

GUI Data Workshop – 9 month

Worksheet 2: Frequency and Crosstabs Exercises Using SPSS Menus

This document provides worked examples of some very basic commands which can be used to explore and analyse the GUI data using SPSS drop-down menus. The first example of each of the weighted frequencies and the weighted crosstabulations are accompanied with detailed screen shots of how to run the analysis using SPSS menus. You can then work through the rest of the examples (the appropriate output for each example is presented). Please note this worksheet is based on SPSS Version 17.

Exercise 1: Weighted frequencies

Frequencies are a very quick and simple way to obtain a descriptive overview of single or multiple variables allowing an assessment of the distribution of responses across the population

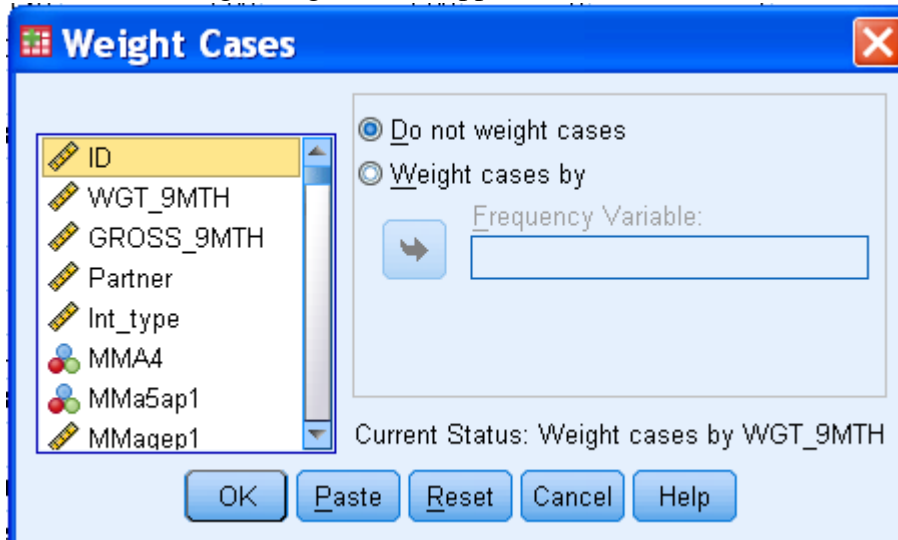
E.g. 1 –What proportion of nine-month-old infants were living in lone parent families?

1) First you will need to weight the data. Select Data → Weight Cases

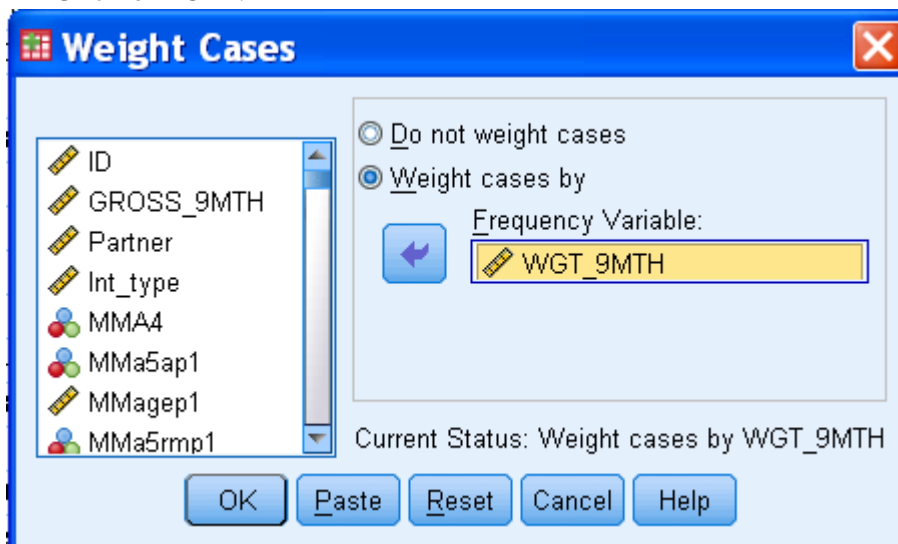
The screenshot shows the SPSS Data Editor window for the file '*GUI Data_9MonthCohort.sav [DataSet1]'. The 'Data' menu is open, and 'Weight Cases...' is highlighted. The data table in the background has the following structure:

| | MTH | Partner | Int_type | MMA4 | | |
|----|---------|---------|----------|------|------|---|
| 1 | 4.92 | .0 | 2.00 | 2 | | |
| 2 | 4.55 | 1.00 | 1.00 | 3 | | |
| 3 | 8.14 | 1.00 | 1.00 | 4 | | |
| 4 | 5.14 | 1.00 | 1.00 | 4 | | |
| 5 | 4.21 | .0 | 2.00 | 4 | | |
| 6 | 8.37 | 1.00 | 1.00 | 4 | | |
| 7 | 6.51 | 1.00 | 3.00 | 4 | | |
| 8 | 1.99 | .0 | 2.00 | 5 | | |
| 9 | 1.61 | 1.00 | 1.00 | 5 | | |
| 10 | 2.32 | 1.00 | 3.00 | 5 | | |
| 11 | 1.05 | .0 | 2.00 | 6 | | |
| 12 | 8.41 | 1.00 | 1.00 | 6 | | |
| 13 | 1.61 | 1.00 | 1.00 | 6 | | |
| 14 | 1.38 | 1.00 | 1.00 | 7 | | |
| 15 | .96 | .0 | 2.00 | 7 | | |
| 16 | 1600.00 | .18 | 1.21 | 1.00 | 1.00 | 7 |
| 17 | 1700.00 | .69 | 4.59 | 1.00 | 1.00 | 3 |
| 18 | 1800.00 | 1.25 | 8.29 | 1.00 | 1.00 | 3 |
| 19 | 1900.00 | 1.69 | 11.19 | 1.00 | 1.00 | 3 |
| 20 | 2000.00 | .99 | 6.52 | .0 | 2.00 | 3 |
| 21 | 2100.00 | .89 | 5.92 | 1.00 | 3.00 | 4 |
| 22 | 2200.00 | .68 | 4.49 | .0 | 2.00 | 4 |
| 23 | 2300.00 | 1.09 | 7.22 | .0 | 2.00 | 4 |
| 24 | 2400.00 | .54 | 3.59 | 1.00 | 1.00 | 4 |
| 25 | 2500.00 | .23 | 1.53 | 1.00 | 1.00 | 4 |
| 26 | 2600.00 | .39 | 2.56 | .0 | 2.00 | 5 |
| 27 | 2700.00 | .35 | 2.30 | 1.00 | 1.00 | 5 |

2) The following dialog box will appear.



3) Click on 'Weight cases by'. Browse through the list of variables on the left and highlight the one you want ('WGT_9MTH') and click on the arrow in the middle. Click on 'OK'.

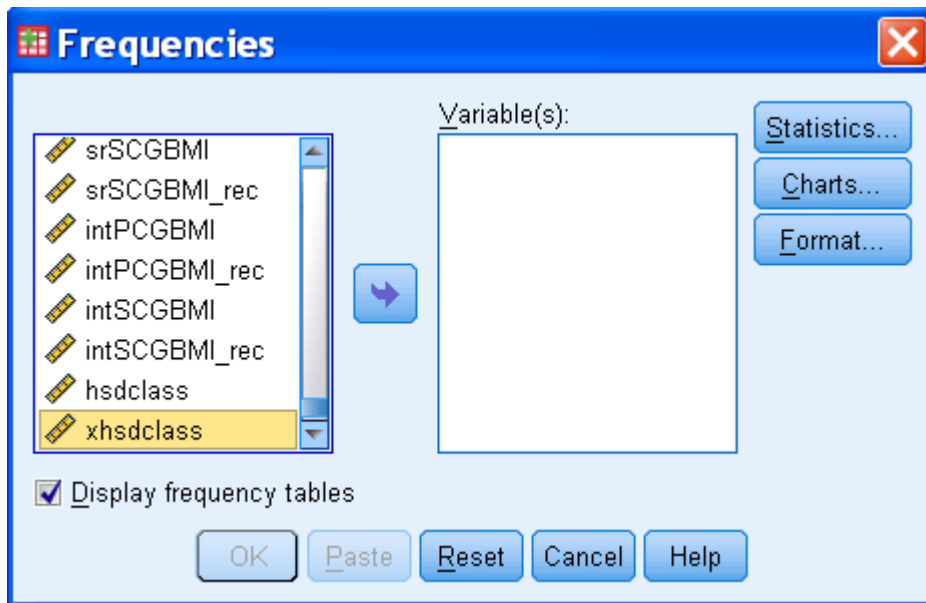


4) To run the frequency, select Analyze → Descriptive Statistics → Frequencies

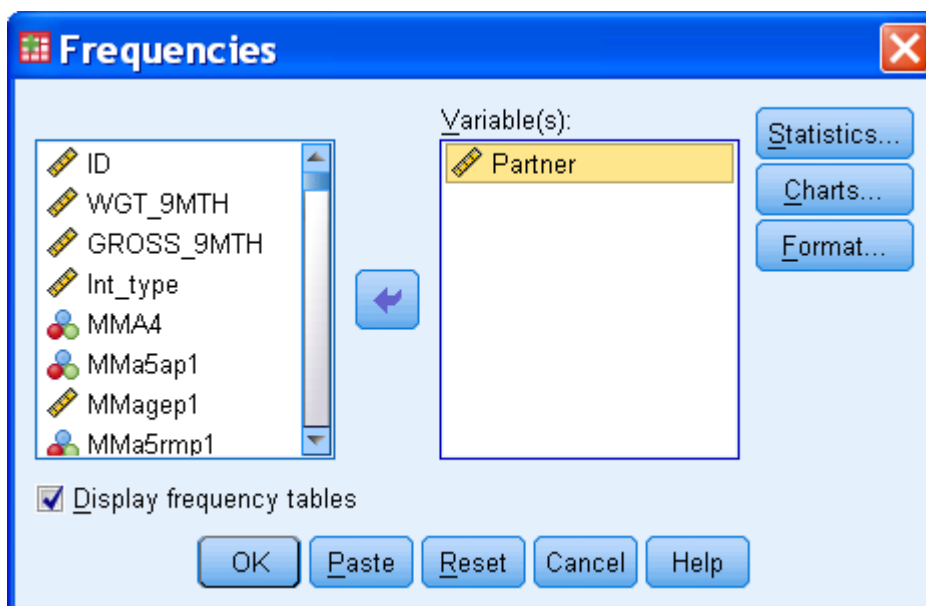
The screenshot shows the SPSS Statistics Data Editor interface. The menu path 'Analyze > Descriptive Statistics > Frequencies' is highlighted. The data table below shows the following columns: ID, WGT, and MMA4. The data rows are numbered 1 through 27.

| ID | WGT | MMA4 | |
|----|---------|------|-------|
| 1 | 100.00 | | |
| 2 | 200.00 | | |
| 3 | 300.00 | | |
| 4 | 400.00 | | |
| 5 | 500.00 | | |
| 6 | 600.00 | | |
| 7 | 700.00 | | |
| 8 | 800.00 | | |
| 9 | 900.00 | | |
| 10 | 1000.00 | | |
| 11 | 1100.00 | | |
| 12 | 1200.00 | | |
| 13 | 1300.00 | | |
| 14 | 1400.00 | | |
| 15 | 1500.00 | | |
| 16 | 1600.00 | | |
| 17 | 1700.00 | | |
| 18 | 1800.00 | | |
| 19 | 1900.00 | 1.69 | 11.19 |
| 20 | 2000.00 | .99 | 6.52 |
| 21 | 2100.00 | .89 | 5.92 |
| 22 | 2200.00 | .68 | 4.49 |
| 23 | 2300.00 | 1.09 | 7.22 |
| 24 | 2400.00 | .54 | 3.59 |
| 25 | 2500.00 | .23 | 1.53 |
| 26 | 2600.00 | .39 | 2.56 |
| 27 | 2700.00 | .35 | 2.30 |

5) The following dialog box will appear:



6) Browse through the list of variables on the left and highlight the one(s) you want ('Partner') and click on the arrow in the middle.



7) Click 'OK' and the output will show you the frequency table for that variable.

Partner Partner in household

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------------|-----------|---------|---------------|--------------------|
| Valid | .00 No partner | 1645 | 14.8 | 14.8 | 14.8 |
| | 1.00 Has partner | 9489 | 85.2 | 85.2 | 100.0 |
| | Total | 11134 | 100.0 | 100.0 | |

E.g. 2 – What proportion of nine-month-old infants are in some form of non-parental childcare?

The output should be:

MME1 E1. Is baby currently being minded by someone else

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 1 Yes | 4338 | 39.0 | 39.0 | 39.0 |
| | 2 No | 6796 | 61.0 | 61.0 | 100.0 |
| | Total | 11134 | 100.0 | 100.0 | |

E.g. 3 – What proportion of primary caregivers are satisfied with their childcare arrangements?

The output should be:

MME10a E10a. How satisfied are you with these arrangements?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|--------------------------------------|-----------|---------|---------------|--------------------|
| Valid | 1 Very satisfied | 3745 | 33.6 | 86.5 | 86.5 |
| | 2 Fairly satisfied | 498 | 4.5 | 11.5 | 98.0 |
| | 3 Neither satisfied nor dissatisfied | 52 | .5 | 1.2 | 99.2 |
| | 4 Fairly dissatisfied | 29 | .3 | .7 | 99.9 |
| | 5 Very dissatisfied | 6 | .1 | .1 | 100.0 |
| | Total | 4330 | 38.9 | 100.0 | |
| Missing | 9 Don't Know | 8 | .1 | | |
| | System | 6796 | 61.0 | | |
| | Total | 6804 | 61.1 | | |
| Total | | 11134 | 100.0 | | |

E.g. 4 – What proportion of nine-month-old infants have siblings?

The output should be:

MMF0 F0. Does baby have brothers/sisters living in this household?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 1 yes | 6579 | 59.1 | 59.1 | 59.1 |
| | 2 no | 4555 | 40.9 | 40.9 | 100.0 |
| | Total | 11134 | 100.0 | 100.0 | |

E.g. 5 – What proportion of primary caregivers took folic acid prior to becoming pregnant?

The output should be:

MMG11a G11a. Folic acid/Folate - prior to becoming pregnant with baby?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|--------------|-----------|---------|---------------|--------------------|
| Valid | 1 Yes | 6936 | 62.3 | 63.7 | 63.7 |
| | 2 No | 3959 | 35.6 | 36.3 | 100.0 |
| | Total | 10895 | 97.9 | 100.0 | |
| Missing | 9 Don't Know | 190 | 1.7 | | |
| | System | 49 | .4 | | |
| | Total | 239 | 2.1 | | |
| Total | | 11134 | 100.0 | | |

E.g. 6 – What proportion of nine-month-old infants were ever breastfed?

The output should be:

MMH13 H13a. Was baby ever breastfed?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|--------------|-----------|---------|---------------|--------------------|
| Valid | 1 Yes | 6231 | 56.0 | 56.0 | 56.0 |
| | 2 No | 4901 | 44.0 | 44.0 | 100.0 |
| | Total | 11131 | 100.0 | 100.0 | |
| Missing | 9 Don't Know | 3 | .0 | | |
| Total | | 11134 | 100.0 | | |

E.g. 7 – How do primary caregivers describe their current health?

The output should be:

MMJ1 J1. In general, how would you say your current health is?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|--------------|-----------|---------|---------------|-----------------------|
| Valid | 1 Excellent | 3410 | 30.6 | 30.6 | 30.6 |
| | 2 Very good | 4336 | 38.9 | 38.9 | 69.6 |
| | 3 Good | 2600 | 23.4 | 23.4 | 92.9 |
| | 4 Fair | 687 | 6.2 | 6.2 | 99.1 |
| | 5 Poor | 100 | .9 | .9 | 100.0 |
| | Total | 11133 | 100.0 | 100.0 | |
| Missing | 9 Don't Know | 1 | .0 | | |
| Total | | 11134 | 100.0 | | |

E.g. 8 – What was the highest level of education completed by primary caregivers?

The output should be:

MML34 L34. Highest level of education which you have completed?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|--|-----------|---------|---------------|--------------------|
| Valid | 1 No formal education | 22 | .2 | .2 | .2 |
| | 2 Primary education | 374 | 3.4 | 3.4 | 3.6 |
| | 3 Lower secondary | 1559 | 14.0 | 14.0 | 17.6 |
| | 4 Upper secondary | 2806 | 25.2 | 25.2 | 42.8 |
| | 5 Technical or vocational qualification | 456 | 4.1 | 4.1 | 46.9 |
| | 6 Both upper secondary and Technical or Vocational qualification | 451 | 4.1 | 4.1 | 51.0 |
| | 7 Non Degree | 2205 | 19.8 | 19.8 | 70.8 |
| | 8 Primary Degree | 959 | 8.6 | 8.6 | 79.4 |
| | 9 Professional qualification (of Degree status at least) | 372 | 3.3 | 3.3 | 82.8 |
| | 10 Both a Degree and a Professional qualification | 621 | 5.6 | 5.6 | 88.3 |
| | 11 Postgraduate Certificate or Diploma | 766 | 6.9 | 6.9 | 95.2 |
| | 12 Postgraduate Degree (Masters) | 468 | 4.2 | 4.2 | 99.4 |
| | 13 Doctorate | 62 | .6 | .6 | 100.0 |
| Total | 11123 | 99.9 | 100.0 | | |
| Missing | 99 Don't Know | 11 | .1 | | |
| Total | | 11134 | 100.0 | | |

E.g. 9 – What was the highest level of education completed by secondary caregivers?

The output should be:

FF13 F13. What is the highest level of education which you have completed?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|--|-----------|---------|---------------|--------------------|
| Valid | 1 No formal education | 24 | .2 | .3 | .3 |
| | 2 Primary education | 228 | 2.0 | 2.7 | 3.0 |
| | 3 Lower secondary | 1308 | 11.8 | 15.5 | 18.5 |
| | 4 Upper secondary | 1644 | 14.8 | 19.5 | 38.1 |
| | 5 Technical or vocational qualification | 939 | 8.4 | 11.2 | 49.2 |
| | 6 Both upper secondary and Technical or Vocational qualification | 379 | 3.4 | 4.5 | 53.7 |
| | 7 Non Degree | 1390 | 12.5 | 16.5 | 70.2 |
| | 8 Primary Degree | 924 | 8.3 | 11.0 | 81.2 |
| | 9 Professional qualification (of Degree status at least) | 283 | 2.5 | 3.4 | 84.6 |
| | 10 Both a Degree and a Professional qualification | 382 | 3.4 | 4.5 | 89.1 |
| | 11 Postgraduate Certificate or Diploma | 314 | 2.8 | 3.7 | 92.8 |
| | 12 Postgraduate Degree (Masters) | 534 | 4.8 | 6.3 | 99.2 |
| | 13 Doctorate | 69 | .6 | .8 | 100.0 |
| Total | 8418 | 75.6 | 100.0 | | |
| Missing | 99 Don't Know | 11 | .1 | | |
| | System | 2705 | 24.3 | | |
| | Total | 2716 | 24.4 | | |
| Total | 11134 | 100.0 | | | |

E.g. 10 – What proportion secondary caregivers felt that they had missed out on home or family activities because of their work?

The output should be:

FE2a E2a. Missed out on home or family activities

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|------------------------------|-----------|---------|---------------|--------------------|
| Valid | 1 Strongly disagree | 1022 | 9.2 | 12.2 | 12.2 |
| | 2 Disagree | 2587 | 23.2 | 30.7 | 42.9 |
| | 3 Neither agree nor disagree | 573 | 5.1 | 6.8 | 49.7 |
| | 4 Agree | 2799 | 25.1 | 33.3 | 83.0 |
| | 5 Strongly agree | 782 | 7.0 | 9.3 | 92.3 |
| | 6 Not applicable | 650 | 5.8 | 7.7 | 100.0 |
| | Total | 8412 | 75.6 | 100.0 | |
| Missing | 9 Don't Know | 15 | .1 | | |
| | System | 2707 | 24.3 | | |
| | Total | 2722 | 24.4 | | |
| Total | | 11134 | 100.0 | | |

Exercise 2: Weighted crosstabulations

Crosstabulations are another quick and simple way to get descriptive results from the data. Crosstabs permit the comparison of responses across different groups of children or families.

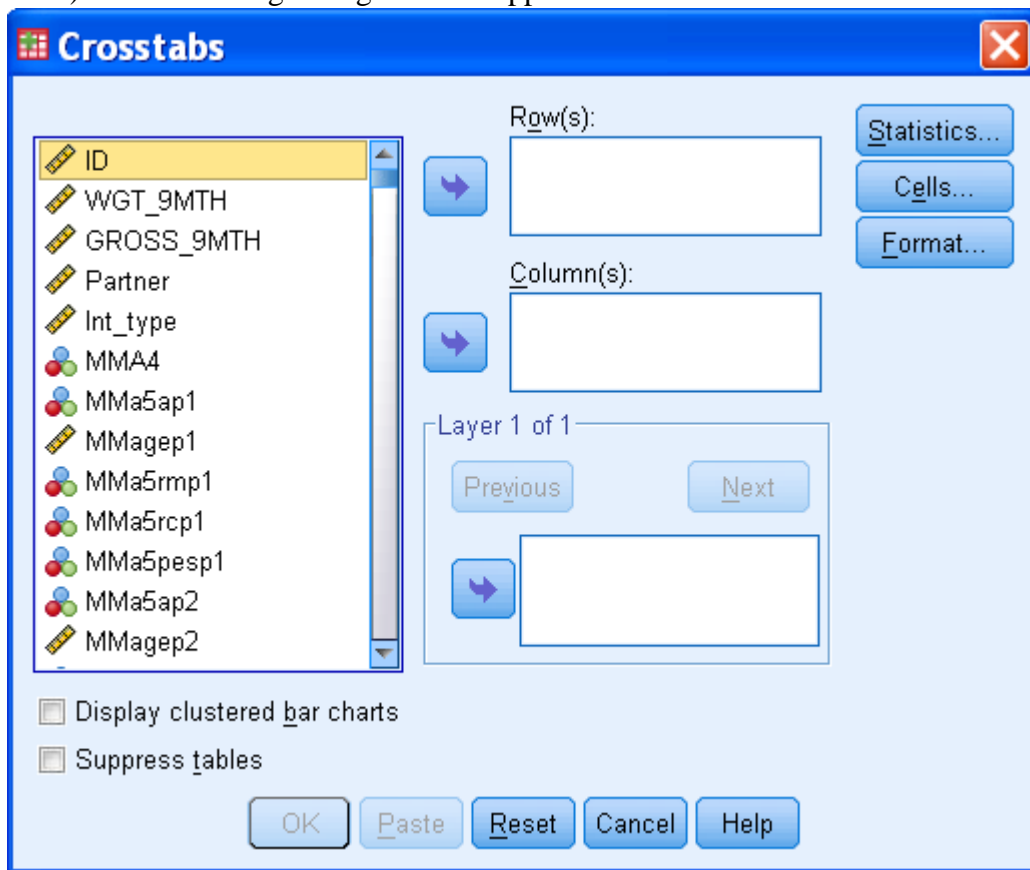
E.g. 1 – How did breastfeeding vary across family social class?.

1) Select Analyze → Descriptive Statistics → Crosstabs

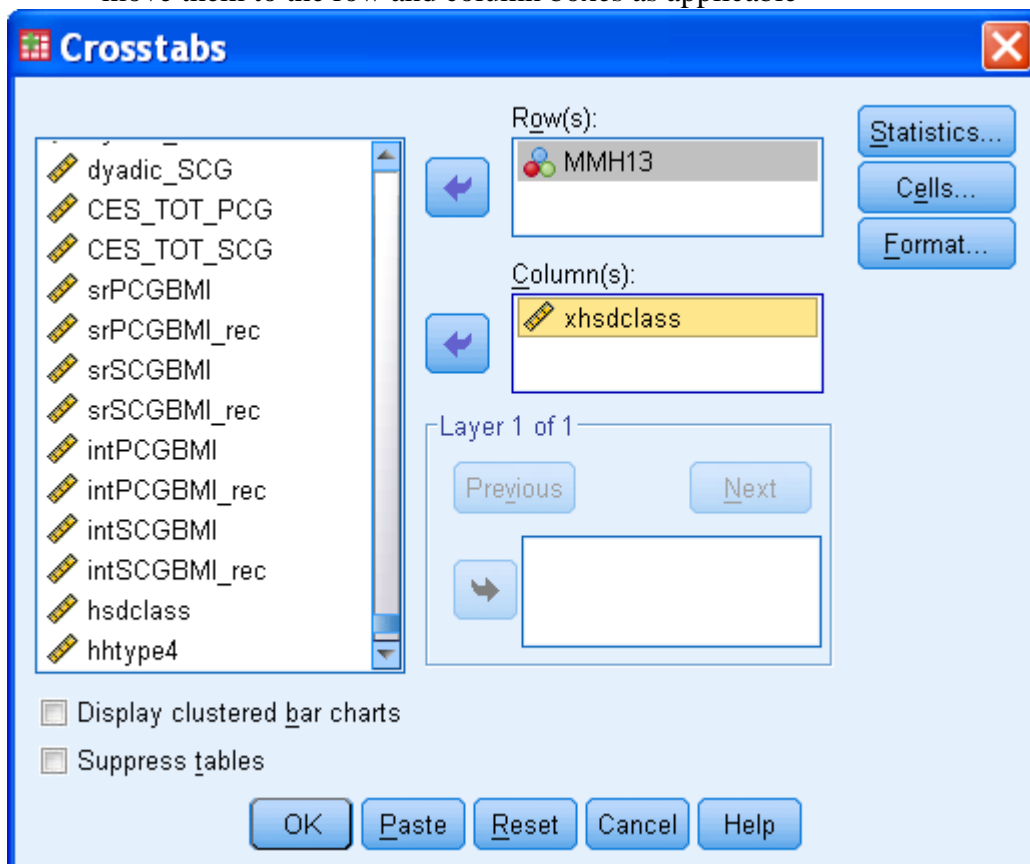
The screenshot shows the SPSS Statistics Data Editor interface. The menu path 'Analyze > Descriptive Statistics > Crosstabs' is highlighted. The background data table is as follows:

| ID | WGT | MMA4 |
|----|---------|------|
| 1 | 100.00 | 2 |
| 2 | 200.00 | 3 |
| 3 | 300.00 | 4 |
| 4 | 400.00 | 4 |
| 5 | 500.00 | 4 |
| 6 | 600.00 | 4 |
| 7 | 700.00 | 4 |
| 8 | 800.00 | 5 |
| 9 | 900.00 | 5 |
| 10 | 1000.00 | 5 |
| 11 | 1100.00 | 6 |
| 12 | 1200.00 | 6 |
| 13 | 1300.00 | 6 |
| 14 | 1400.00 | 7 |
| 15 | 1500.00 | 7 |
| 16 | 1600.00 | 7 |
| 17 | 1700.00 | 7 |
| 18 | 1800.00 | 3 |
| 19 | 1900.00 | 3 |
| 20 | 2000.00 | 3 |
| 21 | 2100.00 | 4 |
| 22 | 2200.00 | 4 |
| 23 | 2300.00 | 4 |
| 24 | 2400.00 | 4 |
| 25 | 2500.00 | 4 |
| 26 | 2600.00 | 5 |
| 27 | 2700.00 | 5 |

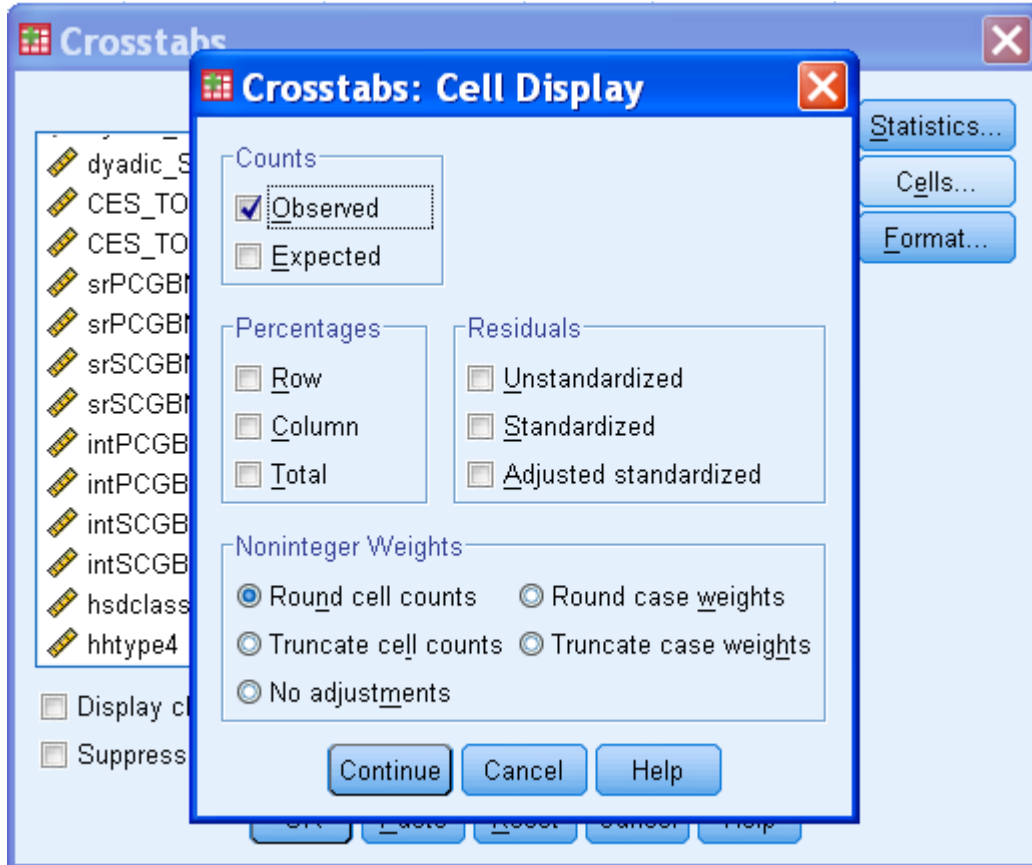
2) The following dialog box will appear.



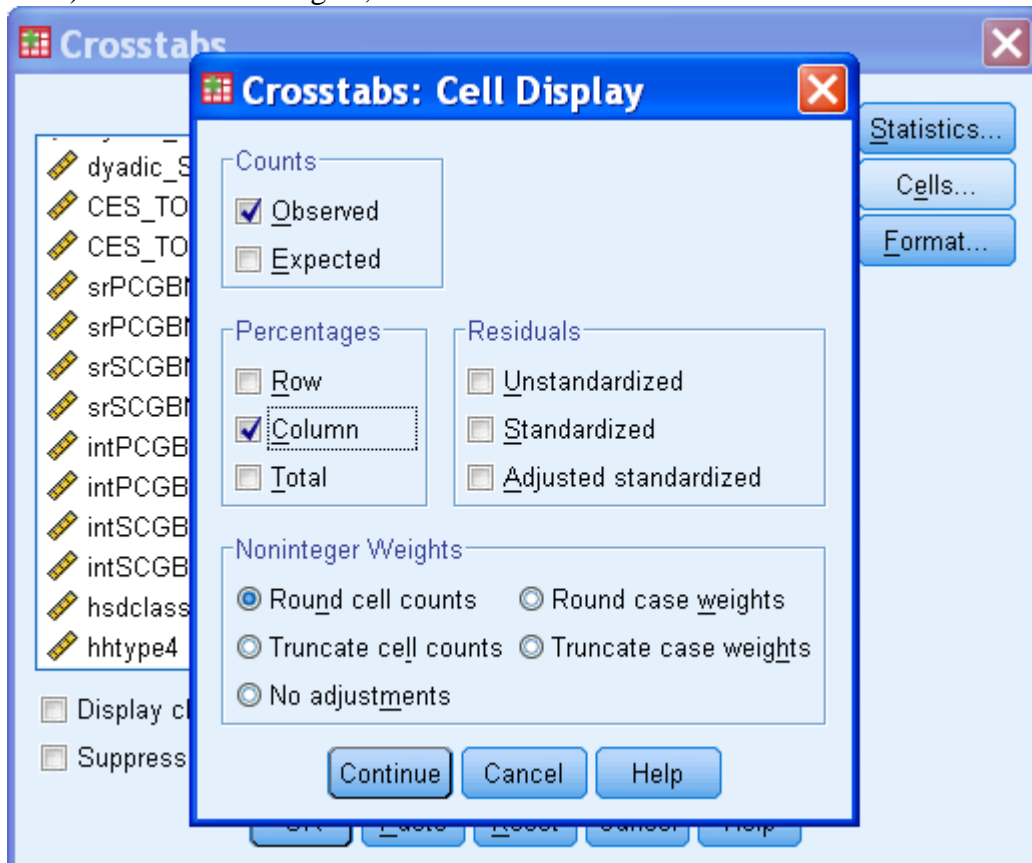
3) As before browse and highlight the variables you want to cross-reference and move them to the row and column boxes as applicable



4) Select 'Cells' and the following dialog box will appear



5) Under 'Percentages', click column



6) Click 'Continue' and then 'OK' and you will get the following output:

MMH13 H13a. Was baby ever breastfed? * xhsdclass Family's social class - 3 fold category Crosstabulation

| | | | xhsdclass Family's social class - 3 fold category | | | | | Total |
|--|-------|--|---|---|--|---|---|--------|
| | | | 1.00 Professional/ managerial | 2.00 Other non- manual/skille d-manual | 3.00 Semi- skilled/unskill ed manual | 7.00 All others gainfully occupied and unknown | 8.00 Never worked at all - no class | |
| MMH13 H13a. Was baby ever breastfed? | 1 Yes | Count | 3572 | 1764 | 542 | 31 | 322 | 6231 |
| | | % within xhsdclass Family's social class - 3 fold category | 66.9% | 48.4% | 49.7% | 54.4% | 32.1% | 56.0% |
| | 2 No | Count | 1766 | 1879 | 548 | 26 | 680 | 4899 |
| | | % within xhsdclass Family's social class - 3 fold category | 33.1% | 51.6% | 50.3% | 45.6% | 67.9% | 44.0% |
| Total | | Count | 5338 | 3643 | 1090 | 57 | 1002 | 11130 |
| | | % within xhsdclass Family's social class - 3 fold category | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

E.g. 2 – How did nine-month-old infant’s current health status vary across the gender of the Study Child?.

The output should be:

MMH20b H20. In general, how would you describe baby s current health? * MMa5ap2 Gender P2 Crosstabulation

| | | | MMa5ap2 Gender P2 | | Total |
|---|-------------------------------------|----------------------------|-------------------|----------|--------|
| | | | 1 male | 2 female | |
| MMH20b H20. In general, how would you describe baby s current health? | 1 Very healthy, no problems | Count | 4634 | 4563 | 9197 |
| | | % within MMa5ap2 Gender P2 | 81.4% | 84.5% | 82.9% |
| | 2 Healthy, but a few minor problems | Count | 983 | 786 | 1769 |
| | | % within MMa5ap2 Gender P2 | 17.3% | 14.6% | 15.9% |
| | 3 Sometimes quite ill | Count | 61 | 47 | 108 |
| | | % within MMa5ap2 Gender P2 | 1.1% | .9% | 1.0% |
| | 4 Almost always unwell | Count | 14 | 5 | 19 |
| | | % within MMa5ap2 Gender P2 | .2% | .1% | .2% |
| Total | | Count | 5692 | 5401 | 11093 |
| | | % within MMa5ap2 Gender P2 | 100.0% | 100.0% | 100.0% |

E.g. 3 – How did the primary caregiver’s health status vary by family income?.

The output should be:

MMJ1 J1. In general, how would you say your current health is? * EIncQuin Equivalised Household Annual Income - Quintiles

Crosstabulation

| | | | EIncQuin Equivalised Household Annual Income - Quintiles | | | | | Total |
|--|---|---|--|----------|----------|----------|--------------|-------|
| | | | 1.00 Lowest | 2.00 2nd | 3.00 3rd | 4.00 4th | 5.00 Highest | |
| MMJ1 J1. In general, how would you say your current health is? | 1 Excellent | Count | 517 | 558 | 602 | 770 | 720 | 3167 |
| | | % within EIncQuin Equivalised Household Annual Income - Quintiles | 25.2% | 27.0% | 29.2% | 34.5% | 38.1% | 30.7% |
| | 2 Very good | Count | 717 | 794 | 833 | 922 | 778 | 4044 |
| | | % within EIncQuin Equivalised Household Annual Income - Quintiles | 34.9% | 38.4% | 40.4% | 41.3% | 41.1% | 39.2% |
| | 3 Good | Count | 598 | 542 | 481 | 439 | 321 | 2381 |
| | | % within EIncQuin Equivalised Household Annual Income - Quintiles | 29.1% | 26.2% | 23.3% | 19.7% | 17.0% | 23.1% |
| 4 Fair | Count | 190 | 143 | 129 | 93 | 67 | 622 | |
| | % within EIncQuin Equivalised Household Annual Income - Quintiles | 9.3% | 6.9% | 6.3% | 4.2% | 3.5% | 6.0% | |
| 5 Poor | Count | 32 | 32 | 15 | 9 | 6 | 94 | |
| | % within EIncQuin Equivalised Household Annual Income - Quintiles | 1.6% | 1.5% | .7% | .4% | .3% | .9% | |
| Total | Count | 2054 | 2069 | 2060 | 2233 | 1892 | 10308 | |
| | % within EIncQuin Equivalised Household Annual Income - Quintiles | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

E.g. 4 – How did use of non-parental childcare vary across family type?.

The output should be:

MME1 E1. Is baby currently being minded by someone else * hhtype4 4 Category Household Type Crosstabulation

| | | | hhtype4 4 Category Household Type | | | | Total |
|--|-------|--|--|--|---|---|--------|
| | | | 1.00 One parent 1 child under 18 years | 2.00 One parent 2 or more children under 18 years | 3.00 Two parents 1 child under 18 years | 4.00 Two parents 2 or more children under 18 years | |
| MME1 E1. Is baby currently being minded by someone else | 1 Yes | Count | 309 | 295 | 1771 | 1963 | 4338 |
| | | % within hhtype4 4 Category Household Type | 38.2% | 35.2% | 49.1% | 33.4% | 39.0% |
| | 2 No | Count | 499 | 542 | 1837 | 3917 | 6795 |
| | | % within hhtype4 4 Category Household Type | 61.8% | 64.8% | 50.9% | 66.6% | 61.0% |
| Total | | Count | 808 | 837 | 3608 | 5880 | 11133 |
| | | % within hhtype4 4 Category Household Type | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

E.g. 5 – How did the primary caregiver's rating of how safe it was to walk alone in their area after dark vary by urban/rural classification?.

The output should be:

MMM3a M3a. Local area - Safe to walk alone in this area after dark * region Region - Rural/Urban Crosstabulation

| | | | region Region - Rural/Urban | | Total |
|--|--------------------------------------|--------------------------------------|-----------------------------|------------|-------|
| | | | 1.00 Urban | 2.00 Rural | |
| MMM3a M3a. Local area - Safe to walk alone in this area after dark | 1 Strongly agree | Count | 819 | 1494 | 2313 |
| | | % within region Region - Rural/Urban | 16.2% | 24.9% | 20.9% |
| | 2 Agree | Count | 2859 | 3027 | 5886 |
| | | % within region Region - Rural/Urban | 56.7% | 50.3% | 53.2% |
| | 3 Disagree | Count | 1083 | 1150 | 2233 |
| | | % within region Region - Rural/Urban | 21.5% | 19.1% | 20.2% |
| | 4 Strongly disagree | Count | 283 | 341 | 624 |
| | | % within region Region - Rural/Urban | 5.6% | 5.7% | 5.6% |
| Total | Count | 5044 | 6012 | 11056 | |
| | % within region Region - Rural/Urban | 100.0% | 100.0% | 100.0% | |