

# **Decision Support Toolkit Users Guide**

**Designed by the members of the  
Office of Institutional Research and Effectiveness and  
the Budget Office  
University of Colorado Denver  
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# About the Decision Support Toolkit

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Consolidates institutional data from multiple sources (student/course/HR/financial), allowing users to identify areas for cost containment and resource reallocation for long and short-term planning.

Provides transparency in performance metrics associated with budget model, allowing departments and schools/colleges to make informed choices that impact their financial health

Empowers Deans, Associate Deans and faculty chairs to measure efforts and drive progress toward strategic priorities such as cost efficiency, student outcomes, equity and enrollment.

The DSTk is a series of Tableau dashboards that bring together data visualizations that show important metrics and analysis to support academic and fiscal planning decision-making.

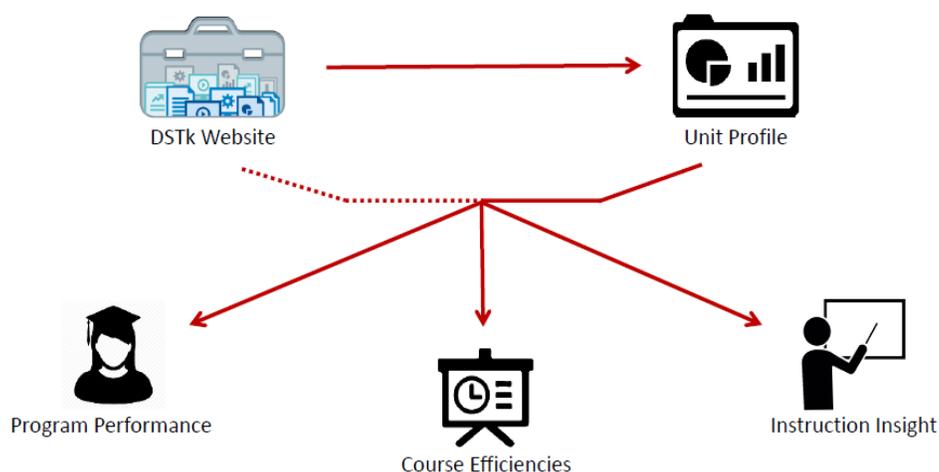
# Connecting to the Toolkit

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Navigate to the [DSTk Site](#) to access any of the 4 modules that make up the Toolkit. Remember, you must be logged on to the campus network or VPN to access Tableau.

## DSTk Modules

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**Unit Profile:** This module is a great starting point. The School/College Profile provides a high-level overview of all toolkit metrics in one dashboard. From here, you can navigate to the Department Detail Page with a similar overview at the department, program or course level. Alternatively, you can visit one of the other DSTk modules for a deep dive into data related to students, courses, or staff and faculty of your unit.

**Program Performance:** This module provides comparisons and trends across your programs, with data on student headcount, student credit hours, demographics, and more. Determine the inputs of each program and assess the outcomes.

**Course Efficiencies:** This module displays course-level data including instructional credit hours, sections offered, course fill rates, DFW rates, and more. Use these insights to identify ways to increase efficiency in instruction.

**Instruction Insights:** This module gives you the tools to understand how well your resources are being utilized. Examine instruction cost data at the school/college or department level including faculty/staff headcount, FTE, and workload to inform decisions on instructional issues.

# Navigating DSTk Modules in Tableau

**How to Work with Parameters:** Every page of the DSTk contains multiple filters, which allow a user to explore data and relationships between different metrics. These filters allow a user to drill down into specific data. Once a filter is selected, the graph will update to reflect these specifications.

**First, select your School or College:** College of Liberal Arts and Sciences  
Business School  
College of Architecture and Planning  
College of Arts and Media  
College of Engineering, Design and Computing  
College of Liberal Arts and Sciences  
School of Public Affairs  
School of Education and Human Development

Selected Term Year: 2019  
Selected Term Season: Fall  
Select Course Level: All

The criteria selected above will carry through for the entire dashboard

**Tool Tips:** Hover over **graphs**, **reference lines**, and **information icons** to see details

**Metric Definitions**

- (1) **Major Student Headcount:** Distinct count of students enrolled as major in selected School or College and Department, taking at least one main campus, state reportable class. Primary majors only.
- (2) **Major Credit Hours:** Sum of credit hours from any state reportable, main campus class taught by any School or College, accumulated by students from (1) above.
- (3) **Est. Revenue from Major Credit Hours:** Revenue estimated from (2) above.
- (4) **All Instruction Credit Hours:** Sum of credit hours from any state reportable, main campus class taught at the selected School or College and Department, accumulated by any student regardless of major. (Includes credit hours from special instruction courses such as independent studies, thesis, or similar offerings)
- (5) **Est. Revenue from Instruction Credit Hours:** Revenue estimated from (4) above.

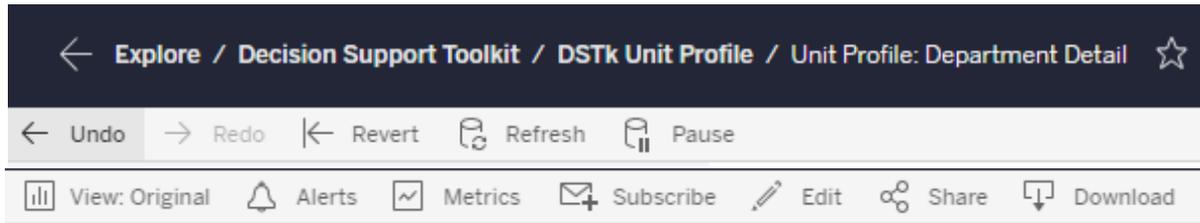
**Highlighting:** When you click on a graph or a legend for a graph, all of the graphical elements that are associated with that data point will be highlighted. To remove the highlighting, click again (sometimes twice) on the same graphical element.

**Detail Pages:** Most of the DSTk modules have a second detail page, which contains different metrics and analyses at a more granular level of detail. To move to a detail page, just click the button at the bottom of a dashboard.

—Now that you've gathered information, dig into details by visiting the Detail page

[Jump to Detail Page](#)

**Buttons:** These buttons appear above or below the dashboard. See below for what they do, and how you can use them:



**REVERT:** This button allows the user to clear all filters and view the original report.

**PAUSE/RESUME:** As you interact with a report, you may find the report takes some time to update any changes made with a filter. Use the “Pause” button to pause those changes from occurring as you update the filters. Once you have selected all filters you desire, click the “Resume” button to have the report update.

**DOWNLOAD:** This button allows the user to export the report and its data.

**PDF:** A user can download the current dashboard or the entire report as a PDF, allowing you to print what you see.

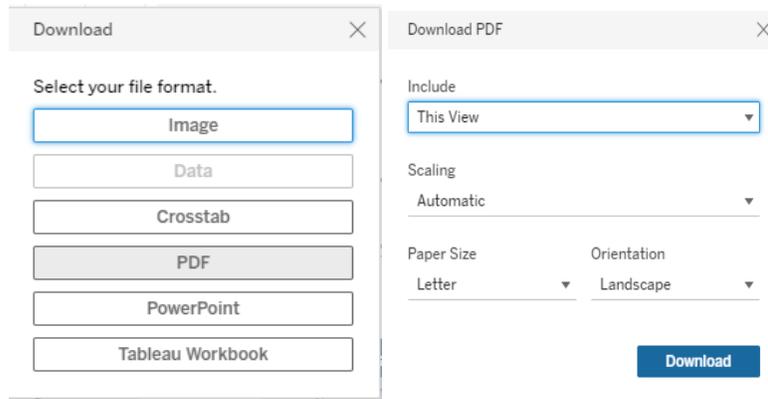
**Image:** This allows a user to save an image of the current graph (with filters). (You may need to click a 2nd time.)

**Data (restricted):** The data feeding the report will open in a new window. This data can then be downloaded as a text file.

**Crosstab (restricted):** Transfer the data from the dashboard into Excel by selecting any of the data from the report.

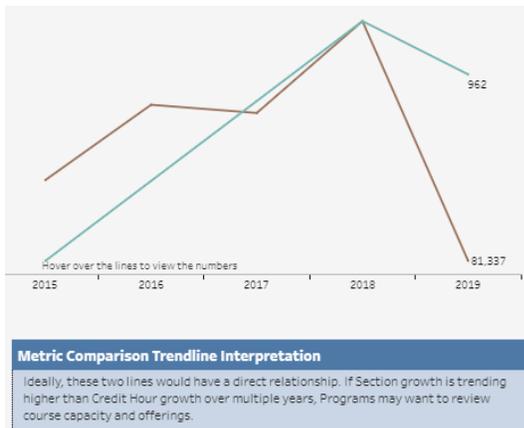
**Printing:** You can quickly print all or part of a workbook using the PDF command on the Download toolbar button. You can select your PDF orientation, paper size, and choose whether to print the entire workbook or selected sheets.

- From the Download toolbar button, select **PDF**.
- Select either a **Portrait** or **Landscape** orientation and a Paper Size.
- Choose whether to print the entire workbook, dashboard or only certain sheets.
- Click ‘Download’



# Overall Layout and Flow

Throughout the Toolkit, interactive data and visualizations are supported by a narrative that identifies actionable metrics and provides interpretation to support data-driven decisions.



### Who are your students?

#### Program Flows

Where are your enrolled students going?

Continuing in School/College	53%
Graduated	17%
Changed School/College	8%
Not Enrolled	22%

Here you will find Fall 2018 [College of Liberal Arts and Sciences](#) undergraduate students and their Fall 2019 enrollment status

#### Student Demographics

All Students - [Choose detail](#)

Fall 2019 Total: 5,962

All modules begin with institution or school/college level data, showing comparative and trend data across the Denver campus. Then have more granular-level detail dashboards at the school/college, departmental, program or course level.

	Fall 2019 All Student Headcount	Change From Prior Fall	3-Year Change	Trends in Fall Headcount
College of Liberal Arts and Sciences	5,962	-13.4%	-10.8%	
Business School	2,683	9.8%	7.4%	
College of Architecture and Planning	811	2.6%	17.7%	
College of Arts and Media	1,349	1.0%	8.4%	
College of Engineering, Design and Computing	1,994	14.1%	26.4%	
School of Education and Human Development	1,318	3.9%	64.7%	
School of Public Affairs	779	1.3%	14.1%	

#### Subject Level Comparison

The table below provides a holistic view at the subject level. Start here to help determine where to dig deeper. [Sort this list using the Sort By parameters to the right.](#)  
*All measures are based off of organized instruction - hover over the info icon for more detail.*

Department	Subject	Instruction Student Credit Hours	SCH 3 yr	Sections	Sec. 3 yr	Enroll Count
Mathematics	Mathematics (MATH)	10,263	9%	117	16%	3,066
Biology	Biology (BIOL)	9,356	0%	83	6%	3,285
Psychology	Psychology (PSYC)	8,741	7%	78	20%	2,870

Parameter selections (i.e. Term; Year, etc.) apply to the entire module; sections have parameters that apply only to that section. Note: 'Year' selected serves as an endpoint for trends

All filter selections made above apply to this section as well.  
 You may adjust your department here:

(All) ▼

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Student Level: (All) ▼

(All)

Graduate

Undergraduate

Parameters and sorting feature allow users to explore data in a variety of ways, identifying areas of strength and opportunity.

Sort by: Major Credit Hours ▼

3yr Change ▼

Order by: Descending ▼

All modules include an analysis section, designed to provide insight into correlations between two metrics. Here we can see how departments/programs compare to one another, and how they have been trending in recent years. This section makes it easy to identify areas of improvement with interpretation and action steps supplementing the data. For all charts and graphs in the toolkit, hover over visualizations for additional detail or context.

