

Academic Program Review Workshop

Data Trends Interpretation

November 2021



Program Review Module

Data Trends

(See above: Tableau, eLumen, and resources invested table to answer these prompts)

Data Trends: Describe department trends, including growth/decline in: **[Update in Years 1, 2 and 3.]**

- a) number of students served (measured by headcount and FTES),
- b) instructional load (measured by instructional load and average class size),
- c) student achievement and success (retention, course success, degrees/certificates completed, transfer). How do these trends compare to the College as a whole?

(100-200 words) words left

Given the trends in student achievement and outcomes, what are your ideas for improving student completion in your programs? **[Update in Years 1, 2 and 3.]**

(100-200 words) words left

To what extent is there disproportionate impact for achievement or outcome indicators? If there is disproportionate impact, what can be done to minimize it? **[Update in Years 1, 2 and 3.]**

(100-200 words) words left

Use of Data: How is the department/program using and incorporating results (data) from assessments in decision making / planning? Give examples of how you have used results to improve program quality or to meet other internal or external demands. **[Update in Years 1, 2 and 3.]**

(100-200 words) words left

Where are the Data?

→ ↻ 🛡️ canyons.edu/administration/irpie/index.php

COLLEGE OF THE CANYONS MY CANYONS CANVAS

Ask Canyons A-Z Index

Students Future Students Community Board Agenda Employees

Institutional Research, Planning & Institutional Effectiveness Staff External Data Resources Reports & Briefs **Data Visualizations**

Institutional Review Board (IRB) (IE)²

Welcome to the Office of **Institutional Research, Planning and Institutional Effectiveness (IRPIE)**, the primary source for information on institutional effectiveness. We also:

- Provide access to data for evidence-based planning
- Assist departments with understanding data
- Support the district's planning activities
- Assist with accreditation needs
- Support grant requirements

Our Mission

It is the mission of the Institutional Research, Planning and Institutional Effectiveness Office at College of the Canyons to provide access to quality data for planning, and to assist departments in using data to inform decision-making processes.

Data On Demand

- Data Charts and Tables**
- Student Data Highlights
- Review Reports by Topic

Strategic Plan
Accessible PDF | Flip Book

Educational and Facilities Master Plan
Accessible PDF | Flip Book

SEA Plan
Student Equity and Achievement Plan

Strategic Plan Brainstorming Form (Draft)

Where are the Data? www.canyons.edu/data

Program Review Success/Retention Overview



This visualization provides data on elements required for program review. Course success and retention rates, department details (FTE, sections, load etc.), Awards (degrees/certificates) and Programs of study (Majors across fall terms).

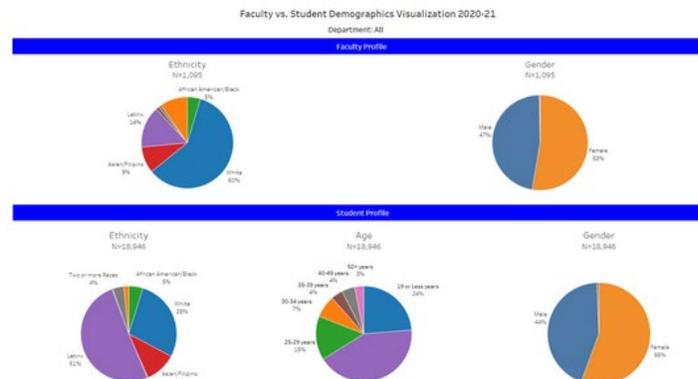
Data are refreshed annually in September when data are available for the academic year (summer through Spring terms).

Success/Retention Data For Fall Terms



This visualization provides fall-term data starting in 2017 on success rates, retention rates, grade distributions and enrollments. The data can be filtered by School, Dept, (online vs. on-ground), Race/Ethnicity, financial aid and special

Faculty vs. Student Demographics Visualization



Descriptions & Video tutorial links below thumbnails

Program Review Success/Retention Dashboard

Success & Retention Overview

Success & Retention

Department Details Trend

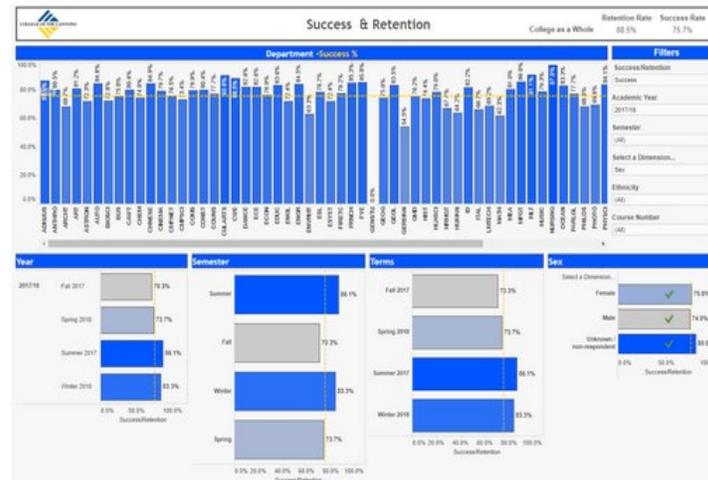
Department Details

Program Awards

Award Earner Demographics

Program/Majors Fall Terms

Program Review Success/Retention Overview



This visualization provides data on elements required for program review. Course success and retention rates, department details (FTE, sections, load etc.), Awards (degrees/certificates) and Programs of study (Majors across fall terms).

Data are refreshed annually in September when data are complete for the preceding academic year (summer through Spring terms).

New filters for Location/Mode

Type	Mode	Location
Synchronous (OnlineLive/ in-person)	OnlineLive Mixed (part in-person, part OnlineLive) On-ground/in-person	Online Valencia Canyon Country High School Pitchess Other (e.g. Cardinal school)
Asynchronous (100% Online)	Online 100%	Online
Mixed (i.e. Hybrid, fall/su2020*)	Hybrid (part in-person/OnlineLive, part 100% Online) Fall 2020 "Online"	Online Valencia Canyon Country High School Other (e.g. Cardinal school) Fall 2020 Virtual
Other	Other (correspondence)	Correctional Facility (Pitchess etc.)

The screenshot shows a 'Filters' panel with several dropdown menus. On the left, a vertical bar chart indicates a value of 83%. A red line is drawn across the bottom of the filters panel.

Filters

- Outcome: Success
- Year: (Multiple values)
- Division: (All)
- Term: (All)
- Course #: (All)
- Synchronous/Asynchronous: (All)
- Location: (All)
- Modality: (All)

Important Definitions/Notes

tableau.canyons.edu/t/Public/views/ProgramReviewVisualization2019-20/Definitions?iframeSizedToWindow=true&%3Aembed=y&%3AshowAppBanner=false&%3Adisplay_count=no&%3A...

Notes Definitions Programs by Department Success & Retention Overview Success & Retention Department Details Trend Department Details Program Awards Award Earner Demographics P



Academic Program Review Definitions

- Weekly Student Contact Hours (WSCH)** is the number of class hours each course is regularly scheduled to meet times enrollment. (Source: 320 Report).
- Full-Time Equivalent Students Generated (FTES)** is the calculation used by the state to determine funding levels per student. For California Community Colleges, one FTES represents 525 contact hours with students. It is important to note that FTES only applies to California residents. Apportionment cannot be claimed for non-California residents. Calculating FTES for straight lecture courses is done by multiplying the number of units for a course by the number of students in the class and then divide by 30. For example, an instructor teaching a 3 unit course with 20 students would equate to 2 FTES (3 units x 20 students=60/30=2 FTES). The calculation becomes a little more complicated when the section is not taught in a straight lecture format. (Source: 320 file)
- Full-Time equivalent Faculty (FTEF)** is calculated using the number of contact hours per week with students. One FTEF for a semester is equivalent to 15 equated (adjusted for lab hours) teaching hours. (Sources: UXE files). FTEF has been annualized to account for factor of 15 teaching hours used in the FTEF measure used in primary terms. At the request of the Program Review committee all terms are included in program review data (summer, fall, winter and spring), not just primary terms. Primary terms are fall and spring.
- Instructional Load** is a measure of efficiency and can be thought of as a ratio of how many students faculty members teach. Specifically, load is Weekly Student Contact Hours (WSCH) divided by Full-time Equivalent Faculty (FTEF). In the simplest example, if a faculty member teaches five 3-unit classes and each class has 35 students, the load would be 525. The Load measure has been annualized to account for factor of 15 teaching hours used in the FTEF measure. (Sources: UXE and 320 data files)
- Course Retention** is defined as the percent of students retained in courses out of total enrolled in courses: Numerator = Number of students (duplicated) with A, B, C, D, F, I, CR/P, FW, NC/NP; Denominator = Number of students (duplicated) with A, B, C, D, DR, F, I, W, CR/P, FW, NC/NP. Students who drop prior to the first census are not counted. (Sources: USX files.)
- Course Success** is defined as the percent of students successful in courses out of total enrolled in courses: Numerator = Number of students (duplicated) with A, B, C, CR/P; Denominator = Number of students (duplicated) with A, B, C, D, DR, F, FW, CR/P, NC/NP, W, I. Students who drop prior to the first census are not counted. (Sources: USX files.)
- Number of online sections** refers to sections coded as 100% online (Source: 320 Report).
- Number of sections** is the total number of sections offered in the department. Note that cross-listed sections within a department are combined. If the sections are cross-listed in two different departments, the section is counted in both departments. (Source: 320 Report).
- Average class size** is the median number of students enrolled in classes in the department. Cross-listed sections within a department are combined for the purposes of computing the average class size. Sections cross-listed across departments are not combined, although the use of the median rather than the mean minimizes these effects. (Source: 320 Report).
- Annual awards** include awards for an academic year awarded from summer through spring. For example, Summer 2016, Fall 2016, Winter 2017, and Spring 2017. (Source: Informer Degree and Certificates report).
- Total Students with Declared Major** reflects the number of students with declared majors offered by the department. These data are pulled from Datatel using the most current primary term that reflect data at the time it was pulled (e.g., Fall 2018 data were pulled in September 2018).
- Department Student Headcount** reflects the unduplicated number of students with an active registration (registration status=Add or New Add at census) enrolled in courses within a department.

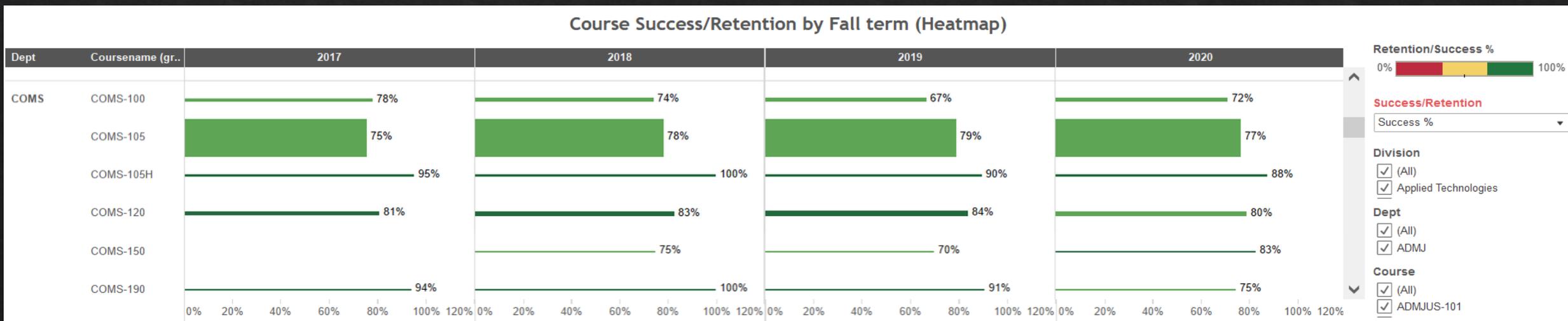
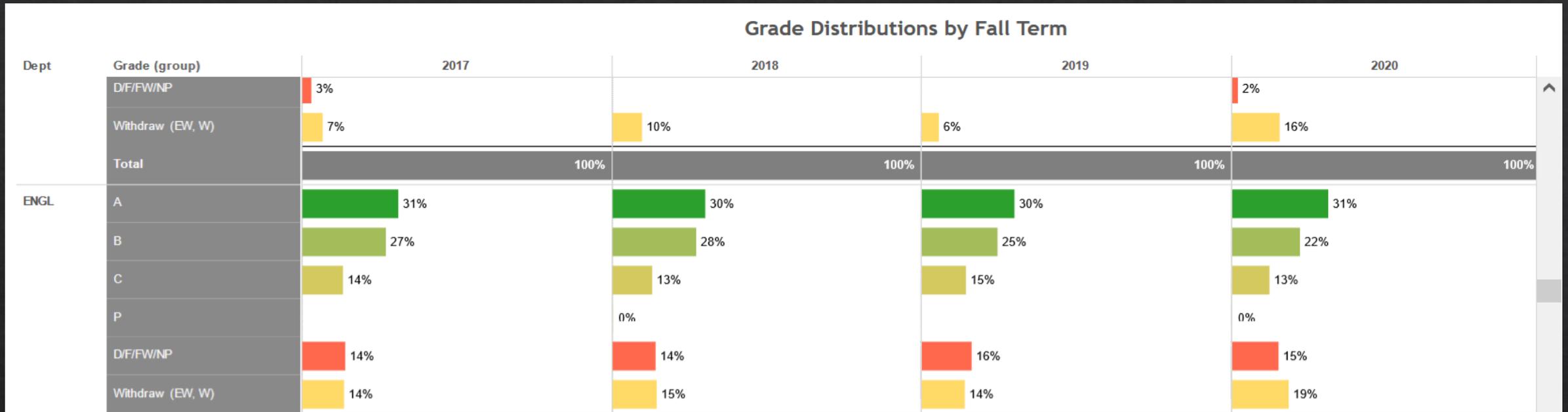
Success & Retention Data for Fall Terms- Dashboard

Definitions | Division-Dept-Course Table | Enrollment Overall | Enrollment Special Pops | **Success/Retention** | Succ/Ret Special Pops (filter) | Succ/Ret Special Pops (chart) | Course Heatmap | Grades All courses



4 fall terms 2017 - 2020

Fall Success & Retention- Grades & Heatmap



Context & Data

- ◆ Longitudinal (e.g. Changes in headcount, changes in class sizes/sections/changes in demographics)
- ◆ In comparison to what? (e.g. other departments, prior years, college as a whole).
- ◆ Triangulating other data to tell a full story:
 - ◆ How do these data relate to other outcomes for your department (e.g., SLOs/new courses or archiving of courses/labor market/external factors).

Disproportionate Impact

- ◇ What is it?
- ◇ Where can you find flags for this in Data Visualization?
- ◇ Where else to look for it?
- ◇ What to do about it?

Disproportionate Impact

- ◇ When one group of students attains an outcome at a rate that is **substantially lower** than the **benchmark rate** that subgroup may be referred to as “disproportionately impacted”.
- ◇ Differences in educational outcomes between subgroups of students may suggest that one group
 - ◇ has **less access to support services/key resources**,
 - ◇ is in need of **relatively greater support**, and/or
 - ◇ must address certain **obstacles** in order to attain those **outcomes at rates comparable** to their peers.

Disproportionate Impact

- ◆ Within Tableau D.I. is called out in the Success & Retention Tab indicated by checkmarks for (no D.I.) or exclamation points (yes, D.I.).
- ◆ **80% Proportionality Index** = target group representation among successes/target group representation within enrollments (or cohort).
- ◆ **Addresses the question:** “If a subgroup represents 45% of the student body, does that subgroup represent at least 45% of the students who successfully complete the course?”

Where is D.I. found in Tableau

Workbook: Program Review Visualization | tableau.canyons.edu/t/Public/views/ProgramReviewVisualization2019-20/SuccessRetention?iframeSizedToWindow=true&embed=y&showAppBanner=false&display_count=no&showVizHome=no&origin=viz...

Notes | Definitions | Programs by Department | Success & Retention Overview | Success & Retention | Department Details Trend | Department Details | Program Awards | Award Earner Demographics | Program/Majors Fall Terms | Academic Staffing

Success & Retention | College as a Whole | Retention Rate: 88% | Success Rate: 76%

Department (Course Prefix) - Success %

Department	Success %
ADMUS	85%
ANTHRO	81%
ARCHT	76%
ART	80%
ASTRON	74%
AUTO	82%
BIOSCI	73%
BUS	76%
CAWT	81%
CHEM	77%
CHNSE	82%
CINEMA	82%
CMPNET	75%
CMPSCI	74%
COMS	81%
CONST	78%
COUNS	75%
CULARTS	89%
CWVE	88%
DANCE	81%
ECE	82%
ECON	75%
EDUC	88%
ENGL	79%
ENGR	81%
ENURMT	71%
ESL	78%
ESYST	63%
FIRETC	80%
FRNCH	75%
FYE	86%
GEOG	76%
GEOL	81%
GERMAN	59%
GMD	74%
HIST	74%
HLHSCI	81%
HRMGT	65%
HUMAN	64%
ID	81%
ITAL	66%
KPE	85%
LMTECH	61%
IMATH	63%
MEA	81%
MFGT	84%
MLT	95%
MUSIC	80%
NJRSNG	97%
OCEAN	91%
PARLGL	79%
PHILOS	67%
PHOTO	68%
PHYSCI	77%
PHYSIC	75%
PLMB	90%
POLISC	80%
PSYCH	76%
REAL	78%
REC	63%
SHARP	85%
SIGN	84%

Filters

Success or Retention: Success

Year: (Multiple values)

Term: (All)

Course Number: (All)

Location: (All)

Disaggregate by: Ethnicity

Ethnicity: (All)

Year

Aggregate by Term

Year	Success %
2015/16	76%
2016/17	75%
2017/18	76%
2018/19	77%
2019/20	76%

Term

Term	Success %
Summer	83%
Fall	74%
Winter	85%
Spring	74%

Ethnicity

Disaggregate by: Ethnicity

Ethnicity	Success %
African American/Black	~65%
American Indian/Alaska Native	~85%
Asian	~85%
Latinx	~75%
Pacific Islander/Native Hawaiian	~75%

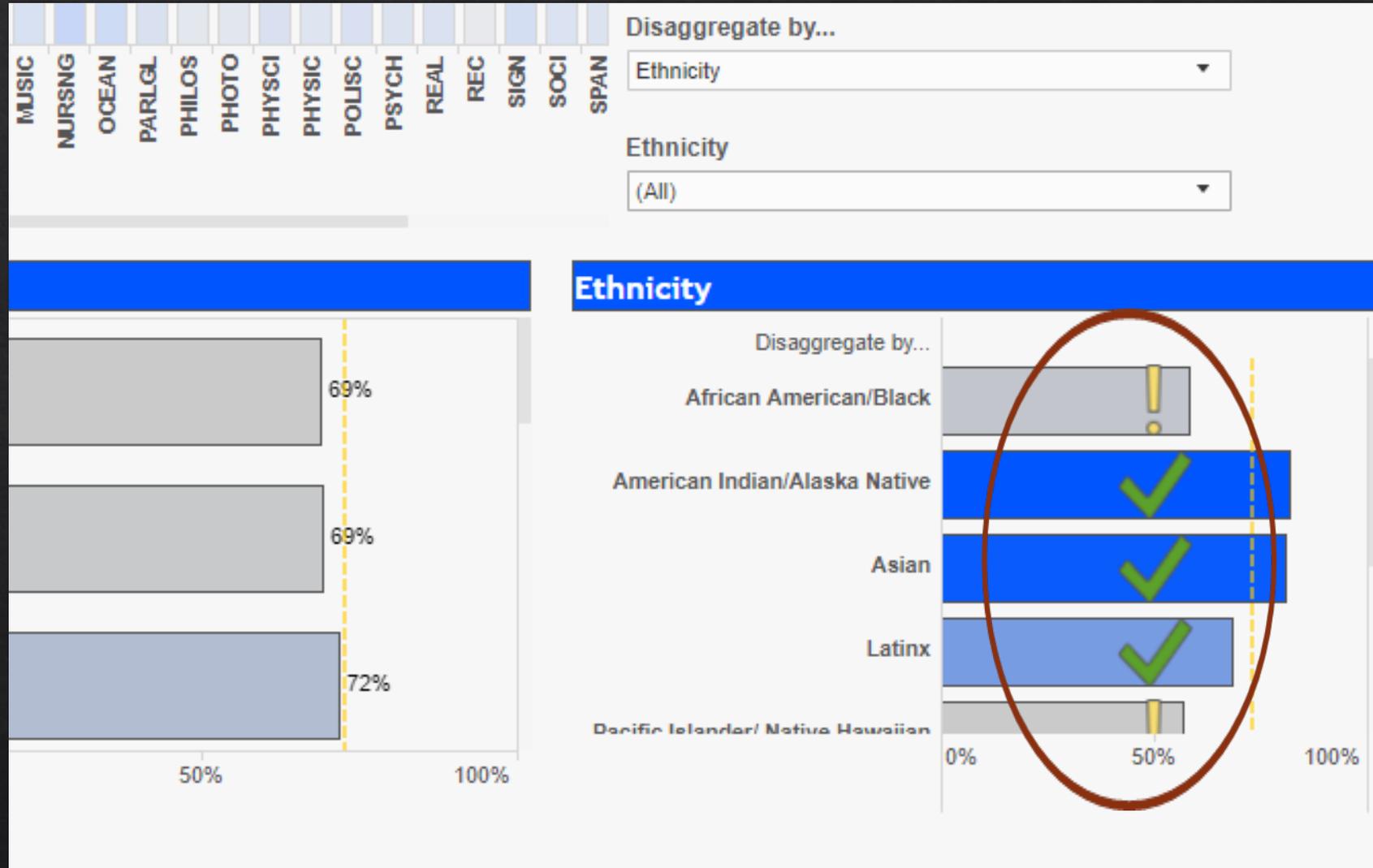
Excludes: Noncredit courses, In-Service Agreement (ISA) students, Students with a registration other than 'Add/New Add', excludes 'Drops'

Location Filter: Online includes 100% online only, HYBRID sections are included in on-ground meeting location; SP2020 Location is section location at the beginning of the spring term before the transition to remote/online operations (on March 16th, 2020), with the exception of essential infrastructure sections (e.g. Welding, EMT, Nursing) that returned to physical locations mid to late spring.

SP2020 Grade EW: COVID19 denominator includes EWs

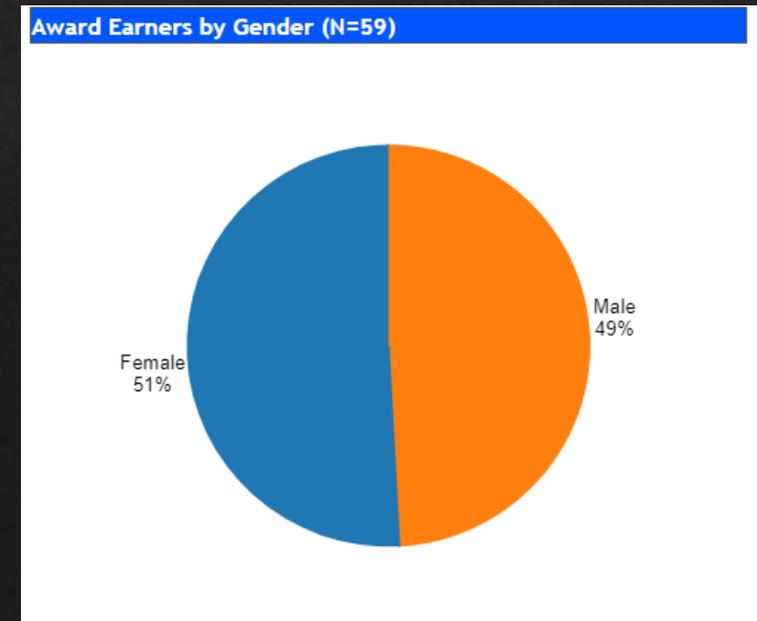
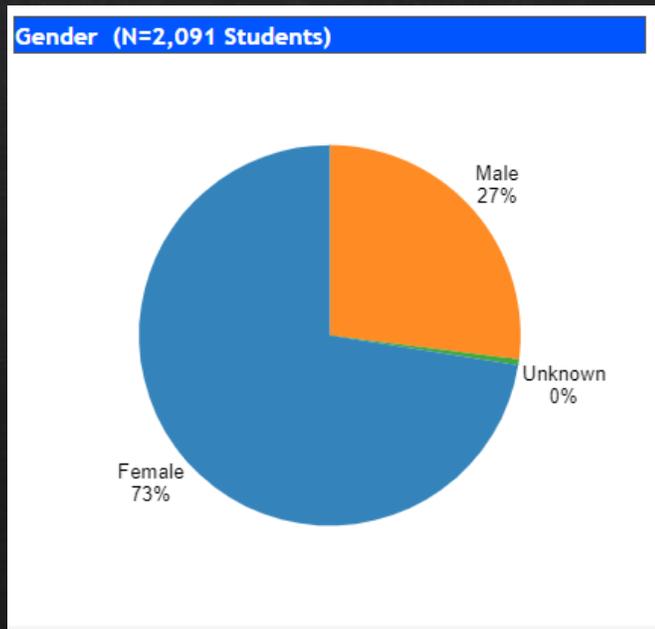
See list of courses and Departments in Excel: <https://www.canyons.edu/resources/documents/administration/irpie/Dept-Prog-CourseLookupTableau.xlsx>

Where is D.I. found in Tableau



D.I. Also by Comparing

- ◇ Demographic Proportions of “Program Majors” and demographic proportions of “Award Earners” (Data found in two tabs).
- ◇ For the same Department females are 73% of those pursuing Major X, however, for that year females are only 51% of the award earners.
- ◇ $.51 / .75 = .69$ (Lower than our .80 threshold) some evidence for D.I.
- ◇ Context would be looking at the trend over time is this improving worsening etc.



Data Trends

For your Department, describe trends including growth/decline in:

- Student achievement and success (retention, course success, **degrees/certificates completed**, transfer).
- How do these trends compare to the college as a whole?

Who is pursuing the major vs. receiving awards? Is there parity in the demographic distribution?

PURSUING

RECEIVING

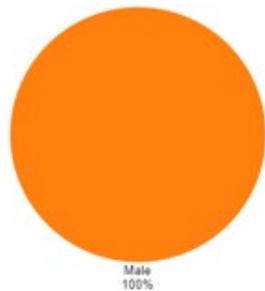
PURSUING

RECEIVING

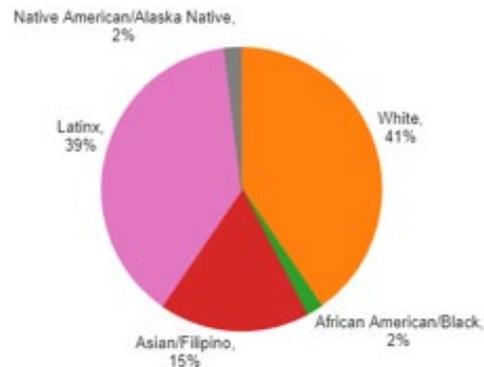
Gender (N=46 Students)



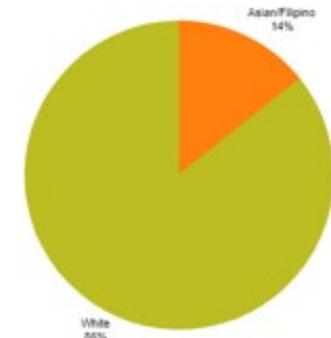
Award Earners by Gender (N=7)



Ethnicity (N=46 Students)



Award Earners by Ethnicity (N= 7)



Things to Consider when seeing D.I.

- Is disaggregating of course level data unanimously understood and adopted within your department?
- Have conversations been had surrounding disaggregating and increased support for target groups? If so, can these changes in the classroom be uniformly agreed on within the department and then implemented?
- Are COC Basic Needs and additional resources included within course syllabi?
- Is an effort to connect background/identity of target groups to the course material being made?
- Researching best practices to reduce equity gaps within your discipline (specialized support).
- Patterns you may see in Course Assignments (e.g., SLOs) → affect success retention.

Things to Reflect on

- ◆ To what extent is there disproportionate impact for achievement or outcome indicators? If there is disproportionate impact, what can be done to minimize it?
- ◆ Given the trends in the student achievement outcomes, what are your ideas for improving student completion in your programs?
- ◆ Use of Data: How is the department/program using and incorporating data from assessments in decision making/planning?

Data Trends

For your Department, describe trends including growth/decline in:

- Number of students served (measured by headcount and FTES),
- Instructional load (measured by instructional load and class size),
- How do these trends compare to the college as a whole?

	2015/16	2016/17	2017/18	2018/19	2019/20
Surv					
FTES	14.15	22.55	22.97	31.61	36.67
Headcount	61	77	81	104	154
Class size	12	16	13	18	19
Inst. Load	193	216	207	261	283
College					
FTES	14093.5	14064.8	14060.7	13742.4	13524.1
Headcount	23,927	24,566	24,551	24,780	24,634
Class size	27	27	25	24	26
Inst. Load	434	402	368	355	376

FTES, headcount and class size are all smaller than the college as a whole. Longitudinal trend data illustrates however, that these all have increased over the last 5 years. Survey headcount has increased by 152% while headcount has increased 3% for the college as a whole. While both Survey and the College saw a dip in their instructional load (efficiency) in 2017/18 Instructional load has increased 47% across the 5-years for Survey. It is still making its way back up to the 2015 baseline for the college as a whole.

Data Trends

For your Department, describe trends including growth/decline in:

- Student achievement and success (retention, course success, degrees/certificates completed, transfer).
- How do these trends compare to the college as a whole?

	2015/16	2016/17	2017/18	2018/19	2019/20
Surv					
Success	85%	83%	83%	83%	76%
Retention	87%	94%	93%	93%	83%
College					
Success	76%	75%	76%	77%	76%
Retention	89%	88%	89%	89%	88%

Success has seen a 10% decrease over these five years and retention was at its' lowest in 2019/20, lower than the baseline 2015/16 low. For the college as a whole success and retention rates have remained stable.

Data Trends

For your Department, describe trends including growth/decline in:

- a) Student achievement and success (**retention, course success**, degrees/certificates completed, transfer).
- b) How do these trends compare to the college as a whole?

	2015/16	2016/17	2017/18	2018/19	2019/20	Avg
Surv						
Success	85%	83%	83%	83%	76%	82%
Retention	87%	94%	93%	93%	83%	90%
College						
Success	76%	75%	76%	77%	76%	76%
Retention	89%	88%	89%	89%	88%	89%

Success has seen a 10% decrease over these five years and retention was at its' lowest in 2019/20, lower than the baseline 2015/16 low. For the college as a whole success and retention rates have remained stable. While survey has not seen increases in success or retention the overall average success and retention for the survey Department is higher than for the College as a whole.

Data Trends

For your Department, describe trends including growth/decline in:

- Student achievement and success (**retention, course success**, degrees/certificates completed, transfer).
- How do these trends compare to the college as a whole?

Success	2015/16	2016/17	2017/18	2018/19	2019/20	5-yr Avg
Surv	D.I.	D.I.	D.I.	D.I.	D.I.	D.I.
AfricanAm/BI	*	Yes	No	No	No	No
Latinx	No	No	No	No	No	No
White	No	No	No	No	No	No
Asian	No	No	No	No	No	No
American Indian/Alaskan	*	*	Yes	*	Yes	Yes low N
Unknown	*	*	Yes	*	No	No
Two or More	No	No	No	No	No	No
*no students						

Success	2015/16	2016/17	2017/18	2018/19	2019/20	5-yr Avg
College	D.I.	D.I.	D.I.	D.I.	D.I.	D.I.
AfricanAm/BI	No	No	No	No	No	No
Latinx	No	No	No	No	No	No
White	No	No	No	No	No	No
Asian	No	No	No	No	No	No
American Indian/Alaskan	No	No	No	No	No	No
Unknown	No	No	No	No	No	No
Two or More	No	No	No	No	No	No

Other patterns to look for besides DI are whether students from certain demographics are present at all within the course/program or major. For example there were no Black students until 2016/17 and no American Indian until 2017/18 both of the “first years” showed DI.

Data Trends

For your Department, describe trends including growth/decline in:

- Student achievement and success (retention, course success, **degrees/certificates completed**, transfer).
- How do these trends compare to the college as a whole?



Program Awards

Award Overview

Awardtype	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
AA/AS Degree	11	5	6	11	7	14	15	12	15
Cert. of Achievement	16	11	13	10	15	21	19	18	21

Award Detail

Dept	Program Title	Awardtype	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
ENGTC	Land Surveying	AA/AS Degree	2	1		2	2	3	2	5	6
		Cert. of Achievement	1		1	2	2	2	4	6	7
	Water Systems Technology	AA/AS Degree	9	4	6	9	5	11	13	7	9
		Cert. of Achievement	15	11	12	8	13	19	15	12	14

Delimiting to the same 5 year period of 2015/16-2019/20 Survey went from a total of 4 awards to 13 (225% increase). Further Survey made up 18% of Engineering Technology awards in 2015/16 however Survey awards make up 36% of Engineering Tech awards in 2019/20. Their awards are growing in raw number and the proportion of awards within Engineering Technologies.

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Cert. of Achievement	16	11	13	10	15	21	19	18	21

Award Detail

Dept	Program Title	Awardtype	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
ENGTC	Land Surveying	AA/AS Degree	2	1		2	2	3	2	5	6
		Cert. of Achievement	1		1	2	2	2	4	6	7
	Water Systems Technology	AA/AS Degree	9	4	6	9	5	11	13	7	9
		Cert. of Achievement	15	11	12	8	13	19	15	12	14

Delimiting to the same 5 year period of 2015/16-2019/20 Survey went from a total of 4 awards to 13 (225% increase). Further Survey made up 18% of Engineering Technology awards in 2015/16 however Survey awards make up 36% of Engineering Tech awards in 2019/20. Their awards are growing in raw number and the proportion of awards within Engineering Technologies.