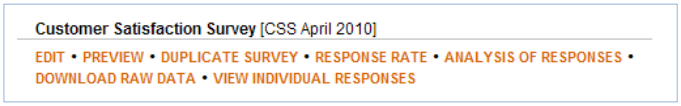
Demographix for Beginners 2

What is this? *One of three short documents that let new users get up-to-speed FAST with building complex surveys; creating in-depth reports using filters and crosstabs of data; and then moving on to easy-to-use panel management and email creation to get better responses from mailing lists. The documents in this series are: 1. Survey Building Essentials; 2. Analysis & Reporting Essentials; and 3. Email & Panel Management Essentials*

Analysis & Reporting Essentials:

1. Data analysis options:

Intro: Once a survey has started to collect data a full set of data analysis options are available to you. Surveys don't need to be closed to responses for you to analyse data, though you may want to wait for a cut-off point and close the survey to responses before you start analysing. The analysis options are shown beneath the survey title in the main workspace area, *as shown at right*.

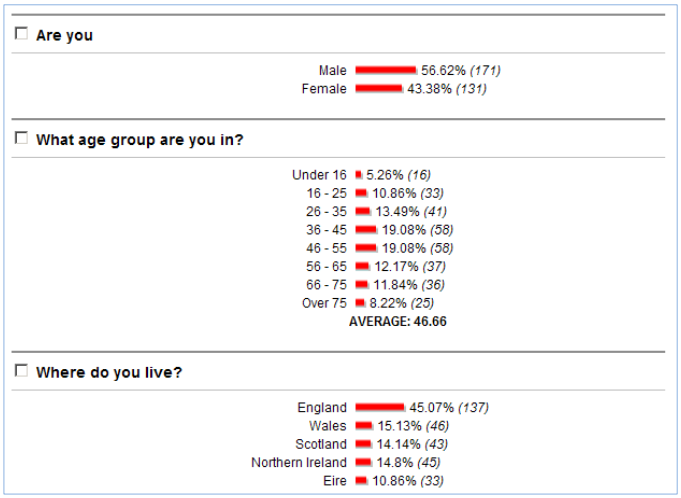


Hot tip: If you are using a colleague or client log-in, you may not have a full set of analysis options as shown above. If any are missing, contact the person who gave you permission to view the survey and ask that you be given access to the relevant tool.

There are four key response and data analysis tools available to you for each survey (as listed above). These are:

a. Response Rate: Click on this option and a response measurement tool appears as a pop-up. The default page is a view of the number of responses received, showing tallies for each day that responses have been received, alongside a cumulative total for the survey. Note that you can change your local time zone (the default is the user's timezone).

b. Analysis of Responses: This is your main analysis interface, showing an overview of all the questions in your survey and how respondents replied in handy bar chart format. There are three main tools to use on this data: you can change how the data is displayed (numbers, percentages or both) and how percentages are calculated (nett or gross); secondly, you can filter the data depending on responses to certain question(s); and thirdly you can create crosstabs. All of these applied analytics can then be downloaded in Excel reports.



Hot tip: *As shown at right*, you can see three basic demographic questions with their responses, taken from an example survey. By asking these core questions, the data analyst is allowing for a variety of outcomes – permitting them to cut the data by sex, age bands or location, and a variety of combinations of these. For example, you could filter all respondents who were Scottish males under 45.

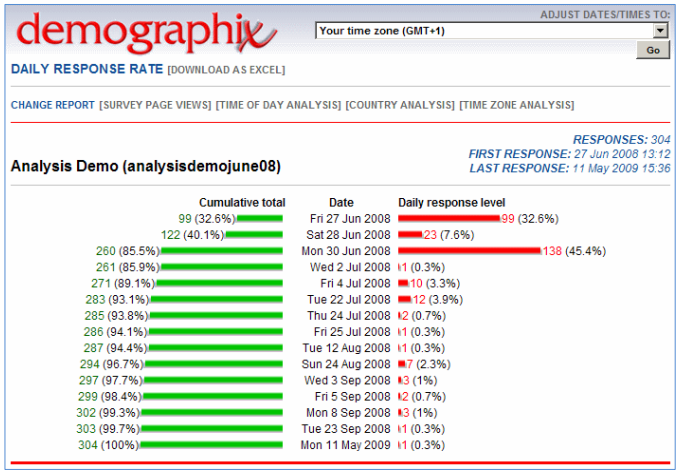
c. Download Raw Data: Allows you to download a file containing all the data gathered in the survey, in a variety of formats (Excel, CSV, etc), and also export to files for use with other software (such as SPSS). Among the many features available, data can be filtered before download, or random selections taken, or selections based on specified IDs.

d. View Individual Responses: A handy pop-up tool that lets you view all of your survey responses (or a selection) one at a time, so you can see how the overall survey was responded to by individual respondents. This is very easy-to-use, offering a simple three-step process, and a skip-arrow interface for toggling between responses.

Now let's look at the main response report and analysis tools individually in further depth:

2. Response Rate:

Here you can monitor response rates dynamically as responses are submitted. We show daily response levels and cumulative totals. Click on "Survey Page Views" and you'll see a bar chart showing the names of each page in your survey and the number of times it was viewed. Note that if a page is conditional it will have a C icon next to it – obviously this is likely to have fewer page views than a non-conditional page. Also, note that if someone goes back to review a page this will increase the count for a page. You can expect "spikes" in your response levels when you send out reminder emails or promote a survey in another medium (particularly a website or printed material). "Time of Day Analysis" can give good feedback on the best times for sending out emails – maybe your respondents have shown they prefer to answer surveys in the period 4-6pm. Send out your reminder emails at 3pm. Note the dropdown menu at top of this report page, allowing you to change the time zone to your local time if you are working outside of GMT. "Country Analysis" lists all the countries where respondents have submitted from (based on IP address), and "Time Zone Analysis" shows a graphical representation of respondents by time zone.



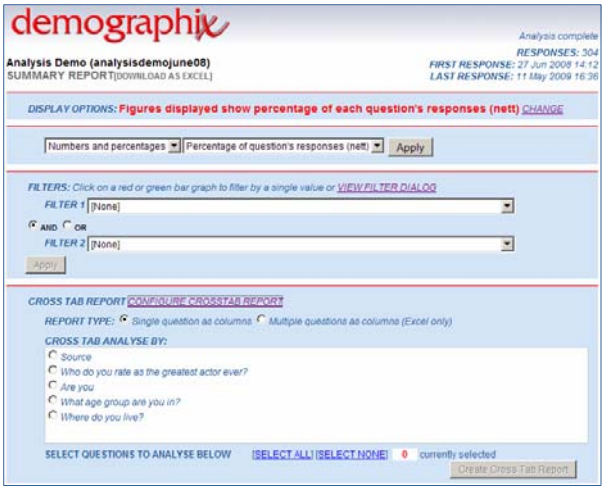
All of these individual response reports can be downloaded as a .xls file using the DOWNLOAD AS EXCEL option at top.

Hot tip: In the Survey Page Views, be alert for a sudden drop in response levels between two pages. This could be the result of many things – for instance, if respondents have been frustrated by the questions on the page and given up on the survey, or if they have come to a "blank page" – an error caused by having only conditional questions on a page, and the respondent not having fulfilled the criteria to view the questions. *Blank pages are easily solved at the testing stage by making the page conditional, not the individual questions on it.* The main way to safeguard against these problems is to thoroughly test your survey at the design phase, using the Update and Preview option as frequently as possible.

3. Analysis of Responses:

This is the main analysis and reporting tool within Demographix, and there's a lot of hidden power in it. The report shows all of the questions in your survey, with bar charts showing responses to questions, or in the case of Write-Ins a View option next to the text of each write-in. Click on the View option and you can see all the write-in (or verbatim) responses that have been submitted. You can download an Excel version of the full report by using the link at the top of the report.

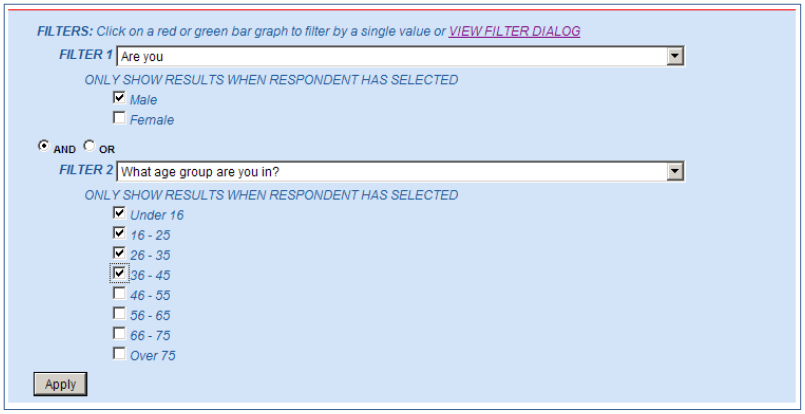
If you wish to change the **Display Options**, then this is the first of the three "data crunching" tools shown at the top of the report (the others are Filters and Cross Tab Reports – *see right*). Clicking the "Change" link in the "Display Options" row will enable two dropdown menus below. The first lets you choose what is displayed (you can view Numbers, Percentages or Both), and the second allows you to select a Nett or Gross calculation for the percentages used in the report (*see Hot Tip below*). Select your choices and click the Apply button. Once applied, your new display options will be reflected in the Excel file to download.



Hot tip: Nett and Gross figures are very different things indeed! ***Nett percentages*** are calculated using the total number of respondents to each individual question (or row in a matrix question), while ***Gross percentages*** are based on the total number of survey respondents. These can give very different figures – especially conditional questions that are shown to only a

subset of respondents. For example, a survey was completed by 25% women and 75% men, and a compulsory question was shown to only the women, who answered 50% Yes and 50% No to this question. The Nett percentage would be 50% answered Yes (of those who answered that question), while a Gross percentage would be 12.5% Yes (of the total respondents to the survey – i.e. 50% of the 25% women). They are very different figures – so be careful to analyse data and use stats precisely.

The second of our data crunching tools is the **Filters** option. Click on the "View Filter Dialog" option in the Filters row and the filtering options are displayed. These allow you to cut the data so that you can filter out sub-groups of respondents to analyse how they responded as a group. In the *example shown below*, we have selected two questions from our survey (all the questions in the survey that can be used as filters are shown in the drop down lists). Then we tick the answers we want to include in this filter group. In this case, Males AND all those who selected age bands under 45. Click Apply, and Demographix will dynamically *filter out* all the responses who *did not* meet these criteria. This leaves only data from respondents who met these specified criteria. You can then view the results on-screen or download this new filtered report as an Excel file.



Hot tip: Note the **AND** and the **OR** logic operators in the example shown. These give entirely different results. The use of the AND operator says that we must filter out all those who answered Male **AND also** answered one of the four age ranges. If we'd used the OR operator, we would have got a subset comprising all who had answered MALE (i.e. ALL the men in ALL the age groups) **combined with** all those who had answered the four age groups (i.e. including the female respondents in those age groups). Judicious use of these logic operators is called for at all times!

The third data crunching tool is the **Crosstab Report** option. This allows you to view all of the response data broken down by how respondents answered one (or more) of the specific questions in the survey. For example, you may want to see how respondents' answers differed according to the regions they live in. Click on the "Configure Crosstab Report" option in the third row and the crosstab toolset is shown. You first need to decide if you want to crosstab on a single question or several questions. In most cases you will need to do this for a single question. Demographix allows you to display the results for a single question crosstab within the browser, but due to display limitations in browsers, it will not display a multiple question crosstab in a browser – instead it will provided as an Excel file, which you can download and save.

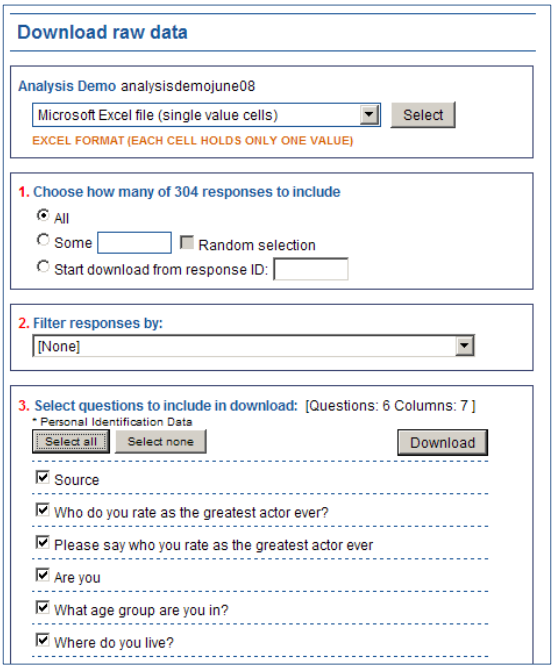
Let's look at what happens if you choose a single question crosstab (e.g. crosstabbing on a region question). Select the Report Type from the two options shown, then the question you want to crosstab analyse on, and finally tick the boxes next to the questions in the survey that you want to include in the crosstab report. You can "Select All" using the option shown if you have a small survey. But if it's a very long survey with a lot of questions, you will decrease the amount of time you wait for the system to process your request by making a smaller selection of questions in the crosstab. Now click the "Create Cross Tab Report" button, and your new report will be generated in a separate window of the browser.

The *example shown at right* is a crosstab based on a regional breakdown, and showing two demographic questions selected at random from the survey. Note some of the information this crosstab reveals – there were more women respondents than men in the Wales and Northern Ireland samples. In Scotland and Eire there is a spike in respondents in the 46-55 age category, while Northern Ireland's overall age composition is the least in line with the total overall breakdown (especially the absence of respondents in the Under 16 category). Crosstabs give valuable insights into how subgroups of a survey differ in responses to all the questions in a survey in a tabular format that aids analysis.

		Where do you live?				
Are you		England	Wales	Scotland	Northern Ireland	Eire
	TOTAL (302)	**45% *(136)***	**15.2% *(46)***	**13.9% *(42)***	**14.9% *(45)***	**10.9% *(33)***
Male	56.6% *(171)*	65.4% *(89)*	43.5% *(20)*	52.4% *(22)*	46.7% *(21)*	57.6% *(19)*
Female	43.4% *(131)*	34.6% *(47)*	56.5% *(26)*	47.6% *(20)*	53.3% *(24)*	42.4% *(14)*

		Where do you live?				
What age group are you in?		England	Wales	Scotland	Northern Ireland	Eire
	TOTAL (304)	**45.1% *(137)***	**15.1% *(46)***	**14.1% *(43)***	**14.8% *(45)***	**10.9% *(33)***
Under 16	5.3% *(16)*	4.4% *(6)*	4.3% *(2)*	7% *(3)*	0.0% *(0)*	15.2% *(5)*
16 - 25	10.9% *(33)*	9.5% *(13)*	10.9% *(5)*	7% *(3)*	15.6% *(7)*	15.2% *(5)*
26 - 35	13.5% *(41)*	13.9% *(19)*	13% *(6)*	16.3% *(7)*	15.6% *(7)*	6.1% *(2)*
36 - 45	19.1% *(58)*	22.6% *(31)*	15.2% *(7)*	9.3% *(4)*	24.4% *(11)*	15.2% *(5)*
46 - 55	19.1% *(58)*	18.2% *(25)*	19.6% *(9)*	23.3% *(10)*	15.6% *(7)*	21.2% *(7)*
56 - 65	12.2% *(37)*	15.3% *(21)*	6.5% *(3)*	16.3% *(7)*	8.9% *(4)*	6.1% *(2)*
66 - 75	11.8% *(36)*	12.4% *(17)*	13% *(6)*	14% *(6)*	8.9% *(4)*	9.1% *(3)*
Over 75	8.2% *(25)*	3.6% *(5)*	17.4% *(8)*	7% *(3)*	11.1% *(5)*	12.1% *(4)*

4. Download Raw Data:



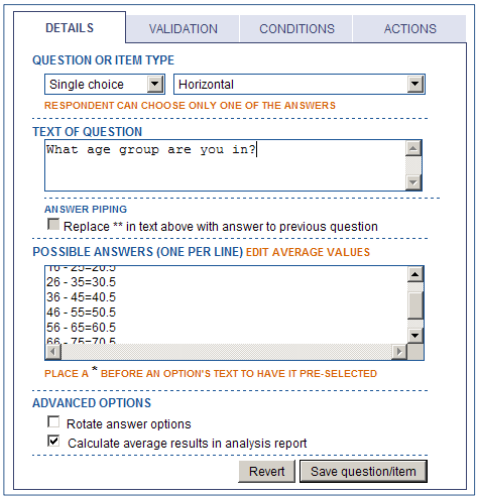
Demographix allows you to download the raw data from a survey into a variety of file formats, but the most useful are the two Excel file formats – **single value cells** and **multi-value cells**. The difference between the two can be demonstrated by thinking about the answers to a multiple choice question. In a single value cell file, each of the answers to the question is shown in a separate column, while a multi-value cell file will have all of the responses to the question in a single cell. **Hot tip:** We recommend new users create a download of both types of Excel file format for an early survey and compare the results! Also, consider the size of your survey for those with many multiple choice questions (with many possible answers!) a multi-value cell format will be more advisable in this instance.

There are other download formats available to users. Every account has access to a tab delimited text file format, which is generally used to create a file suitable for uploading into other databases. This format can also be easily converted to comma separated values (CSV) files. If you have SPSS, we can also create data files and syntax files from your data for uploading into SPSS – just let our Helpdesk know if you want this option enabled.

So the first thing you need do is choose the file type from the pulldown menu that is initially shown. This will enable a further 3-point action guide to be displayed (*an example is shown above left*). First choose how many responses from your total that you want to download – All, Some (possibly random), or starting from an ID number. The latter is used if you have downloaded some data previously, and you now want to update the data from the ID number of the last row in the previous download. The 2nd action allows you to filter the responses, if required. Finally, in the 3rd section, all of the questions in your survey will be displayed, allowing you to select which questions you want the data from. If you want to download ALL the data, therefore, choose the following in the three sections: 1. All. 2. [None]. 3. Select All. Now click the Download button, and Demographix will automatically generate a download file that you can then save to disk.

5. Two Special Analysis Tools: Average calculations and Write-In Keywords

Finally, let us tell you about two additional analysis tools that can be activated from within a Survey's Editing suite once it has been published. You may want to **calculate an average** from a set of numerical answer options or ranges – e.g. age ranges or pricing ranges. We ask you to calculate the midpoint for each range (e.g. 21-30=25.5 and 31-40=35.5, etc) and the system uses these midpoints to calculate an average. There is a "Calculate average" tick box in the question properties (if the question type supports this), and if this is ticked, you must give an =xx value after each answer displayed above (*see example at right*). Save the question, and next time you analyse the survey an average calculation will be displayed. Use =# to exclude an option from the calculation – e.g. Don't know=# .



Keyword analysis is another powerful option. This is where you are noticing trends in the write-in answers to a survey – a word or phrase keeps cropping up. Demographix will tally up all the occurrences of these keywords and display this in the analysis report. You can even filter on these bar charts once they're displayed. In the example shown below right, we have asked for respondents to write in who they think is the greatest actor ever, and we note that many people have replied James Dean and Meryl Streep. By entering these two words on separate lines in the Keyword analysis section of the Write-in's question properties, the analysis software sums up all the instances and displays the results in bar chart format. If you want to filter on these – just click a bar!