UNIVERSITY OF MINNESOTA
EXTENSION

Center for Community Vitality

BUSINESS RETENTION AND EXPANSION

Benchmark User's Guide

INTRODUCTION

The Tier A and Tier B Microsoft Excel workbooks contain quantified responses questions from the University of Minnesota Extension Center for Community Vitality's Business Retention and Expansion (BR&E) interview guide. Tier A contains data that are considered the most important by program staff, and Tier B contains supplementary data. The following information will explain the Tier A workbook in detail to help users understand how to use the file. If you are familiar with using Microsoft Excel tables, you may find the document entitled "Tier A and Tier B Summary User's Guide" more appropriate.

The following are general notes regarding these workbooks:

- Workbooks do not contain individual business responses. They only show comparisons among the community aggregate data sets.
- The data are arranged in different tabs for each question. Each question is assigned a label, which can be found on the Index tab and in the worksheet tabs at the bottom of the workbook.
- Some questions required data manipulation in order to be benchmarked. In these cases, notes for specific manipulations are included below the data.
- Data are presented by community in a table. This allows users to select the triangle (if using a PC) or the filter (if using a Mac) icons at the top of each column to select the criteria for which they want to compare data.
- The headers of the first several columns of each worksheet have comments associated with them to help with understanding the data. Just hover over the column header for the comment to appear.

- Population Quintiles were found by identifying the 20th, 40th, 60th, 80th, and 100th population percentiles using the decennial US Census Data immediately preceding the community's participation in the BR&E program. For example, a community that conducted its surveys in 1993 and one that conducted its surveys in 1999 were both placed into a quintile based off their 1990 population.

Table 2: Population Quintile Ranges

POPULATION RANGE	QUINTILE
0 – 4,243	1
4,244 – 12,680	2
12,681 – 21,303	3
21,304 – 37,923	4
37,924 – 275,277	5

- The weights used in the weighted average columns are each community's sample size divided by the total number of participating firms for each question.
- The national and Minnesota unemployment rate is included on each table to give users a rough idea of economic conditions at the time of the survey. Additionally, the unemployment rate listed is for the month of December from the indicated year and is seasonally adjusted.
    - Minnesota Unemployment Rate Source
    - United States Unemployment Rate Source

USING THE WORKBOOK

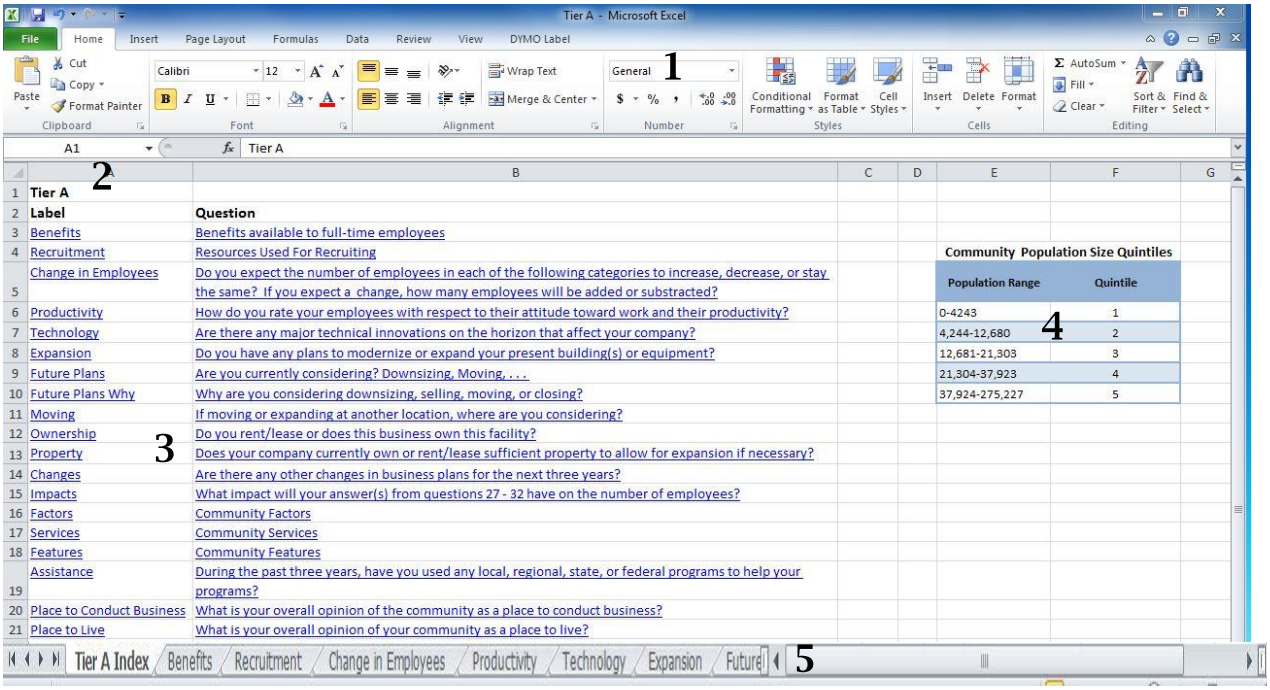
This document was prepared using Microsoft Excel 2010 (PC). If you are using a different version of Excel (a different year or Excel for Mac), the screenshots may not mirror what you see in the workbook. Functionality and process, however, should be similar.

Before proceeding, please note:

- "Workbook" is a term used to describe an entire Microsoft Excel file. Tier A.xlsx, for example, is a workbook.
- "Worksheet" is a term used to describe the various pages of a workbook. Each worksheet will have a unique name and can be accessed in the ways outlined in this document.

Getting Started

If you have not already done so, download the Tier A workbook (titled Tier A.xlsx) from the University of Minnesota Extension's website. The file will probably download to your computer's "Downloads" folder, and if this is a tool that you would like to keep locally, be sure to move it to a safe place. Once the file is downloaded and relocated, open the document. You will see the below screen.



As noted by the corresponding numbers above, you will see the following:

1. This is identified as the Excel ribbon. Across the top you will see options like “Home” and “View.” As you select various options, you will gain access to different menus. When “ribbon” is referred to in this document, be sure to check here for information.

2. This identifies the document as Tier A. That is, the questions from the BR&E interview that are considered to be of particular interest by Community Vitality staff are included in this file. Other questions are used in the Tier B file.

3. This column, and the one to its right, identifies the question’s label and the question from the most recent interview questionnaire. The label is an abbreviated description of the question. Notice that these are hyperlinks; if you click on a question or its label, Excel will take you directly to the question in the workbook.

4. In order to compare communities by size, they were separated into various quintiles based on population. The smallest 20% of communities, in terms of population size, were put into quintile 1, and the largest 20% of communities were placed into quintile 5. Looking at this table, you will see where your community of interest falls. These values were found using the decennial census immediately preceding the community’s involvement in the BR&E program. For example, a community that did its BR&E in 2002 and a community that did its BR&E in 2009 were both placed in a quintile based on their 2000 population.

5. These tabs indicate the worksheet name. You can use these for navigation within the workbook.

Worksheets

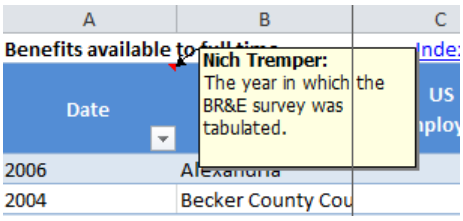
Before using the data in the worksheets, you may want to know what type of information is contained within the file. Using the "Detailed Index" allows you to not only see the question text, but also the potential responses list for each question. It is recommended that you spend some time familiarizing yourself with this worksheet.

Using either the tabs at the bottom of the page or the hyperlink, navigate to the Expansion worksheet. Remember, you can click on either the label "Expansion," the question, "Do you have any plans to modernize or expand your present building(s) equipment?" or the tab label "Expansion" at the bottom of the index. You will be brought to a page that looks like this:

	A	B	C	D	E	F	G	H	I	J	
1	Do you have any plans to modernize or expand your present building(s) or equipment?										
2	Date	Community	US Unemployment	MN Unemployment	7-county metro	Type	Population Quintile	Sample Size	Yes	Yes Weighted Average	Yes Filte
3	1996	Midway-University	5.4	3.7	Y	Manuf	2	38	71.00%	51.37%	
4	1996	Mississippi Valley	5.4	3.7	N	Tourism	5	86	59.00%	51.37%	
5	1996	St. Boni/Waconia	5.4	3.7	Y	Mixed	2	66	53.00%	51.37%	
6	1997	Dakota County	4.7	2.9	Y	Technology	5	30	73.00%	51.37%	
7	1998	Redwood Area	4.4	2.8	N	Mixed	3	43	60.98%	51.37%	
8	1998	Big Stone	4.4	2.8	N	Mixed	2	50	55.26%	51.37%	
9	1998	Lanesboro	4.4	2.8	N	Mixed	1	61	49.00%	51.37%	
10	1999	Moorhead	4	2.9	N	Mixed	4	40	57.89%	51.37%	
11	2000	Winsted	3.9	3.3	N	Mixed	1	31	67.74%	51.37%	
12	2000	Springfield	3.9	3.3	N	Mixed	1	46	60.87%	51.37%	
13	2000	Northern Lights	3.9	3.3	N	Tourism	5	73	65.28%	51.37%	
14	2000	Grant County	3.9	3.3	N	Mixed	1	53	44.23%	51.37%	
15	2001	Isanti	5.5	4.5	N	Mixed	1	36	61.11%	51.37%	
16	2002	Sibley County	6	4.5	N	Mixed	3	47	62.79%	51.37%	
17	2002	Pipestone	6	4.5	N	Mixed	2	56	46.43%	51.37%	

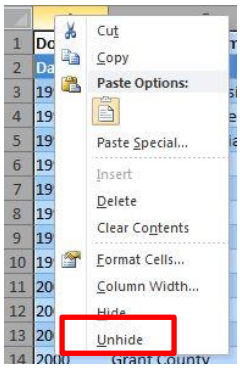
Cell A1 shows the question that is being answered on this page. Beginning at A2, you will notice a dark blue line, which notes the beginning of Excel's table. The information contained in this row (2) only names the columns that will be used by the table. For example, "Community" indicates that the column will tell you which community corresponds to the subsequent data. If you have questions about a column, hover over its header, and a comment, like the one below, will appear with more information. By moving your cursor the comment will disappear.

Comments are only embedded in the first several columns. After the first question response, the interpretation is the same. For that reason, comments were not repeated.



The first eight to nine columns will give you descriptive information about the included communities. Information about each column is included in comments of the Excel file and will not be discussed here.

Many of the cells in the worksheets are calculated using Excel functions. This led to many cells having to be calculated as intermediary steps, and these were hidden to reduce screen clutter. If you're interested in how various cells were calculated, you can unhide the rows/columns by selecting the entire page (click the triangle that separates A from 1 in the top left hand corner of the worksheet), right clicking on the letter A, and then selecting "Unhide." This is not necessary for using the tool, but it offers a way for users to understand from where the aggregate data came.



On each worksheet, you will find the various responses to the interview question from cell A1. These responses will be followed by two other columns, "…Weighted

Average" and "…Filtered Weighted Average" in every worksheet. The Expansion worksheet's column headings look like this:

These columns each have their own meaning:

- Weighted Average—the values in these columns show the weighted average response to the question, taking into account all firms that have participated in the BR&E survey throughout the program's lifetime. These values will remain stationary as you filter data.
- Filtered Weighted Average—these columns will show the weighted average of only those communities the user has selected in the table's filters. As users change their comparison criteria, the filtered weighted average values will change to reflect these changes.

Take a few minutes before proceeding to familiarize yourself with the Expansion worksheet. Read the comments, identify the values in the "Yes" and "No" columns that you think look out of place, and get a sense of the time period over which this question was asked.

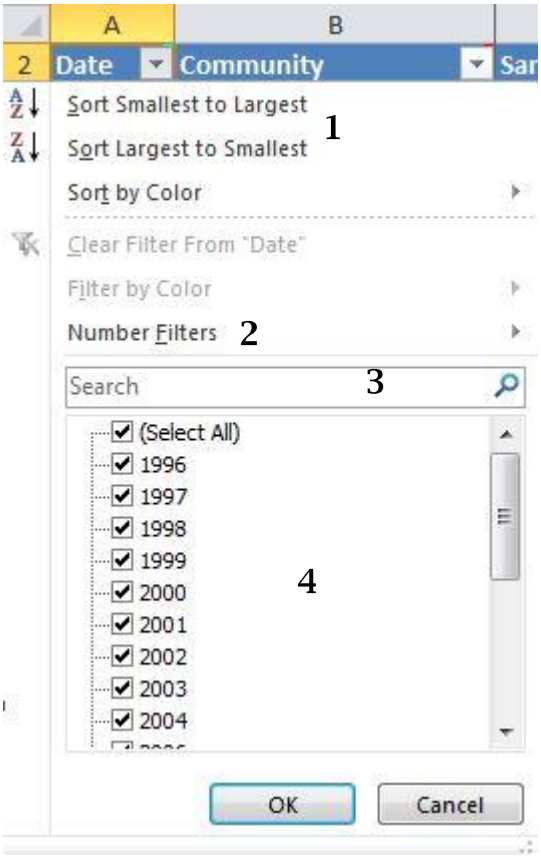
Filters

The data are contained in tables within each worksheet. By using tables, you will be able to sort data and hide data not relevant to you. This can be done using filters. First, let's look at the options in the "Data" menu in Excel's ribbon.

1. Notice that "Data" is highlighted, which is how you know you're looking at the Data menu.
2. This button will turn filters on and off. You will rarely turn the filters off, but if interested, click here and the button will turn gray.
3. This will let you clear the filters you have set and return the table to its default view. When switching to a new worksheet, it is good practice to navigate to the "Data" tab and clear the filters so that you know nothing has been left over from the last time you used the worksheet. In order to clear a filter, you must first select a cell within the table.
4. This will reapply the filter that you just cleared.

There are two types of filters used in the Tier A and Tier B workbooks—numeric filters and text filters. Just like their respective names suggest, some will be used for numeric input and some will be used for text input. However, they have similar functionality. Let's start with the numeric filter. Navigate to cell A2 and click the downward pointing triangle next to the word "Date." You will see the below dialogue box.

Every numeric (and text) filter dialogue box will look like this. Before using the different options, it's important to understand what users can do from this box.



1. This will sort the data. In numeric columns, Excel will sort based on the relative size of the number, and in text columns Excel will sort based on alphabetical order.
2. This is the most important option and allows you to set the criteria for which you want to filter.
3. If you're looking for a specific value (text or numeric), you can enter it into this field.
4. This box will show all unique values (text or numeric) contained within the specified column. By clicking the check boxes, you can turn on or off different values in the table.

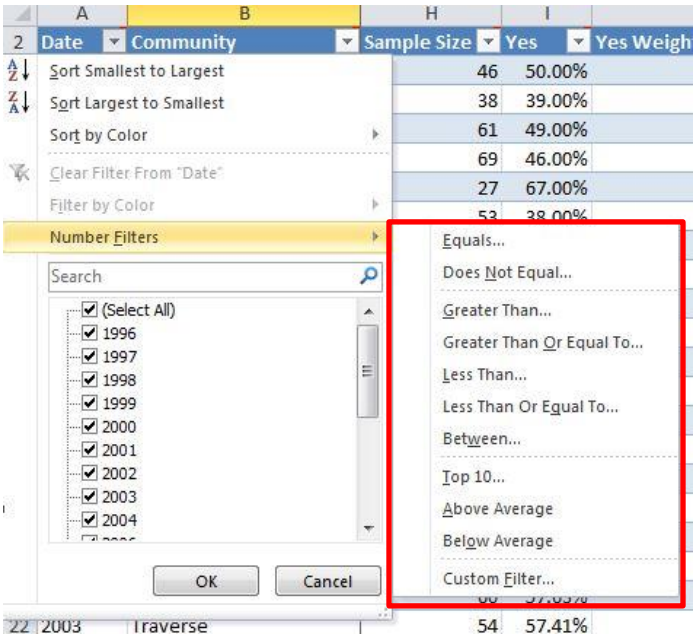
Let's look at what each filter option does individually.

Sorting

Open the filter dialogue box for "Date" and select the second option "Sort Largest to Smallest." As expected, the newest BR&E communities are now displayed at the top of the table, and the communities that participated in the BR&E program the longest ago are sorted at the bottom. Notice that a new image appeared on the filter button: . This downward pointing arrow shows that you have sorted the data in this column. If you sorted with the oldest on top, then the arrow would point up. This is similar for the text alpha sort.

Selecting specific data

By using tables, you can hide communities that are not of interest to specific questions. This is done by choosing the "Numeric Filters" or "Text Filters" option in the filter dialogue box. Open the box for "Date" and hover over "Numeric Filters" with your cursor. You will see this:



Notice that the box highlighted in red has many different options to help you decide how to filter the data in the table. These are briefly discussed below:

- Equals: This option opens a box that lets you tell Excel exactly what you want. For example, if you wanted data from only 2007, select this box and enter 2007 before selecting "OK."
- Does Not Equal: This allows you to do the opposite of the "Equals" option. If you want everything except data from 2007, select this option and all years except 2007 will be displayed.
- Greater Than (Or Equal To): These options allow you to set the minimum value of interest. If you enter 2007 here, only those years after 2007 will show in the greater than option. If you select "Greater Than Or Equal To…" and enter 2007, then 2007 and all years after 2007 will be displayed.
- Less Than (or Equal To): This does the opposite of the greater than options.
- Between: This allows you to select two values and look at data that falls between these points. For example, if you were interested in knowing whether or not businesses expanded between 2007 and 2011, you would use this option.
- Top 10: This is a bit of a misnomer. You can actually have Excel show you the top (or bottom) any number using this option. This option doesn't make much sense in the Date column but may in other places.

- Above Average: This shows only those values that are above the average value in the column. Again, this doesn't make sense when we're thinking about years, but it's helpful in other analysis.
- Below Average: This does the opposite of "Above Average."
- Custom Filter: This allows you to determine your own filter using the filter dialogue box.

The best way to gain experience with using these filters is to practice, but let's use the "Above Average" option in sample size in order to understand what the filters are doing. Navigate to cell H2, "Sample Size," click the triangle, hover your cursor over "Numeric Filters," and select "Above Average." The average number of participating firms per community is 53, so this filter will only show communities that had more than 53 firms participate in the BR&E survey.

After the filter is set, you will notice the button next to sample size changed to . The image next to the triangle lets you know that a filter is in place for this column. You will notice that the number of lines in the table has decreased. Don't worry, nothing is deleted. Excel is just showing those communities that match the criteria you set (showing only those firms that have had above average firm participation).

Now look at columns J and K. Prior to setting the filter, the values in these columns were identical. However, you have since told Excel that you're only interested in specific communities. For that reason, column K "Yes Filtered Weighted Average" shows you only the weighted average of those communities that have had above average firm participation in the BR&E survey. Column J, "Yes Weighted Average," will still show the weighted average response of all firms that have participated in the BR&E survey. You should see the values identified here:

J	K
Yes Weighted Average	Yes Filtered Weighted Average
51.37%	48.82%
51.37%	48.82%
51.37%	48.82%

You can interpret these data to mean that, of all firms that have participated in the BR&E survey program, 51.4% said they had plans to modernize or expand present buildings or equipment at the time of survey. Of those communities that had an above average participation rate, 48.8% of the firms said they had plans to modernize or expand present buildings or equipment at the time of survey.

As good practice, you should clear your filter after each search. Go ahead and do that here.

You can set more than one filter at a time. Suppose you're a community leader from a small community and participated in the BR&E survey during the recession. You expect that the recession had an effect on your community's firms and that they may not have had plans to expand during this time. You can easily select the population quintile to reflect your community.

- To do this, go to the "Population Quintile" column, go to the white field at the bottom, and uncheck everything except quintile 1, 2, and 3. This will leave only those communities that have populations in the lowest 40%.

Next, you'll want to identify those firms that participated in the BR&E survey during the 2009 recession.

- Navigate to the "Date" column, open the filter dialogue box, hover your cursor over "Numeric Filters," and select "between." In the first line (is greater than or equal to), you will enter 2008, and on the second line (is less than or equal to), you will enter 2010.

You will see that four communities match this description: Hugo, Monticello, Yellow Medicine County, and Princeton. Notice that column J still shows that, of all firms that have participated in the BR&E survey, 51.4% had plans to modernize or expand their buildings or equipment when surveyed. However, column K now shows that, of those firms in communities in quintiles 1, 2, and 3 and that participated in the BR&E survey between 2008 and 2010, only 42.1% had plans to modernize or expand when surveyed.

When you are finished using the filters, it is good practice to clear your filter.

CONCLUSION

You will have the best success in identifying the characteristics of particular interest to you, and figuring out which filters best apply to your curiosities, by experimenting and trying different search terms. This document is intended to give you the necessary information to determine how best to use this tool in your daily work. This document only looked at Tier A, but the user experience is the same in Tier B.

For more information on the BRE program visit www.extension.umn.edu/community/business-retention/. Please contact Michael Darger, Program Director, at darger@umn.edu with any questions or general inquiries.

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