Create Projections Using FDW and Excel

Summary

The purpose of this guide is to illustrate how to use FDW and Excel to create future projections. A common scenario is a user starts with a report that has a few recent historic periods, and wants to project or estimate the remaining periods in the year.

This guide begins with a sample report of expenses per period. We then modify the sample report, and produce a report that forecasts the expenses for the remaining periods of the year. In this scenario, we have completed three periods, and management wants a projection for the remainder of the year.

The concepts in this guide can also be applied to other subjects, such as projecting future LCD costs.

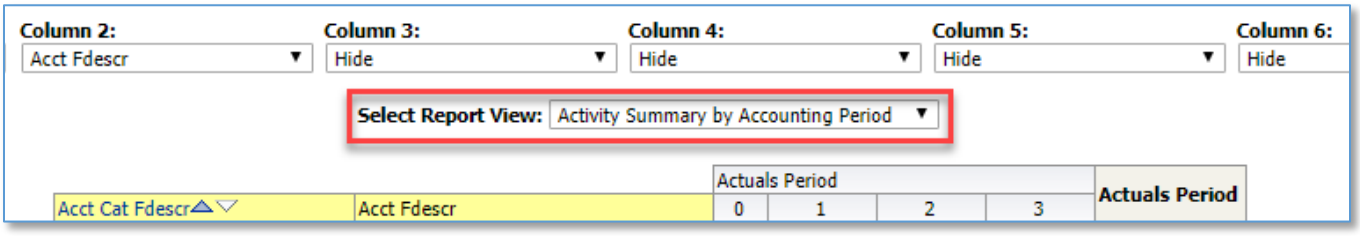
Create an FDW "Financial Summary As of Period" Report

This guide begins with a "Financial Summary As of Period" report from the "Financial Reporting" dashboard.

Set the report filters for your scenario (your Fund, your department, etc.).
I used these filters in the following example:

- Bus Unit Fdescr is equal to SACST
- Fiscal Year = 2017
- Period = 3
- Acct Cat is not equal to 603
- Acct Type Fdescr is equal to 60 – Expenditures
- Dept Fdescr is equal to 47900 - Budget Planning and Admin
- Fund Fdescr is equal to MDS01 - General Operating Fund

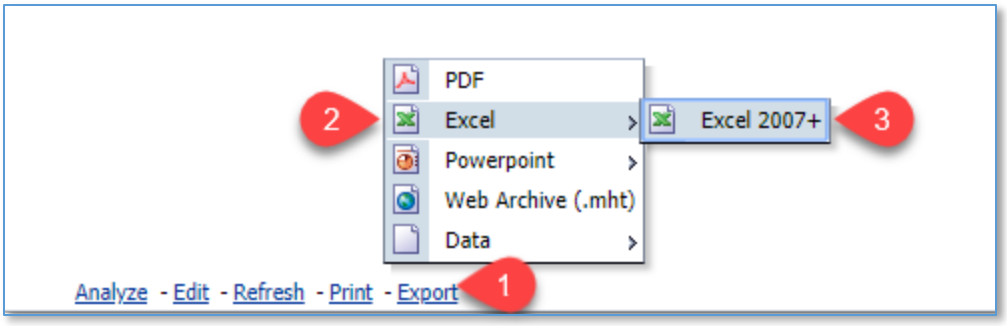
The report View is "Activity Summary by Accounting Period":



Remove any subtotals.

Download the report to Excel using these steps:

1. Click "Export" at the bottom of the report.
2. Click "Excel"
3. Click "Excel 2007+"



Modify the Report in Excel

Here is the report in Excel:

	A	B	C	D	E	F	G
6			Actuals Period				Actuals Period
7	Acct Cat Fdescr	Acct Fdescr	0	1	2	3	
8	601 - Regular Salaries and Wages	601201 - Mgmt & Supervisory		11,378.00	13,167.00	13,167.00	**37,712.00**
9		601300 - Support Staff Salaries		26,043.93	26,089.47	26,057.78	**78,191.18**
10	604 - Communications	604001 - Telephone Usage		35.70	8.56	0.66	**44.92**
11		604809 - Tele Trunk/Equipment Charges		27.60	13.80	13.80	**55.20**
12	606 - Travel	606001 - Travel-In State	0.00	0.00		30.00	**30.00**
13	660 - Misc. Operating Expenses	660001 - Postage and Freight		0.49	2.14	1.16	**3.79**
14		660002 - Printing		13.14			**13.14**
15		660003 - Supplies and Services		0.00	2,720.40	39.34	**2,759.74**
16	**Grand Total**		**0.00**	**37,498.86**	**42,001.37**	**39,309.74**	**118,809.97**

Remove any totals because they are number values in the spreadsheet, and we would prefer dynamic Excel functions. Note that your row number and column letter will probably be different from mine, because your specific filters will differ from mine and produce a different report. I removed the “Grand Total” row (row 16) and the “Actuals Period” column (column G) from my example below:

	A	B	C	D	E	F	G
6			Actuals Period				Actuals Period
7	Acct Cat Fdescr	Acct Fdescr	0	1	2	3	
8	601 - Regular Salaries and Wages	601201 - Mgmt & Supervisory		11,378.00	13,167.00	13,167.00	**37,712.00**
9		601300 - Support Staff Salaries		26,043.93	26,089.47	26,057.78	**78,191.18**
10	604 - Communications	604001 - Telephone Usage		35.70	8.56	0.66	**44.92**
11		604809 - Tele Trunk/Equipment Charges		27.60	13.80	13.80	**55.20**
12	606 - Travel	606001 - Travel-In State	0.00	0.00		30.00	**30.00**
13	660 - Misc. Operating Expenses	660001 - Postage and Freight		0.49	2.14	1.16	**3.79**
14		660002 - Printing		13.14			**13.14**
15		660003 - Supplies and Services		0.00	2,720.40	39.34	**2,759.74**
16	**Grand Total**		**0.00**	**37,498.86**	**42,001.37**	**39,309.74**	**118,809.97**

Optionally, I recommend that you create a new Excel sheet/tab called “About”. Cut the filter information from your report and paste it into the new About tab. Rename the original tab that contains your data with the name “Data”. That will preserve your filter information for future reference, and keep your data separated so you can easily use all the Excel functions.

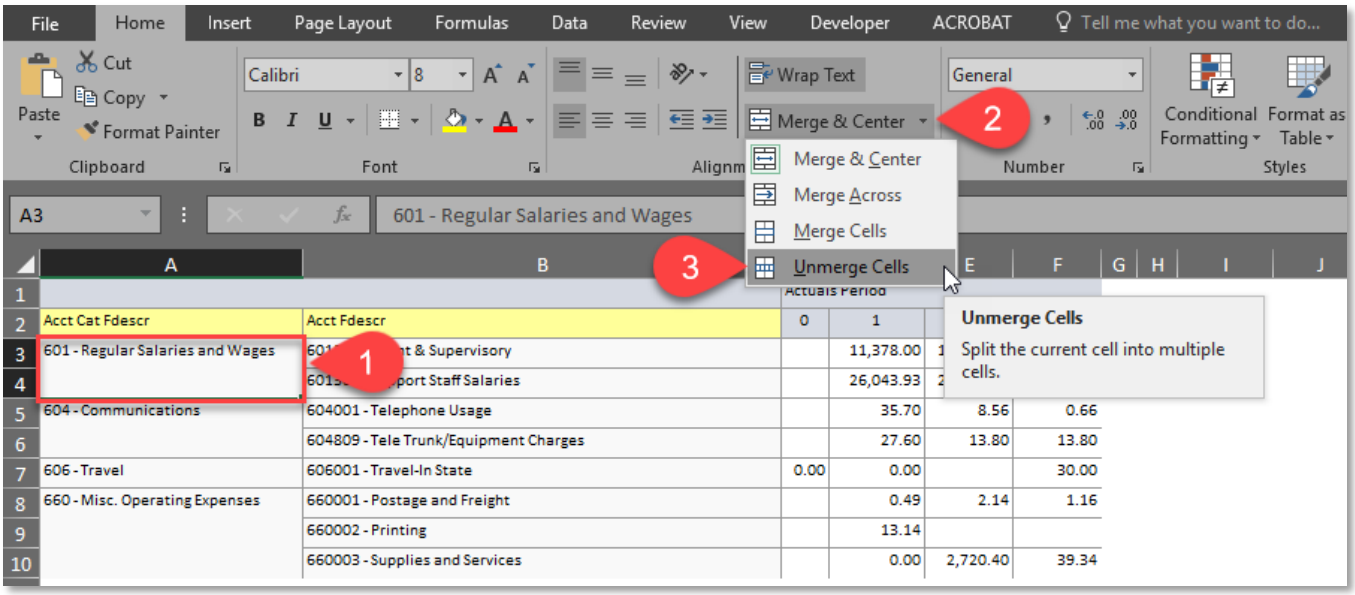
Now my spreadsheet looks like this. This example shows the “Data” tab:

	A	B	C	D	E	F
1			Actuals Period			
2	Acct Cat Fdescr	Acct Fdescr	0	1	2	3
3	601 - Regular Salaries and Wages	601201 - Mgmt & Supervisory		11,378.00	13,167.00	13,167.00
4		601300 - Support Staff Salaries		26,043.93	26,089.47	26,057.78
5	604 - Communications	604001 - Telephone Usage		35.70	8.56	0.66
6		604809 - Tele Trunk/Equipment Charges		27.60	13.80	13.80
7	606 - Travel	606001 - Travel-In State	0.00	0.00		30.00
8	660 - Misc. Operating Expenses	660001 - Postage and Freight		0.49	2.14	1.16
9		660002 - Printing		13.14		
10		660003 - Supplies and Services		0.00	2,720.40	39.34
11						

Data | About

Another option that this example illustrates is to unmerge the merged cells. For example, cells A2 and A3 are merged in the example above. The unmerged cells will be better if you intend to sort, filter, pivot or use other spreadsheet functions. Unmerge merged cells using these steps:

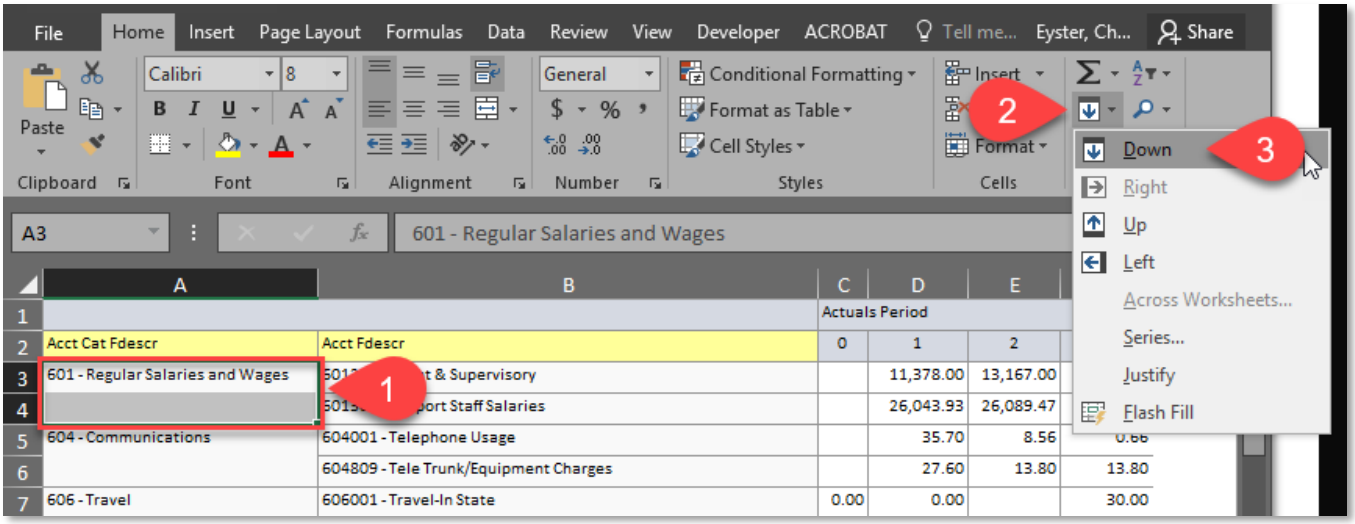
1. Select the cells to be unmerged (A3 and A4)
2. Click “Merge & Center”
3. Click “Unmerge Cells”



This breaks the single merged cell into two cells. One is populated with the original value. The other is empty. The next step is to copy the same value into the new empty cell. Use the Excel “fill down” feature to do that:

1. Select the two cells.
2. Click “Fill” on the Excel Editing menu.
3. Click “Down”.

Steps 2 and 3 can be replaced by typing “[Control] d” on your keyboard.



Repeat this step for all merged cells.

Now, my spreadsheet looks like this:

	A	B	C	D	E	F	G
1			Actuals Period				
2	Acct Cat Fdescr	Acct Fdescr	0	1	2	3	
3	601 - Regular Salaries and Wages	601201 - Mgmt & Supervisory		11,378.00	13,167.00	13,167.00	
4	601 - Regular Salaries and Wages	601300 - Support Staff Salaries		26,043.93	26,089.47	26,057.78	
5	604 - Communications	604001 - Telephone Usage		35.70	8.56	0.66	
6	604 - Communications	604809 - Tele Trunk/Equipment Charges		27.60	13.80	13.80	
7	606 - Travel	606001 - Travel-In State	0.00	0.00		30.00	
8	660 - Misc. Operating Expenses	660001 - Postage and Freight		0.49	2.14	1.16	
9	660 - Misc. Operating Expenses	660002 - Printing		13.14			
10	660 - Misc. Operating Expenses	660003 - Supplies and Services		0.00	2,720.40	39.34	

Add Projections

Add Columns for the Remainder of the Year

If the last period of the report is incomplete (e.g., it has data for part of a month), then you may want to delete this column from you spreadsheet. This example assumes that every column represents a complete period.

Define columns for all the periods for the remainder of the year. In this example, I did the following:

- I removed column C, which had period zero.
- I labeled nine columns after column F for the remaining periods. Now I have a total of twelve periods.
- I shrank the width of all the Period columns so my spreadsheet is not so wide.
- I formatted the values to eliminate the decimals and add commas to the numbers.
- I deleted column 1 which contained the heading “Acct Cat Fdescr”.
- I copied the existing cell borders and formats to the new cells.

Now my spreadsheet looks like this:

	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Acct Fdescr	1	2	3	4	5	6	7	8	9	10	11	12
2	601201 - Mgmt & Supervisory	11,378	13,167	13,167									
3	601300 - Support Staff Salaries	26,044	26,089	26,058									
4	604001 - Telephone Usage	36	9	1									
5	604809 - Tele Trunk/Equipment Charges	28	14	14									
6	606001 - Travel-In State	0		30									
7	660001 - Postage and Freight	0	2	1									
8	660002 - Printing	13											
9	660003 - Supplies and Services	0	2,720	39									
10													

Decide How to Populate the Future Periods

At this point, you need to be familiar with your organization and understand the recent history and the planned future. One-time changes will cause variations or volatility in your data. You will use this knowledge to decide on one of the three methods to project the values for future periods. Each method is described in more detail below:

A. Use the actual values that you expect for each period or cell if you know what they will be.
   If you do not know what the actual values will be, then try methods B or C below.
B. Average the recent periods to estimate the future periods.
   This method will be especially useful if your history demonstrates little variation or volatility.
C. Copy the last pay period value into all the future periods.
   If your last period of historical data is expected to continue through all the remaining periods, then you can copy the value from the last period into all the future periods.

How to apply the above methods to project values for future periods:

A. Use actual values:
   If you know exactly what the future values will be, then simply enter those values into each future cell.

B. Average recent periods:
   Use an Excel function to average all the historic data, and use that value in all future periods.
   Here is an example of an Excel function that calculates the average of cells C2 through E2:
   =AVERAGE(C2:E2)

C. Copy the last period into all future periods:
   This method will use the value in the last historic period, and copy it into all future periods.
   The steps below will copy the value of cell E3 into all future periods:
   1. Select cells E3 through N3.
   2. Enter "[control] r" on your keyboard to copy to the right.

	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Acct Fdescr	1	2	3	4	5	6	7	8	9	10	11	12
2	601201 - Mgmt & Supervisory	11,378	13,167	13,167									
3	601300 - Support Staff Salaries	26,0	1	26,058									
4	604001 - Telephone Usage	36	9	1									
5	604809 - Tele Trunk/Equipment Charges	28	14	14									

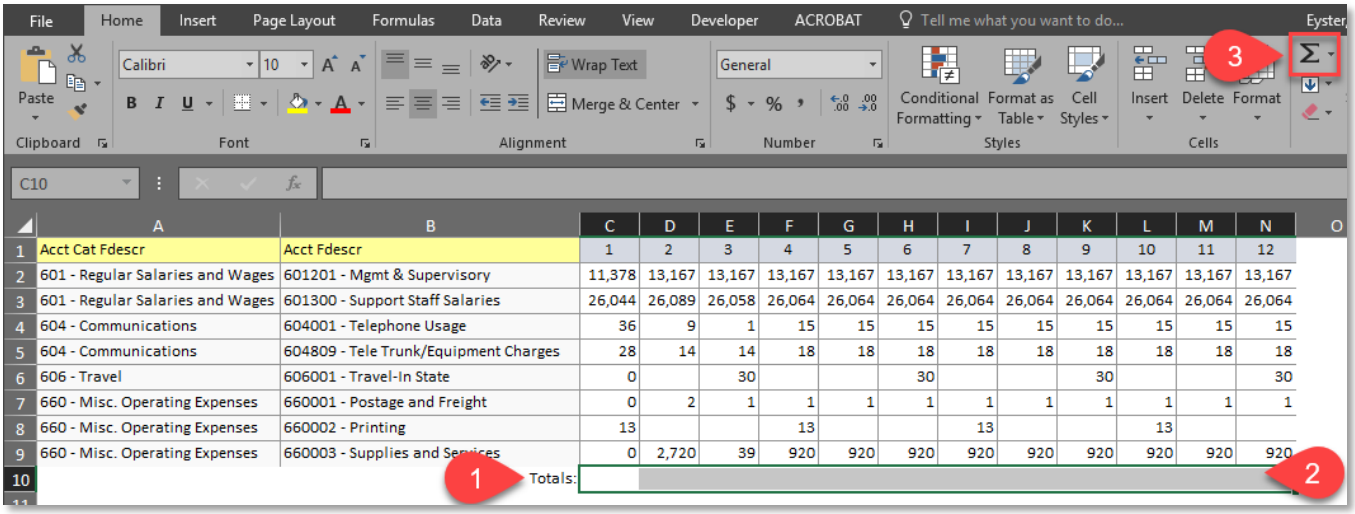
Now we have the same values copied into all periods:

	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Acct Fdescr	1	2	3	4	5	6	7	8	9	10	11	12
2	601201 - Mgmt & Supervisory	11,378	13,167	13,167									
3	601300 - Support Staff Salaries	26,044	26,089	26,058	26,058	26,058	26,058	26,058	26,058	26,058	26,058	26,058	26,058
4	604001 - Telephone Usage	36	9	1									
5	604809 - Tele Trunk/Equipment Charges	28	14	14									

You can combine these three methods. For example, you may copy the last period into all the future periods, then manually modify the one period that will be an exception to this consistent pattern.

Add a Row of Totals after the data.

1. Enter "Totals:" in cell B10.
2. Select cells C10 – N10.
3. Click the "AutoSum" button.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Acct Cat Fdescr	Acct Fdescr	1	2	3	4	5	6	7	8	9	10	11	12
2	601 - Regular Salaries and Wages	601201 - Mgmt & Supervisory	11,378	13,167	13,167	13,167	13,167	13,167	13,167	13,167	13,167	13,167	13,167	13,167
3	601 - Regular Salaries and Wages	601300 - Support Staff Salaries	26,044	26,089	26,058	26,064	26,064	26,064	26,064	26,064	26,064	26,064	26,064	26,064
4	604 - Communications	604001 - Telephone Usage	36	9	1	15	15	15	15	15	15	15	15	15
5	604 - Communications	604809 - Tele Trunk/Equipment Charges	28	14	14	18	18	18	18	18	18	18	18	18
6	606 - Travel	606001 - Travel-In State	0		30			30			30			30
7	660 - Misc. Operating Expenses	660001 - Postage and Freight	0	2	1	1	1	1	1	1	1	1	1	1
8	660 - Misc. Operating Expenses	660002 - Printing	13			13			13			13		
9	660 - Misc. Operating Expenses	660003 - Supplies and Services	0	2,720	39	920	920	920	920	920	920	920	920	920
10		Totals:												

Add a Column of Totals after the data.

Similar to the above steps, add a column of totals for each row:

1. Enter "Totals" in cell O1.
2. Select cells O2-O9.
3. Click the "AutoSum" button.

Final Spreadsheet with Expense Projections through the Year

Here is my final spreadsheet. I also did some cleanup with regards to fonts, cell borders, column widths and row heights. Format and emphasize various parts of the spreadsheet as you see fit.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Acct Cat Fdescr	Acct Fdescr	1	2	3	4	5	6	7	8	9	10	11	12	Totals
2	601 - Regular Salaries and Wages	601201 - Mgmt & Supervisory	11,378	13,167	13,167	13,167	13,167	13,167	13,167	13,167	13,167	13,167	13,167	13,167	156,215
3	601 - Regular Salaries and Wages	601300 - Support Staff Salaries	26,044	26,089	26,058	26,064	26,064	26,064	26,064	26,064	26,064	26,064	26,064	26,064	312,765
4	604 - Communications	604001 - Telephone Usage	36	9	1	15	15	15	15	15	15	15	15	15	180
5	604 - Communications	604809 - Tele Trunk/Equipment Charges	28	14	14	18	18	18	18	18	18	18	18	18	221
6	606 - Travel	606001 - Travel-In State	0		30			30			30			30	120
7	660 - Misc. Operating Expenses	660001 - Postage and Freight	0	2	1	1	1	1	1	1	1	1	1	1	15
8	660 - Misc. Operating Expenses	660002 - Printing	13			13			13			13			53
9	660 - Misc. Operating Expenses	660003 - Supplies and Services	0	2,720	39	920	920	920	920	920	920	920	920	920	11,039
10		Totals:	37,500	42,003	39,313	40,202	40,190	40,221	40,205	40,193	40,224	40,208	40,196	40,227	480,607