OPENBOOK STARTER KIT AND ANALYTICS RESOURCE

Version 1.0

09/16/2013

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1   INTRODUCTION

1.1   PURPOSE

The purpose of this resource is to orient users to key features of the City Colleges of Chicago Data Warehouse and OpenBook platform, a web-based reporting system that allows CCC employees to:

- Run pre-built reports or create new reports
- Analyze data on their classroom, department, college, or program area
- Monitor and explore metrics of interest

1.2   ABOUT THE DATA WAREHOUSE AND REFRESH FREQUENCY

The CCC Data Warehouse centralizes and connects data from separate data systems, such as PeopleSoft Student Administration (SA), PeopleSoft Human Resources (HR), PeopleSoft Finance, the National Student Clearinghouse, GradesFirst, Blackboard, and many other sources. In this first phase of the CCC business intelligence project, **PeopleSoft SA** and **National Student Clearinghouse** data has been brought into the Data Warehouse and made available. Once data has been brought into the Data Warehouse, the information is processed, transformed, and then made available through a reporting platform such as OpenBook. Advanced users will also have the ability to connect directly to the Data Warehouse through statistical analysis tools such as SAS, SPSS, or Tableau.

The CCC Data Warehouse refreshes data on a nightly basis. This means that the data users see in the OpenBook reporting system is always current through the end of the previous day, with the exception of Monday due to a weekly OIT maintenance window. Monday's data will be current through the end of the previous Saturday.

1.3   DATA WAREHOUSE USER VIEWS

Based on a user's primary area of academic responsibility, users will be defaulted to one of the following views in the OpenBook reporting system:

- Faculty
- Advisor
- Department
- Program Administration
- Administration
- Research
- BI Data Management (designated for IT staff)

These views help to filter data so users see information that is familiar to their job responsibilities at City Colleges of Chicago. For example, a faculty member will see data related to students and classes they are currently teaching and have taught in the past. Users may hold multiple views (e.g., an administrator who teaches at CCC will have the view faculty and administration) and they will be able to switch between views within the OpenBook reporting system.

1.4   DATA WAREHOUSE TECHNICAL TERMS

- **REPORTING AREAS:** Reporting areas are Data Warehouse groupings that allow users to access, view and analyze information quickly and from a number of perspectives. Each reporting area contains **dimensions** and **measures** that allow users to analyze information in a particular way. Reporting areas will vary in their level of granularity (or drill-down ability) depending on their analytic purpose. Section 1.5 that follows will provide additional detail on the structure and information contained within each reporting area.

- **DIMENSIONS:** Dimensions are descriptive attributes allowing users to filter or disaggregate data into even finer subcomponents ('slice and dice'). Some dimensions exist across reporting areas (e.g., Gender, Ethnicity) and some exist only in a single reporting area (e.g., Awarded Program).
    - o   In Enterprise Reports, the Field List icon that indicates a dimension appears as:
    - o   Dimensions can be used in an Enterprise Report as **filters**, **rows**, or **columns**.
    - o   Use the Data Dictionary to learn more about any dimension definitions and possible values within each dimension.

- **MEASURES:** Measures are calculated data values. Measures can only be used in the **data area** of an Enterprise Report (as opposed to a filter, row, or column).
    - o   In Enterprise Reports, the Field List icon that indicates a measure appears as:
    - o   Measures can only be used in an Enterprise Report in **data area** of the report.
      NOTE: Measures cannot be used as a filter, row, or column.
    - o   Use the Data Dictionary to learn more about any measure and its specific calculation method in the data warehouse.

1.5 DATA WAREHOUSE: ADDITIONAL INFORMATION ON REPORTING AREAS

As described in the previous section, **Reporting Areas** are CCC Data Warehouse groupings that allow users to access, view and analyze information quickly and from a number of perspectives. The Data Warehouse contains several reporting areas to support different analysis and reporting purposes (outlined in the table below). Understanding the structure and data contained in the reporting areas will help users even more powerfully access the information they need to support their roles and responsibilities in the organization.

REPORTING AREA	DESCRIPTION	REGULAR FILTERS & REPORTS
Class Sections	Focus: Class sections information Granularity: Row of data for each class section (does not drill down to a student or allow for unduplicated headcounts)	Regular filters: **Snapshot** ('Current'); **Canceled** ('No'); **Primary Course** ('Yes') *Example analysis: Class Utilization, Class Drops, Class Success/Retention, Grades*
Student Classes	Focus: Student enrollment in classes as of Stat Date. This is the most detailed of the reporting areas and best for creating most reports. It also contains most dimension and measures of all the reporting areas. Granularity: Row of data for each student, for each class enrolled, for each term enrolled *NOTE: Some information will overlap with Class Sections and Student Terms.*	Regular filters: **Snapshot** ('Current'); **Enrolled** (select 'Yes') - *based on Class Stat Date*; **Primary Course** ('Yes') *Example analysis: Enrollment, Student Withdrawal Reason, Grade Distribution (dimension), Class Success/Retention*
Student Degrees	Focus: Student awards given by each college Granularity: Row of data for each award a student receives	Regular filters: **Snapshot** ('Current') *Example analysis: Awards by college/program/student group*
Student Tests	Focus: Student placement tests and test scores captured in PeopleSoft SA Granularity: Row of data for each test a student took or reported	Regular filters: none *Example analysis: Number of test takers, Average test score*
Student Terms	Focus: Student enrollment by class instructional area Granularity: Row of data for each student, for each class instructional area, for each term	Regular filters: **Snapshot** ('Current'); **Enrolled** (select 'Yes') - *based on Class Stat Date* *Example analysis: GPA, Enrollment by program, instructional area, student group, home college*
Students	Focus: Student information Granularity: Row of data for each student who attended CCC since 2004-2005 (which is the first complete academic year brought into the Data Warehouse) *NOTE: This reporting area has limited use since it is not organized by terms, programs, or classes.*	Regular filters: none *Example analysis: Student demographics, location*

2   MAIN NAVIGATION

2.1   OPENBOOK REPORTING SYSTEM – LOGIN

Log into OpenBook using your City Colleges of Chicago-issued user name and password. To reach the Login Screen, open a web browser (Internet Explorer is the recommended browser!) while connected to the CCC network and type in this address: https://openbook.ccc.edu/

After successfully logging in, the **Main Menu** page appears. On the Main Menu page, there are options to select Enterprise Reports, Student Navigator, Data Dictionary, and Help and Support. Each Main Menu is uniquely configured to each user of OpenBook. Therefore, all Main Menu options will not be available to every user, within OpenBook.*

DESCRIPTION ABOUT EACH SECTION	
ENTERPRISE REPORTS	• View and work with interactive reports • Create new reports from blank templates • View the pre-built reports / Manage dashboards
STUDENT NAVIGATOR	Identify individual students or cohorts of students
DATA DICTIONARY	Look up every term available in the CCC Data Warehouse and OpenBook
HELP AND SUPPORT	View training videos and contact your help desk
USER ADMINISTRATION*	Portal to manage OpenBook user groups

NOTE: User Administration and Data Warning icons are only visible to users who hold the Administrator or BI Management views.

2.2   SHORTCUT LINKS

The Shortcut Links are always located as icons in the upper-right corner of any screen view. Left-clicking on the shortcut link icons will allow the user to quickly access each area. The icons for each Shortcut Link are defined as follows:
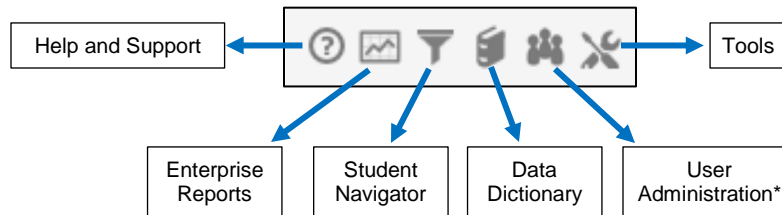
NOTE: User Administration and Data Warning icons are only visible to users who hold the Administrator or BI Management views.

2.3   RETURNING TO THE MAIN MENU

A user can return to the Main Menu page by left-clicking on the OpenBook logo. This logo is always located at the upper-left corner of any screen view.
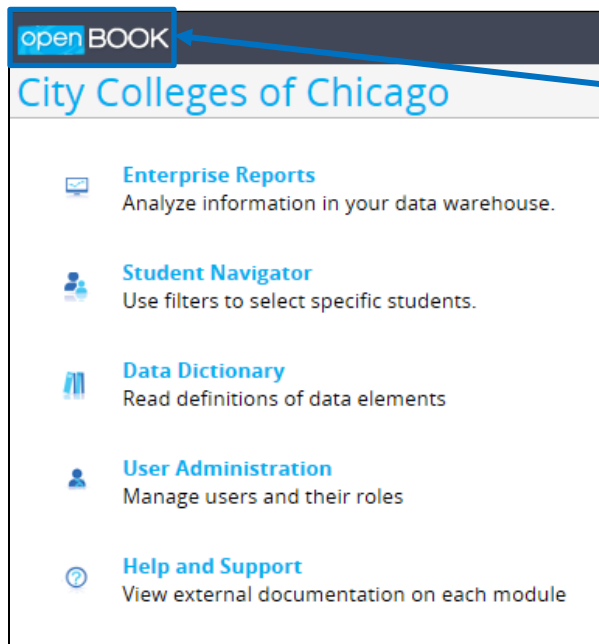
The OpenBook logo appears in the upper-left corner of every page in the OpenBook reporting system. Left-clicking on this logo will take the user back to the Main Menu.

3   ENTERPRISE REPORTS PORTAL NAVIGATION

Enterprise Reports is a report portal where users can view standard and pre-built reports, create new reports from blank templates, and manage their dashboards. Users also have the ability to add their frequently used reports and dashboards to their **Favorites** section.

3.1   NAVIGATE TO THE ENTERPRISE REPORTS PORTAL

From the main menu, clicking on Enterprise Reports icon will take users to the Enterprise Reports Portal. When the portal opens up, on the left-hand side, users will see two main groupings: **Institution Tags** and **System Tags.**

- **Institution Tags** are reports organized under a report "tag" or theme and set up by the OpenBook team. For example, clicking on the Enrollment Reports link will pull up a list of reports related to enrollment.
- **System Tags** are all the reports and OpenBook features available to the user and their specific view.

Below is a brief description of the reports contained in System Tags:

| Sections listed beneath 'SYSTEM TAGS'	
FAVORITES	Enterprise Reports will open to the Favorites section by default. This section contains the user-selected favorite reports and dashboards.
DASHBOARDS	Dashboards are a combination of reports built into a single window/interface.
REPORTS	Reports contain a list of all interactive reports available to the user view.
TEMPLATES	Advanced users can generate a report from scratch in this section. Users select a blank template to build new reports.

4.1   ENTERPRISE REPORTS PORTAL – FAVORITES

Entering the Enterprise Reports Portal will automatically pull up the Favorites section if any report has been marked as a favorite. The Favorites section contains a user's selected favorite reports and dashboards. Reports and dashboards in this section are not shared with other users, nor will any user's Favorites section affect the Favorites of other users. Users manage items that appear in this section in two ways:

- Within the Enterprise Reporting portal, left-clicking once to select the 'star' icon for adding as a favorite. To reverse the selection as a favorite, left-click the highlighted 'star' icon again, to undo, and remove the report from the Favorites section.
- Within any open report or dashboard, by clicking on 'Add as Favorite' – the link is located near the top of the open report.
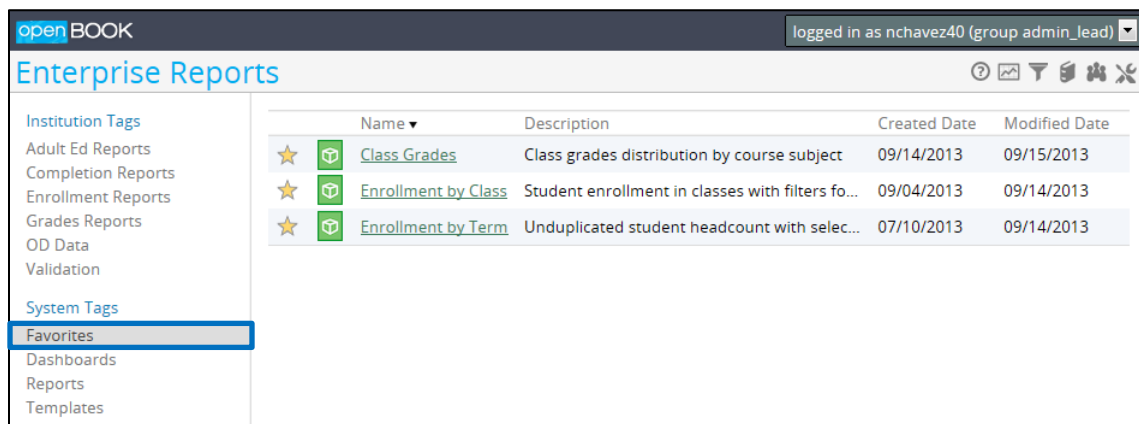
4.2   ENTERPRISE REPORTS PORTAL – DASHBOARDS

Clicking on the Dashboards will show a list of dashboards available to the user:
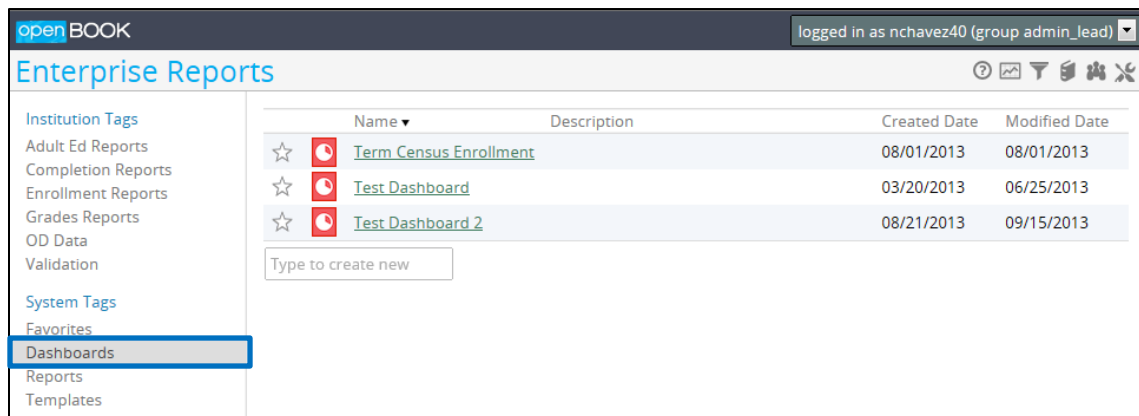
A dashboard is flexible interface that combines reports into a single window.

- **Functionality:** Users can fully manipulate reports presented on a dashboard (add/modify dimensions and measures; drill-down into dimensions); however, any changes to a report while accessed through the dashboard will not be saved. A dashboard can also contain multiple tabs to allow users to create customized groupings of reports.

- **Creating new dashboards:** Click on 'New Dashboard'. Your reports must already be created in the Reports section to add them to any dashboard.

- **Editing:** Once a dashboard is open, click on the 'Edit' link to modify or change the reports on a dashboard.

Add as favorite | Edit | Rename   Share   Delete

Once edits have been completed to a dashboard, click on the 'View' link to save the dashboard changes.

Add as favorite | View | Rename   Share   Delete

- **Changing reports used within a dashboard:** To modify the display of any report on a dashboard, users will need to access the report under the **Reports Section**, modify the report, and then save changes to the report. The dashboard will update accordingly once the report changes have been saved.

4.3   ENTERPRISE REPORTS PORTAL– REPORTS

Clicking on the Reports will show a list of reports available to the user:
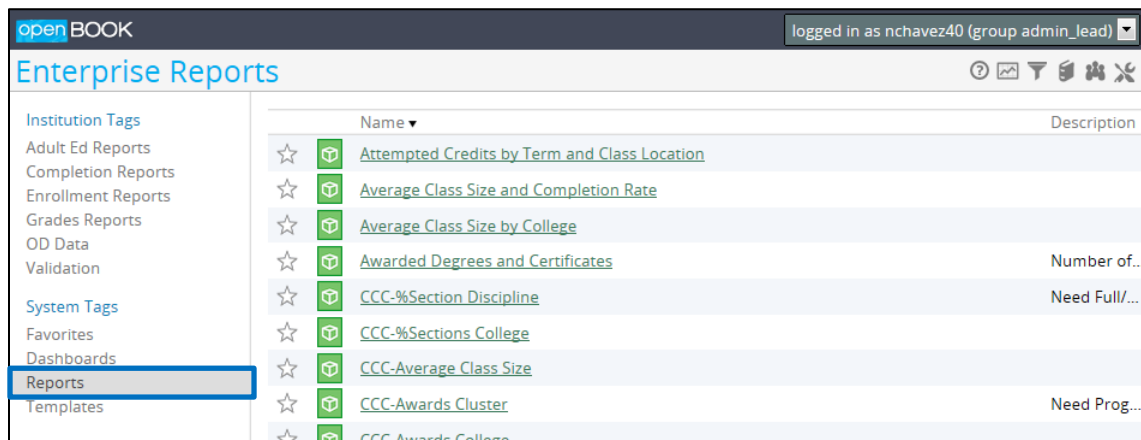
See <mark>Section 5</mark> for detailed information on how to navigate, modify, and create reports.

4.4   ENTERPRISE REPORTS PORTAL – TEMPLATES

Clicking on the Templates section will show a list of report templates available to the user:

Templates allow users to create a report from scratch. Each template is connected to a specific reporting area in the CCC Data Warehouse. Prior to using any of the templates, it is recommended that users review the following materials:

- **Data Dictionary:** Every dimension and measure available in any reporting area is defined in the Data Dictionary. Users can search the data dictionary to identify the dimensions and measure they will need to construct their custom report.
- **OpenBook Data Filtering Guide:** This separate guide provides the necessary information to recreate or build standard reports in key reporting areas at City Colleges of Chicago. The guide contains descriptions standard filters to consider in creating reports.

5 ENTERPRISE REPORTS NAVIGATION

Clicking on a report from the Enterprise Reports Portal will open up the report on the main screen:

REPORT NAVIGATION OVERVIEW

1. **Report Name**

2. **Report Management Options.** Refer to Section 5.2

3. **Report Toolbar.** Refer to Section 5.1

4. **Report Filter Area.** Refer to Section 5.3

5. **Report Body.** Refer to Section 5.3

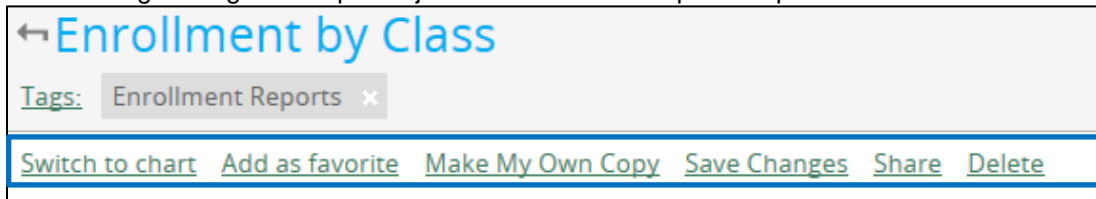6. **Field List.** Refer to Section 5.4

5.1 ENTERPRISE REPORT TOOLBAR

The full Report Toolbar contents are defined in the following snapshot:
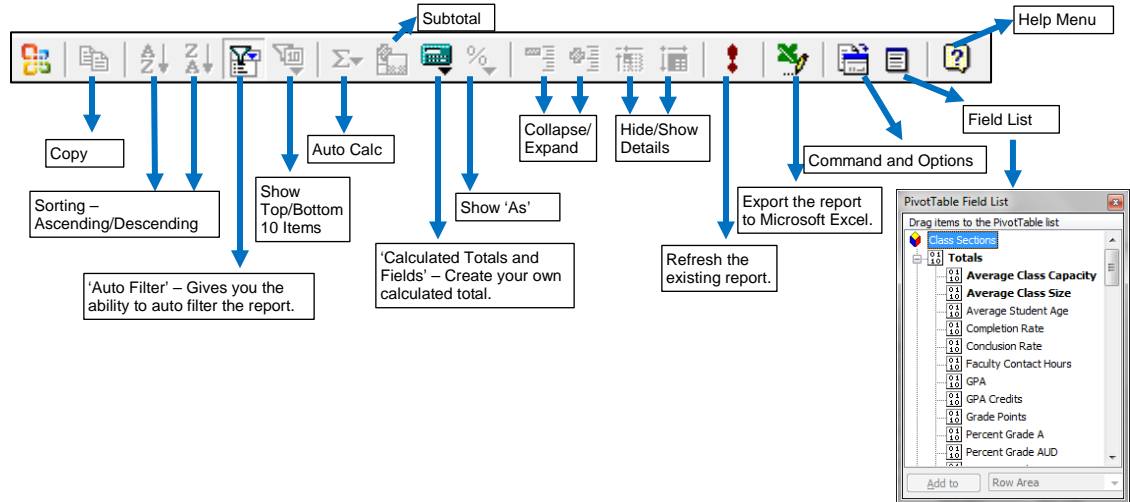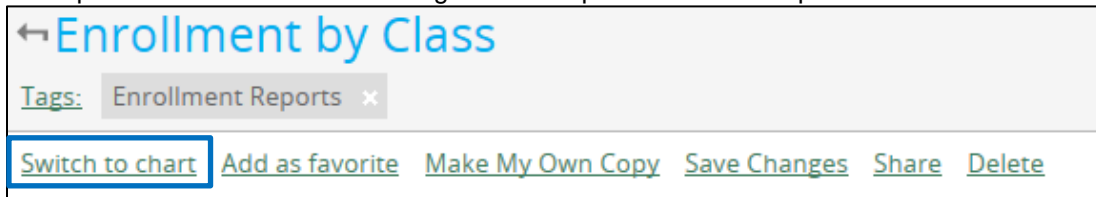

5.2 ENTERPRISE REPORT MANAGEMENT OPTIONS

A variety of report management options are available once a report is opened. You should see the following management options just beneath the Enterprise Reports section.
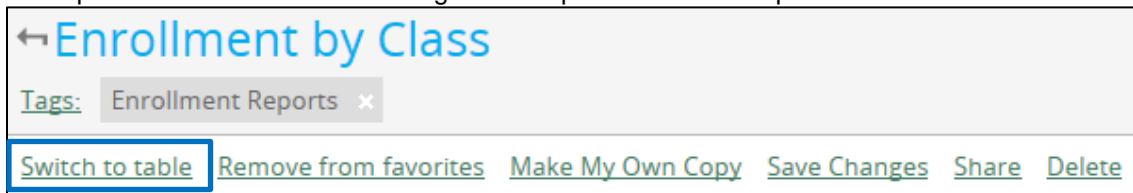

5.2.1 Switch to Chart

This option enables the user to change a table report into a chart report.

5.2.2 Switch to Table

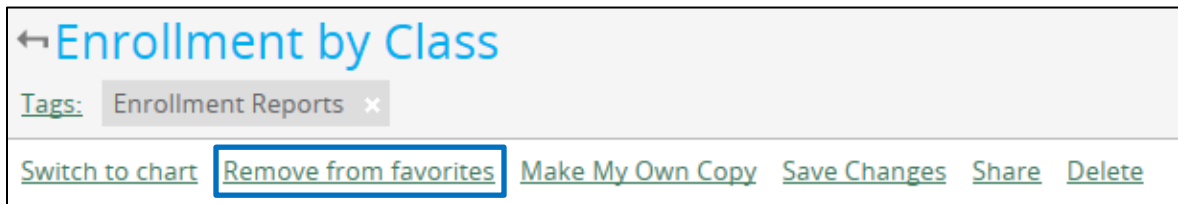This option enables the user to change chart report into a table report

5.2.3   Add/Remove as Favorite

If you want to designate a report as a favorite, click on this link to mark it as a favorite.

If a report is already marked as a favorite, you should see a link to remove it from your favorites list.

5.2.4   Make My Own Copy

To customize and save your own version of a report, select 'Make My Own Copy' and the following window will expand:

'MAKE MY OWN COPY' NAVIGATION

1.   Give a name to the report you want to save.

2.   Add any description you want to add to the report

3.   Enable/disable functionality that allows the user to view the same report in chart mode. Usually, set this report button to 'Enable'.

4.   Save the report as a report or a template.

5.   'Save' after you enter the required information.

5.2.5 Share Reports

To share a report with someone else, select 'Share' and a new window will pop up that allows users to add or remove report permissions. Three report permissions can be applied:
- Rights to view the report only
- Rights to view and copy the report
- Rights to view, copy, and save changes to the report

Selecting 'Share' link will expand the window and allow the report owner to specify share settings:
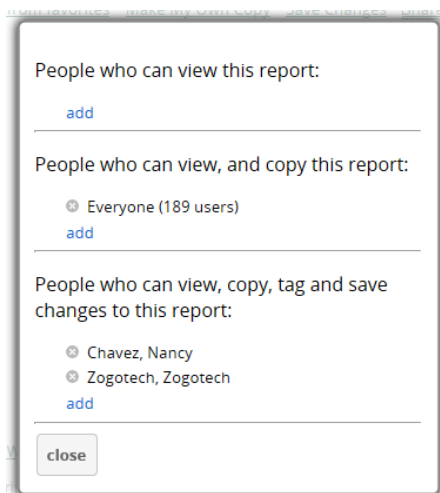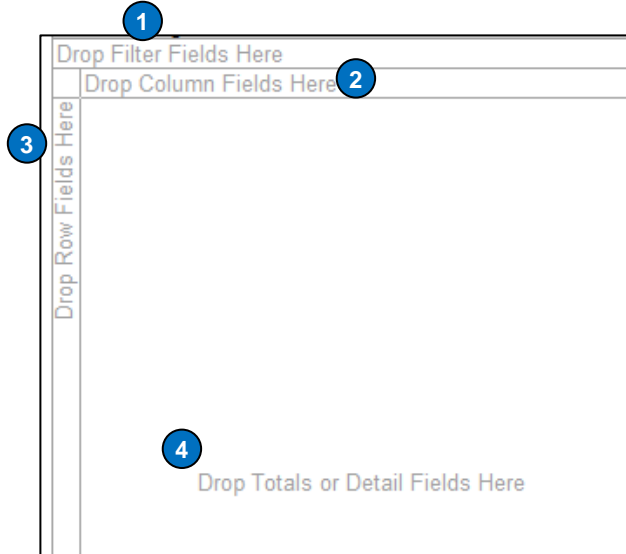

5.2.6 How to Reset Reports

To **reset** a report, hit '**F5**' keyboard button to go back to when a user first opened a report. Hitting F5 will reset a report to the last point a report was saved.

5.3 ENTERPRISE REPORTS – USING DIMENSIONS AND MEASURES

Dimensions and measures can be used in the following areas of a report body:


REPORT BODY NAVIGATION

1. **Filters:** Adding fields into this area will allow users to restrict the data based on the values within a specific dimension. Only dimensions can be used as filters.

2. **Column Fields.** Adding fields into this area will place the unique values into columns. Only dimensions can be used in column fields.

3. **Row Fields.** Adding fields into this area will place the unique values into rows. Only dimensions can be used in row fields.

4. **Totals/Detail Fields.** Adding fields into this area will show calculated measures. Only measures can be placed in the total/detail fields.

5.4 ENTERPRISE REPORTS FIELD LIST

The field list contains all the measures and dimensions available within the reporting area.

Field List:
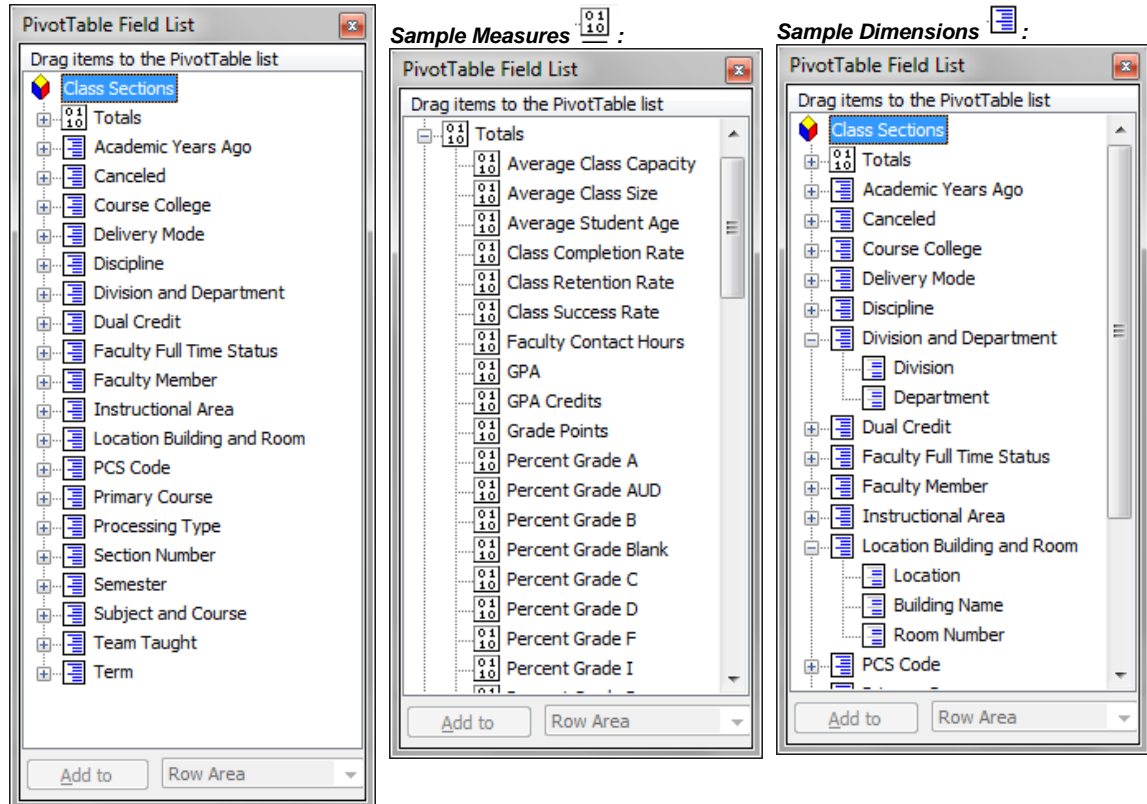
Depending on the field type, fields can be used in particular sections of a report. Remember that there are two types of fields that can be used within Enterprise Reports:

- **DIMENSIONS:** Dimensions are descriptive attributes allowing users to filter or disaggregate data into even finer subcomponents ('slice and dice'). Some dimensions exist across reporting areas (e.g., Gender, Ethnicity) and some exist only in a single reporting area (e.g., Awarded Program).
    - o In Enterprise Reports, the Field List icon that indicates a dimension appears as:
    - o Dimensions can be used in an Enterprise Report as **filters**, **rows**, or **columns**.
    - o Use the Data Dictionary to learn more about any dimension definitions and possible values within each dimension.

- **MEASURES:** Measures are calculated data values. Measures can <u>only</u> be used in the **data area** of an Enterprise Report (as opposed to a filter, row, or column).
    - o In Enterprise Reports, the Field List icon that indicates a measure appears as:
    - o Measures can only be used in an Enterprise Report in **data area** of the report.
      NOTE: Measures <u>cannot</u> be used as a filter, row, or column.
    - o Use the Data Dictionary to learn more about any measure and its specific calculation method in the data warehouse.

6   STUDENT NAVIGATOR

Student Navigator is used to find individual students or cohorts of students. Once a student or student cohort has been identified, users can save the search criteria or the actual list of students. Reports can be generated off the group of students once identified.
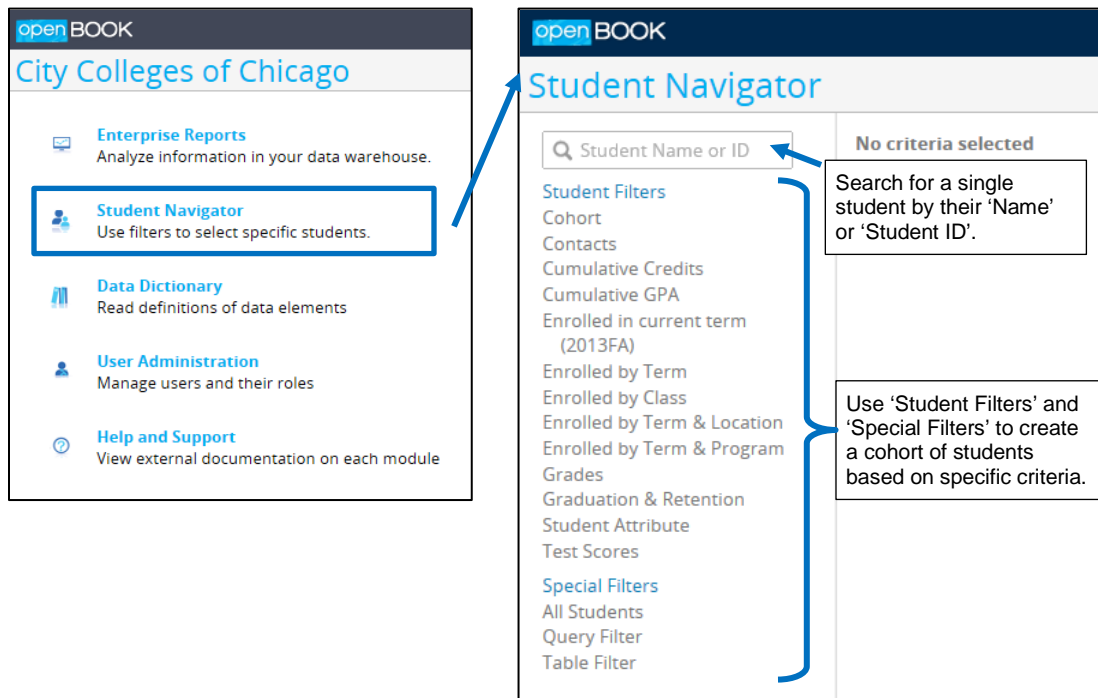
7 DATA DICTIONARY

The Data Dictionary is where users can look up definitions for all dimensions and measures within Data Warehouse Reporting Areas. Users can search for all terms across all Reporting Areas or within a specific area.
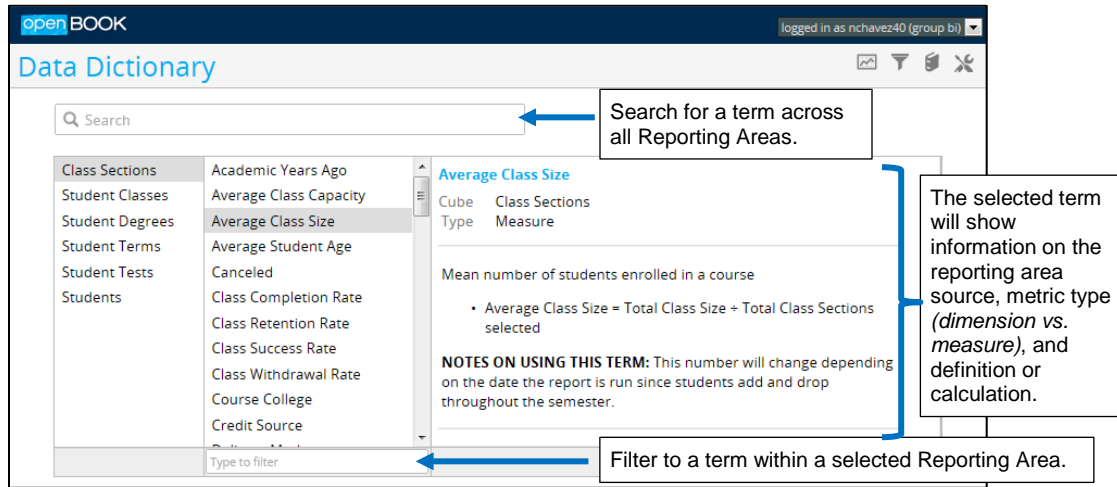
The Data Dictionary is also accessible from any Enterprise Report in the lower-left corner of the window: