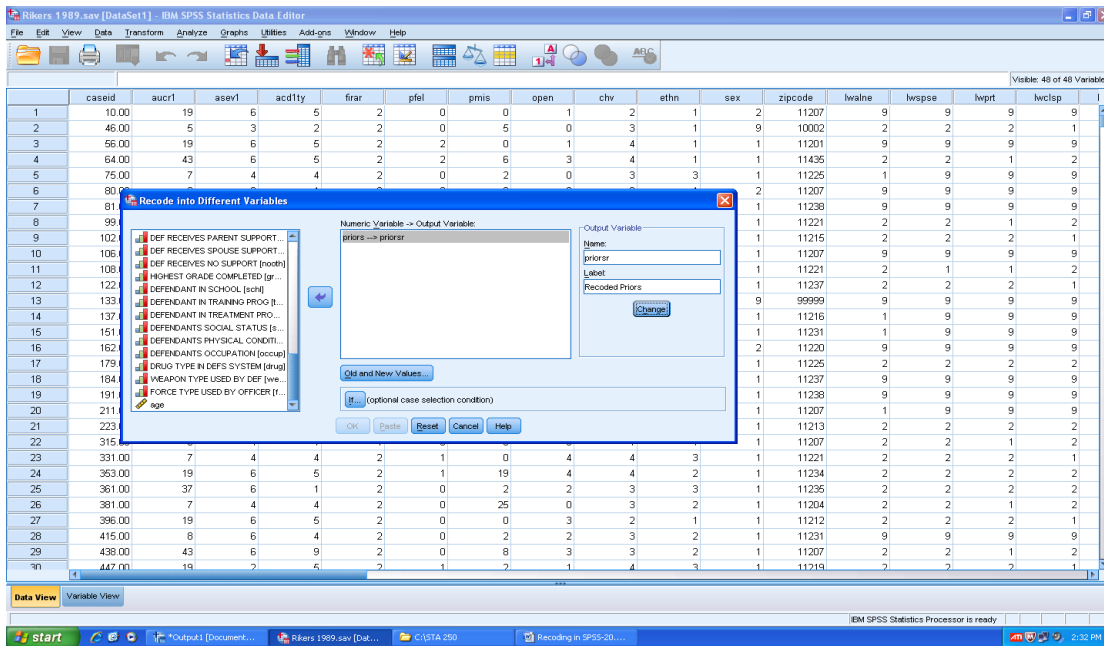
Make the decision about how many categories you will use and then write down the groups and the values that apply to each group.

Step 2. Create a new variable. From the Transform menu, choose RECODE.

The screenshot shows the IBM SPSS Statistics Data Editor interface. The 'Transform' menu is open, and the 'Recode into Different Variables...' option is selected. The dialog box for 'Recode into Different Variables' is visible, showing the 'firar' variable being recoded. The 'Old and New Values' table is empty, indicating that the recoding process is in progress or about to begin. The data view shows the first 30 cases of the dataset, with columns for 'firar', 'pfel', 'pmis', 'open', 'chv', 'ethn', 'sex', 'zipcode', 'lwalne', 'lwspse', 'lwrpt', and 'lwclsp'. The 'firar' column contains values ranging from 0 to 19, representing the number of prior arrests.

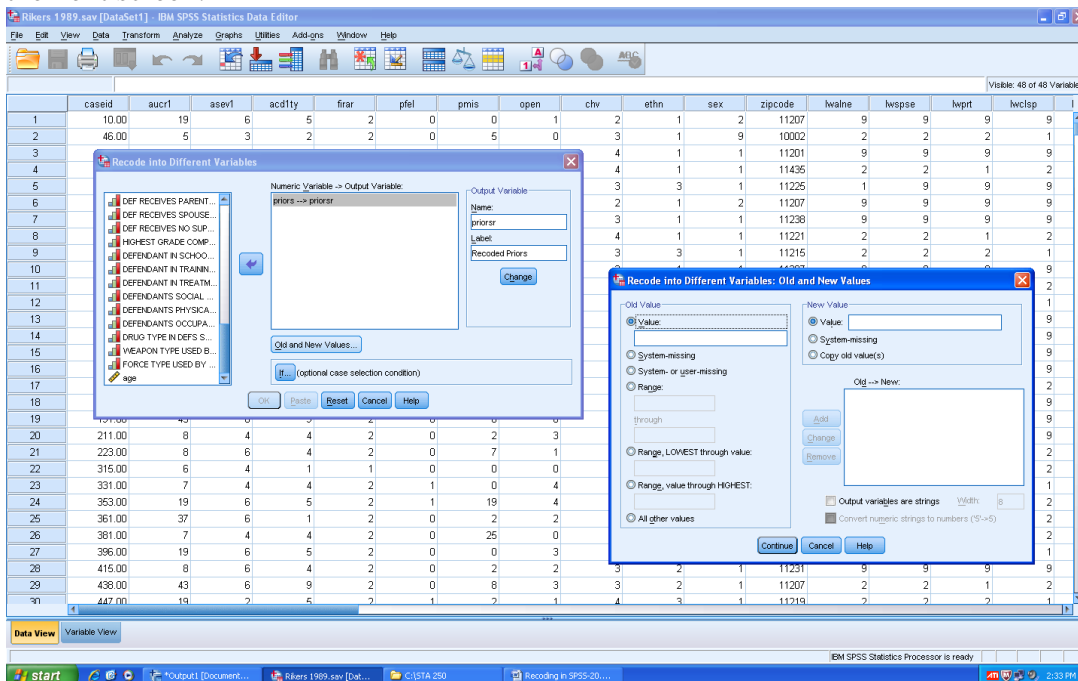
Case	firar	pfel	pmis	open	chv	ethn	sex	zipcode	lwalne	lwspse	lwrpt	lwclsp	
1	2	0	0	1	2	1	2	11207	9	9	9	9	
2	2	0	5	0	3	1	9	10002	2	2	2	1	
3	2	2	0	1	4	1	1	11201	9	9	9	9	
4	2	2	6	3	4	1	1	11435	2	2	1	2	
5	2	0	2	0	3	3	1	11225	1	9	9	9	
6	9	0	0	0	2	1	2	11207	9	9	9	9	
7	2	0	3	4	3	1	1	11238	9	9	9	9	
8	2	1	4	2	4	1	1	11221	2	2	1	2	
9	2	0	1	0	3	3	1	11215	2	2	2	1	
10	9	0	0	0	2	1	1	11207	9	9	9	9	
11	2	0	0	2	2	3	1	11221	2	1	1	2	
12	2	0	2	5	3	3	1	11237	2	2	2	1	
13	9	0	0	0	2	1	9	99999	9	9	9	9	
14	2	0	0	1	2	1	1	11216	1	9	9	9	
15	2	2	3	2	4	3	1	11231	1	9	9	9	
16	2	2	2	0	3	4	3	2	11220	9	9	9	
17	2	2	0	11	0	3	1	1	11225	2	2	2	
18	2	2	2	2	4	3	1	11237	9	9	9	9	
19	2	0	0	0	2	1	1	11238	9	9	9	9	
20	2	4	2	3	3	1	1	11207	1	9	9	9	
21	2	0	7	1	3	1	1	11213	2	2	2	2	
22	6	4	1	0	0	1	1	11207	2	2	1	2	
23	2	1	0	4	4	3	1	11221	2	2	2	1	
24	2	1	19	4	4	2	1	11234	2	2	2	2	
25	2	0	2	2	3	3	1	11235	2	2	2	2	
26	7	4	4	25	0	3	2	1	11204	2	2	1	2
27	2	0	0	3	2	1	1	11212	2	2	2	1	
28	2	4	2	2	3	2	1	11231	9	9	9	9	
29	2	0	8	3	3	2	1	11207	2	2	1	2	
30	2	1	2	1	4	3	1	11219	2	2	2	1	

And then INTO DIFFERENT VARIABLE. Then press enter. You will now use the screen below to select the variable to be recoded (priors) and specify the new name and label for your new variable, **priorsr**.

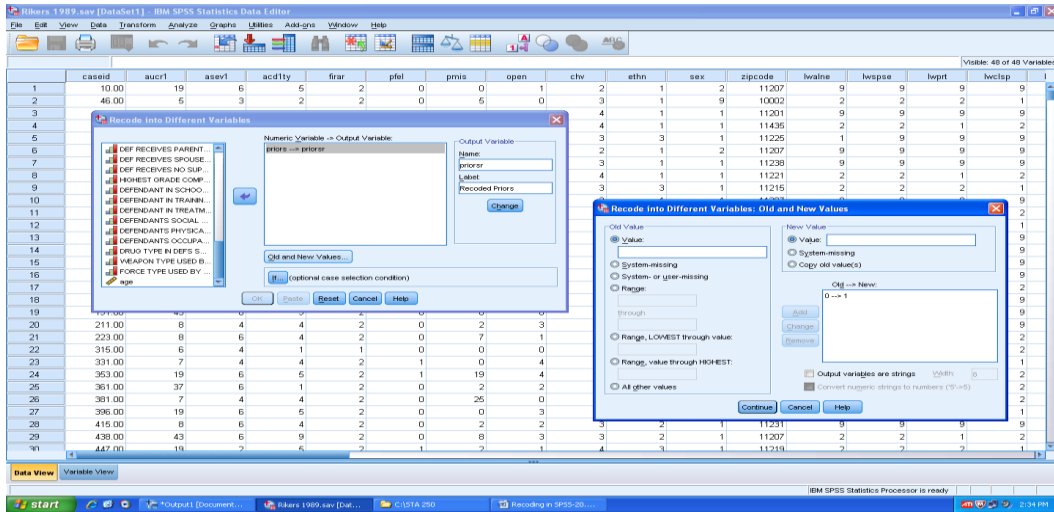


Select the priors variable, move it into the Recode window, type in a name and label for the new variable, and press CHANGE. Now you will RECODE the values of the **priors** variable to create the groups.

Step 3. Group the values for the new variable. Press **Old and New Values** to bring up the next screen.



Now you will identify the groups for your new variable. First, the old value of 0 (no prior arrests in the priors variable) will be the new Group 1, so type the 0 in the **Old Value** box and 1 in the **New Value** box. The use ADD to complete the selection. When you click ADD, you will see the 0 > 1 transformation in the list. You have RECODED the old value of 0 in the priors variable to the new value of 1 (for Group 1) in the new variable.



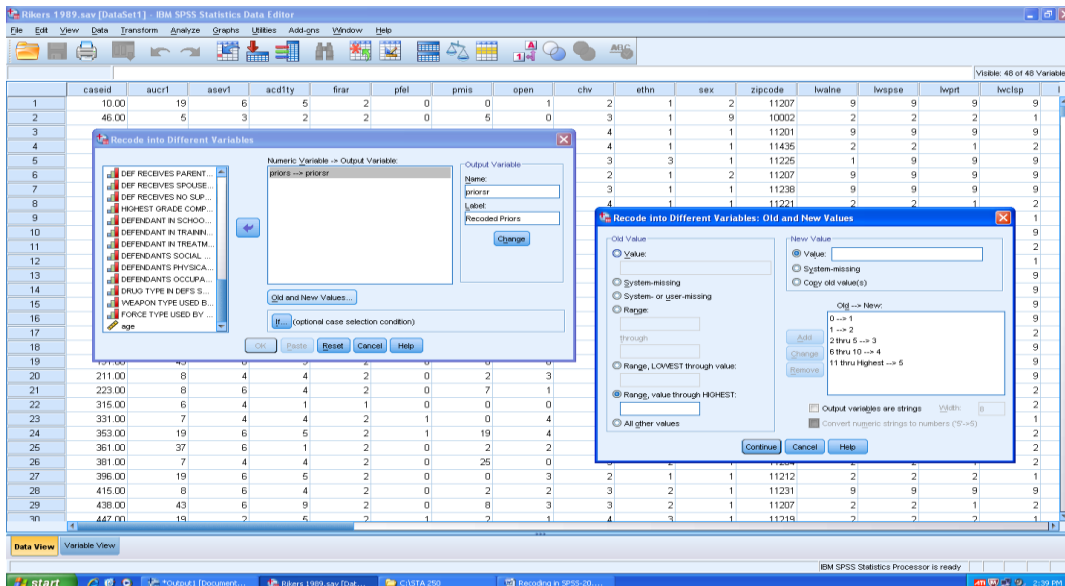
Continue to do the same steps for each of your groups. Use the RANGE option to define the groups that have more than one value.

Group 3 – 2 to 5 prior arrests, values = 2, 3, 4 & 5

Group 4 – 6 to 10 prior arrests, values = 6, 7, 8, 9 & 10

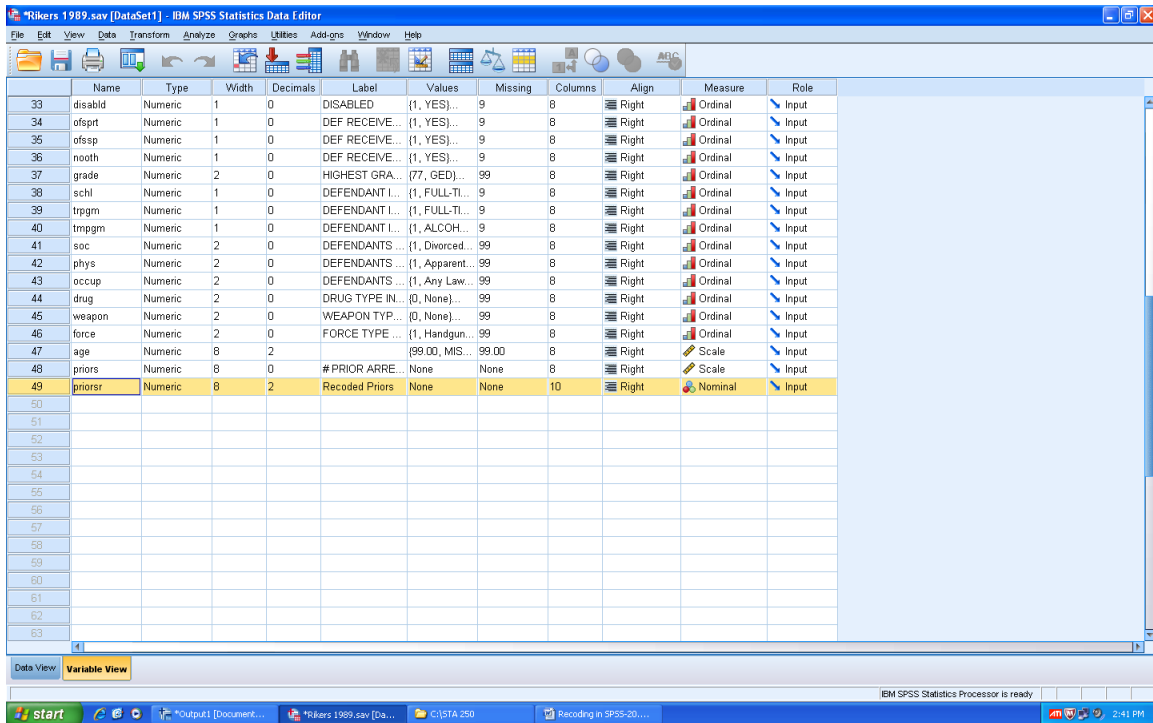
Group 5 – 11 and more prior arrests

When you have completed the definition of the groups, the screen will show the list, as in the next screen shot.



Now Press CONTINUE and then OK.

If you now go to the variable view and scroll down to the end, you will see that a new variable has been added.



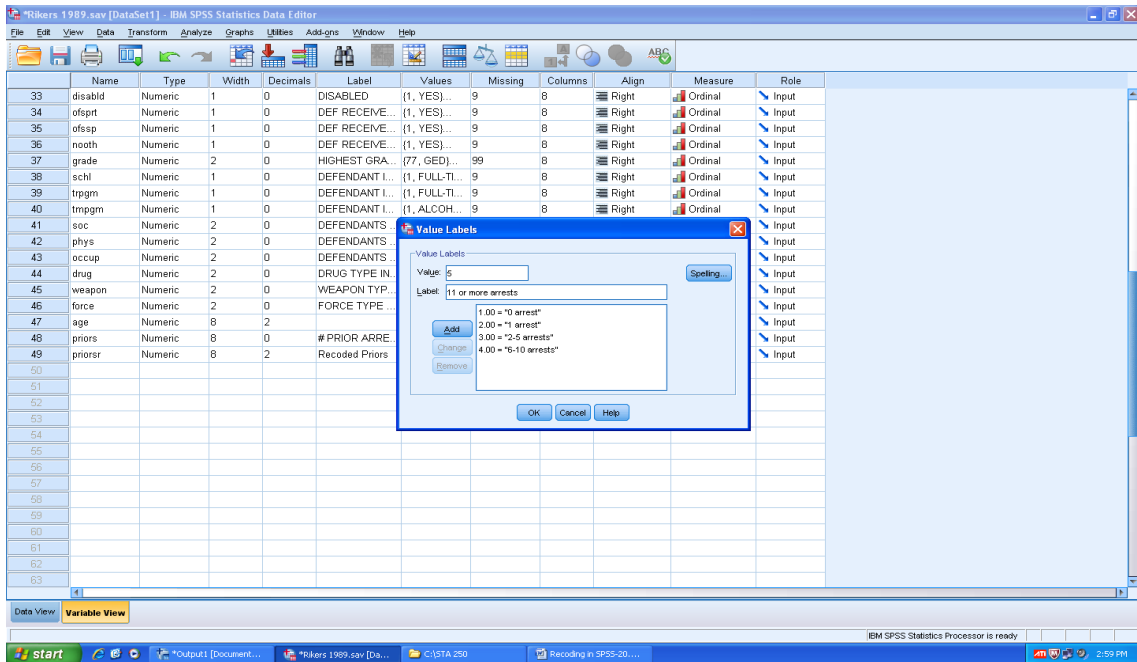
Step 4. Look at the table of your new variable values in Frequencies.

Use the Frequencies command to display your new variable.

PRIORSR

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	285	27.5	27.5	27.5
	2.00	134	12.9	12.9	40.4
	3.00	319	30.7	30.7	71.1
	4.00	165	15.9	15.9	87.0
	5.00	135	13.0	13.0	100.0
Total		1038	100.0	100.0	

If you want to have the groups labeled, you must add the value labels for your groups in Variable View..



Then your Output table from Frequencies will look like the one below.

Priors recoded

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 arrests	285	27.5	27.5	27.5
	1 arrest	134	12.9	12.9	40.4
	2 - 5 arrests	319	30.7	30.7	71.1
	6 - 10 arrests	165	15.9	15.9	87.0
	11 or more arrests	135	13.0	13.0	100.0
	Total	1038	100.0	100.0	