

[Commentary by [John F Hall](#)]

[New page 9 July 2018]

**John MacInnes**

**[An Introduction to Secondary Data Analysis with IBM SPSS Statistics](#)**

**(Sage, Dec. 2017)**

## **Chapter 4: Getting Started with SPSS**

### **Exercise video answer 8 (3'24")**

#### **Previous guides:**

[MacInnes 2017 Aide-mémoire for easier navigation of companion website](#)

[MacInnes 4.1.1 Overview of video tutorials 1 to 6](#)

[MacInnes 4.1.2 Downloading the European Social Survey Practice File](#)

[MacInnes 4.1.3 Downloading the SPSS syntax](#)

[MacInnes 4.1.4 Checking the SPSS files](#)

[MacInnes 4.1.5 Guide to video tutorials 7 and 8](#)

[MacInnes 4.1.6 Guide to video tutorial 9](#)

[MacInnes 4.1.7 Guide to video tutorials 10 and 11](#)

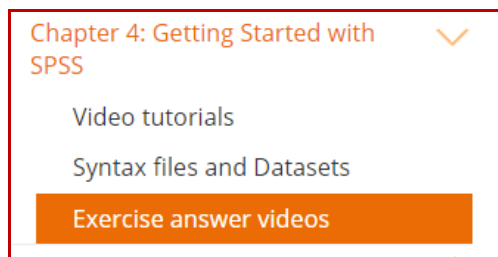
[MacInnes 4.1.8 Guide to video tutorial 12](#)

[MacInnes 4.2.1 Exercise answer videos 1-6](#)

[MacInnes 4.2.2 Exercise answer video 7](#)

#### **Chapter.4: [Exercise answer videos](#)**

[direct link to videos on companion site]



Extract from page 104:

8 What proportion of men and women have married by the time they are 30 years old across all the countries in the survey?

## Exercise video answer 8 (3'24")

### Exercise question 8

*What proportion of men and women have married by the time they are 30 years old across all the countries in the survey?*

JM explains that there are no data on age of marriage.

"Now, this question needs a little bit of thought." and so he suggests an indirect solution as the nearest approximation using a different question:

*What proportion of 30-year olds are, or have been, married?*

**Exemplar:** [ess6\\_practice.sav](#) (3.2 mb)

**Variables:** agea maritalb

**GUI icons:**

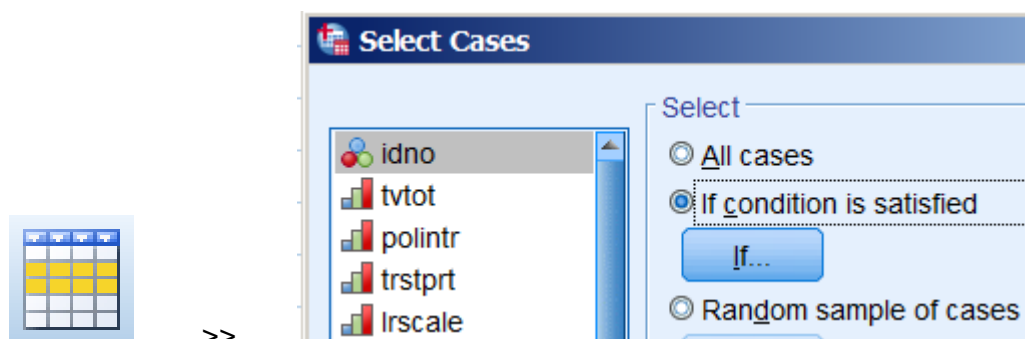


Select Cases



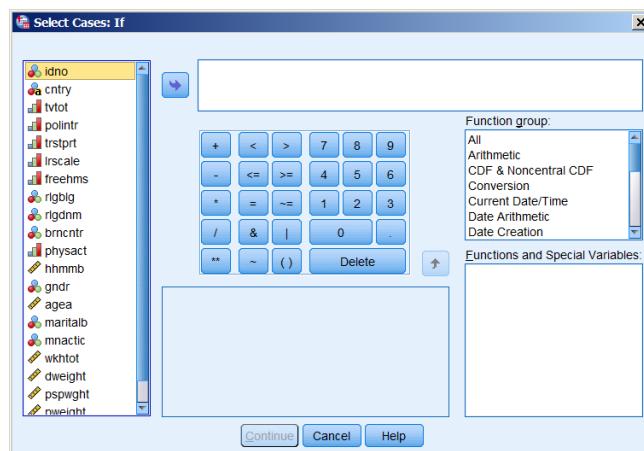
Weight cases

JM first uses the GUI to select cases aged 30:



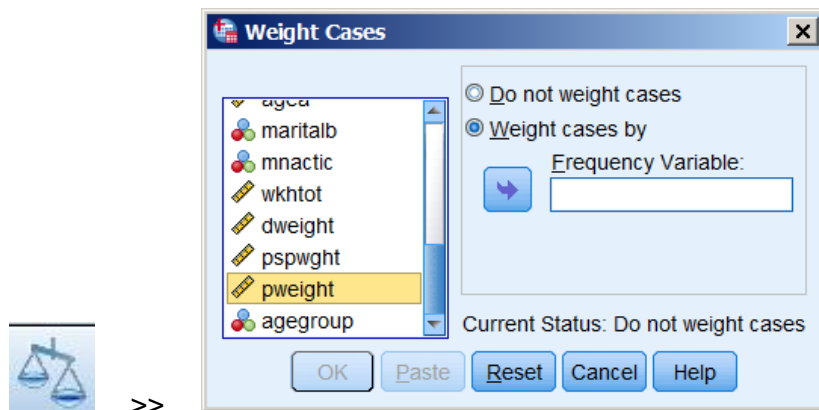
Clicks on **If**

.. and types in **age = 30**



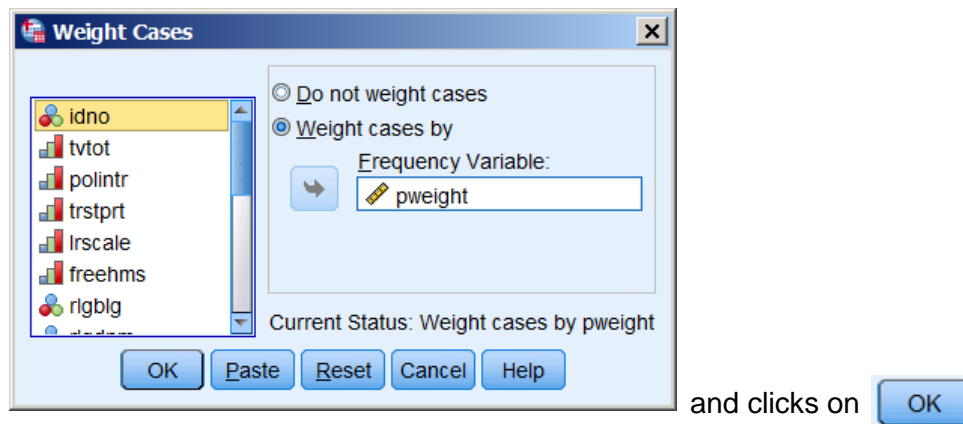
Clicks **Continue** then **OK**

He then uses the GUI to check that he has the correct weighting variable:



Scrolls down to **pweight** and clicks on  to transfer it to the **Frequency Variable** box:

[NB: slightly confusing box name: should it be renamed **Weighting Variable** ?]

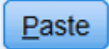


Types in syntax direct:

**freq maritalb.**

**Legal marital status, post coded**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Legally married	388	41.2	42.4	42.4
	In a legally registered civil union	9	1.0	1.0	43.4
	Legally separated	1	0.1	0.1	43.5
	Legally divorced/civil union dissolved	78	8.3	8.6	52.1
	Widowed/civil partner died	0	0.0	0.0	52.1
	None of these (NEVER married or in legally registered civil union)	439	46.6	47.9	100.0
	Total	916	97.2	100.0	
Missing	Refusal	9	1.0		
	Don't know	7	0.7		
	No answer	11	1.1		
	Total	26	2.8		
Total		942	100.0		

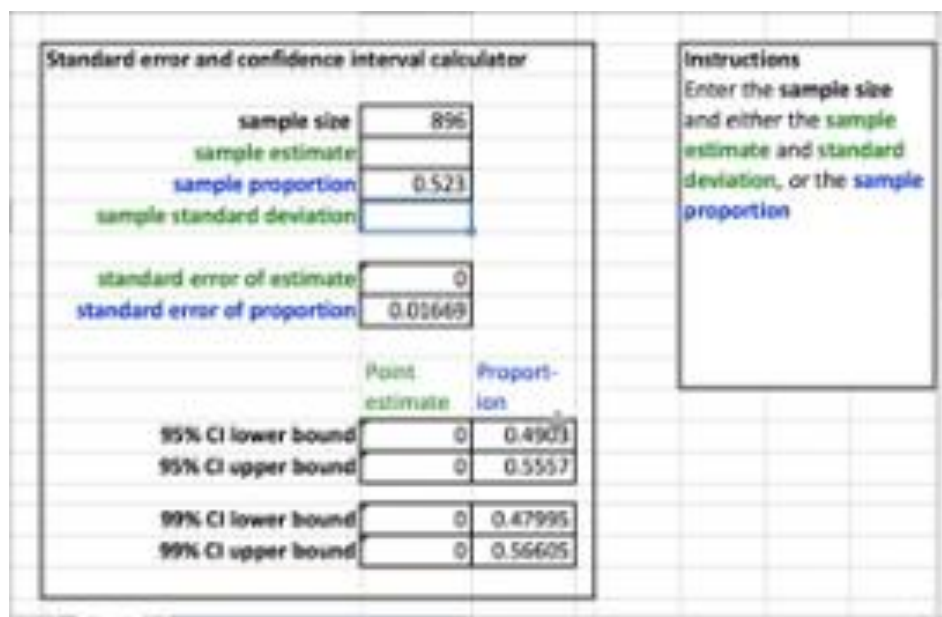
He does not use  to save the syntax for the selection, but the syntax appears in the video anyway:

```
WEIGHT by pweight ..  
COMPUTE filter_$=(agea = 30).  
VARIABLE LABELS filter_$ 'agea = 30 (FILTER)'.  
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.  
FORMATS filter_$ (f1.0).  
FILTER BY filter_$.  
EXECUTE.
```

To select cases for the above analysis is much easier and quicker in direct syntax:

```
temporary.  
select if (agea = 30).  
freq maritalb.
```

Goes into sampling variation on the estimate of the proportion ever married, but how does he arrive at this figure? Has he included civil unions as well? Yes, his proportion is derived from the 52.3% recorded as value 6 "None of these" ( $p = 0.523$ , subtracted from 1.0 to yield  $p = 0.477$ ). However, because the above table includes only people actually aged 30 ( $N = 812$ ) he opens a confidence interval calculator (which one?) and checks the confidence interval for such a relatively small sample.



Standard error and confidence interval calculator			
sample size	896		
sample estimate			
sample proportion	0.523		
sample standard deviation			
standard error of estimate	0		
standard error of proportion	0.03649		
	Point estimate	Proportion	
95% CI lower bound	0	0.4903	
95% CI upper bound	0	0.5557	
99% CI lower bound	0	0.47995	
99% CI upper bound	0	0.56605	

**Instructions**  
Enter the sample size and either the sample estimate and standard deviation, or the sample proportion

The table shows that we can be 95% confident that the true proportion lies somewhere between 49% and 55.5%, "so we have reasonable confidence in saying just over half of the people in the survey are, or had been, married by the time they were 30". Not the most riveting sociological finding, but demonstrates that the proportion is a **statistic** from a **sample**, not a **parameter** for a **population**.

End of: **Exercise video answer 8**

Back to: [MacInnes Chapter 4: Getting Started with SPSS](#)

Back to: [MacInnes \(2017\)](#)