



# **Term to Term Retention Report Using Power BI User Guide**

Version 1.0  
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# Term to Term Retention Report

The purpose of this report is to help understand student's persistence from term to term and how well the university ensures academic success or completion. It provides facts and insights regarding term to term retention not only in the university as a whole but also within same school/department/major program. Note that report pages from "Enrollment in Next Term" and onwards might be particularly useful for graduate student success.

## Data overview

Data available in this Power BI report extends back to 2008-09 academic year to the current academic year and is available for every term, including summer. Student's academic information (academic level, school hierarchy), characteristics information (admit status, full/part time, URM, etc.) and financial aid information (EFC group, unmet need decile, Pell Grant, etc.) are displayed in the report. Attrition and registration activities are also available to help explain student's retention.

## Methodology

The enrollment data used in this report come from Institutional Research's 10<sup>th</sup> day census data snapshots. The attrition data for withdrawal and graduation are aggregated at student level. Registration activities are updated daily.

Term to term retention is presented in two ways: 1) composition of new and continuing students enrolled in selected term from previous term and 2) retention from selected term to next term. Both are based off on selected term. Note that when summer is not the selected term, it is skipped for undergraduate students. For example, when spring term is selected, next term is fall for undergraduates and summer for graduate students; whereas next term is fall for both academic levels when summer is selected (this is clearly and correctly reflected in each report page title). Enrollment data from previous term are presented in the same fashion.

Students are counted in attrition rate if they withdraw or graduate between the selected term and next term.

## Notes on Data

Power BI allows users to access and interact with information without having to understand the complexities associated with data merging and transformation. There are, however, some data nuances that are important to understand in order to best utilize the information presented in this report.

The counts of students in these reports are distinct. To illustrate: students affiliated with more than major or program within a particular school would only be counted once at the school level. If that same student has a major in two different schools, that student would be counted in both – if the counts are per school. For counts at the department level, students who have a major in two separate departments but in the same school will be counted twice.

We welcome your feedback about both the accuracy of the data and the optimization of report layout.

## Power BI Building Blocks

**Microsoft Power BI** is a collection of software services, apps, and connectors that work together to turn diverse sources of data into coherent, visually immersive, and interactive insights.

Power BI relies on basic set of building blocks to create these insights:

- **Datasets:** A **dataset** is a collection of data that Power BI uses to create its visualizations. The Power BI desktop tool provides an extensive set of data connectors and tools to extract, transform, and integrate data for reports. ITS and IR will provide datasets curated for reporting for most users, although we anticipate that there will be a group of power users who will opt to construct and integrate their own datasets.
- **Reports:** In Power BI, a **report** is a collection of visualizations that appear together on one or more pages. The visualizations in a report in Power BI are collection of data elements and themes that are related to each other.
- **Visualizations:** **Visualizations** can be simple, like a single number that represents something significant, or they can be visually complex. The goal of a visual is to present data in a way that provides context and insights, both of which would probably be difficult to discern from a raw table of numbers or text.
- **Slicers:** **Slicers** are visualization designed specifically for users to select and filter into relevant data.
- **Dashboards:** A Power BI **dashboard** is a collection of visuals from one or more report onto a single page that users can share with others. Dashboards allow for quick insight across multiple reports and provide users an easy way to navigate to different reports.

# Overview

## Visualizations, Slicers, and Interactions

### Slicers


Categorical slicers are organized into lists on top of the page. Users can make selections of interest using the slicers to filter data. Term Group slicer is limited to single selection and Term Type is pre-selected to “Quarter” though they are both changeable by users.

Slicers are not global. Same slicers that are present on page “Enrollment from Previous Term” and the following 3 pages are synced. The other set of slicers are synced across pages from “Enrollment in Next Term” onwards. **Synced slicers** are connected to one another so, regardless of which report page (within the mentioned syncing group) a user selects, the same slicer selection will appear.

### Highlighting and Interactions

Visualization tiles (non-slicers) cross-highlight the data. Selecting an element within a visualization will highlight the associated records with data on the adjacent fields. Users can select anywhere within the visual element on most tiles to highlight data. This includes fields on the axes. Clicking on the blank part of the tile to un-select any category/characteristic that has been selected in a tile or any other visualization.

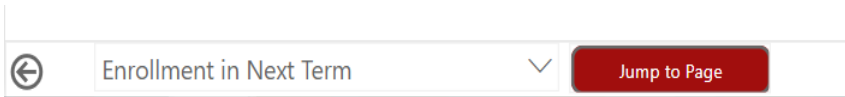
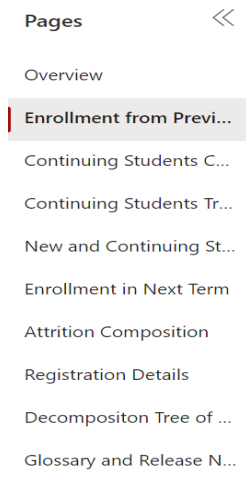
## Navigating between report pages

Users can navigate using the report tabs to the left of the report (shown in the screenshot ).

Within the report, a navigation bar (see screenshot below) can be found at the bottom of pages between

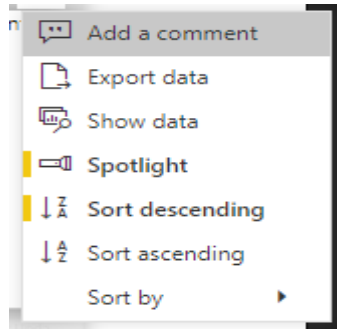
Enrollment from Previous Term and Enrollment in Next Term for quick access. The back

arrow on the far left can easily take users back to the previous page.



## Additional Options

Selecting the ellipsis opens a dropdown with additional options.



### Export data

Which data would you like to export?

- Summarized data
- Underlying data

File format:

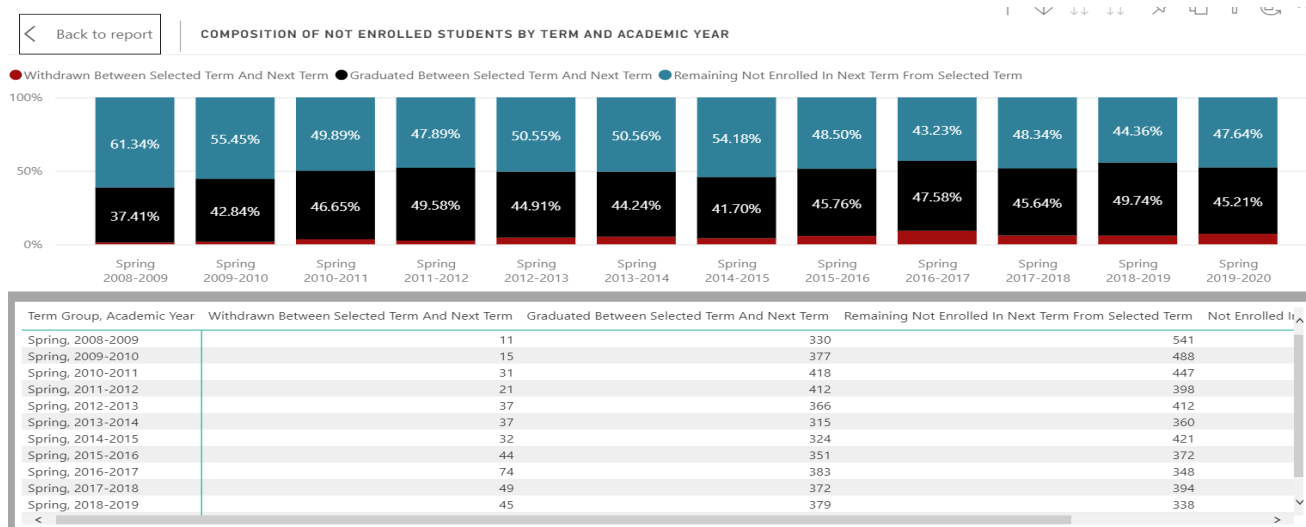
.xlsx (Excel)

- Data exports with all applied filters.
- For large data models, only a limited number of rows can be exported. [Learn more](#)



**Export data:** Export data within a visual is a quick to extract the underlying, summarized data used to create a visual. The data are exported into either an Excel file along with the slicers applied or a Comma Separated Value (CSV) file.

**Show data:** Users can view the chart and the table at the same from the ellipsis dropdown mentioned above or by right clicking on the chart and selecting **Show as a table**. An example is provided here.



## Report Views

There are two ways that retention is presented in the report. Composition of new and continuing students from previous term and retention from selected term to the next.

In first half of the report, users can learn that among all the students enrolled in selected term, how many new students we had, and how many of them were continuing from or not from previous term. There is also comparison between the composition of continuing students, as well as the enrollment trend of new and continuing students as a whole across academic years.

The second part shows the retention rate from the term a user selected to the next term with details about attrition, success rate, and registrations as of today. For example, if students do not persist to the next term, did they graduate or withdraw/what are the possible reasons that prevented them from enrollment/are there any financial difficulties?

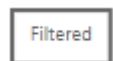
Another helpful feature is to track student's persistence from term to term within the same school. In the slicer, "Same School, Same Department, Same Major Program Flag across Terms", "Not Applicable" refers to students who are not enrolled in the following term; "Different Schools" includes students who persist but in a different school, and school names implies students retain within the same school. Same logic applies to department and major program level. If users are interested in total students who retained in the same department in a school, there is a convenient way to select the school and de-select Different Departments in the slicer; however, since major is in the next hierarchy, multiple "Different Major Programs" need to be selected under different departments if student's persistence in more than one major program is of interest.

## Visualizations, Slicers, and Interactions

### Filtered Views

One of the challenges in Power BI is understanding if a visual is filtered. From slicers, cross-highlighting data from another visual, and drill downs, it is easy to lose track of exactly what is being presented on a report.

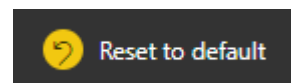
Filtered icon



To address this issue each report has a small tile indicating if the data is unfiltered or filtered. Rolling over the tile will provides users an option to reset the visual to the default view.

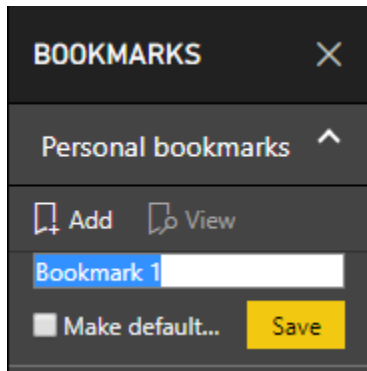
### Resetting Visuals

To reset to the default view, select Reset to default in the ribbon.



## Personal Bookmarks

Bookmarks are the way to save a view in Power BI. In the Power BI App Space, users can define **Personal Bookmarks**. Personal Bookmarks save the view exactly how the user has defined. These provide a quick way to return to interesting insight or a commonly used view of the data.



The bookmarks are associated with each page of the report and can be used to navigate to different visualizations. These bookmarks can be used to navigate around the report during a presentation or create a custom ordering of the visualizations.

The Personal Bookmarks are only visible to each user.

When a report is updated with updates or changes, Personal Bookmarks will remain. However, if an element saved in the bookmark is removed or changed, the bookmark may not render the visualization.

### Managing Personal Bookmarks

To **update** Personal Bookmarks, select the ellipsis and select update. Updating a bookmark will overwrite the bookmark to current view. Use this option to make adjustments and changes to an existing bookmark.

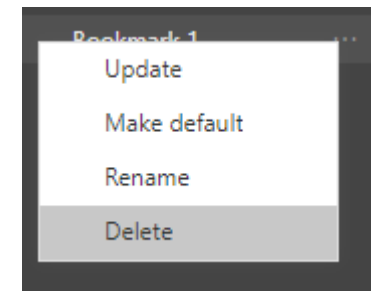
To **delete** Personal Bookmark, select the ellipsis and select delete.

### Default Personal Bookmarks

Use the **Make Default View** option to set the book as the default view of the data when opening report.

### Quick Tip: Name Your Bookmark

**Bookmarks are users best way to save views. Because bookmarks save the visuals exactly on user selection and are page specific, it is strongly recommended to clearly name the bookmarks.**



## Resources

### Glossary and Release Notes

The Glossary and Release Notes page comprises a table with the variable definitions for all the fields contained within the data model. There may be some measures created within Power BI that do not get directly included in the report.

The release notes allows users to see when the last release of data was as well as some brief notes on changes made on the report.

### InformSU Resources

InformSU: <https://www.seattleu.edu/ir/informsu/>

Training Resources: <https://www.seattleu.edu/ir/informsu/about-power-bi/training-resources/>

Power BI Seattle University FAQ: <https://www.seattleu.edu/ir/informsu/about-power-bi/faq/>

Project Updates: <https://www.seattleu.edu/ir/informsu/informsu-updates/>

### Microsoft Resources

Learn Power BI: <https://powerbi.microsoft.com/en-us/learning/> or <https://docs.microsoft.com/en-us/power-bi/guided-learning/>

Power BI Documentation: <https://docs.microsoft.com/en-us/power-bi/#pivot=home&panel=home-all>