OBI is a very powerful analytical tool. This document provides a guide to undertaking ad hoc analysis in OBI using the following example: *Between 2007 and 2011, how do academic divisions compare in the metric of HERDC publications per costed FTE; levels B+, TR and RO and what has the annual trend been by academic division?*

Before you commence an analysis, it is good practice to think about how you want the result displayed, e.g.: data table, chart, etc.

### Starting a New Analysis

You will need author access in order to create a new analysis. If you have author access a New menu will display on the OBI toolbar.

1. Click **New**.
   **Note:** there are a number of different options available in the New menu.

2. Select **Analysis**.
Selecting the Subject Area

The first step is to select a **Subject Area** for the analysis. A subject area contains related data elements. This example involves selecting two subject areas:

- **HERDC-Publications** to obtain the number of publications
- **Human Resources Workforce Profile** to obtain the number of Academic Staff

**Note:** your access will determine the Subject Areas that display. Some users may only have access to a single subject area such as ISIS. See the data glossary for descriptions of each Subject Area.

1. Scroll down and select **HERDC-Publications**.

   **Note:** you can only select one subject area from this list. If you require additional subject areas you can add them after you have selected the dimensions and facts for the initial subject area.

**Subject Area Panel**

The Analysis screen opens to the Criteria Tab. The Subject Areas panel holds the data values (Dimensions and Facts) for the Subject Area we just selected, HERDC - Publications.

- Facts are typically calculated data like dollars value or Sales or Revenue. They correspond to the focus of a decision support investigation.
- Dimensions define the axis of investigation of a fact.

They are organized as hierarchical columns using both named levels and parent-child relationships. The column is displayed using a tree-like structure. Individual members are shown in an outline manner. A base-lined ‘cross domain matrix’ will be made available as a reference.


Selecting Dimensions and Facts from Subject Area

The example used in this document will add the following Dimensions:

- Year
- Reporting Hierarchy
- Reporting Level 3 Code
- Reporting Level 3 Name

1. Open the Year folder.

2. Double-click or drag the required dimension or fact to the Selected Columns pane.

3. Repeat step 1 and 2 until all the dimensions and facts are in the selected columns pane.

4. Click the Results tab.

Note: To re-order the columns of your report output, select and drag the individual dimensions and/or facts.
Viewing Results

The query used in this example has returned:

- Year
- Reporting Level 3 Code
- Reporting Level 3 Name
- HERC Publication Count

The example used in this document specifies Academic Divisions, so the query requires a filter in the Reporting Hierarchy.

Applying Filters

1. Click Criteria tab.
2. Click Filters icon.

Note: the most recently used dimensions will display in the brief list.
3. Click **More Columns**.

4. Open the **Reporting Hierarchy** folder.
   The Select Column Panel will display. This panel will let you select any dimension or fact within **HERDC - Publications**.

5. Select **Reporting Level 2 Name** then click **OK**.
   The New Filter panel will display. If you know the value that you want, you can type it into the Value field, alternatively you may use the **Search** feature.
6. Click **Search** icon.
   The Select Values Panel will display the available values. You will need to move the required values (in this example: FACC - ACADEMIC FACULTY) to the Selected column.

7. Select the required value, click **Move** and then **OK**.
   The Filters Pane will indicate that you have applied a filter to your query.

8. Click **Results** to view your query results with the applied filter.
The results now display the HERDC publication count by Academic Faculty by Year.

To refine the results to meet the example, you will need to add the number of Costed FTE; levels B+, TR and RO. This fact is not available from the HERDC - Publications Subject Area, but it is available from the Human Resources - Workforce Profile Subject Area.

Adding additional Subject Area

Use the **Add / Remove Subject Area** function to specify an additional Subject Area. **Note:** your access will determine the Subject Areas that display. Some users may only have access to a single subject area such as ISIS.

1. Click **Criteria** tab.
2. Click **Add / Remove Subject Areas**.

The Add / Remove Subject Areas Panel will display.
3 Scroll down, select Human Resources - Workforce Profile and click OK.

Add Fact from additional Subject Area
Human Resources - Workforce Profile is now in the Subject Areas List. We want to add Costed FTE B+ TR,RO.

1 Open the Human Resources - Workforce Profile folder.

2 Open the Fact – University Metrics folder.

3 Double-click or drag the Costed FTE B+ TR,RO fact to the Selected Columns.
3 Click **Results**

The Compound Layout will show that **Costed FTE B+ TR,RO** has been added to the results.

---

**Applying formulas**

The result does not yet provide the metric HERDC publications per costed FTE; levels B+, TR and RO. To do this, you will need to add an extra column that calculates this metric by dividing **HERDC Publication Count** by **Costed FTE B+ TR,RO**. As it will be a formula, it does not matter what fact or dimension you add, as you will need to edit the column to add the formula after you add it.

1 Click **Criteria** tab.

2 Double-click or drag the fact **Costed FTE B+ TR,RO** to the Selected Columns

While an extra column, **Costed FTE B+ TR,RO**, has been added, you will need to edit the formula in this column so that it divides the HERDC Publication Count by **Costed FTE B+ TR,RO**.
Copy the formula for HERDC Publication Count
The first step is to retrieve the formula for HERDC Publication Count.

1. Click **Edit icon** for **HERDC Publication Count**.
   A panel of edit options will display.

2. Click **Edit Formula**.

   ![Edit Formula Panel]

   The Edit Formula panel will display the formula used to retrieve the HERDC Publication Count. You will need to copy the formula in order to paste it into the second Costed FTE B+ TR,RO column. **Note:** You can use the standard windows **CTRL+C**, or right click to copy the formula.

3. Copy the formula and click **OK** to close the Edit Formula panel.
## Edit formula for Costed FTE B+ TR,RO

Now that you have the formula that retrieves the HERDC Publication Count, you will need to edit the formula in the second Costed FTE B+ TR,RO column so that it divides HERDC Publication Count by Costed FTE B+ TR,RO.

1. **Click Edit icon then Edit Formula** for the second Costed FTE B+ TR,RO column

   The Edit Formula panel will display the formula that retrieves Costed FTE B+ TR,RO from the OBI warehouse.

   ![Original Formula for Costed FTE B+TR, RO](image)

2. **Paste formula for HERDC Publication Count and add “/” between the two formula.**

   The formula for this column is now “Fact-Publication”, “HERDC Publication Count” / “Human Resources - Workforce Profile”, “Fact-University Metrics”, “Costed FTE B+ TR,RO”. You now need to edit the Column Heading so that it is clear what values are going to be displayed in this column.

   ![Select Custom Heading and enter new Column Heading](image)

3. **Click the Custom Headings check box.**

4. **Enter a new Column Heading then click OK.**

   For example: Pub Year FTE B+ TR and RO.

5. **Click Results.**
The results now answer the question: Between 2007 and 2011, how do academic divisions compare in the metric of HERDC publications per costed FTE; levels B+, TR and RO and what has the annual trend been by academic division?
Adding Pivot Table View

OBI can easily present multiple views of the same data. The currently available views are displayed in the Views pane. In the example below there are only two views available Title and Table. Once you create the Pivot Table view, it will display in this pane.

1. Click New Views.

   This example will outline the creation of a standard pivot table view that displays the years across the top in columns, and the Reporting Level 3 names in the rows.

2. Select Pivot Table.

   The Pivot Table view will now be available from the Views pane and you will be able to edit it.

Edit Pivot Table View

1. Select Pivot Table.

2. Click Edit View.

   The default Pivot Table layout will display.

   You can drag and drop the Rows and Columns to change the way the table is presented. As you drag and drop items in the bottom pane, the pivot table view in the top pane will be updated.
3 Drag Year above Measure Labels.

The pivot table will now display Years on the top row, with HERDC Publication Count, Costed FTE B+ TR,RO and Pub per FTE B+ TR,RO underneath.

4 Click Done

This will close the Pivot Table Edit Mode and return you to your results view. The pivot table created is below the Compound layout.
Save Analysis
You can save the analysis. For Release 1.1 in November 2013, shared folders have not been enabled. You can only save to My Folders.

1. Click **Save As**.

   ![Save As panel](image)

   The Save As panel will display.

2. Enter a name, and a brief description if desired.

3. Click **OK**.

   **Note:** Any analysis saved in My Folders is only accessible to the account under which it was saved (even the system administrator will not be able to access this folder).
Adding Chart View

As mentioned above, OBI can produce a range of views from the same query. The following instructions will outline how to add a chart.

1. Click **New View**.
2. Select **Chart View > Line View**.

A default line chart view display created. The example below outlines how to edit this view so that the Level 3 reporting names are on the chart as coloured lines, the number of FTE are on the vertical axis, and the years are on the horizontal axis.
Edit Chart

1. Click **Edit View**.

The Layout pane will display how the dimensions and facts are arranged on the chart. **Note**: if you are working on a small monitor, you may need to move the pane divider to get a better view.

In the example above, both the Reporting Level3 Code and Reporting Level3 name are displayed on the chart - you can undertake further edits to alter this.

2. Drag **Reporting Level3 Code** to the Excluded section to hide it on the chart.

3. Drag **Reporting Level3 Name** and drop it above **Measure Labels** to put it in the horizontal access.
3. Click **Done** to save your changes.

This will end **Edit Mode** and return you to the results view. The chart view that you created is below the Compound layout.
Exporting Results

There is a range of formats to which you can export. The example below outlines how to export to Excel.

1. Click Export > Excel.

A prompt will display asking if you want to save or open your results.

2. Click Open.

Note: OBI exports the results as a MHT file so that formatting of the browser tables and charts are maintained. Because it is named by OBI as an Excel file, Excel reports an error. Click OK to open. Once open, save it as a native Excel file.

Only the data displayed in OBI at the time is exported. In this example both the pivot table view, and a chart view, both have been exported. The table contain static data and the charts are just an image. If you want to conduct further analysis, you should do it in OBI.