IRA Pivot Table Review

and

Using Analyze to Modify Reports

For help, email Financial.Reports@dartmouth.edu
What is a Pivot Table?

- A pivot table takes rows of detailed data (such as the lines in a downloadable table) and summarizes them at a higher level using a defined structure.

### Grand Total Section

Grand Total Section is a pivot table of the detail in the downloadable table or report table.
What is a Pivot Table?

IRA Launchpad Reports (IRA) include a “canned” pivot table view that uses the data returned, based on the filters selected, and summarizes it in a pre-determined structure:

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The pivot table view of IRA reports may be customized to meet a variety of individual reporting needs using the Analyze tool.

Customization is accomplished by included and/or excluding the data fields available for that report (see IRA Pivot Views Appendix).

Choose and run an IRA report based on the data fields needed in the customized report (see Data Fields Matrix). Save your report using “Page Options” in case you want to start over. Click “Analyze” to go to the Analyze tool.

For help, email Financial.Reports@dartmouth.edu
You are seeing the underlying structure of the IRA report. Changes made here do not affect the IRA canned report design. Changes made here create a custom report design to include data you want to see and exclude data you don’t want to see in your report. Once saved, this report can be used instead of the IRA report.

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Modifying Pivot Table View

The criteria tab shows all filters chosen when you ran the IRA report. You can add additional filters and modify existing filters here. Once you have saved your customized report design, you can run reports that query the same data warehouse that IRA does, and get updated financial data.

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Modifying Pivot Table View

- To customize the pivot table structure, choose the Results tab and choose a Pivot Table view from the menu in the lower left. Each report has up to three pivot table views. Choose one view as a starting place to customized your report. In most cases you will choose Pivot Table 2.

- The Views area can be expanded by dragging the toolbar up.

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Modifying Pivot Table View

- Highlight the “Pivot Table” View and click the pencil icon to Edit the view.
Pivot Table View - overview

- Drag this arrow left and the Layout bar up to create more room for design.
- Uncheck "Display Results" while designing report.
- Shows what report will look like.
Pivot Table Structure – example part 1

Layout
Drag/drop measures, columns and hierarchies to determine pivot table layout.

Pivot Table Prompts
Drop here for Pivot prompts

Prompts Area – creates pulldown menu of datafield values

Sections
Drop here for a sectioned Pivot

Sections Area – create separate section for each datafield value

Pivot Table

Rows
Organize, Funding, Activity

Rows Area – datafields to include in rows

Excluded
Enquiry, Table, Natural Class, Time, Encumb Type, JE Source, JE Line Details

Excluded Section (data fields which are available for use in the pivot table but are not in )

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Pivot Table Structure – example part 2

Scroll the to right to see the rest of the Layout:

- **Measures Area** – dollar amounts or other data to be summarized
- **Columns Area** – datafields included in columns

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Pivot Table Structure - example

- **Rows/Columns/Measures**

How the data fields are placed in the various areas determines the organization of the pivot table report. The specific data returned is determined by the filters on the Criteria tab.

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Pivot Table Structure

- Placing a data field in the Prompts Area will allow you to view the data by each value for that data field. Leaving it empty will return all data in one view.

Note: To include All Values as a choice in the dropdown list, click the sum icon next to Pivot Table Prompts, and select “After”:

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Pivot Table Structure

- Placing data fields in the Sections Area will divide results into sections based on values for those data fields. Leaving it blank will consolidate results into one section.

- Adding a total to the Section Area will add an All Section that will show a sum of all other sections.

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Adding & Removing Data Fields

- To add data fields to the report, drag and drop the fields from the Excluded Area into the appropriate areas in the pivot table report set-up.

Blue line indicates where the field will drop:

Result:

- To remove a data field, drag it to anywhere in the Excluded Area and drop.

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Rearranging Fields

- Drag and Drop data fields between the report set-up areas and Excluded area as needed.
- Only Dollar and Fact fields should be added to the Measures area. You must have at least one measure.

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Measures Aggregation Rule

- **Measures** Aggregation Rule is set to “Default”, which will not allow calculations or sums to process correctly. ALWAYS verify that the Aggregation Rule is set to something other than Default for all data fields in the Measures area. Change this setting using the **More Options** button. For dollar amounts, choose Sum.

- Caution: When Measures data fields are moved in and out of the pivot table set-up area, the Aggregation Rule may revert to Default. Remember to reset these to something other than default.

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Duplicating a Data field

An individual data field may need to be used in more than one area in a pivot table. Since it is only listed once in the available fields, use “Duplicate Layer” to create another of the same field:

A duplicate of the same data field is available for use in another area of the report.

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Setting Field and Area Properties

More Options

Totals/Subtotal that field

Format Headings...
Format Values...
Hidden
New Calculated Item...
Duplicate Layer
Remove Duplicate
Remove Column

None
Before
After
At the Beginning
At the End
Labels Only (no totals)
Format Labels...
Format Values...

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Setting Column Width

Here, the Org column is narrow:

1. Choose More Options -> Format Values

2. Change Width as desired and click OK

Resulting adjusted width:

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Hiding a Data Field

- You may want a data field available for use in a pivot table, but also hidden from view. For example, in the GL Transactions Pivot Table 2, Fiscal Period Number can be used to sort, but it does not appear in the pivot table results.

To hide, on Results Tab choose More Options -> Hidden:

Hidden data fields appear in light gray to indicate they are hidden, even though you can sort and total on these fields.

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Existing Hidden Data Field

- If you add a new data field to your pivot table design and it does not show in the resulting report, it has been hidden on the Criteria tab. Data fields hidden there will not show as grayed out in the pivot table design.
- To unhide these, go to the Criteria tab and for the given data field, choose Column Properties:

Choose Column Format tab and uncheck Hide.

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Sorting

Sorting is controlled within the Report output, not within the Layout. Hover over the datafield to be sorted, and click the up arrow for Ascending sort or the down arrow for Descending sort.

Note: the sort chosen using the arrows is the first sort. For sorts within that one (Here, sort Org, then sort Activity), right-click the subsequent datafield’s header and choose Sort Column > Add Ascending (or Descending) Sort:

Choose Sort Column > Clear All Sorts in View on any datafield to reset all to no sort.
Setting Field Properties/Numbers

To reformat dollar values, choose the properties icon on the datafield on the Criteria tab:

Select “Data Format” tab.

The default format for dollar amounts in IRA is #,###.## and - #,###.##

To change this, click “Override Default Data Format” and select desired number format.

Click OK to apply changes.

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Adding Calculated Item

- While a brand new data field cannot be created, an existing data field can be modified to create a calculated item.
- On the Criteria tab, choose a column not needed for your analysis* and click the Edit Formula icon:

* DO NOT use any Group By data fields, or the <JE Unique ID> data field for this. These fields need to remain as is.

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Adding Calculated Item

With cursor in Column Formula box, Click Column to choose variables for the formula, and individual buttons for mathematical operators:

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Continued next page
Adding Calculated Item

With cursor in Column Formula box, Click Column to choose variables for the formula, and individual buttons for mathematical operators:

For example, for a calculation of Budget less Actual, click

then the minus sign

then

Resulting formula:
Adding Calculated Item

Once the formula is complete, it is important to rename the Table Heading and Column Heading, including in the name wording to indicate this as a calculated column:

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Adding Calculated Item

The new calculated item appears on the Criteria tab and in the Excluded area of the pivot table set-up:

Note: When adding Calculated Item to the Measures area, change Aggregation Rule from Default:

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Adding Totals

Row Total:

Note: Sort data first and then add Totals.

In this example, data is sorted ascending by Org, and adds totals After each Org value.

Results:

Without Row totals:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Actual Amount</th>
<th>Actual Amount</th>
<th>Actual Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>545-Financial Reporting Total</td>
<td>349855</td>
<td>Health Promotion and Wellness Program</td>
<td>7.98</td>
</tr>
<tr>
<td>545-Financial Reporting</td>
<td>349865</td>
<td>Controller Central</td>
<td>5.95</td>
</tr>
<tr>
<td>545-Financial Reporting</td>
<td>349866</td>
<td>Financial Reporting</td>
<td>485.57</td>
</tr>
<tr>
<td>545-Financial Reporting</td>
<td>349867</td>
<td>Tax Activities</td>
<td>235.99</td>
</tr>
<tr>
<td>546-Accounting Operations</td>
<td>230000</td>
<td>AS Departmental Administration</td>
<td></td>
</tr>
<tr>
<td>546-Accounting Operations</td>
<td>240001</td>
<td>AS Lectures and Symposa</td>
<td>37.00</td>
</tr>
<tr>
<td>546-Accounting Operations</td>
<td>349861</td>
<td>Accounting Services</td>
<td>488.00</td>
</tr>
<tr>
<td>546-Accounting Operations</td>
<td>349862</td>
<td>Accounting Services</td>
<td>30.00</td>
</tr>
<tr>
<td>547-Controllers Ofc</td>
<td>349863</td>
<td>Accts Payable Office</td>
<td>20.00</td>
</tr>
<tr>
<td>547-Controllers Ofc</td>
<td>349864</td>
<td>External Audit</td>
<td>3,065.79</td>
</tr>
<tr>
<td>547-Controllers Ofc</td>
<td>349865</td>
<td>Controller Central</td>
<td>-4,056.39</td>
</tr>
<tr>
<td>547-Controllers Ofc</td>
<td>349866</td>
<td>Endowment Administration</td>
<td>-4,822.47</td>
</tr>
</tbody>
</table>

With Row Totals:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Actual Amount</th>
<th>Actual Amount</th>
<th>Actual Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>545-Financial Reporting Total</td>
<td>493.55</td>
<td>60.93</td>
<td>11,592.14</td>
</tr>
<tr>
<td>546-Accounting Operations</td>
<td>230000</td>
<td>AS Departmental Administration</td>
<td>235.99</td>
</tr>
<tr>
<td>546-Accounting Operations</td>
<td>240001</td>
<td>AS Lectures and Symposa</td>
<td>37.00</td>
</tr>
<tr>
<td>546-Accounting Operations</td>
<td>349861</td>
<td>Accounting Services</td>
<td>488.00</td>
</tr>
<tr>
<td>546-Accounting Operations</td>
<td>349862</td>
<td>Accounting Services</td>
<td>-45.00</td>
</tr>
<tr>
<td>547-Controllers Ofc</td>
<td>349863</td>
<td>Accts Payable Office</td>
<td>20.00</td>
</tr>
<tr>
<td>547-Controllers Ofc</td>
<td>349864</td>
<td>External Audit</td>
<td>3,065.79</td>
</tr>
<tr>
<td>547-Controllers Ofc</td>
<td>349865</td>
<td>Controller Central</td>
<td>-4,056.39</td>
</tr>
<tr>
<td>547-Controllers Ofc</td>
<td>349866</td>
<td>Endowment Administration</td>
<td>-4,822.47</td>
</tr>
</tbody>
</table>

Additional subtotals can be added for any other datafields in the report.

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Adding Totals

Row Grand Total:

Attached to *Rows* area label, not to a specific data field in the Rows area.

Results:

Without Row Grand Total:

With Row Grand Total:

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Adding Totals

Row Totals (After) plus Row grand total (After)

Results:

<table>
<thead>
<tr>
<th>Activity</th>
<th>1-JUL Actual Amount</th>
<th>2-AUG Actual Amount</th>
<th>3-SEP Actual Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>545-Financial Reporting-Health Promotion and Wellness Program</td>
<td>7.98</td>
<td>14.98</td>
<td>6.99</td>
</tr>
<tr>
<td>545-Financial Reporting-Controller Central</td>
<td></td>
<td>5.95</td>
<td></td>
</tr>
<tr>
<td>545-Financial Reporting-Financial Reporting</td>
<td>485.57</td>
<td>40.00</td>
<td>2,335.45</td>
</tr>
<tr>
<td>545-Financial Reporting-Tax Activities</td>
<td></td>
<td></td>
<td>9,250.00</td>
</tr>
<tr>
<td>545-Financial Reporting Total</td>
<td><strong>493.55</strong></td>
<td><strong>60.93</strong></td>
<td><strong>11,592.44</strong></td>
</tr>
<tr>
<td>546-Accounting Operations-AS Lectures and Symposia</td>
<td></td>
<td>37.00</td>
<td>-37.00</td>
</tr>
<tr>
<td>546-Accounting Operations-Accounting Services</td>
<td>498.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>546-Accounting Operations-Accts Payable Office</td>
<td>20.00</td>
<td>-20.00</td>
<td></td>
</tr>
<tr>
<td>546-Accounting Operations Total</td>
<td><strong>20.00</strong></td>
<td><strong>750.99</strong></td>
<td><strong>-272.99</strong></td>
</tr>
<tr>
<td>547-Controllers Ofc-External Audit</td>
<td>3,085.79</td>
<td>2,273.74</td>
<td>41,900.00</td>
</tr>
<tr>
<td>547-Controllers Ofc-Controller Central</td>
<td>4,095.39</td>
<td>7,948.95</td>
<td>2,671.71</td>
</tr>
<tr>
<td>547-Controllers Ofc-Endowment Administration</td>
<td>-4,822.59</td>
<td>-4,822.47</td>
<td>-4,822.56</td>
</tr>
<tr>
<td>547 Controllers Ofc Total</td>
<td><strong>2,319.59</strong></td>
<td><strong>5,400.22</strong></td>
<td><strong>39,749.15</strong></td>
</tr>
<tr>
<td>Grand Total</td>
<td><strong>2,833.14</strong></td>
<td><strong>6,212.14</strong></td>
<td><strong>51,068.60</strong></td>
</tr>
</tbody>
</table>

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Adding Totals

When adding totals to other than the first data field in the Rows area, go to the Criteria tab and for each data field to the left of the data field you are totaling, choose Properties, the Column Format tab, and Suppress to group duplicate values in that column:

If this step is not taken, adding totals may result in the following error type:

View Display Error
Assertion failure: rTotalPosition.tCellInfo.iLayerCell <= rTotalPosition.tCellInfo.iEndLayerCell at line 307 of d:\views\nightly\tue\aruba\windows\vobs\071217.1900\analytics_web\main\project\webpivot\view\edgeiteratordef.h

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Adding Column Totals

Multiple Columns, here by month:

In Columns Area, choose sum icon and choose Before or After

Result: Sum totals of columns:
Conditional Formatting

- Conditional formatting can be added to data fields.

For example, **Budget Balance Available** can be set to be highlighted if it is negative:

1. Choose Column Properties for Budget Balance Available

2. Choose Conditional Format tab, click Add Condition

3. Choose the data field to apply the condition to

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Conditional Formatting

Conditional formatting can be added to data fields.

For example, **Budget Balance Available** can be set to be highlighted if it is negative:

1. Choose Column Properties for Budget Balance Available

2. Choose Conditional Format tab, Click Add Condition

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Conditional Formatting

3. Choose the relevant datafield, fill in the condition; click OK

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4. Choose the Format of the data field when the condition is met (here, a yellow background to the cell, and red text); click OK

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Conditional Formatting

5. Review conditions and click OK

Result in pivot table:

---

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Saved Reports

To run a saved report, choose Catalog:

Click on the applicable folder and then Open or Edit the report:

See next page for how to get through multiple subfolders to the report level.

For help, email Financial.Reports@dartmouth.edu
Saved Reports

If your report is saved within a series of subfolders:

For help, email Financial.Reports@dartmouth.edu
Updating Saved Reports

Opening a saved report using “Open” shows the latest report design and data. To Edit, Export, or Print, use commands below the output.
Updating Saved Reports

Both commands take you from Catalog into the Criteria tab for that specific report:

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Updating Saved Reports

See Filters section at the end of this manual for instructions on updating filters. To see the structure of the report, click Results tab...
Updating Saved Reports

Under views, click the one you wish to view or edit. Click the pencil to view the report.

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Saving/Downloading/Printing

After editing a report view, while in Results or Criteria tab, choose Save As icon from upper-right-hand corner:

Choose My Folders or a folder created under My Folders, and save under unique file name. Click OK.

See next page for how to create subfolders.
Saving/Downloading/Printing

After clicking Save icon from upper-right-hand corner, highlight the main folder to add the subfolder to (here, “My Folders”) and click the New Folder icon:

Choose a name for the folder and click OK:

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Saving/Downloading/Printing

Your report will now save to the subfolder within your main folder.

Use folder structure and naming conventions that are meaningful to you.

Enter a description of the report (opt.)

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While in the Results view, click on the third icon to open the report in a separate window:

At the bottom of that window, choose Print or Export options:
Saved Reports – Manage Catalog

To manage saved reports or subfolders, click on More. Use the icons to delete, change file or subfolder names, and copy or move files and folders.

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Filters

Filters are rules applied to financial data that determine what data will be returned in a report. They show in the Criteria tab and can be modified, or new filters can be created.

Note: Multiple filters can be created against the same data field. Choose the Add Filter icon as many times as needed on the same data field.

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Modifying Filters

Analyze offers a variety of filter options to allow you to both isolate information and widen searches to capture all available information.

Use Operator selections to choose the report criteria without specifying exact values:

Use selection on the right to search for exact values the report should include, and click to add values to the left:

Enter a Match criterion and click EITHER

All Choices – lists all values that meet the criterion

OR

Limited Choices – cascades values based on data field filters already in place

Click once on a value to add it to the filter to the right.

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Modifying Filters

For example, here all Natural Class values greater than 3999 will be included in the report, or 4000 – 9999. Each value does not need to be listed.

In contrast, below is a search on NC beginning with 4, where only the first four values are then moved to the right to be included in the report:

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Modifying Filters

The two kinds of filters can be combined:

Filter 1
AND Natclass begins with 4
AND Natclass is not equal to / is not in: 4011-TUITION Summer; 4012-TUITION Fall; 4014-TUITION Spring; 4013-TUITION Winter

Filter 2

Other examples:

Click AND to change to OR; all transactions with the specified Org values OR the specified Activities will be included. These filters need to be adjacent in the filter list for the OR to work correctly.

Use first five segments in chart string to include all natural classes used with that combination

For specific Sources, include all Natural Classes 7000 and higher

To see what was posted on a specific range of days

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Modifying Filters

Other examples:

- Exception Reporting: For ORG 545, show all transactions using something other than Subvention 368000
- Combine non-contiguous natural classes that all relate to Printing
- Include all transactions created by an individual
- Include Manual (ADI) entries not uploaded by John Smith (choose names from picklist to ensure correct syntax)
- Includes transactions to Fisher Scientific for various lab-related expenditures

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**Modifying Filters**

**Caution:**

Fiscal Periods: For reports with multi-select fiscal periods on the IRA report, choose one or more fiscal periods. For reports with a pull-down for fiscal period on the IRA report, be careful when choosing more than one fiscal period for the modified report. If multiple periods are chosen, be sure they are broken out in the pivot table or the balances will be combined and overstated.

**Multi-select example:**

- **GL Transactions**
  - Fiscal Period is equal to / is in: 8-FEB

Returns February transactions

**Pull-down select example:**

- **GL Rollups Report_R**
  - Fiscal Period is equal to / is in: 8-FEB

Returns a YTD balance for every month. Be sure to keep YTD balances showing separately in the pivot table, or all YTD balances will be summed and total overstated.
Modifying Filters

Please note that after changes are made to filters, to see the results, click the Results tab, choose the view and click the pencil icon to get back to the specific report view:

Export, Print as needed from specific report view:

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