

Decision Support Toolkit Users Guide Unit Profile Module

University of Colorado Denver Office of Institutional Research & Effectiveness and The Budget Office

8/19/2021

About the Decision Support Toolkit

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.

The Program Performance module provides comparisons and trends across your programs, with data on student headcount, student credit hours, demographics, and more. These metrics allow users to measure efforts and drive progress toward strategic priorities such as cost efficiency, student outcomes, equity and enrollment.

Connecting to Unit Profile

Navigate to the <u>DSTk Site</u> to access any of the 4 modules that make up the Toolkit. You may also go directly to the <u>Unit Profile module</u> in Tableau Server. Remember, you must be logged on to the campus network or VPN to access Tableau.



Navigating the Unit Profile Module

- The **Unit Profile** module is a unique component of the DSTk that allows users to explore metrics from multiple types of institutional data student, course, faculty and financial providing a comprehensive overview of a school/college's overall health.
- Start with the School/College Overview page to identify trends in the data, get a snapshot of demographics that affect operations, and make comparisons to other colleges or to the campus at large.
- Start by setting your filters and parameters, which will apply to every metric on this page. The selected term season and term year will serve as the end point for all trend lines.

Select School or College:	Parameter Selection Select Term Season
College of Liberal Arts and Sciences	Fall 🔻
Select Activities Type	Select Term Year
Main Campus (D1, Fund 1*)	2020 🔹
The parameters selected above and to the right are used throughout the entire dashboard. Term and Year values serve as endpoints for 3yr trends.	Class/Student Data: Fall 2020 EOT Finance: FY 2021 as of July 26, 2021 HR: FY 2021, Fall 2020 November Snapshot

School College Comparison

- The table below allows users to dynamically sort by metric to compare programs and evaluate trends.
- Remember to hover over graphs, reference lines, and information icons to see detail.

Major Revenue Total Descending All Instructional Revenue from Major Student All Instruction Major Student All Instructional CHs* Organized Instr. All Instructional Recurst Student All Staff Est. Revenue from Major Student All Instructional CHs* Organized Instr. All Instructional Recurst State PY Est. Revenue from Major Student All Instructional CHs* All Instructional CHs* All Instructional State PY All							Sort B	y:						Sort Order:			Hover for Definitions		
Major Student Headcount Major Credit Hours Est. Revenue from Majors CHs* All Instructional CHs* Organized Instr. Sections Offered All Instructional Faculty Headcount All Staff Estimate FY Expenditures College of Liberal Arts and Sciences 5,563 -16.3% 63,208 -17.5% \$25,410K -20% 76,181 -9% \$30,802K -11% 932 -2% 438 -5% 107 9% \$36,967K -18 Business School 3,081 24.4% 29,514 25.9% \$14,946K 18% 22,863 13% \$12,340K 7% 198 -7% 107 1% 58 2% \$15,343K -18 College of Engineering, Design and Computing 1,748 33.9% 19,388.5 42.6% \$10,248K 44% 15,403 11% \$8,741K 16% 185 148 84 -7% 48 55% \$13,355K -1% College of Arcts and Media 1,298 -0.2% 15,750 0.3% \$6,940K -1% \$6,950K 3% 272							Majo	r Revenue		▼ Total ▼				Descending 🔻				(i)	
Major Student Headcount Major Credit Hours Est. Revenue from Major SCHs* All Instruction Instructional CHs* Organized Instr. Sections Offered All Instructional Faculty Headcount All Instructional Headcount All Instructional Headcount																		$\mathbf{\overline{\mathbf{v}}}$	
College of Liberal Arts and Sciences 5,563 -16-3% 63,208 -17-5% \$25,410K -20% 76,181 -9% \$30,802K -11% 932 -2% 438 -5% 107 9% \$36,967K -18 Business School 3,081 24-4% 29,514 25.9% \$14,946K 18% 22,863 13% \$12,340K 7% 198 -7% 107 1% 58 2% \$15,343K -18 College of Engineering, Design and Computing 1,743 33.9% 19,388.5 42.6% \$10,248K 44% 15,403 11% \$8,741K 16% 185 112 84 -7% 48 55% \$13,555K -1% College of Arts and Media 1,298 -0.2% 15,750 0.3% \$6,940K -1% 15,921 5% \$6,950K 3% 272 16% 112 8% 26 -7% \$8,38,352K -2% College of Architecture and Planning 786 8.4% 9,669 5% \$4,312K 10% 12,356 3% 96 -8% 74 3% 5		Major S Head	tudent count	Ma Credit	ajor t Hours	Est. Reven Majors	ue from CHs*	All Instru Credit H	uction lours	Est. Reve Instructi	nue from onal CHs*	Organize Sections	ed Instr. Offered	All Instr Faculty H	uctional leadcount	All Hea	Staff dcount	Estimate Expenditi	d FY ures
Business School 3,081 24.4% 29,514 25.9% \$14,946K 18% 22,863 13% \$12,340K 7% 198 -7% 107 1% 58 2% \$15,343K 18 College of Engineering, Design and Computing 1,743 33.9% 19,388.5 42.6% \$10,248K 44% 15,403 11% \$8,741K 16% 185 1% 84 -7% 48 55% \$13,555K -48 College of Arts and Media 1,298 -0.2% 15,750 0.3% \$6,940K -1% 15,921 5% \$6,950K 3% 272 16% 112 8% 26 -7% \$8,352K -21 College of Architecture and Planning 786 8.4% 9,669 6.9% \$4,897K 6% 8,437 5% \$4,358K 3% 96 -8% 74 3% 22 16% \$6,466K -12% School of Education and Human Development 1,454 17.0% 10,574 11.6% \$4,312K 10% \$4,978K 10% 186 10% 167 3% 20	College of Liberal Arts and Sciences	5,563	-16.3%	63,208	-17.5%	\$25,410K	-20%	76,181	-9%	\$30,802	-1196	932	-296	438	-596	107	9%	\$36,967K	-18%
College of Engineering, Design and Computing 1,743 33.9% 19,388.5 42.5% \$10,248K 44% 15,403 11% \$8,741K 16% 185 1% 84 -7% 48 55% \$13,555K -18 College of Arts and Media 1,298 -0.2% 15,750 0.3% \$6,940K -1% 15,921 5% \$6,950K 3% 272 16% 112 8% 26 -7% \$8,352K -21 College of Architecture and Planning 786 8.4% 9,669 6.9% \$4,897K 5% 8,437 5% \$4,358K 3% 96 -8% 74 3% 22 16% \$6,466K -12% School of Education and Human Development 1,454 17.0% 10,574 11.6% \$4,312K 10% \$4,978K 10% 186 10% 167 3% 50 -2% \$10,216K -12% School of Education and Human Development 1,454 17.0% 10,574 11.6% \$4,312K 10% \$4,978K 10% 186 10% 167 3% 50 -2%	Business School	3,081	24.4%	29,514	25.9%	\$14,946K	18%	22,863	13%	\$12,340	(796	198	-7%	107	196	58	2%	\$15,343K	-18%
College of Arts and Media 1,298 -0.2% 15,750 0.3% \$6,940K -1% 15,921 5% \$6,950K 3% 272 16% 112 8% 26 -7% \$8,352K -21 College of Arts and Media 786 8.4% 9,669 6.9% \$4,897K 5% 8,4357 5% \$4,358K 3% 96 -8% 74 3% 22 15% \$6,466K -12 School of Education and Human Development 1,454 17.0% 10,574 11.6% \$4,312K 10% 12,036 10% \$4,978K 10% 186 10% 167 3% 50 -2% \$10,216K -12% School of Education and Human Development 1,454 10.6% 54,931K 10% 12,036 10% \$4,978K 10% 186 10% 167 3% 50 -2% \$10,216K -12% School of Education and Human Development 1,454 10.5% 65,2953K -3% 5,274 12% \$2,530K 7% 70 -5% 51 2% 28 -15% 50,08	College of Engineering, Design and Computing	1,743	33.9%	19,388.5	42.6%	\$10,248K	44%	15,403	11%	\$8,741K	16%	185	196	84	-796	48	55%	\$13,555K	-1%
College of Architecture and Planning 786 8.4% 9,669 6.9% \$4,897K 6% 8,437 5% \$4,358K 3% 96 -8% 74 3% 22 16% \$6,466K -12 School of Education and Human Development 1,454 17.0% 10,574 11.6% \$4,312K 10% 12,036 10% \$4,978K 10% 186 10% 167 3% 50 -2% \$10,216K -12 School of Education and Human Development 1,454 17.0% 10,574 11.6% \$4,312K 10% 12,036 10% \$4,978K 10% 186 10% 167 3% 50 -2% \$10,216K -12 School of Education and Human Development 1,454 10,574 11.6% \$4,312K 10% \$4,978K 10% 186 10% 167 3% 50 -2% \$10,216K -12 School of Education and Human Development 1,454 5,549 4,2% 52,953K -3% 52,530K 7% 70 -5% 51 2% 28 -15% \$5,087K	College of Arts and Media	1,298	-0.2%	15,750	0.3%	\$6,940K	-1%	15,921	596	\$6,950K	396	272	16%	112	896	26	-796	\$8,352K	-21%
School of Education and Human Development 1,454 17.0% 10,574 11.6% \$4,312K 10% 12,036 10% \$4,978K 10% 186 10% 167 3% 50 -2% \$10,216K -12 School of Education and Human Development 1,454 10.574 11.6% \$4,312K 10% \$4,978K 10% 186 10% 167 3% 50 -2% \$10,216K -12 School of Public Affeirs 805 10.5% 65.49 4.2% \$2,953K -3% 52.74 12% \$2,530K 7% 70 -5% 51 2% 28 -15% \$5,087K -18	College of Architecture and Planning	786	8.4%	9,669	6.9%	\$4,897K	6%	8,437	596	\$4,358K	396	96	-8%	74	396	22	16%	\$6,466K	-12%
School of Public Affairs 805 10.5% 6.549 4.2% 5.2963K -3% 5.274 1.2% 5.2 530K 7% 70 -5% 5.1 2% 2.8 -15% 5.5087K -12	School of Education and Human Development	1,454	17.0%	10,574	11.6%	\$4,312K	10%	12,036	10%	\$4,978K	10%	186	10%	167	3%	50	-2%	\$10,216K	-12%
	School of Public Affairs	806	10.6%	6,549	4.2%	\$2,963K	-3%	5,274	12%	\$2,530K	796	70	-5%	51	2%	28	-15%	\$5,087K	-18%
Total of All Schools/Colleges 14,731 2.1% 154,652.5 0% \$69,715K 0% 156,114.5 0% \$70,698K -1% 1,939 0% 1,033 -1% 339 7% \$95,987K -15	Total of All Schools/Colleges	14,731	2.1%	154,652.5	0 96	\$69,715K	0%	156,114.5	096	\$70,698	(-1%	1,939	0%	1,033	-1%	339	7%	\$95,987K	-15%

The three sections below highlight student, course, faculty and financial data for the most recent semester and trends over the past 5 years. Using the button at the bottom right corner of each section, users may navigate directly to one of the three main content modules that contain in-depth data and analysis for that section.

Students

 The Students section provides a high-level overview of major enrollment within your school/college and links to the Program Performance module.



Courses

 The Courses section illustrates the trends in credit hours taught within your school/college and the associated revenue impacts. This area links to the Course Efficiencies module.

Faculty Staff

 The Faculty and Staff section provides a snapshot of employees and associated expenditures within your school/college. This section links to the Instruction Insight module.





• If not moving directly to another module, users can move on to the detail page, which contains similar metrics and analyses at the departmental level.

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

Jump to Detail Page

Unit Profile – Detail Page

- The detail page of this module provides a wealth of information about the way a school/college is operating, combining student, course, faculty and financial data at the departmental level so unit and college leaders can answer business questions and inform strategic decision making.
- Parameters selected at the top of the page will apply to all data on the detail page. Use this area to select specific departments, terms, and/or student types to explore metrics for specific department and/or program(s). Note: 'Year' selected serves as an endpoint for trends

	Parameter Selection
Select School or College:	
College of Liberal Arts and Sciences 🔹	Fall
Select Activities Type	Select Term Year
Main Campus (D1, Fund 1*)	2020 🔹
The parameters selected above are used throughout to the entire dashboard. Term and Year values serve as endpoint for 3yr averages.	Class/Student Data: Fall 2020 EOT Finance: FY 2021 as of July 26, 2021 HR: FY 2021, Fall 2020 November Snapshot

Department Level Comparison

• The table below those same metrics on the departmental level, allowing users to sort by metric and sort further by the totals or the change seen over the past 3 years. Here, users can easily identify outliers and compare departments to the aggregate data of the school/college.

							Sort Maj	Sort By: Major Revenue Total T					Sort Or Desce	rder: nding 🔻	Hover for Definitions			
	Maj Student He	or eadcount	Majo Credit H	ours	Est. Reve from Major	enue rs CHs*	All Instr Credit I	All Instruction Credit Hours		I Instruction Est. Revenue Credit Hours Instructional		Est. Revenue from Organized I Instructional CHs* Sections Of		ed Instr. Offered	r. All Instructional ed Faculty Headcount		All S Head	Staff Icount
College of Liberal Arts and Sciences	5,563	-16.3%	63,208	-17%	\$25,410K	-20%	76,181	-9%	\$30,802K	-11%	932	-2%	438	-5%	107	9%		
Biology	1,213	0.9%	14,755	496	\$5,467K	496	8,825	-8%	\$3,294K	-8%	79	-1%	30	-3%	11	22%		
Psychology	954	17.3%	11,154	18%	\$4,213K	20%	8,800	496	\$3,350K	196	77	13%	37	12%	5	67%		
CLAS Dean's Office / Other	704	-59.8%	8,176	-61%	\$3,046K	-64%	0	-100%	\$0K	-100%	0	Null	0	-100%	29	0%		
Economics	215	-32.0%	2,276	-42%	\$1,725K	-46%	3,383	-13%	\$1,800K	-23%	38	-10%	26	096	1	0%		
Communication	314	-14.2%	3,420	-17%	\$1,707K	-11%	4,901	-2%	\$2,123K	-496	66	3%	32	-6%	1	0%		
Health&Behavioralsciences	355	-8.7%	4,404	-7%	\$1,691K	-296	2,152	-2%	\$811K	496	18	696	11	096	2	100%		
Chemistry	285	50.0%	3,493	58%	\$1,328K	50%	6,257	-11%	\$2,346K	-11%	78	-3%	19	696	6	20%		
English	278	-9.4%	2,940	-13%	\$1,120K	-1196	8,151	-8%	\$3,214K	-9%	138	196	67	096	6	50%		

Note: Tuition revenue numbers are estimated and do not tie to the budget model in any way.

*Tuition Revenue only available for Main Campus CHs

The **Breakdown** section allows users to compare departmental data across their college. Keep in mind, certain metrics may be more useful to certain programs, depending on their unique mission and operations. Select your metrics with the section parameter.



- Interpretation boxes below the visualizations provide some guidance on how the selected metrics relate to one another and offer potential next steps to consider.
- This trendline can be filtered to one department so users can explore trends in each metric combination by department



Metric Comparison Trendline Interpretation

Ideally, these two lines would have a direct relationship. If Section growth is trending higher than Credit Hour growth over multiple years, Programs may want to review course capacity and offerings.

Digging Into Programs, Courses, and Revenue: College of Liberal Arts and Sciences

 The sections below dive deeper into each data type with an additional level of detail. Users can select individual departments and view data by programs.

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

• Each section has a parameter to select undergraduate and/or graduate data to be displayed.

Programs - Fall 2020 Student Headcounts College of Liberal Arts and Sciences majors

Student Level: (AII)

 The table below shows program level headcount and credit hours, which can be sorted by the section parameters.
 Order by:

parameteror		[Major Heado	ount	•	3yr Change 🔹	Descending	•
Primary Major	Department	M Head	lajor dcount	Major Credit Hours		Majo	Trend Headcount	
ISMA-BA Individually Structured Major	d CLAS Dean's Office / Other	60	757.1%	577	878.0%			
STAT-MS Statistics	Mathematics	17	142.9%	107	296.3%			
GEOS-MA Applied Geog & Geospatial Sci	Geography/ Envirnmentl Sci	34	88.9%	252	104.9%			
PSCI-MA Political Science	Political Science	39	56.0%	185	68.2%		\sim	
CHEM-MS Chemistry	Chemistry	23	43.8%	141	30.6%			

 Enrollment Mix displays a breakdown of student enrollments by residency and academic level, which impacts tuition revenues and provides insight on how to best tailor services to your students.

	Freshman	Sophomore	Junior	Senior	Graduate	Total
Domestic	64	84	104	120	47	419
Non-Resident	(1%)	(2%)	(2%)	(2%)	(1%)	(8%)
International	18	41	61	101	24	245
Non-Resident	(0%)	(1%)	(1%)	(2%)	(0%)	(4%)
Resident	909	884	1,129	1,505	472	4,899
	(16%)	(16%)	(20%)	(27%)	(8%)	(88%)
Grand Total	991	1,009	1,294	1,726	543	5,563
	(18%)	(18%)	(23%)	(31%)	(10%)	(100%)

 Program Comparison displays all programs in the selected college or department by their growth in student headcount relative to one another.



• The table below shows program level instructional credit hours, sections offered and fill rate which can be sorted by the section parameters.

				Sort by:			Order by:			
				Instru	uction Crea	dit Hours	•	3yr Change	•	Descending 🔻
Subject	Department	All Instruction Credit Hours		Sections Offered		Fill Rate		Credit ł		l Sections
ISMA Interdisciplinar Major Course	y Interdisciplinary Studies	66	340%	1	0%	100%	-			
LING Linguistics	Modern Language	141	88%	2	100%	92%				
HUMN Humanities	Mshumanities/	297	83%	6	100%	67%	-			
WGST Women's Studies	Interdisciplinary Studies	210	21%	3	096	75%	2			
GEOG Geography	Geography/ Envirnmentl Sci	2,155	10%	28	8%	71%	-			

- Section Fill Rates displays the number of course sections and their overall fill rate as well as how many courses are less than 70% or less than 50% full. These courses may indicate opportunities to consolidate course offerings.
- Dig deeper into all your department or college's courses with the drill through button below

Section Fill Rates Sections with low fill rates may indicate a need for intervention. Use	ClsSects	ClsFillRate	ClsSect<70C	ClsSect<50C	Click below for Fill Rates by course:	_
the insight gained here to dig into individual courses. Narrow this matrix to a subject by	932	81%	254	100	Fill Rates by Course	

clicking on one above.

 The scatterplot to the right displays the ratio of sections offered to instruction credit hours, another way to visualize efficiency in your course offerings. Departments with higher ratios are delivering more credit hours with less sections offered.



Course Level: (AII)

•

• This section displays tuition revenue in two ways. Use the section parameter to select viewing data for major students in your college or department or for all credit hours produced by your instructional faculty.

(Choose Revenue Type:	Interpretation: Major Revenue (Estimated)
	Major Tuition Revenue (Estimated)	Includes revenue from credit hours by your students. These credit hours may be from instruction at any School/College at CU Denver
	Instruction Tuition Revenue (Estimated) "	
	Major Tuition Revenue (Estimated)	

 The table below shows program level tuition revenue, broken down by residency. These columns can be sorted by the section parameters.

				Total Re	venue		 Syr 	Change	•	Descending 🔻
Major or Subject	Department	To Tui	tal tion	Colo Resi	Colorado Resident		Domestic Non-Resident		national Resident	Trend Total Tuition
ISMA-BA Individually Structured Major	CLAS Dean's Office / Other	\$240K	1155	\$158K	727%	\$82K	Null	\$0K	Null	
STAT-MS Statistics	Mathematics	\$74K	316%	\$21K	218%	\$23K	Null	\$30K	169%	
PSCI-MA Political Science	Political Science	\$89К	50%	\$64K	93%	\$25K	124%	\$0K	-100%	\checkmark
CHEM-MS Chemistry	Chemistry	\$88K	36%	\$зэк	31%	\$36К	72%	\$13K	-8%	
PSYC-BA Psychology	Psychology	\$2,603K	27%	\$2,009K	26%	\$539К	26%	\$56K	126%	



• The scatterplot to the left displays all programs in the selected college or department by their growth in the selected revenue type relative to one another.

• The chart on the right shows the 5 year trend for the selected revenue type for your department or college.

