



**Instructional Program Review – Annual Update
2022**

Date:	June 2, 2022
Program and Department:	Environmental Health & Safety Industrial Technology Department
CTE Program?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Additional programs included in this review:	n/a
Date of last comprehensive review:	Sept. 7, 2021: Academic Senate approval of AP&P recommendation to accept Evaluation Team Vitality Report recommending continuance. May 11, 2022: received confirmation from VPAA’s office the vitality report will serve as comprehensive review for EH&S program.
Submitted By:	Kristy Treur
Attachments (* as needed):	<input type="checkbox"/> 6-year assessment plan – All programs, when applicable <input type="checkbox"/> 2-year scheduling plan <input type="checkbox"/> Justification for Resource Requests (if needed)

I. Alignment of the Program with the AHC Mission

AHC Mission: Allan Hancock College fosters an educational culture that values equity and diversity and engages students in an inclusive learning environment. We offer pathways that encourage our student population to achieve personal, academic, and career goals through coursework leading to associate degrees, certificates, transfer, and skills building.

a. Have there been any changes that would require a change to your Program Mission?

No change.

b. Explain how your program mission aligns with the college mission. The college mission and values

The Environmental Health and Safety (EH&S) program is committed to providing high quality relevant educational opportunities in the areas of, environmental sustainability, compliance, and workplace safety. EH&S students are prepared to enter the workforce or enhance their position in the workforce through an understanding of the fundamentals of environmental protection, hazardous materials management, and occupational safety.

EH&S offers a sequence of courses leading to certificates of achievement, certificates of accomplishment and associates in science degrees. Successful completion of specialized hazardous materials courses; First Responder Operations (FRO), FRO Decontamination, and General Site Worker, allow students and incumbent workers from general industry and first response entities to attain industry recognized certificates from California's Governor's Office of Emergency Services (CalOES) - California Specialized Training Institute (CSTI).

Regionally, there is no program replication. Within the geographic area of California Community College System's Region 6, serviced by the South-Central Coast Regional Consortium, no other community college offers an A.S. degree and certificate program in Environmental Health & Safety.

can be found here: <https://www.hancockcollege.edu/about/mission.php>

II. Student Success, Program Accessibility and Program Capacity

*NO data analysis required this year.

a. Describe how the program works to promote student success (completions job placement, transfer). Include teaching innovations and use of academic and student support.

Unduplicated headcounts increased from 120 (2018-19) to 241 (2019-20). Retention and success have always been strong (80%-90% plus) in the EH&S program/course. Credit certificate awards were 25 for both 2018-19 and 2019-20. FTES/FTEF increase from 2.612 (2018-19) to 3.960 (2019-20).

Teaching hybrid was beneficial for working students as well as those living/working outside of the immediate area.

b. List any notable accomplishments of the program (student awards, honors, or scholarships can be listed here also)

No change from comprehensive/vitality review.

III. Quality and Innovation in the Program and Curriculum Review

- a. Are you on track in your assessment plan for course and program SLOs? If not, please explain why.

No change from comprehensive/vitality review.

- b. Have you shared your assessments or improvement plans with your department, program or advisory committee? If so, what actions resulted? If not, how do you plan to do so in the future?

Yes, EH&S program became part of the Industrial Technology department in fall 2021. Planning aligns with recommendations of the Evaluation Team's Vitality Report.

- c. Did any of section, course or program improvement plans indicate that your program would benefit from specific resources in order to support student learning and/or faculty development? If so, please explain.

No change from comprehensive/vitality review.

- d. In reviewing your outcomes and assessments have you identified any and all that indicate a modification should be made to the course outline, the student learning outcomes or the program outcomes? Please state what modifications you will be making.

Outcomes and assessments require updating.

- e. Have all course outlines been reviewed within the last 5 years? If not, please explain the plan to bring course outlines up to date and include timelines for the review and submission to AP&P.

Yes

- f. For **CTE courses/programs only**, as per §55003, have prerequisites, corequisites and advisories (PCAs) for courses and/or programs been reviewed within the last 2 years?

Yes

IV. Focus and Engagement of the Program

- a. Summarize major trends and opportunities as well as challenges that have emerged in the program

As mentioned previously, EH&S transitioned from the Public Safety Department to the Industrial Technology Department effective fall 2021. In spring 2022, a new part-time EH&S faculty member, Steven Davis, was hired to teach courses ENVT 156 and ENVT 457 at the Public Safety Training Complex for Fire Academy recruits, relieving the program's faculty coordinator, Kristy Treur, to focus on growing the EH&S program at the Santa Maria campus. In planning for 2022-2023, the program coordinator and the academic dean developed a pilot schedule such that students could complete the core ENVT courses in the EH&S Certificate of Achievement program in one year at the Santa Maria campus. New program marketing and promotional materials are being developed for broad multimedia distribution.

Effective fall 2022, the EH&S faculty coordinator's office will be relocated from O-304 to O-111. The O-300 building is scheduled for demolition in 2023-2024.

- b. List any (internal or external) conditions that have influenced the program in the past year.

See response to Item IV.a, above.

Data for Program with Vocational TOP Codes (CTE):

https://misweb.cccco.edu/perkinsv/Core_Indicator_Reports/Default.aspx

Please review the data and comment on any trends.

- c. Current industry employment and wage data (please cite sources) Suggested sources: [ONet Online](#) and [EDD LMI site](#)

EMSI data and the South-Central Coast Center of Excellence labor market research reports earnings are high in the EHS sectors. The national median annual salary, for EH&S and related occupations, is \$69,036. For the Santa Barbara and San Luis obispo counties the median annual salary is \$18,000 higher at \$87,169.

- d. Industry employment and wage trends

EMSI data and the South-Central Coast Center of Excellence labor market research report most jobs in the EHS sectors are found in local government and engineering and consulting firms. It is also noted that 31 % of occupations with job duties that are similar to those of environmental science and protection technicians are found in "other" sectors including agriculture and biological and chemical sectors. EMSI data reports job posting activity and earnings in the Santa Barbara and San Luis Obispo counties are higher than the national averages. Job growth, through 2025, is projected to increase in our area 4.1%.

- e. TOP code employment CORE indicator report

Performance goals are exceeded for all four Core Indicators in TOP code (030300)

- f. Advisory committee recommendations

No change from comprehensive/vitality review.

V. Continuous Improvement of the Program

- a. Status of Final Plan of Action – Post Validation

Summarize the progress made on the recommendations from your last comprehensive program review plan of action

PLAN OF ACTION	ACTION TAKEN/RESULT AND STATUS
Curricular modification so that ENVT 101 qualifies as a general education course within the Natural Sciences category [AHC Category 1, CSU GE B1, B3 (lab)], perhaps with optional lab	In progress
Develop curricular modifications and identify resources needed to offer ENVT 101 as an online laboratory course. Similarly, develop a distance learning version of the program.	In progress
Outreach and connection with local agricultural industry and regulatory representatives.	In progress
Associate the EHS programs within the Industrial Technology or Life and Physical Sciences Department rather than the Public Safety department by aligning with a different Success Roadmap (under STEM).	As of fall 2021 the EHS program is with the Industrial Technology department
Represent EHS at STEM Week of Discovery and other outreach events	In progress

- b. List any new resources that the program received in the past year and the results

Source	Specific Resource	Est. Amount \$	Impact on program or course outcomes
n/a			

- c. List any new or modified recommendations below, including rationale for these in the table.

Program Improvement Plan (Program ,Priority Number, year)	Anticipated Outcome (Goal)	Program Goal Status (Indicate if this goal is ongoing from a previous Annual Or Comprehensive Program Review or new this year).	Alignment to Strategic Directions and planning goals (see " Alignment to Strategic Directions" Attached	Activities	Justification (Evidence of need)	Resource Request (From table Below)	Anticipated Completion Date or On-going
n/a							

d. Summary of request for resources. Please list the type of request (facility, technology, staffing, equipment, other) and rank their priority.

Resource Requests (Program, RRX year)	Item	Program Goal	Type	One-time cost	On-going cost (per fiscal year)	Anticipated Completion Date or On-going
n/a						



5 Occupations in 2 California Counties

Contents

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What is Emsi Data?

Emsi data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumés, and job postings to give you a complete view of the workforce.

Emsi data is frequently cited in major publications such as *The Atlantic*, *Forbes*, *Harvard Business Review*, *The New York Times*, *The Wall Street Journal*, and *USA Today*.



Report Parameters

5 Occupations

19-2041	Environmental Scientists and Specialists, .
19-5011	Occupational Health and Safety Specialist
19-4042	Environmental Science and Protection Te..

19-5012	Occupational Health and Safety Technicia
17-2111	Health and Safety Engineers, Except Mini.

2 Counties

6079	San Luis Obispo County, CA
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6083	Santa Barbara County, CA
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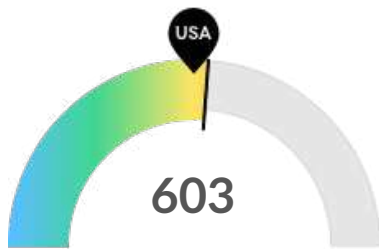
Class of Worker

QCEW Employees

The information in this report pertains to the chosen occupations and geographical areas.

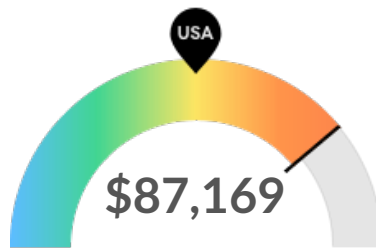
Executive Summary

Aggressive Job Posting Demand Over an Average Supply of Regional Jobs



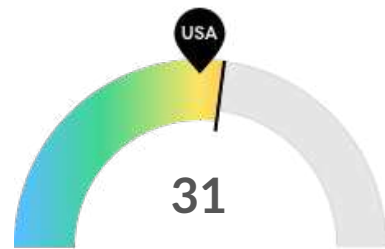
Jobs (2020)

Your area is about average for this kind of job. The national average for an area this size is 562* employees, while there are 603 here.



Compensation

Earnings are high in your area. The national median salary for your occupations is \$69,036, compared to \$87,169 here.



Job Posting Demand

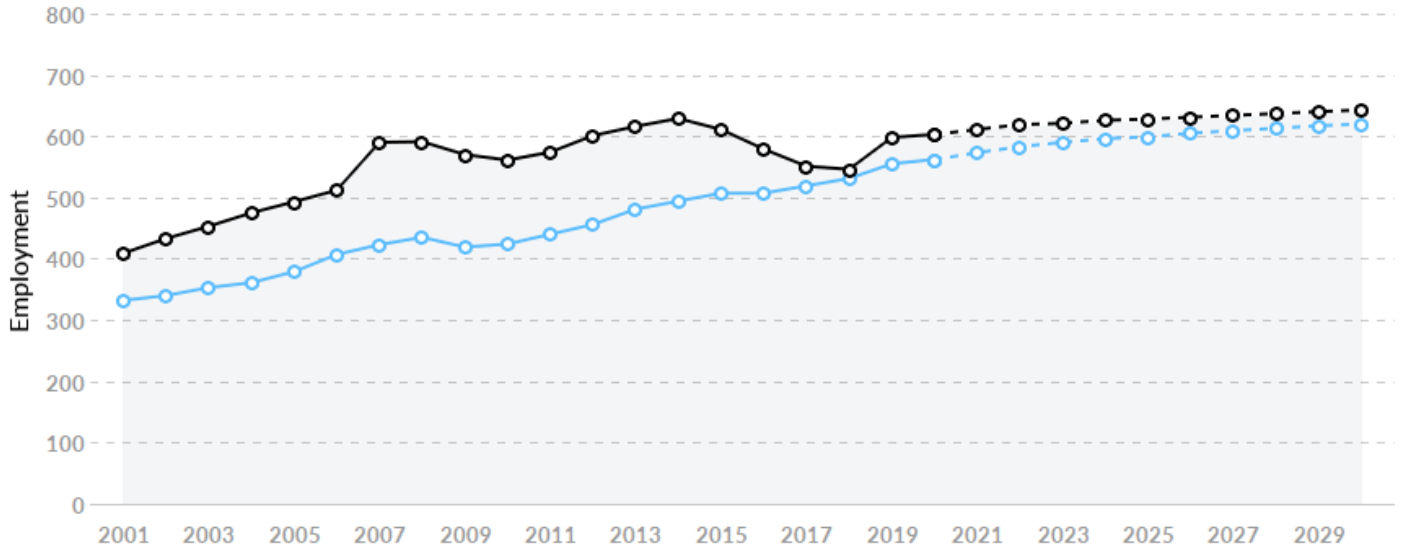
Job posting activity is high in your area. The national average for an area this size is 27* job postings/mo, while there are 31 here.

*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Jobs

Regional Employment Is About Equal to the National Average

An average area of this size typically has 562* jobs, while there are 603 here.



Region	2020 Jobs	2025 Jobs	Change	% Change
● 2 California Counties	603	628	25	4.1%
● National Average	562	599	37	6.7%

*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Regional Breakdown



County	2020 Jobs
San Luis Obispo County, CA	303
Santa Barbara County, CA	299

Most Jobs are Found in the Local Government, Excluding Education and Hospitals Industry Sector

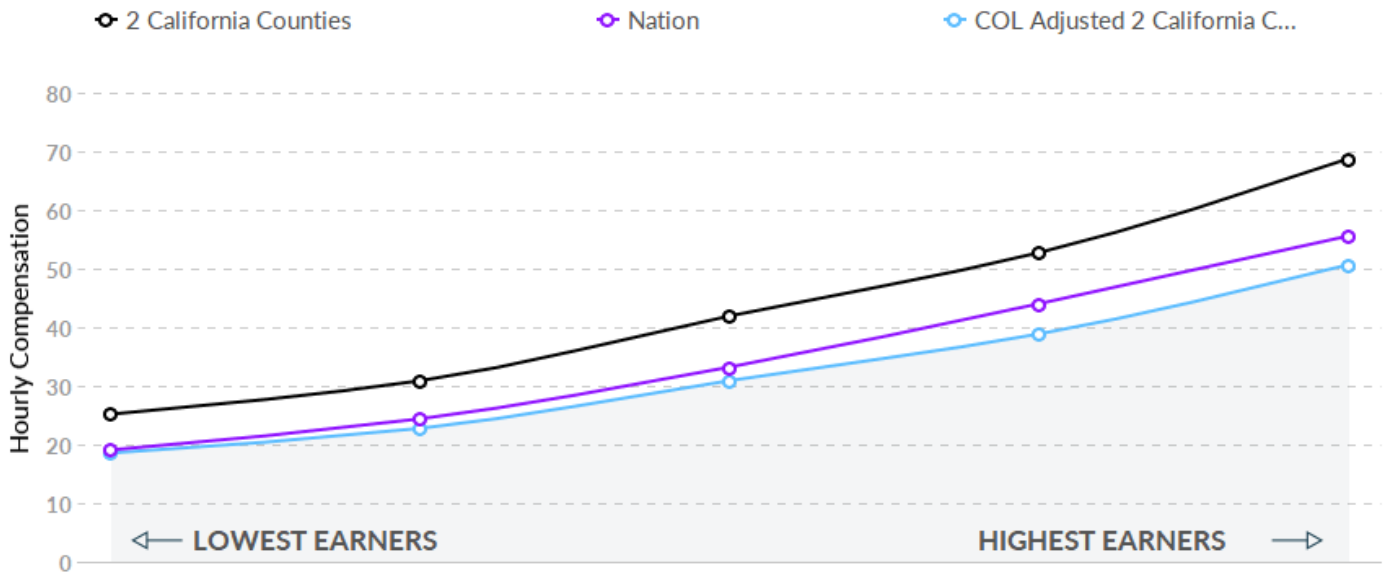


Industry	% of Occupation in Industry (2020)
Local Government, Excluding Education and Hospitals	18.7%
Architectural, Engineering, and Related Services	15.6%
Management, Scientific, and Technical Consulting Services	12.5%
State Government, Excluding Education and Hospitals	9.1%
Electric Power Generation, Transmission and Distribution	7.1%
Education and Hospitals (State Government)	6.0%
Other	31.1%

Compensation

Regional Compensation Is 26% Higher Than National Compensation

For your occupations, the 2019 median wage in your area is \$41.91/hr, while the national median wage is \$33.19/hr.



Job Posting Activity



277 Unique Job Postings

The number of unique postings for this job from Jan 2020 to Sep 2020.



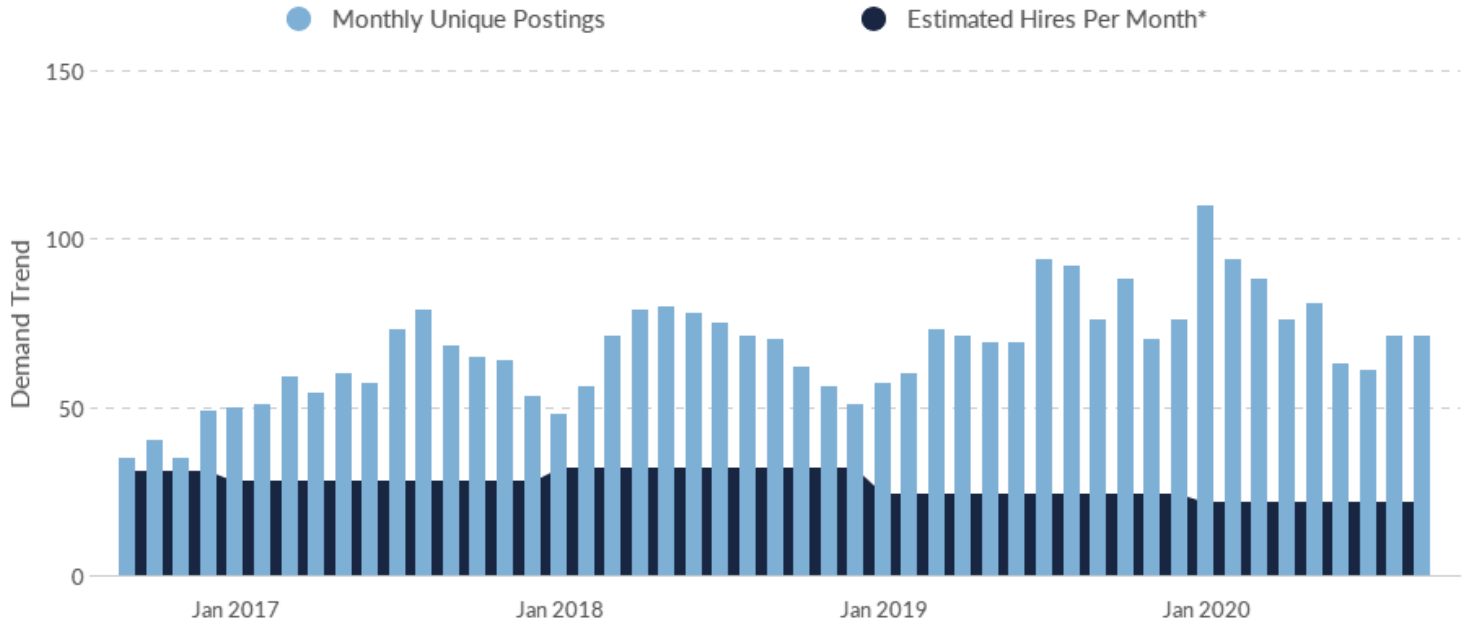
132 Employers Competing

All employers in the region who posted for this job from Jan 2020 to Sep 2020.












35 Day Median Duration





Posting duration is 1 day longer than what's typical in the region.



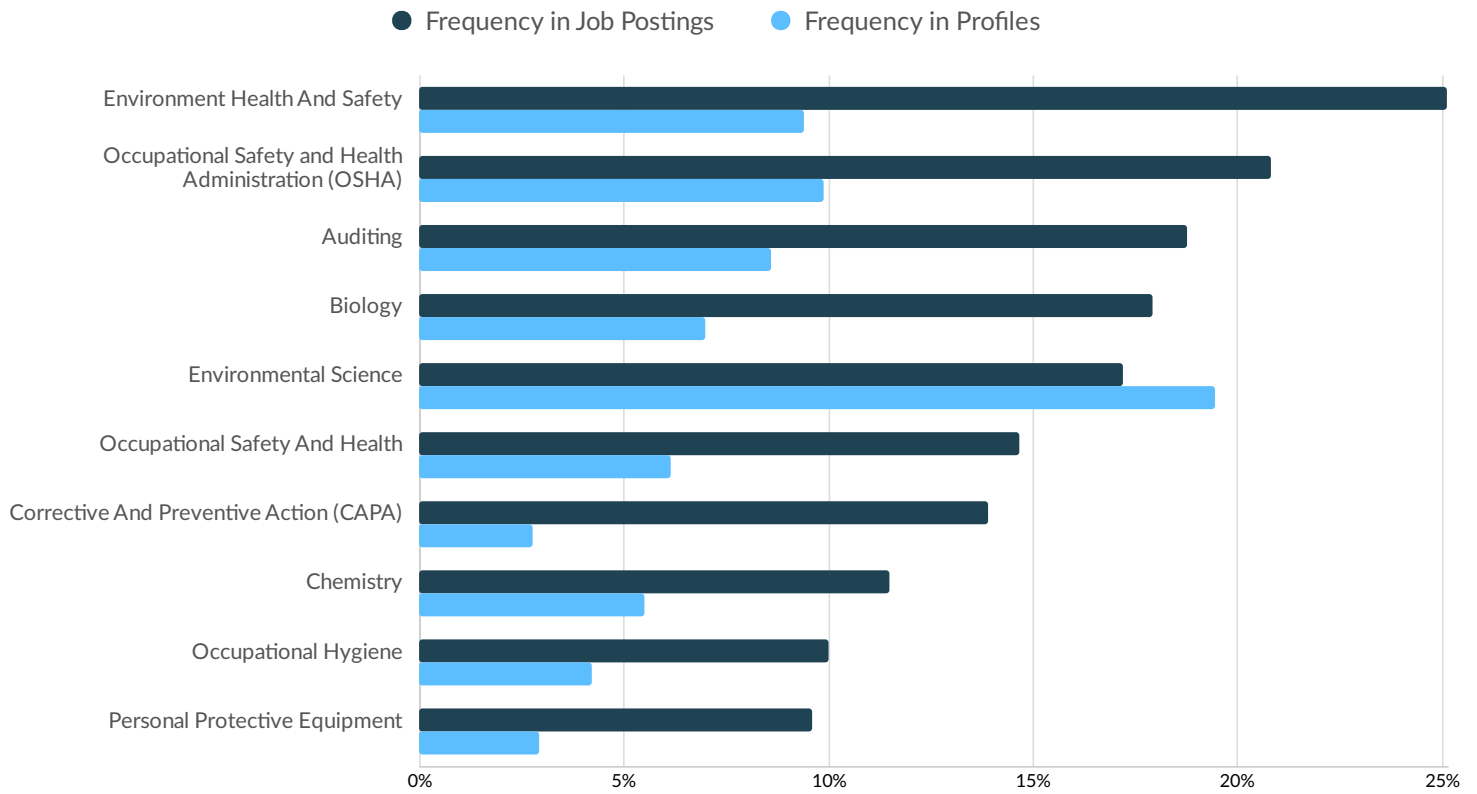
Occupation	Avg Monthly Postings (Jan 2020 - Sep 2020)	Avg Monthly Hires (Jan 2020 - Sep 2020)
Environmental Science and Protection Technicians, Including Health	20	6
Environmental Scientists and Specialists, Including Health	23	9
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	23	2
Occupational Health and Safety Specialists	13	4
Occupational Health and Safety Technicians	1	0

*A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Emsi hires are calculated using a combination of Emsi jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.

Top Companies	Unique Postings
University of California	15 
Spectrum	14 
Pacific Gas and Electric Company	8 
Promega Corporation	8 
EnSCO PLC	7 
Army National Guard	6 
Science Applications Internation...	6 
Stantec Inc.	6 
County of San Luis Obispo	5 
Jiffy Lube International, Inc.	5 

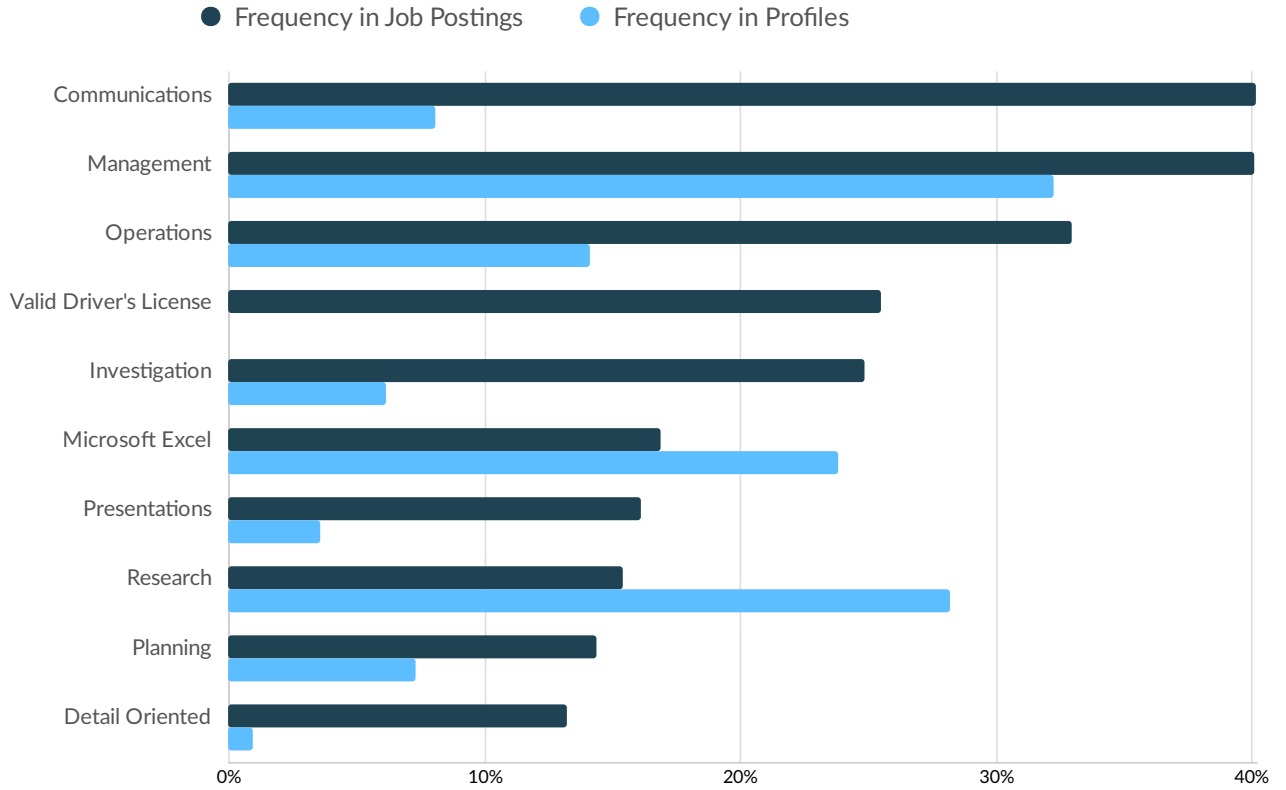
Top Job Titles	Unique Postings
Field Technicians	18 
Environmental Health and Safet...	17 
Environmental Scientists	14 
Safety Coordinators	10 
Field Technician Interns	8 
Launch Engineers	8 
Smog Technicians	7 
Petroleum Laboratory Specialists	6 
System Safety Engineers	6 
Radiation Protection Technicians	5 

Top Hard Skills



Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Environment Health And Safety	269	25%	58	9%
Occupational Safety and Health Administration (OSHA)	223	21%	61	10%
Auditing	201	19%	53	9%
Biology	192	18%	43	7%
Environmental Science	184	17%	120	19%
Occupational Safety And Health	157	15%	38	6%
Corrective And Preventive Action (CAPA)	149	14%	17	3%
Chemistry	123	11%	34	6%
Occupational Hygiene	107	10%	26	4%
Personal Protective Equipment	103	10%	18	3%

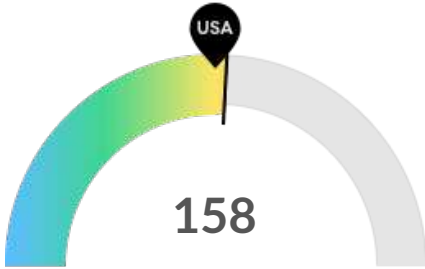
Top Common Skills



Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Communications	430	40%	50	8%
Management	429	40%	199	32%
Operations	353	33%	87	14%
Valid Driver's License	273	26%	0	0%
Investigation	266	25%	38	6%
Microsoft Excel	181	17%	147	24%
Presentations	173	16%	22	4%
Research	165	15%	174	28%
Planning	154	14%	45	7%
Detail Oriented	142	13%	6	1%

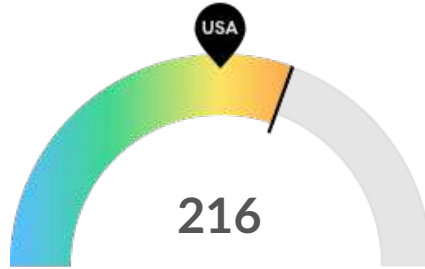
Demographics

Retirement Risk Is About Average, While Overall Diversity Is High



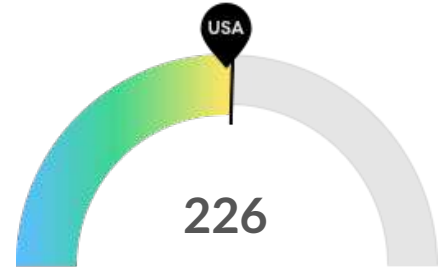
Retiring Soon

Retirement risk is about average in your area. The national average for an area this size is 150* employees 55 or older, while there are 158 here.



Racial Diversity

Racial diversity is high in your area. The national average for an area this size is 159* racially diverse employees, while there are 216 here.

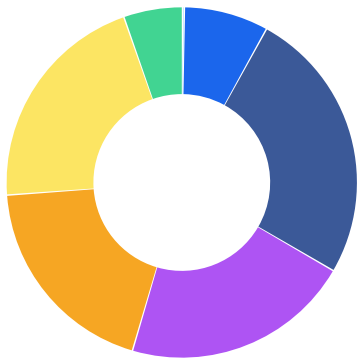


Gender Diversity

Gender diversity is about average in your area. The national average for an area this size is 220* female employees, while there are 226 here.

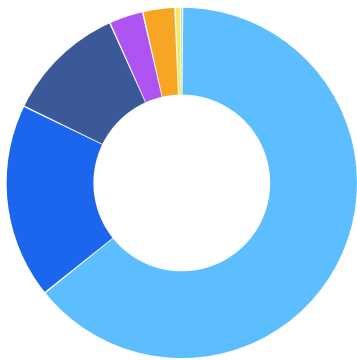
*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Occupation Age Breakdown



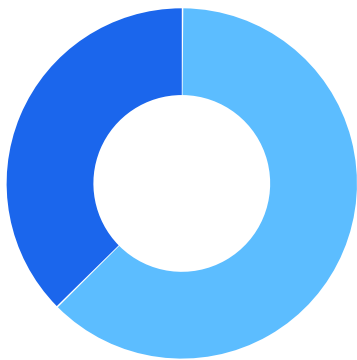
	% of Jobs	Jobs
14-18	0.2%	1
19-24	7.8%	47
25-34	25.4%	153
35-44	21.2%	128
45-54	19.3%	116
55-64	20.8%	125
65+	5.4%	33

Occupation Race/Ethnicity Breakdown



	% of Jobs	Jobs
White	64.2%	387
Hispanic or Latino	18.0%	108
Asian	11.1%	67
Two or More Races	3.1%	19
Black or African American	3.0%	18
American Indian or Alaska Native	0.5%	3
Native Hawaiian or Other Pacific Islander	0.2%	1

Occupation Gender Breakdown



	% of Jobs	Jobs
Males	62.5%	377
Females	37.5%	226

Occupational Programs



5 Programs

Of the programs that can train for this job, 5 have produced completions in the last 5 years.



481 Completions (2019)

The completions from all regional institutions for all degree types.



61 Openings (2019)

The average number of openings for an occupation in the region is 61.

CIP Code	Top Programs	Completions (2019)
03.0103	Environmental Studies	331
03.0104	Environmental Science	86
14.1401	Environmental/Environmental Health Engineering	48
30.3201	Marine Sciences	15
51.0000	Health Services/Allied Health/Health Sciences, General	1

Top Schools	Completions (2019)
University of California-Santa Barbara	415
California Polytechnic State University-San Luis Obispo	63
Santa Barbara City College	2
Cuesta College	1

Appendix A - Data Sources and Calculations

Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

Occupation Data

Emsi occupation employment data are based on final Emsi industry data and final Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level Emsi earnings by industry.

Staffing Patterns Data

The staffing pattern data in this report are compiled from several sources using a specialized process. For QCEW and Non-QCEW Employees classes of worker, sources include Occupational Employment Statistics, the National Industry-Occupation Employment Matrix, and the American Community Survey. For the Self-Employed and Extended Proprietors classes of worker, the primary source is the American Community Survey, with a small amount of information from Occupational Employment Statistics.

Cost of Living Data

Emsi's cost of living data is based on the Cost of Living Index published by the Council for Community and Economic Research (C2ER).

Emsi Job Postings

Job postings are collected from various sources and processed/enriched to provide information such as standardized company name, occupation, skills, and geography.

Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.



Environmental Science and Protection Technicians

Summary | What They Do | Work Environment | How to Become One | Pay | Job Outlook | State & Area Data | Similar Occupations | More Info

Summary

Summary

Quick Facts: Environmental Science and Protection Technicians	
2019 Median Pay	\$46,540 per year \$22.38 per hour
Typical Entry-Level Education	Associate's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2019	34,700
Job Outlook, 2019-29	8% (Much faster than average)
Employment Change, 2019-29	2,900



[What Environmental Science and Protection Technicians Do](#)

Environmental science and protection technicians monitor the environment and investigate sources of pollution and contamination.

[Work Environment](#)

Environmental science and protection technicians work in offices, laboratories, and the field.

[How to Become an Environmental Science and Protection Technician](#)

Environmental science and protection technicians typically need an associate's degree or 2 years of postsecondary education, although some positions require a bachelor's degree.

[Pay](#)

The median annual wage for environmental science and protection technicians was \$46,540 in May 2019.

[Job Outlook](#)

Employment of environmental science and protection technicians is projected to grow 8 percent from 2019 to 2029, much faster than the average for all occupations. However, because it is a small occupation, the fast growth will result in only about 2,900 new jobs over the 10-year period.

[State & Area Data](#)

Explore resources for employment and wages by state and area for environmental science and protection technicians.

[Similar Occupations](#)

Compare the job duties, education, job growth, and pay of environmental science and protection technicians with similar occupations.

[More Information, Including Links to O*NET](#)

Learn more about environmental science and protection technicians by visiting additional resources, including O*NET, a source on key characteristics of workers and occupations.

[What They Do ->](#)

What They Do

What Environmental Science and Protection Technicians Do

About this section

Environmental science and protection technicians monitor the environment and investigate sources of pollution and contamination, including those affecting public health.

Duties

Environmental science and protection technicians typically do the following:

- Inspect establishments, including public places and businesses, to ensure that there are no environmental, health, or safety hazards
- Set up and maintain equipment used to monitor pollution levels, such as remote sensors that measure emissions from smokestacks
- Collect samples of air, soil, water, and other materials for laboratory analysis
- Clearly label, track, and ensure the integrity of samples being transported to the laboratory
- Use equipment, such as microscopes, to evaluate and analyze samples for the presence of pollutants or other contaminants
- Prepare charts and reports that summarize test results
- Discuss test results and analyses with clients

- Verify compliance with regulations that help prevent pollution

Many environmental science and protection technicians work under the supervision of [environmental scientists and specialists](#), who direct the technicians' work and evaluate their results. In addition, technicians often work on teams with scientists, engineers, and technicians in other fields to solve complex problems related to environmental degradation and public health. For example, they may work on teams with [geoscientists](#) and [hydrologists](#) to manage the cleanup of contaminated soils and ground water around an abandoned bomb-manufacturing site.

Most environmental science and protection technicians work for consulting firms, state or local governments, or testing laboratories.

In **consulting firms**, environmental science and protection technicians help clients monitor and manage the environment and comply with regulations. For example, they help businesses develop cleanup plans for contaminated sites, and they recommend ways to reduce, control, or eliminate pollution. Also, environmental science and protection technicians conduct feasibility studies for, and monitor the environmental impact of, new construction projects.

In **state and local governments**, environmental science and protection technicians inspect businesses and public places, and investigate complaints related to air quality, water quality, and food safety. They may be involved with the enforcement of environmental regulations. They also may help protect the environment and people's health by performing environmental impact studies of new construction. Or they may evaluate the environmental health of sites that may contaminate the environment, such as abandoned industrial sites.

In **testing laboratories**, environmental science and protection technicians collect and track samples, and perform tests that are often similar to those carried out by [chemical technicians](#), [biological technicians](#), or [microbiologists](#). However, in contrast to the work done by these science workers, that done by environmental science and protection technicians focuses on topics that are directly related to the environment and how it affects human health.

Environmental science and protection technicians typically specialize either in laboratory testing or in fieldwork and sample collection. However, it is common for laboratory technicians to occasionally collect samples from the field and for fieldworkers to do some work in a laboratory.

[← Summary](#)

Work Environment

[Work Environment →](#)

Work Environment

[About this section](#)

Environmental science and protection technicians held about 34,700 jobs in 2019. The largest employers of environmental science and protection technicians were as follows:

Management, scientific, and technical consulting services	24%
Local government, excluding education and hospitals	19
Testing laboratories	12
Engineering services	7
State government, excluding education and hospitals	6

Environmental science and protection technicians work in laboratories, offices, and the field. Fieldwork offers a variety of settings. For example, technicians may investigate an abandoned manufacturing plant, or work outdoors to test the water quality of lakes and rivers. They may work near streams and rivers, monitoring the levels of pollution caused by runoff from cities and landfills, or they may have to use the crawl spaces under a house in order to neutralize natural health risks such as radon. While working outdoors, they may be exposed to adverse weather conditions.

In the field, environmental science and protection technicians spend most of their time on their feet, which can be physically demanding. They also may need to carry and set up testing equipment, which can involve some heavy lifting and frequent bending and crouching. Fieldwork may be seasonal, depending on the location, since low temperatures in the winter could inhibit taking samples from water sources or soil.

Depending on the type of work and fieldwork they do, technicians may need to wear protective gear such as hardhats, masks, and coveralls to protect them from hazards.

Work Schedules

Environmental science and protection technicians typically work full time. Working in the field exposes them to all types of weather. Also, technicians may need to travel to meet with clients or to perform fieldwork, either of which may require technicians to work additional or irregular hours.

[← What They Do](#)

How to Become One

[How to Become One →](#)

How to Become an Environmental Science and Protection Technician

[About this section](#)

Environmental science and protection technicians typically need an associate's degree or 2 years of postsecondary education, although some positions require a bachelor's degree.

Education

Environmental science and protection technicians typically need an associate's degree in environmental science, environmental health, or public health, or a related degree. Because of the wide range of tasks, environments, and industries in which these technicians work, there are jobs that do not require postsecondary education and others that require a bachelor's degree.



Environmental science and protection technicians use laboratory equipment, such as microscopes, to analyze samples collected in the field.



Environmental science and protection technicians monitor levels of pollution.

A background in natural sciences is important for environmental science and protection technicians. Students should take courses in chemistry, biology, geology, and physics. Coursework in math, statistics, and computer science also is useful, because technicians routinely do data analysis and modeling.

Many technical and community colleges offer programs in environmental studies or a related technology, such as remote sensing or geographic information systems (GISs). While in college, students should include coursework that provides laboratory experience.

Associate's degree programs at community colleges often are designed to allow students to easily transfer to bachelor's degree programs at public colleges and universities.

Training

Technicians whose jobs involve handling hazardous waste typically need to complete training in accordance with [Occupational Safety & Health Administration](#) (OSHA) standards. The length of training depends on the type of hazardous material that workers handle. The training covers health hazards, personal protective equipment and clothing, site safety, recognizing and identifying hazards, and decontamination.

Important Qualities

Analytical skills. Environmental science and protection technicians must carry out a wide range of laboratory and field tests, and their results must be accurate and precise.

Communication skills. Environmental science and protection technicians must have good listening and writing skills, because they must follow precise directions for sample collection and communicate their results effectively in written reports. They also need to discuss their results with colleagues, clients, and, sometimes, public audiences.

Critical-thinking skills. Environmental science and protection technicians reach their conclusions through sound reasoning and judgment. They have to determine the best way to address environmental hazards.

Interpersonal skills. Environmental science and protection technicians need to work well and collaborate with others, because they often work with scientists and other technicians.

Licenses, Certifications, and Registrations

In some states, environmental science and protection technicians can benefit from obtaining certification to conduct certain types of environmental and health inspections. For example, certification for technicians who test buildings for radon is offered through the [National Radon Safety Board](#) (NRSB).

The Registered Environmental Health Specialist/Registered Sanitarian (REHS/RS) credential is offered through the [National Environmental Health Association](#) (NEHA).

[-< Work Environment](#)

[Pay ->](#)

Pay

Pay

[About this section](#)

The median annual wage for environmental science and protection technicians was \$46,540 in May 2019. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$29,040, and the highest 10 percent earned more than \$80,710.

In May 2019, the median annual wages for environmental science and protection technicians in the top industries in which they worked were as follows:

Local government, excluding education and hospitals	\$50,230
Engineering services	46,940
State government, excluding education and hospitals	46,510
Management, scientific, and technical consulting services	44,240
Testing laboratories	39,660

Environmental science and protection technicians typically work full time. Working in the field exposes them to all types of weather. Also, technicians may need to travel to meet with clients or to perform fieldwork, either of which may require technicians to work additional or irregular hours.

[-< How to Become One](#)

[Job Outlook ->](#)

Job Outlook

Job Outlook

[About this section](#)

Employment of environmental science and protection technicians is projected to grow 8 percent from 2019 to 2029, much faster than the average for all occupations. However, because it is a small occupation, the fast growth will result in only about 2,900 new jobs over the 10-year period. Heightened public interest in issues involving the environment, such as fracking, as well as the increasing demands



Environmental science and protection technicians need an associate's degree or comparable postsecondary training.

Environmental Science and Protection Technicians

Median annual wages, May 2019

Life, physical, and social science technicians	\$48,230
Environmental science and protection technicians	\$46,540
Total, all occupations	\$39,810

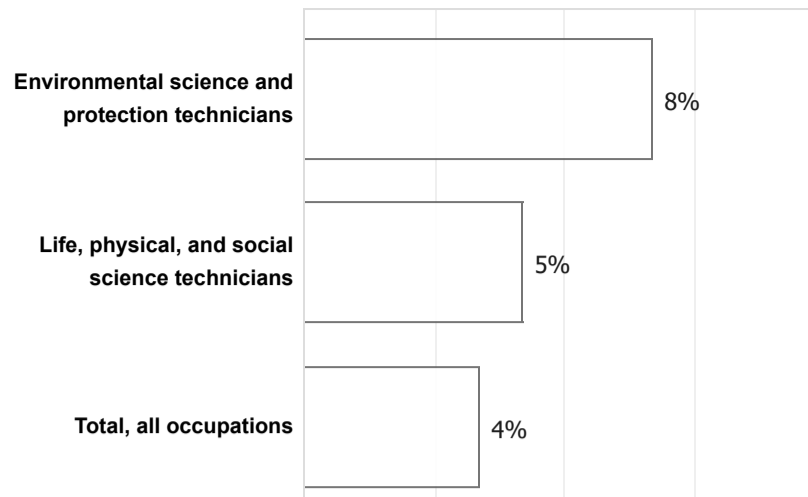
Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics

Environmental Science and Protection Technicians

Percent change in employment, projected 2019-29

placed on the environment by population growth, is expected to spur demand for environmental science and protection technicians.

Most employment growth for environmental science and protection technicians is projected to be in the industry of management, scientific, and technical consulting services. More businesses and governments are expected to use these firms in the future to help them monitor and manage the environment and comply with regulations.



Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Employment Projections program

Employment projections data for environmental science and protection technicians, 2019-29

Occupational Title	SOC Code	Employment, 2019	Projected Employment, 2029	Change, 2019-29		Employment by Industry
				Percent	Numeric	
Environmental science and protection technicians, including health	19-4042	34,700	37,600	8	2,900	Get data

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program

[-< Pay](#)

State & Area Data

[State & Area Data ->](#)

State & Area Data

[About this section](#)

Occupational Employment Statistics (OES)

The [Occupational Employment Statistics](#) (OES) program produces employment and wage estimates annually for over 800 occupations. These estimates are available for the nation as a whole, for individual states, and for metropolitan and nonmetropolitan areas. The link(s) below go to OES data maps for employment and wages by state and area.

- [Environmental science and protection technicians, including health](#)

Projections Central

Occupational employment projections are developed for all states by Labor Market Information (LMI) or individual state Employment Projections offices. All state projections data are available at www.projectionscentral.com. Information on this site allows projected employment growth for an occupation to be compared among states or to be compared within one state. In addition, states may produce projections for areas; there are links to each state's websites where these data may be retrieved.

CareerOneStop

CareerOneStop includes hundreds of [occupational profiles](#) with data available by state and metro area. There are links in the left-hand side menu to compare occupational employment by state and occupational wages by local area or metro area. There is also a [salary info tool](#) to search for wages by zip code.

[-< Job Outlook](#)

Similar Occupations




[Similar Occupations ->](#)

Similar Occupations

[About this section](#)

This table shows a list of occupations with job duties that are similar to those of environmental science and protection technicians.

	OCCUPATION	JOB DUTIES	ENTRY-LEVEL EDUCATION	2019 MEDIAN PAY
	Agricultural and Food Science Technicians	Agricultural and food science technicians assist agricultural and food scientists.	Associate's degree	\$41,230
	Biological Technicians	Biological technicians help biological and medical scientists conduct laboratory tests and experiments.	Bachelor's degree	\$45,860
	Chemical Technicians	Chemical technicians use special instruments and techniques to assist chemists and chemical engineers.	Associate's degree	\$49,260
	Clinical Laboratory Technologists and Technicians	Clinical laboratory technologists and technicians collect samples and perform tests to analyze body fluids, tissue, and other substances.	Bachelor's degree	\$53,120
	Environmental Engineering Technicians	Environmental engineering technicians carry out the plans that environmental engineers develop.	Associate's degree	\$50,620
	Environmental Scientists and Specialists	Environmental scientists and specialists use their knowledge of the natural sciences to protect the environment and human health.	Bachelor's degree	\$71,360
	Forensic Science Technicians	Forensic science technicians aid criminal investigations by collecting and analyzing evidence.	Bachelor's degree	\$59,150

OCCUPATION	JOB DUTIES	ENTRY-LEVEL EDUCATION	2019 MEDIAN PAY
 Geoscientists	Geoscientists study the physical aspects of the Earth.	Bachelor's degree	\$92,040
 Hydrologists	Hydrologists study how water moves across and through the Earth's crust.	Bachelor's degree	\$81,270
 Occupational Health and Safety Specialists and Technicians	Occupational health and safety specialists and technicians collect data on and analyze many types of work environments and work procedures.	See How to Become One	\$70,480

[← State & Area Data](#)
[More Info →](#)
[More Info](#)

Contacts for More Information

[About this section](#)

For more information about environmental health technicians and related occupations, visit

[National Environmental Health Association](#)

For more information about training, visit

[UCAR](#)

[Occupational Safety and Health Administration](#)

For more information specific to radon technicians, visit

[National Radon Safety Board](#)

O*NET

[Environmental Science and Protection Technicians, Including Health](#)

[← Similar Occupations](#)

SUGGESTED CITATION:

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Environmental Science and Protection Technicians, on the Internet at <https://www.bls.gov/ooh/life-physical-and-social-science/environmental-science-and-protection-technicians.htm> (visited October 16, 2020).

Last Modified Date: Tuesday, September 1, 2020

U.S. BUREAU OF LABOR STATISTICS Office of Occupational Statistics and Employment Projections PSB Suite 2135 2 Massachusetts Avenue NE
Washington, DC 20212-0001

Telephone: 1-202-691-5700 www.bls.gov/ooh [Contact OOH](#)

Program Data

STEP 1 | Choose subjects: ENVT

Subjects: ENVT

STEP 2 | Choose awards: Multiple values

Awards: Environmental Health & Safety,
Environmental Studies, Environmental Technology

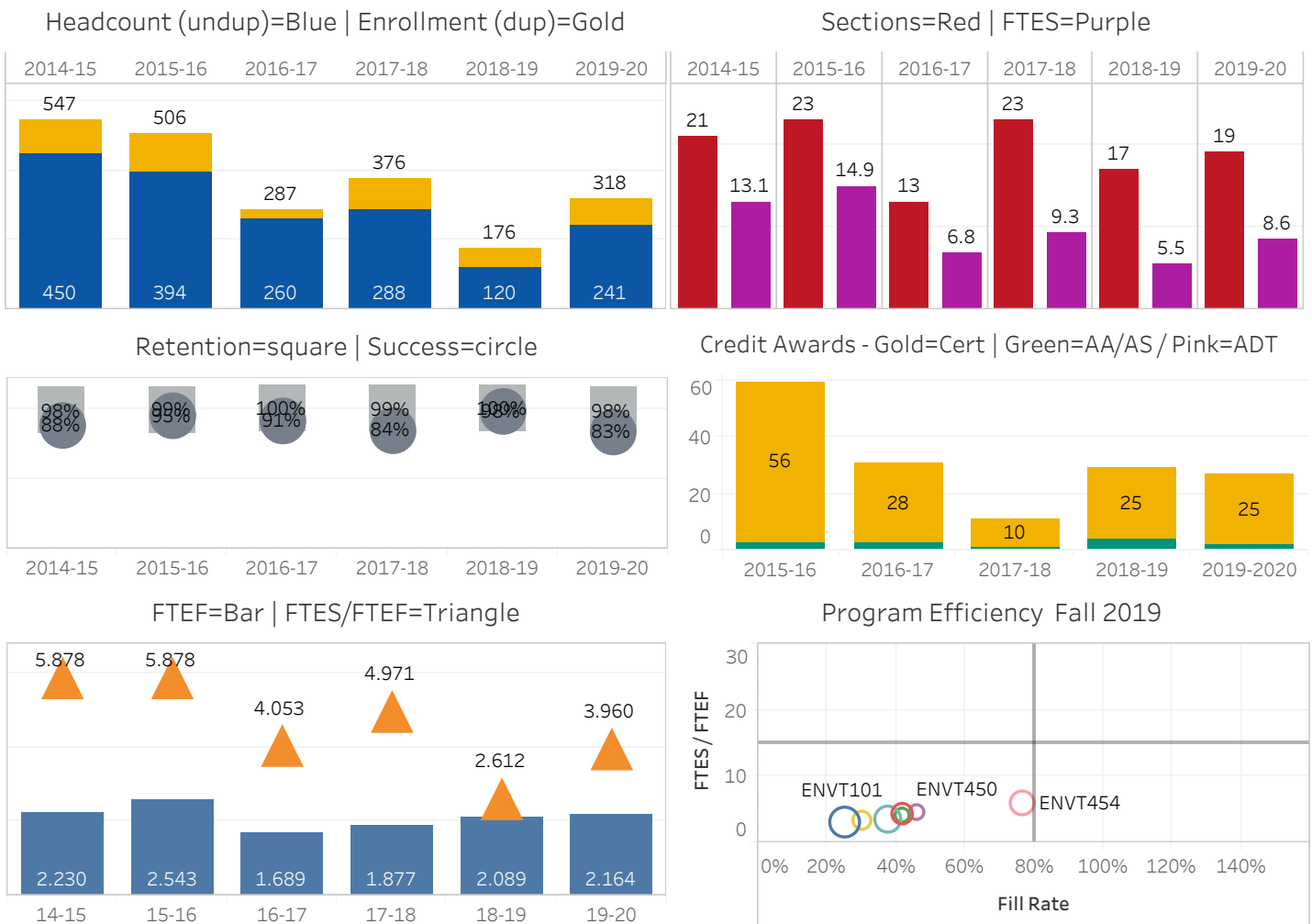
Multiple values

Student Majors: Environmental Health & Safety,
Environmental Studies, Environmental Technology

Quick Program Facts

Contents

- 1 - Enrollment, headcount, sections, FTES, retention, success
- 2 - Demographics
- 3 - Equity outcomes
- 4 - Online\Face to face comparison
- 5 - Efficiency
- 6 - Program awards & majors
- 7 - Faculty load
- A - Course demographic detail
- B - Awards by major detail



Data Source: Student-MIS; Award, Major & Faculty-Banner | Headcount-unduplicated students; Enrollment-duplicated students; Retention-students who receive a grade in the course; Success-students who receive a passing grade in the course; FTES/FTEF target is 15+; Fill Rate target is 80%+

1 Outcomes ENVT

course_
All

EW Grade
Exclude EW

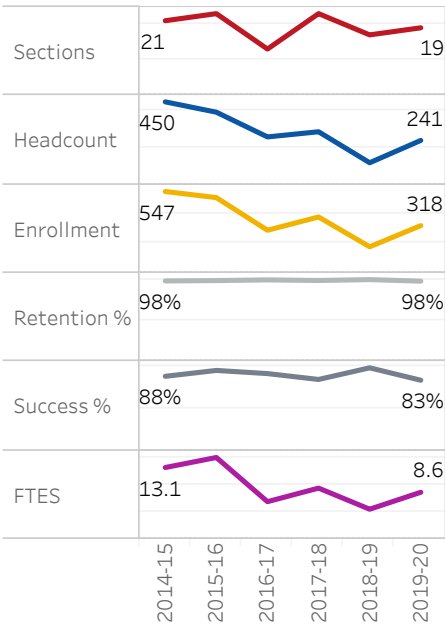


	Fall 2014	Spring 2015	Sum 2015	Fall 2015	Winter 2016	Spring 2016	Fall 2016	Winter 2017	Spring 2017	Sum 2017	Fall 2017	Winter 2018	Spring 2018	Fall 2018	Winter 2019	Spring 2019	Sum 2019	Fall 2019	Winter 2020	Spring 2020
Sections	8	13	2	6	1	14	5	1	7	2	6	2	13	9	3	5	3	9	2	5
Headcount	173	295	31	84	23	280	58	9	201	18	52	30	231	48	42	42	126	59	28	38
Enrollment	183	364	32	101	23	350	67	9	211	18	66	30	262	83	42	51	136	87	28	67
retained	180	358	32	98	23	347	67	9	210	18	63	30	261	83	42	51	136	84	28	60
Retention %	98%	98%	100%	97%	100%	99%	100%	100%	100%	100%	95%	100%	100%	100%	100%	100%	100%	98%	100%	94%
success	170	310	31	93	23	332	66	9	186	16	61	30	209	81	41	50	97	78	28	58
Success %	93%	85%	97%	92%	100%	95%	99%	100%	88%	89%	92%	100%	80%	98%	98%	98%	71%	91%	100%	91%
FTES	5.2	7.9	2.0	3.6	0.4	9.0	1.2	0.1	5.5	0.9	1.9	0.5	6.1	2.9	1.2	1.3	2.2	2.7	0.4	3.2

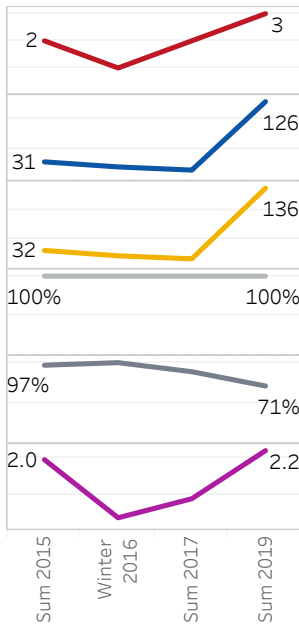
Outcomes Allan Hancock College Credit

	Sum 2014	Fall 2014	Spring 2015	Sum 2015	Fall 2015	Winter 2016	Spring 2016	Sum 2016	Fall 2016	Winter 2017	Spring 2017	Sum 2017	Fall 2017	Winter 2018	Spring 2018	Sum 2018	Fall 2018	Winter 2019	Spring 2019	Sum 2019	Fall 2019	Winter 2020	Spring 2020
Sections	306	1,141	1,209	355	1,177	41	1,220	357	1,184	41	1,214	333	1,168	45	1,186	270	1,145	47	1,159	299	1,208	46	1,212
Headco..	5,185	11,084	11,249	5,593	10,982	1,051	11,341	4,354	12,111	1,023	11,636	5,306	11,889	1,118	11,320	4,596	11,380	1,171	10,580	4,940	12,091	1,198	11,342
Enrollm..	8,168	29,153	28,984	8,789	28,471	1,270	28,153	8,305	29,268	1,314	28,161	8,052	28,754	1,480	26,960	6,868	28,650	1,535	26,193	7,252	30,166	1,586	26,977
Retentio n %	89%	87%	85%	90%	86%	84%	89%	90%	88%	87%	88%	90%	87%	87%	88%	90%	87%	88%	88%	92%	88%	87%	92%
Success %	78%	70%	71%	77%	70%	71%	73%	80%	71%	77%	74%	80%	71%	79%	74%	80%	71%	79%	74%	81%	72%	75%	85%
FTES	944	3,900	4,048	1,009	3,807	111	3,715	967	4,197	115	4,020	900	4,126	139	3,869	835	4,061	169	3,827	846	4,136	138	3,763

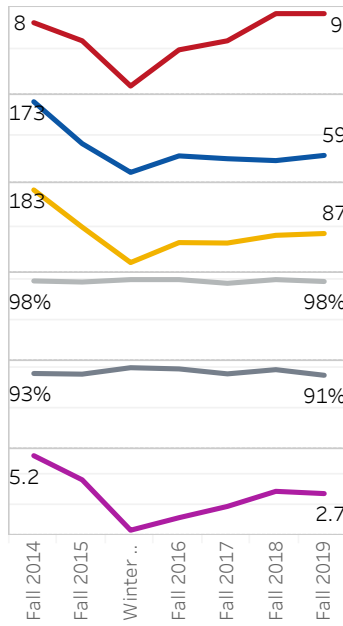
ENVT Academic Year



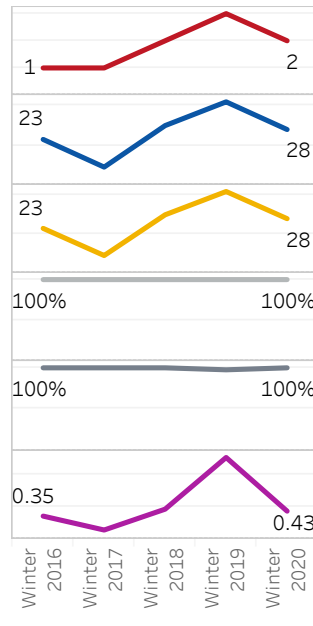
ENVT Summer Terms



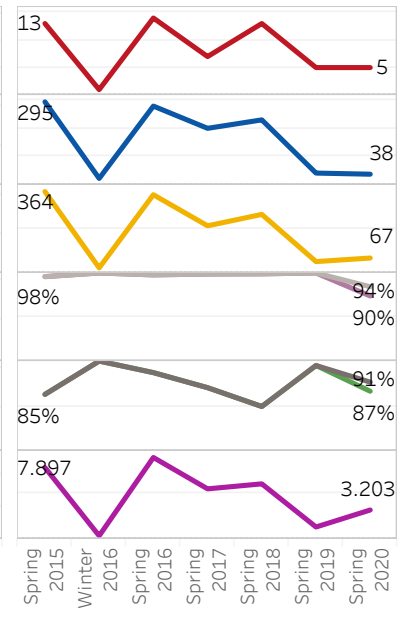
ENVT Fall Terms



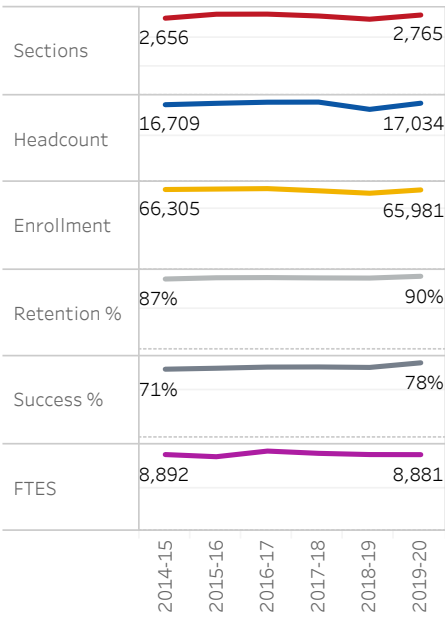
ENVT Winter Terms



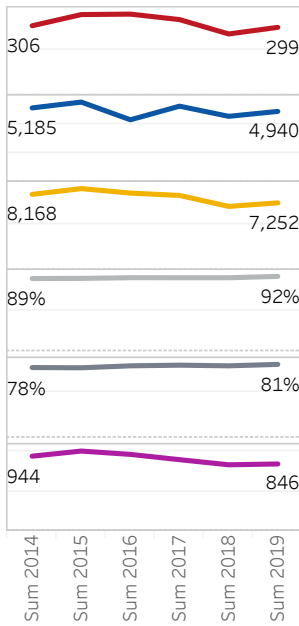
ENVT Spring Terms



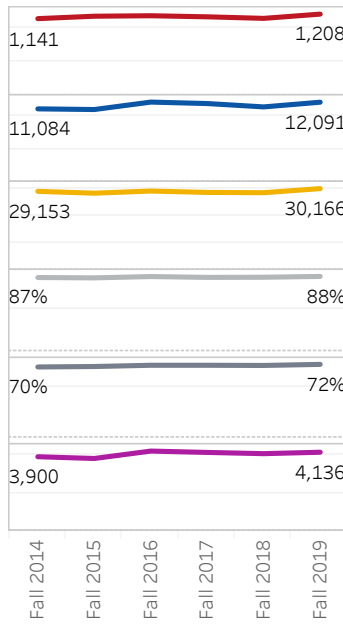
AHC Credit Academic Year



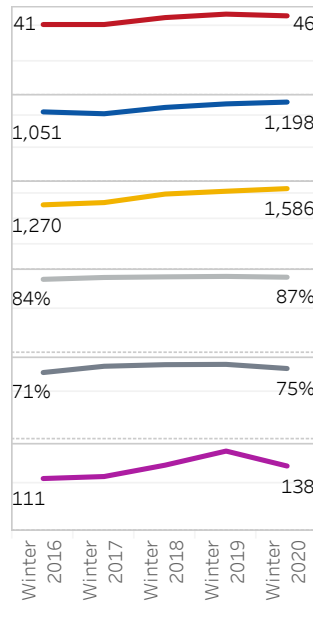
AHC Credit Summer Terms



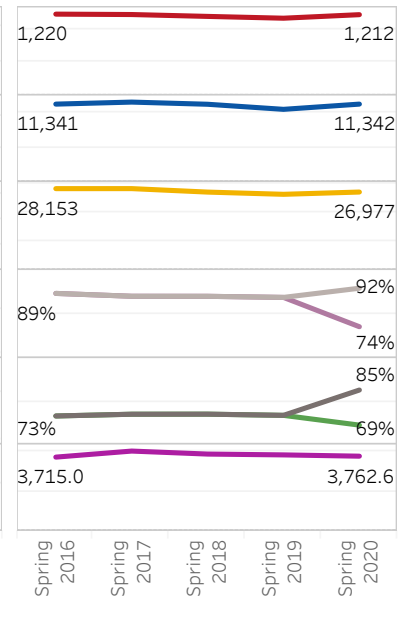
AHC Credit Fall Terms



AHC Credit Winter Terms



AHC Credit Spring Terms



1 Retention & Success by academic year by course ENVT

course_	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
ENVT101	65% 82%	76% 88%	88% 100%	77% 85%	50% 100%	67% 83%
ENVT150		98% 100%	93% 100%	80% 100%	90% 100%	83% 100%
ENVT152	86% 93%	91% 91%			100% 100%	82% 82%
ENVT153	84% 95%		100% 100%	100% 100%	100% 100%	100% 100%
ENVT154	72% 83%			75% 100%		89% 89%
ENVT155	92% 100%		100% 100%	100% 100%	100% 100%	90% 100%
ENVT156	91% 99%	93% 98%	95% 100%	100% 100%	100% 100%	83% 94%
ENVT158		100% 100%		88% 88%	100% 100%	100% 100%
ENVT159				80% 93%	100% 100%	78% 100%
ENVT160		82% 88%	89% 100%		100% 100%	92% 92%
ENVT450	91% 100%	98% 100%	100% 100%	100% 100%	100% 100%	96% 100%
ENVT454	96% 100%	98% 100%	94% 98%	100% 100%	100% 100%	100% 100%
ENVT455		100% 100%		92% 100%		
ENVT456	85% 100%	93% 100%	88% 100%	65% 100%	92% 100%	71% 100%
ENVT457	100% 100%	100% 100%		100% 100%		
Grand Total	88% 98%	95% 99%	91% 100%	84% 99%	98% 100%	83% 98%

Retention % and Success % for each course_ broken down by Academic Year. Color shows details about Retention % and Success %. The data is filtered on TERM_CODE, CB04, subject and course. The TERM_CODE filter excludes 201410, 201420 and 201440. The CB04 filter keeps C, D and N. The subject filter keeps ENVT. The course filter has multiple members selected.

Measure Names

- Retention %
- Success %

1 Retention & Success by summer term by course ENVT

course	Term Code_					
	Sum 2015		Sum 2017		Sum 2019	
ENVT150	96%	100%	80%	100%		
ENVT450			100%	100%		
ENVT455	100%	100%				
ENVT456					71%	100%
Grand Total	97%	100%	89%	100%	71%	100%

Measure Names

Retention %

Success %

1 Retention & Success by fall term by course ENVT

course_	Fall 2014		Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
ENVT101	67%	78%	75%	92%			67%	67%	50%	100%	67%	83%
ENVT150											83%	100%
ENVT152	86%	93%							100%	100%		
ENVT153					100%	100%	100%	100%	100%	100%	100%	100%
ENVT154											89%	89%
ENVT155					100%	100%	100%	100%	100%	100%	90%	100%
ENVT156	95%	100%							100%	100%		
ENVT159							80%	93%	100%	100%	78%	100%
ENVT160			82%	88%								
ENVT450	93%	100%	94%	100%					100%	100%	91%	100%
ENVT454	96%	100%	97%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ENVT456	96%	100%	100%	100%	96%	100%						
Grand Total	93%	98%	92%	97%	99%	100%	92%	95%	98%	100%	91%	98%

Measure Names

- Retention %
- Success %

1 Retention & Success by spring term by course ENVT

course_	Spring 2015		Spring 2016		Spring 2017		Spring 2018		Spring 2019		Spring 2020	
ENVT101	63%	88%	80%	80%	88%	100%	86%	100%				
ENVT150			100%	100%	93%	100%						
ENVT152			91%	91%							82%	82%
ENVT153	84%	95%										
ENVT154	72%	83%					75%	100%				
ENVT155	92%	100%										
ENVT156	90%	98%	93%	98%	95%	100%	100%	100%	100%	100%	83%	94%
ENVT158			100%	100%			88%	88%	100%	100%	100%	100%
ENVT160					89%	100%			100%	100%	92%	92%
ENVT450	87%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ENVT454	97%	100%	100%	100%	85%	95%						
ENVT455							92%	100%				
ENVT456	81%	100%	92%	100%	86%	100%	65%	100%	92%	100%		
ENVT457	100%	100%	100%	100%			100%	100%				
Grand Total	85%	98%	95%	99%	88%	100%	80%	100%	98%	100%	91%	94%

Measure Names

- Retention %
- Success %

2 Program Demographics ENVT

course_
All

Choose individual course via filter or see Appendix A for full demographic course details

Age Category	Academic Year											
	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES
Under 20	13	0.85	17	0.79	7	0.17	3	0.21	8	0.67	8	0.45
20-24	70	2.01	62	2.37	43	0.96	51	1.90	38	1.84	43	1.80
25-29	90	2.45	73	3.01	39	1.19	47	1.38	26	1.02	37	1.72
30-34	95	2.85	71	2.13	53	1.12	50	1.42	13	0.60	42	0.99
35-39	57	1.33	57	2.36	50	1.38	55	1.38	8	0.20	44	1.47
40-49	76	1.91	68	2.43	48	1.40	53	1.93	12	0.69	46	1.45
50+	51	1.71	47	1.86	20	0.62	32	1.11	15	0.44	21	0.70
ETHNICITY	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES
Asian	12	0.2	17	0.6	7	0.1	6	0.2	1	0.0	4	0.1
Black	6	0.6	8	0.5	3	0.0	6	0.2	3	0.1	7	0.4
Filipino	3	0.1	2	0.0	2	0.1	2	0.0	1	0.0		
Hispanic	123	4.2	114	5.4	68	2.5	63	2.4	31	1.9	56	3.7
NativeAm	19	0.6	12	0.5	9	0.2	11	0.3	9	0.5	10	0.2
Paclsl	2	0.1	4	0.1	1	0.0	2	0.0			3	0.1
White	285	7.3	236	7.8	169	3.8	198	6.3	74	3.0	155	3.8
Gender	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES
Female	67	3.1	45	3.5	28	1.1	29	1.9	22	1.3	30	0.9
Male	383	10.0	348	11.5	231	5.7	259	7.4	97	4.1	205	7.4
Enrollment Status	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES
First Time	18	0.7	38	2.1	3	0.0	5	0.3	4	0.2	5	0.2
First Time Transfer	51	1.5	52	2.0	26	0.6	36	1.5	29	0.9	33	0.6
Continuing	346	9.2	261	9.1	161	4.2	167	4.9	61	3.5	93	4.7
Returning	42	1.7	46	1.8	69	1.9	88	2.5	26	0.9	106	2.8
Special Admit							1	0.0				
Grand Total	450	13.1	393	14.9	259	6.8	288	9.3	119	5.4	235	8.3

2 Demographics Allan Hancock College Credit

Age Category	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs
Under 20	4,269	2,742	4,528	2,759	5,805	3,105	6,308	3,155	6,018	3,326	7,482	3,583
20-24	6,122	3,441	6,054	3,341	5,700	3,398	5,460	3,190	5,057	3,070	4,867	2,853
25-29	2,585	1,182	2,555	1,118	2,440	1,255	2,395	1,212	2,071	1,101	2,060	1,089
30-34	1,542	563	1,533	528	1,379	578	1,327	556	1,173	560	1,130	507
35-39	944	320	969	292	924	357	891	328	758	319	844	342
40-49	1,212	400	1,262	356	1,042	379	1,040	384	801	328	874	324
50+	891	244	966	248	789	227	676	210	608	189	583	185

ETHNICITY	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs
Asian	585	277	582	275	512	264	469	214	386	186	378	187
Black	617	340	673	359	583	326	555	278	459	259	491	278
Filipino	477	320	473	292	483	309	462	269	450	305	488	259
Hispanic	7,959	4,698	8,196	4,670	8,206	4,873	7,475	4,482	6,604	4,071	7,536	4,047
NativeAm	270	144	263	133	307	144	348	167	358	198	360	190
Other	5	1	2	0	4	1	5	2	2	1	2	1
Paclsl	122	59	97	50	119	62	141	62	131	74	167	81
White	6,671	3,050	6,728	2,862	7,016	3,146	7,819	3,541	7,236	3,751	7,129	3,648

	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs
Female	8,253	4,714	8,360	4,479	8,768	4,922	8,937	4,913	8,454	4,877	8,777	4,837
Male	8,445	4,174	8,643	4,159	8,340	4,181	8,126	4,049	7,027	3,916	7,521	3,767
Unknown	3	2	3	2	109	23	181	51	121	52	228	88

	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs	Headcount	FTEs
First Time	2,904	1,176	2,920	1,185	2,777	1,194	2,562	1,089	2,666	1,240	2,620	1,189
First Time Transfer	2,408	598	2,634	616	2,111	541	2,352	656	1,766	564	1,540	447
Continuing	10,402	6,334	10,178	5,991	10,502	6,487	9,986	6,305	9,576	6,120	9,325	5,977
Returning	3,039	672	3,196	675	2,277	551	2,382	539	1,964	496	2,231	504
Special Admit	560	107	935	173	2,260	353	2,578	424	2,281	425	3,521	574
Unknown	13	3	6	2	4	0	1	0	1	0	2	0
Grand Total	16,700	8,890	17,004	8,641	17,217	9,126	17,235	9,014	15,597	8,845	16,523	8,691

3 Program Equity Outcomes ENVT

Percentage Point Gap (PPG)-compare a group outcome to the overall outcome, if group is 3% less or lower than overall then group is disproportionately impacted.

PPG Mod-same as PPG except overall outcome is modified to NOT include group outcome.

PPG Impact-amount of students needed to have a positive outcome in order to have the group reach equity.

Equity Outcomes only work for a single subject. Contact IE to get data for multiple subjects

	Academic Year									
	2019-20									
	Headcount	Enrollment	EW count	FTES	Retention %	PPG Retention Mod	PPG Retention Impact	Success %	PPG Success Mod	PPG Success Impact
Under 20	8	9	1	0.4	100.0%			87.5%		
20-24	43	57	3	1.8	92.6%	-6.6%	4	87.0%	4.7%	
25-29	37	58	0	1.7	98.3%	0.2%		89.7%	8.0%	
30-34	42	48	0	1.0	100.0%	2.3%		79.2%	-4.7%	3
35-39	44	53	0	1.5	98.1%	0.0%		75.5%	-9.2%	5
40-49	46	59	0	1.4	100.0%	2.4%		86.4%	4.1%	
50+	21	34	0	0.7	100.0%	2.1%		76.5%	-7.5%	3
Grand Total	241	318	4	8.6	98.1%			83.1%		

3 Program Equity Outcomes ENVT

Percentage Point Gap (PPG)-compare a group outcome to the overall outcome, if group is 3% less or lower than overall then group is disproportionately impacted.

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PPG Impact-amount of students needed to have a positive outcome in order to have the group reach equity.

Equity Outcomes only work for a single subject. Contact IE to get data for multiple subjects

	Academic Year									
	2019-20									
	Headcount	Enrollment	EW count	FTES	Retention %	PPG Retention Mod	PPG Retention Impact	Success %	PPG Success Mod	PPG Success Impact
Asian	4	4	0	0.1	100.0%			75.0%		
Black	7	14	0	0.4	85.7%			78.6%		
Hispanic	56	105	4	3.7	96.0%	-3.0%	4	85.1%	3.0%	
Native Am	10	10	0	0.2	100.0%	2.0%		90.0%	7.1%	
Pac Isl	3	4	0	0.1	100.0%			50.0%		
White	155	175	0	3.8	100.0%	4.3%		82.3%	-1.9%	4
Unknown	6	6	0	0.3	100.0%			100.0%		
Grand Total	241	318	4	8.6	98.1%			83.1%		

3 Program Equity Outcomes ENVT

Percentage Point Gap (PPG)-compare a group outcome to the overall outcome, if group is 3% less or lower than overall then group is disproportionately impacted.

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Equity Outcomes only work for a single subject. Contact IE to get data for multiple subjects

	Academic Year									
	2019-20									
	Headcount	Enrollment	EW count	FTES	Retention %	PPG Retention Mod	PPG Retention Impact	Success %	PPG Success Mod	PPG Success Impact
Female	30	36	0	0.9	88.9%	-10.4%	4	77.8%	-6.0%	3
Male	210	281	4	7.6	99.3%	10.1%		83.8%	5.4%	
Unknown	1	1	0	0.0	100.0%			100.0%		
Grand Total	241	318	4	8.6	98.1%			83.1%		

3 Program Equity Outcomes ENVT

Percentage Point Gap (PPG)-compare a group outcome to the overall outcome, if group is 3% less or lower than overall then group is disproportionately impacted.

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PPG Impact-amount of students needed to have a positive outcome in order to have the group reach equity.

Equity Outcomes only work for a single subject. Contact IE to get data for multiple subjects

	Academic Year									
	2019-20									
	Headcount	Enrollment	EW count	FTES	Retention %	PPG Retention Mod	PPG Retention Impact	Success %	PPG Success Mod	PPG Success Impact
First Time	7	8	1	0.4	100.0%			71.4%		
First Time Tran..	36	36	0	0.6	100.0%	2.2%		94.4%	12.8%	
Continuing	94	152	3	4.8	98.0%	-0.2%	1	86.6%	6.6%	
Returning	106	122	0	2.8	97.5%	-0.9%	2	76.2%	-11.3%	14
Grand Total	241	318	4	8.6	98.1%			83.1%		

3 Allan Hancock College Credit Equity Outcomes

Equity:

Percentage Point Gap (PPG)-compare a group outcome to the overall outcome, if group is 3% less or lower than overall then group is disproportionately impacted.

PPG Mod-same as PPG except overall outcome is modified to NOT include group outcome.

PPG Impact-amount of students needed to have a positive outcome in order to have the group reach equity

	Academic Year						
	2019-20						
	Headcount	Enrollment	EW count	FTES	Retention %	PPG AHC Retention Mod	PPG AHC Retention Impact
Under 20	7,482	28,282	2,460	3,583	90.4%	0.9%	
20-24	4,867	20,725	1,537	2,853	88.8%	-1.6%	330
25-29	2,060	7,055	437	1,089	89.4%	-0.5%	38
30-34	1,130	3,508	196	507	91.3%	1.5%	
35-39	844	2,403	154	342	90.2%	0.4%	
40-49	874	2,442	235	324	91.1%	1.3%	
50+	583	1,566	182	185	91.5%	1.7%	
Grand Total	17,034	65,981	5,201	8,881	89.9%		

3 Allan Hancock College Credit Equity Outcomes

Equity:

Percentage Point Gap (PPG)-compare a group outcome to the overall outcome, if group is 3% less or lower than overall then group is disproportionately impacted.

PPG Mod-same as PPG except overall outcome is modified to NOT include group outcome.

PPG Impact-amount of students needed to have a positive outcome in order to have the group reach equity

	Academic Year						
	2019-20						
	Headcount	Enrollment	EW count	FTES	Success %	PPG AHC Success Mod	PPG AHC Success Impact
Under 20	7,482	28,282	2,460	3,583	76.0%	-3.6%	1,024
20-24	4,867	20,725	1,537	2,853	77.6%	-0.7%	144
25-29	2,060	7,055	437	1,089	79.6%	1.7%	
30-34	1,130	3,508	196	507	83.5%	5.8%	
35-39	844	2,403	154	342	82.9%	5.0%	
40-49	874	2,442	235	324	85.6%	7.8%	
50+	583	1,566	182	185	83.3%	5.3%	
Grand Total	17,034	65,981	5,201	8,881	78.1%		

3 Allan Hancock College Credit Equity Outcomes

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PPG Impact-amount of students needed to have a positive outcome in order to have the group reach equity

	Academic Year						
	2019-20						
	Headcount	Enrollment	EW count	FTES	Retention %	PPG AHC Retention Mod	PPG AHC Retention Impact
Asian	378	1,366	84	187	90.2%	0.3%	
Black	491	1,928	176	278	88.8%	-1.1%	22
Filipino	488	1,813	134	259	91.2%	1.4%	
Hispanic	7,536	30,439	2,709	4,047	88.7%	-2.2%	671
Native Am	360	1,475	151	190	85.9%	-4.1%	60
Other	2	7	0	1	100.0%		
Pac Isl	167	663	73	81	88.6%	-1.2%	8
White	7,129	26,825	1,707	3,648	91.3%	2.5%	
Unknown	516	1,465	167	190	90.8%	0.9%	
Grand Total	17,034	65,981	5,201	8,881	89.9%		

3 Allan Hancock College Credit Equity Outcomes

Equity:

Percentage Point Gap (PPG)-compare a group outcome to the overall outcome, if group is 3% less or lower than overall then group is disproportionately impacted.

PPG Mod-same as PPG except overall outcome is modified to NOT include group outcome.

PPG Impact-amount of students needed to have a positive outcome in order to have the group reach equity

	Academic Year						PPG AHC Success Mod	PPG AHC Success Impact
	2019-20	Headcount	Enrollment	EW count	FTES	Success %		
Asian	378	1,366	84	187	79.5%	1.4%		
Black	491	1,928	176	278	75.2%	-3.0%	58	
Filipino	488	1,813	134	259	80.0%	2.0%		
Hispanic	7,536	30,439	2,709	4,047	75.2%	-5.4%	1,636	
Native Am	360	1,475	151	190	73.9%	-4.3%	64	
Other	2	7	0	1	100.0%			
Pac Isl	167	663	73	81	72.4%	-5.8%	38	
White	7,129	26,825	1,707	3,648	81.7%	6.2%		
Unknown	516	1,465	167	190	76.9%	-1.2%	18	
Grand Total	17,034	65,981	5,201	8,881	78.1%			

3 Allan Hancock College Credit Equity Outcomes

Equity:

Percentage Point Gap (PPG)-compare a group outcome to the overall outcome, if group is 3% less or lower than overall then group is disproportionately impacted.

PPG Mod-same as PPG except overall outcome is modified to NOT include group outcome.

PPG Impact-amount of students needed to have a positive outcome in order to have the group reach equity

	Academic Year						
	2019-20						
	Headcount	Enrollment	EW count	FTES	Retention %	PPG AHC Retention Mod	PPG AHC Retention Impact
Female	8,967	36,046	2,443	4,909	89.4%	-0.9%	337
Male	7,769	29,148	2,626	3,869	90.4%	0.9%	
Unknown	302	787	132	103	90.5%	0.7%	
Grand Total	17,034	65,981	5,201	8,881	89.9%		

3 Allan Hancock College Credit Equity Outcomes

Equity:

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	Academic Year						
	2019-20						
	Headcount	Enrollment	EW count	FTES	Success %	PPG AHC Success Mod	PPG AHC Success Impact
Female	8,967	36,046	2,443	4,909	78.5%	0.8%	
Male	7,769	29,148	2,626	3,869	77.7%	-0.7%	193
Unknown	302	787	132	103	74.2%	-3.9%	31
Grand Total	17,034	65,981	5,201	8,881	78.1%		

3 Allan Hancock College Credit Equity Outcomes

Equity:

Percentage Point Gap (PPG)-compare a group outcome to the overall outcome, if group is 3% less or lower than overall then group is disproportionately impacted.

PPG Mod-same as PPG except overall outcome is modified to NOT include group outcome.

PPG Impact-amount of students needed to have a positive outcome in order to have the group reach equity

	Academic Year						
	2019-20						
	Headcount	Enrollment	EW count	FTES	Retention %	PPG AHC Retention Mod	PPG AHC Retention Impact
First Time	2,748	9,927	213	1,241	87.4%	-2.9%	290
First Time Tran..	1,674	3,393	172	488	92.2%	2.5%	
Continuing	9,472	42,926	4,002	6,043	89.4%	-1.4%	581
Returning	2,235	4,167	302	504	88.1%	-1.9%	78
Special Admit	3,739	5,565	511	605	98.1%	9.0%	
Unknown	2	3	1	0	100.0%		
Grand Total	17,034	65,981	5,201	8,881	89.9%		

3 Allan Hancock College Credit Equity Outcomes

Equity:

Percentage Point Gap (PPG)-compare a group outcome to the overall outcome, if group is 3% less or lower than overall then group is disproportionately impacted.

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PPG Impact-amount of students needed to have a positive outcome in order to have the group reach equity

	Academic Year						
	2019-20						
	Headcount	Enrollment	EW count	FTES	Success %	PPG AHC Success Mod	PPG AHC Success Impact
First Time	2,748	9,927	213	1,241	65.6%	-14.9%	1,481
First Time Tran..	1,674	3,393	172	488	81.6%	3.7%	
Continuing	9,472	42,926	4,002	6,043	79.4%	3.6%	
Returning	2,235	4,167	302	504	75.9%	-2.3%	96
Special Admit	3,739	5,565	511	605	91.7%	14.8%	
Unknown	2	3	1	0	100.0%		
Grand Total	17,034	65,981	5,201	8,881	78.1%		

4 Online / Onsite course comparison ENVT

All online courses and matching onsite courses

subject	course	Course Type	Academic Year																			
			2015-16				2016-17				2017-18				2018-19				2019-20			
			Hea..	Enr..	Sect..	FTES	Hea..	Enr..	Sect..	FTES	Hea..	Enr..	Sect..	FTES	Hea..	Enr..	Sect..	FTES	Hea..	Enr..	Sect..	FTES
ENVT	ENVT456	Online	173	173	5	2.8	153	153	2	2.5	134	134	3	2.2	13	13	1	0.2	126	136	3	2.2

4 Online / Onsite Retention & Success course comparison ENVT

All online courses and matching onsite courses

subject_	course	Course..	Academic Year									
			2015-16		2016-17		2017-18		2018-19		2019-20	
ENVT	ENVT456	Online	93%	100%	88%	100%	65%	100%	92%	100%	71%	100%

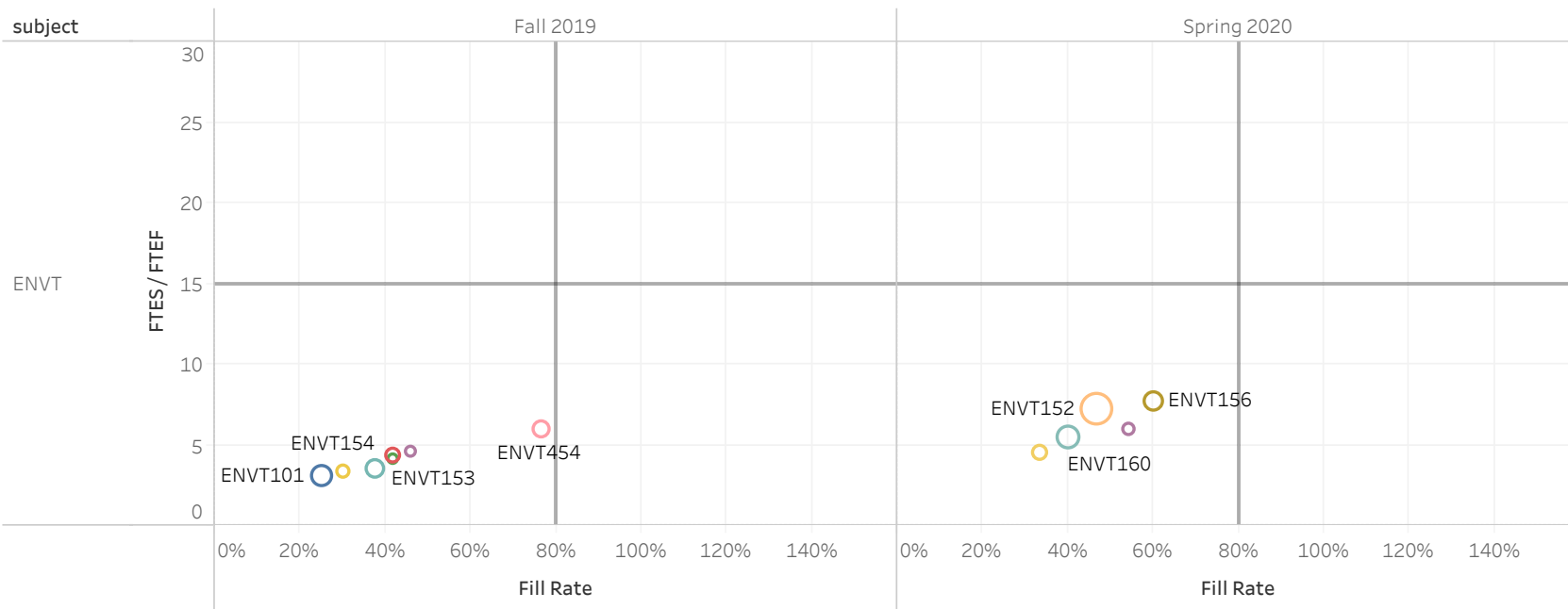
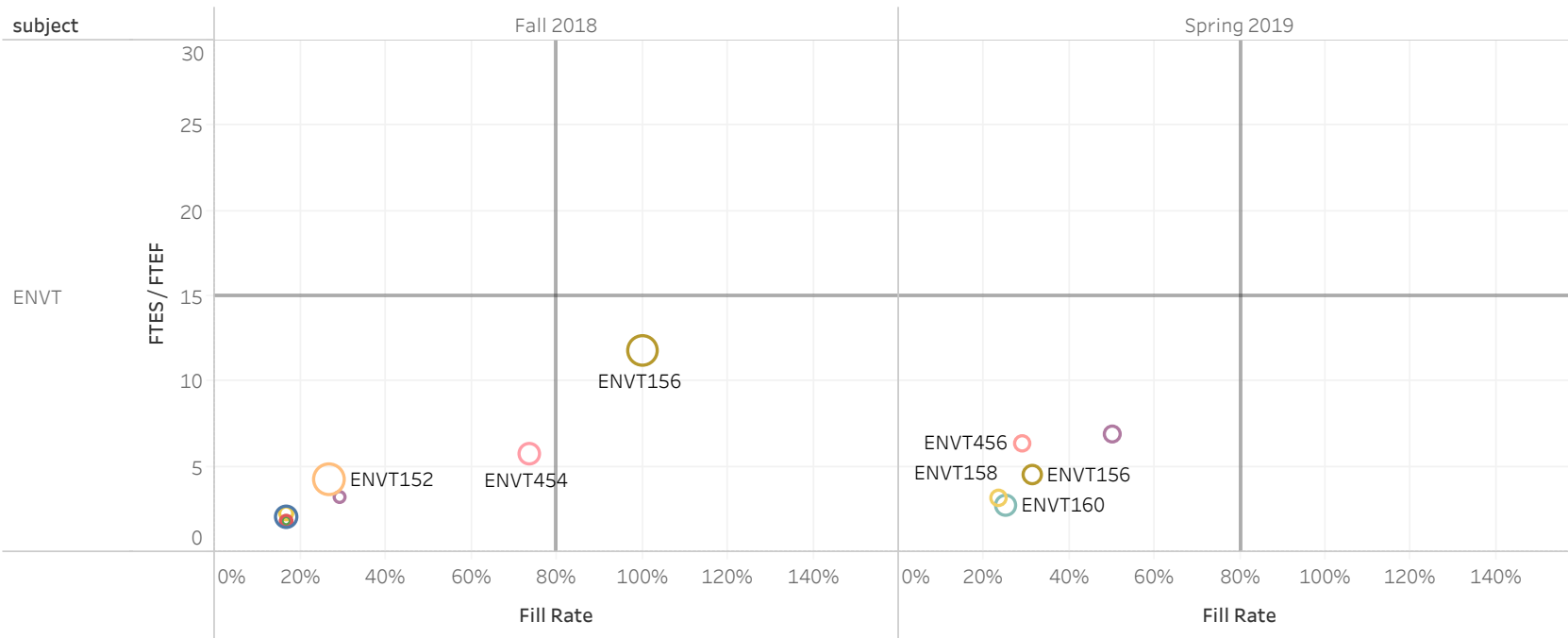
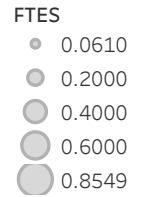
Measure Names

- Retention %
- Success %

4 Online / Onsite credit course comparison Allan Hancock College

Course Type		Academic Year				
		2015-16	2016-17	2017-18	2018-19	2019-20
Online	Headcount	7,580	7,006	7,152	6,744	7,040
	Enrollment	15,710	15,695	15,548	15,081	15,957
	Sections	509	517	501	457	487
	Retention %	83%	83%	84%	85%	87%
	Success %	64%	66%	67%	68%	73%
	FTES	1,496	1,524	1,523	1,490	1,569
Onsite	Headcount	13,623	14,458	14,466	13,515	14,715
	Enrollment	50,973	51,353	49,698	48,165	50,024
	Sections	2,284	2,279	2,231	2,164	2,278
	Retention %	90%	90%	89%	89%	91%
	Success %	75%	76%	76%	75%	80%
	FTES	7,145	7,775	7,511	7,403	7,313
Grand Total	Headcount	17,009	17,251	17,276	15,700	17,034
	Enrollment	66,683	67,048	65,246	63,246	65,981
	Sections	2,793	2,796	2,732	2,621	2,765
	Retention %	88%	88%	88%	88%	90%
	Success %	72%	74%	74%	73%	78%
	FTES	8,642	9,298	9,034	8,893	8,881

5 Efficiency Graph ENVT



Higher Fill Rate (right side of graph) and higher efficiency (top of the graph) is the ideal place for a course to be.

5 Efficiency Table ENVT

Academic Year	Term Code_	course_	FTES	FTEF+	FTES / FTEF	Enrollment	Maximum Enrollment	MaxEnroll..	Fill Rate	
2018-19	Fall 2018	ENVT101	0	0.200	2.1	4	24	24	17%	
		ENVT152	1	0.200	4.3	8	30	30	27%	
		ENVT153	0	0.067	1.8	4	24	24	17%	
		ENVT155	0	0.033	1.8	4	24	24	17%	
		ENVT156	1	0.067	11.8	26	26	26	100%	
		ENVT159	0	0.067	2.3	5	30	30	17%	
		ENVT450	0	0.033	3.2	7	24	24	29%	
		ENVT454	0	0.066	5.8	25	34	17	74%	
		Total	3	0.733	3.9	83	216	24	38%	
	Winter 2019	ENVT150	1	0.157	4.9	10	24	24	42%	
		ENVT454	0	0.066	7.4	32	32	16	100%	
		Total	1	0.223	5.6	42	56	19	75%	
	Spring 2019	ENVT156	0	0.067	4.5	10	32	32	31%	
		ENVT158	0	0.067	3.2	7	30	30	23%	
		ENVT160	0	0.133	2.7	6	24	24	25%	
		ENVT450	0	0.033	6.9	15	30	30	50%	
		ENVT456	0	0.033	6.4	13	45	45	29%	
		Total	1	0.333	4.0	51	161	32	32%	
	Total		5	1.289	4.2	176	433	25	41%	
	2019-20	Sum 2019	ENVT456	2	0.099	22.2	136	225	75	60%
		Total	2	0.099	22.2	136	225	75	60%	
Fall 2019	ENVT101	1	0.200	3.1	6	24	24	25%		
	ENVT150	0	0.000		6	20	20	30%		
	ENVT153	0	0.067	4.4	10	24	24	42%		
	ENVT154	0	0.133	3.6	9	24	24	38%		
	ENVT155	0	0.033	4.2	10	24	24	42%		
	ENVT159	0	0.067	3.4	9	30	30	30%		
	ENVT450	0	0.033	4.6	11	24	24	46%		
	ENVT454	0	0.066	6.0	26	34	17	76%		
	Total	3	0.599	4.6	87	204	23	43%		
Winter 2020	ENVT454	0	0.066	6.5	28	32	16	88%		

5 Efficiency Table ENVT

Academic Year	Term Code_	course_	FTES	FTEF+	FTES / FTEF	Enrollment	Maximum Enrollment	MaxEnroll..	Fill Rate
2019-20	Winter 2020	Total	0	0.066	6.5	28	32	16	88%
	Spring 2020	ENVT152	1	0.200	7.3	14	30	30	47%
		ENVT156	1	0.067	7.7	18	30	30	60%
		ENVT158	0	0.067	4.5	10	30	30	33%
		ENVT160	1	0.133	5.5	12	30	30	40%
		ENVT450	0	0.033	6.0	13	24	24	54%
		Total	3	0.500	6.4	67	144	29	47%
	Total		9	1.264	6.8	318	605	32	53%
Grand Total			14	2.553	5.5	494	1,038	29	48%

6 Degree/Certificate Environmental Health & Safety & Environmental Technology

	Program Desc	Degree	Degree Major	Degree Desc (group)	Academic Year Graduation Desc				
					2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Unduplicated	Environmental Health & Safety	AS	Environmental Health & Saf..	Associate in Science (S)	2	2		4	2
		C2	Environmental Studies	18 to fewer than 30 units (L)		1			
		CT	Environmental Health & Saf..	Other Credit Award <6 units..	1			2	
			Hazardous Mat -8-hr Refres..	Other Credit Award <6 units..	23	14		22	21
		Hazwoper Refresher 8-Hour	Other Credit Award <6 units..	37	13	10			
	Environmental Technology	AS	Environmental Technology	Associate in Science (S)	1	2	1		
		C1NA	Env Health/Safety Technici..	6 to fewer than 18 units (E)		2		3	
CT		Hazardous Mat-Gen Site Wo..	Other Credit Award <6 units..					5	
Duplicated	Environmental Health & Safety	AS	Environmental Health & Saf..	Associate in Science (S)	2	2		4	2
		C2	Environmental Studies	18 to fewer than 30 units (L)		1			
		CT	Environmental Health & Saf..	Other Credit Award <6 units..	1			2	
			Hazardous Mat -8-hr Refres..	Other Credit Award <6 units..	23	14		25	24
		Hazwoper Refresher 8-Hour	Other Credit Award <6 units..	37	16	13			
	Environmental Technology	AS	Environmental Technology	Associate in Science (S)	1	2	1		
		C1NA	Env Health/Safety Technici..	6 to fewer than 18 units (E)		2		3	
CT		Hazardous Mat-Gen Site Wo..	Other Credit Award <6 units..					5	
Unduplicated	Total				56	30	11	26	25
Duplicated	Total				64	37	14	34	31

6 Majors Environmental Health & Safety, Environmental Studies, Environmental Technology - Headcount

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Environmental Health & Saf..	6	52	93	115	91	82
Environmental Studies	5	4				
Environmental Technology	72	94	45	15	7	6
Grand Total	82	150	137	130	98	88

6 Environmental Health & Safety & Environmental Technology Award|Major Match

--If a student has the same program of study and major as the award earned they will be a 'Major Match'. If not they will be a 'Major Split'.

--Headcount & Percentages are the students who are a major match/split for a specific award.

--Data is sorted by program/major of the earned award.

Program..	Degree	Degree Major	Degree Desc (group)	Major ..	Academic Year Graduation Desc									
					2015-2016		2016-2017		2017-2018		2018-2019		2019-2020	
					HC	%	HC	%	HC	%	HC	%	HC	%
Environmental Health & Safety	AS	Environmental Health & Safety	Associate in Science (S)	Match						4	100%	1	50%	
				Split	2	100%	2	100%				1	50%	
	C2	Environmental Studies	18 to fewer than 30 units ..	Split			1	100%						
	CT	Environmental Health & ..	Other Credit Award <6 uni..	Split	1	100%				2	100%			
		Hazardous Mat -8-hr Refr..	Other Credit Award <6 uni..	Split	23	100%	14	100%		22	100%	21	100%	
		Hazwoper Refresher 8-H..	Other Credit Award <6 uni..	Split	37	100%	13	100%	10	100%				
	Total				56		29		10	100%	25		21	
Environmental Technology	AS	Environmental Technology	Associate in Science (S)	Match			2	100%	1	100%				
				Split	1	100%								
	C1NA	Envt Health/Safety Tech..	6 to fewer than 18 units (E)	Split			2	100%		3	100%			
	CT	Hazardous Mat-Gen Site ..	Other Credit Award <6 uni..	Split								5	100%	
	Total				1	100%	4	200%	1	100%	3	100%	5	100%

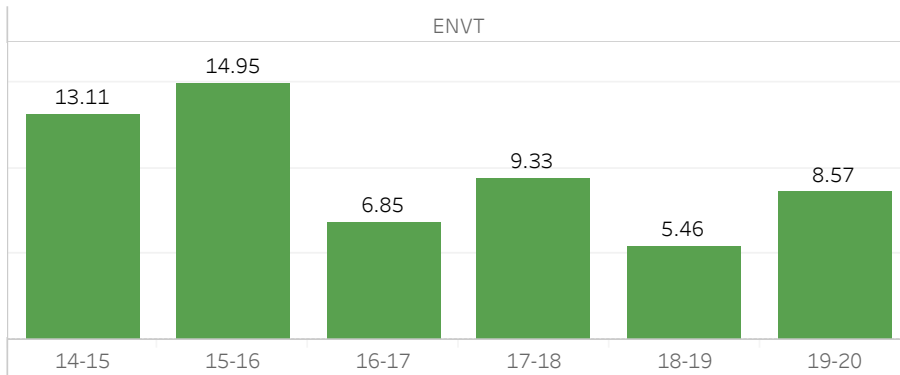
6 Degree/Certificate Allan Hancock College

		Academic Year Graduation Desc					
	Degree Desc (group)	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Unduplicated	6 to fewer than 18 units (E)	235	253	318	303	277	246
	12 to fewer than 18 units (B)		1		11	11	16
	18 to fewer than 30 units (L)	172	149	180	146	168	113
	30 to fewer than 60 units (T)	555	511	596	634	697	674
	60+ units (F)	37	38	34	33	38	28
	Associate in Arts - Transfer	42	92	126	159	163	218
	Associate in Arts (A)	571	494	523	493	589	880
	Associate in Science - Transfe	90	95	128	126	191	226
	Associate in Science (S)	299	277	319	313	321	304
	NC Cert 48 to <96 hrs (H)	29	3	10	22	21	8
	NC Cert 192 to <288 hrs (K)	5	7	5	1	6	13
	NC Cert 288 to <480 hrs (P)	4	2	27	46	38	31
	NC Cert 480 to <960 hrs (Q)				2	9	29
	Other Credit Award <6 units(O)	42	129	124	126	94	151
Duplicated	6 to fewer than 18 units (E)	240	261	365	330	299	267
	12 to fewer than 18 units (B)		1		11	11	16
	18 to fewer than 30 units (L)	184	157	188	166	182	122
	30 to fewer than 60 units (T)	575	527	624	671	738	700
	60+ units (F)	37	38	34	33	38	28
	Associate in Arts - Transfer	42	95	130	163	164	229
	Associate in Arts (A)	795	709	726	737	814	1,434
	Associate in Science - Transfe	98	99	133	138	207	235
	Associate in Science (S)	318	307	347	345	350	335
	NC Cert 48 to <96 hrs (H)	29	3	10	23	21	8
	NC Cert 192 to <288 hrs (K)	5	7	5	1	6	13
	NC Cert 288 to <480 hrs (P)	4	2	34	46	39	32
	NC Cert 480 to <960 hrs (Q)				2	9	29
	Other Credit Award <6 units(O)	63	142	136	150	105	161
Unduplicated	Total	1,517	1,491	1,703	1,673	1,802	1,923
Duplicated	Total	2,390	2,348	2,732	2,816	2,983	3,609

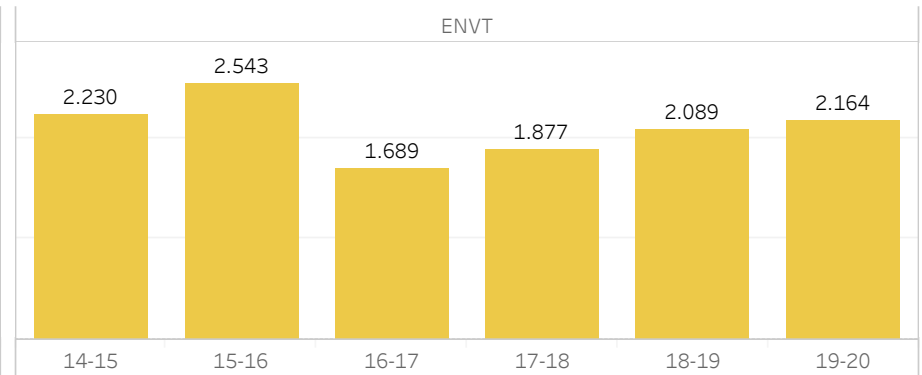
7 FTEF+Overload, FTES & Efficiency - ENVT

Academic Year																	
2014-2015			2015-2016			2016-2017			2017-2018			2018-2019			2019-2020		
FTEF+	FTES	FTES/ FTEF	FTEF+	FTES	FTES/ FTEF	FTEF+	FTES	FTES/ FTEF	FTEF+	FTES	FTES/ FTEF	FTEF+	FTES	FTES/ FTEF	FTEF+	FTES	FTES/ FTEF
2.230	13.11	5.88	2.543	14.95	5.88	1.689	6.85	4.05	1.877	9.33	4.97	2.089	5.46	2.61	2.164	8.57	3.96

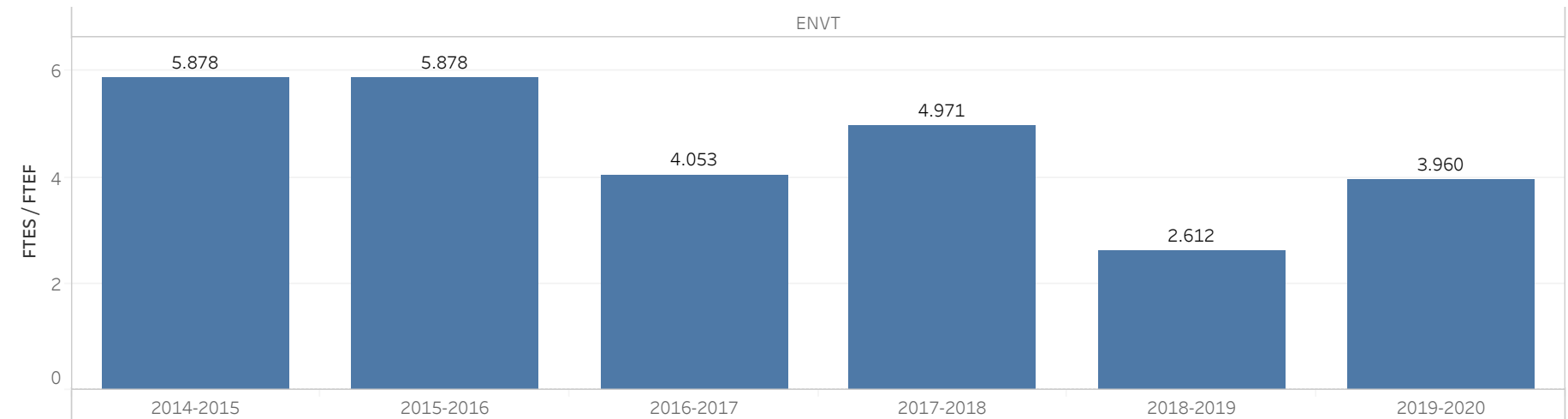
FTES



FTEF



FTEF/ FTES



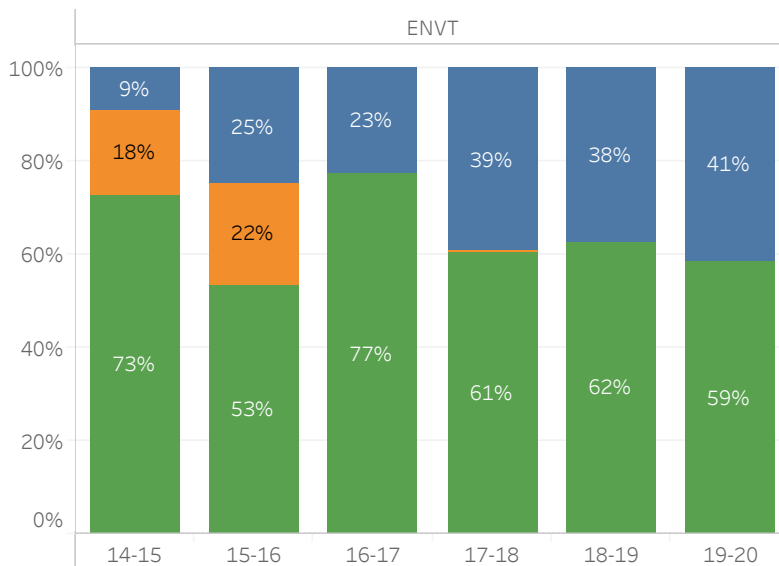
7 FTEF, overload, sections by faculty type ENVT

SUBJECT	Faculty Type	2014-2015				2015-2016				2016-2017			
		FTEF	Overload	Faculty	Sections	FTEF	Overload	Faculty	Sections	FTEF	Overload	Faculty	Sections
ENVT	Instructional - FT	0.100	1.130	1.00	17.00	0.373	1.046	1.00	19.00	0.234	0.655	1.00	13.00
	Instructional - PT	0.200	0.000	3.00	4.00	0.324	0.000	2.00	4.00				
	NonInstructional - FT	0.800	0.000	1.00	1.00	0.800	0.000	1.00	1.00	0.800	0.000	1.00	1.00
Grand Total		1.100	1.130	4.00	22.00	1.497	1.046	3.00	24.00	1.034	0.655	1.00	14.00

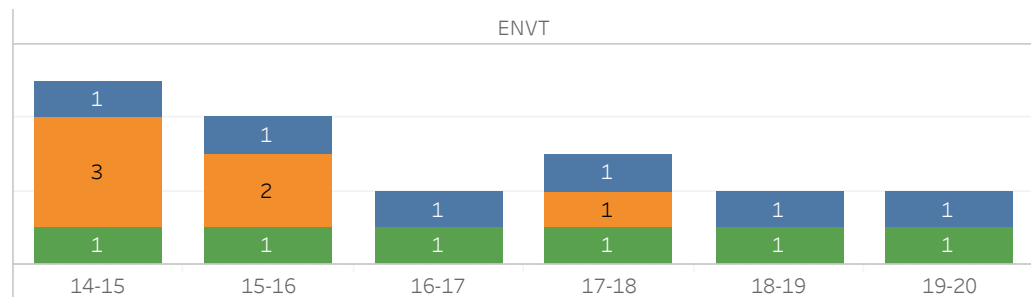
SUBJECT	Faculty Type	2017-2018				2018-2019				2019-2020			
		FTEF	Overload	Faculty	Sections	FTEF	Overload	Faculty	Sections	FTEF	Overload	Faculty	Sections
ENVT	Instructional - FT	0.52	0.56	1.00	21.00	0.48	0.81	1.00	17.00	0.57	0.80	1.00	21.00
	Instructional - PT	0.00	0.00	1.00	2.00								
	NonInstructional - FT	0.80	0.00	1.00	1.00	0.80	0.00	1.00	1.00	0.80	0.00	1.00	1.00
Grand Total		1.32	0.56	2.00	24.00	1.28	0.81	1.00	18.00	1.37	0.80	1.00	22.00

Faculty Type
■ Instructional - FT
■ Instructional - PT
■ NonInstructional - FT

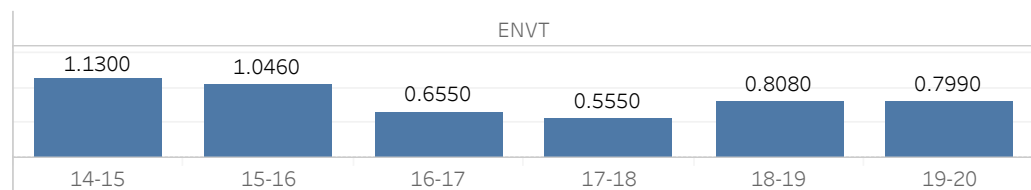
%FTEF by Faculty Type



Faculty count by type



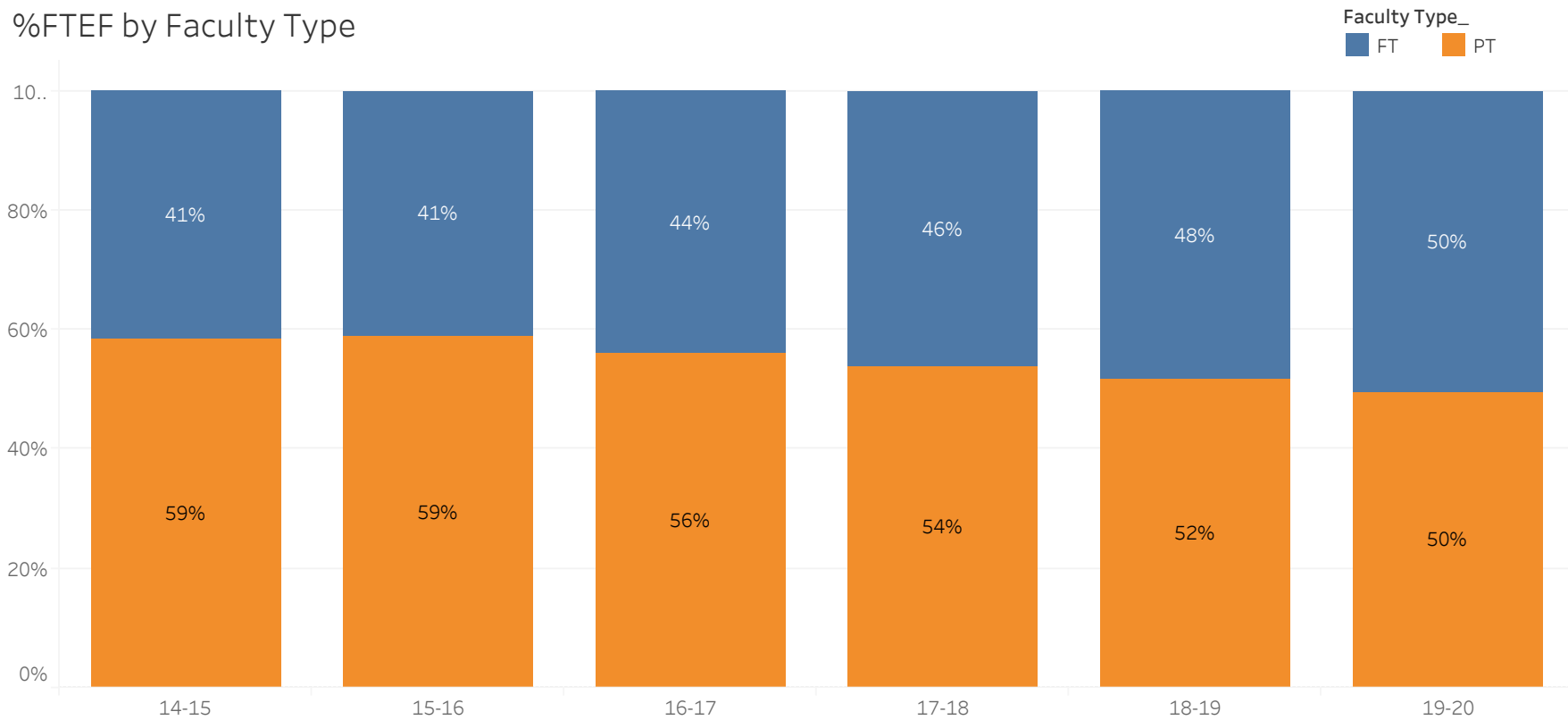
Overload



7 FTEF+Overload by Faculty Type Allan Hancock College

Instruction Type	Faculty Type	Academic Year					
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Instructional	Instructional - FT	277.160	288.448	307.136	313.022	314.389	311.083
	Instructional - PT	358.454	379.747	356.486	332.909	314.331	298.089
	Total	635.614	668.195	663.622	645.931	628.720	609.172
NonInstructional	NonInstructional - FT	73.988	70.677	70.965	74.347	77.457	94.311
	NonInstructional - PT	34.646	35.110	33.486	35.313	29.225	25.802
	Total	108.634	105.787	104.451	109.660	106.682	120.113
Grand Total		744.248	773.982	768.073	755.591	735.402	729.285

%FTEF by Faculty Type



Appendix A: Program/Course Demographics by Outcome ENVT

		Academic Year											
		2017-18				2018-19				2019-20			
		Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %
ENVT101	Under 20	1	0.10	100%	100%	1	0.10	100%	0%	2	0.21	100%	100%
	20-24	4	0.41	75%	75%	3	0.31	100%	67%	1	0.10	0%	0%
	25-29	1	0.10	100%	100%					2	0.21	100%	100%
	30-34	2	0.21	100%	100%								
	35-39	1	0.10	100%	0%					1	0.10	100%	0%
	40-49	2	0.21	100%	100%								
	50+	2	0.21	50%	50%								
ENVT150	Under 20					1	0.08	100%	100%				
	20-24	1	0.08	100%	100%	2	0.15	100%	100%				
	25-29	2	0.15	100%	100%	1	0.08	100%	0%	3	0.21	100%	67%
	30-34					2	0.15	100%	100%	1	0.08	100%	100%
	35-39	3	0.23	100%	100%	1	0.08	100%	100%	2	0.15	100%	100%
	40-49	2	0.14	100%	0%	1	0.08	100%	100%				
	50+	2	0.15	100%	100%	2	0.15	100%	100%				
ENVT152	Under 20					1	0.11	100%	100%	1	0.10		
	20-24					1	0.11	100%	100%	6	0.62	75%	75%
	25-29					1	0.11	100%	100%	2	0.21	100%	100%
	30-34					1	0.11	100%	100%	1	0.10	100%	100%
	35-39									2	0.21	50%	50%
	40-49					3	0.32	100%	100%	2	0.21	100%	100%
	50+					1	0.11	100%	100%				
ENVT153	Under 20					2	0.06	100%	100%				
	20-24	1	0.03	100%	100%	1	0.03	100%	100%	3	0.09	100%	100%
	25-29	1	0.03	100%	100%					3	0.08	100%	100%
	35-39									1	0.03	100%	100%
	40-49	5	0.15	100%	100%	1	0.03	100%	100%	1	0.03	100%	100%
	50+	2	0.06	100%	100%					2	0.06	100%	100%
ENVT154	Under 20	1	0.06	100%	100%								
	20-24	1	0.06	100%	100%					2	0.11	100%	100%
	25-29	1	0.00	100%	0%					3	0.12	67%	67%

Appendix A: Program/Course Demographics by Outcome ENVT

		Academic Year											
		2017-18				2018-19				2019-20			
		Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %
ENVT154	30-34	2	0.12	100%	100%								
	35-39	2	0.06	100%	50%					2	0.11	100%	100%
	40-49	3	0.18	100%	100%					1	0.06	100%	100%
	50+	2	0.06	100%	50%					1	0.06	100%	100%
ENVT155	Under 20					1	0.02	100%	100%				
	20-24					2	0.03	100%	100%	2	0.02	100%	50%
	25-29	1	0.02	100%	100%					2	0.03	100%	100%
	35-39									1	0.02	100%	100%
	40-49	2	0.03	100%	100%	1	0.02	100%	100%	2	0.03	100%	100%
	50+	2	0.03	100%	100%					3	0.05	100%	100%
ENVT156	Under 20	1	0.03	100%	100%	4	0.12	100%	100%	2	0.06	100%	100%
	20-24	18	0.55	100%	100%	17	0.52	100%	100%	8	0.21	88%	63%
	25-29	12	0.37	100%	100%	12	0.37	100%	100%	3	0.09	100%	100%
	30-34	8	0.24	100%	100%	3	0.09	100%	100%	1	0.03	100%	100%
	35-39	2	0.06	100%	100%					2	0.06	100%	100%
	40-49	6	0.18	100%	100%					1	0.03	100%	100%
	50+	1	0.03	100%	100%					1	0.03	100%	100%
ENVT158	Under 20					1	0.03	100%	100%				
	20-24	1	0.03	100%	100%	2	0.06	100%	100%	1	0.03	100%	100%
	25-29					2	0.06	100%	100%	3	0.09	100%	100%
	30-34	2	0.06	100%	100%					1	0.03	100%	100%
	35-39					1	0.03	100%	100%				
	40-49	4	0.12	75%	75%	1	0.03	100%	100%	4	0.12	100%	100%
	50+	1	0.03	100%	100%					1	0.03	100%	100%
ENVT159	Under 20					1	0.03	100%	100%	1	0.03	100%	0%
	20-24	2	0.06	100%	100%	2	0.06	100%	100%	1	0.02	100%	100%
	25-29	4	0.12	100%	50%	1	0.03	100%	100%	3	0.06	100%	67%
	30-34	1	0.03	100%	100%								
	35-39	2	0.06	100%	100%					1	0.03	100%	100%
	40-49	4	0.12	75%	75%	1	0.03	100%	100%	1	0.03	100%	100%

Appendix A: Program/Course Demographics by Outcome ENVT

		Academic Year											
		2017-18				2018-19				2019-20			
		Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %
ENVT159	50+	2	0.06	100%	100%					2	0.06	100%	100%
ENVT160	Under 20					1	0.06	100%	100%				
	20-24					2	0.12	100%	100%	2	0.12	50%	50%
	25-29					1	0.06	100%	100%	2	0.12	100%	100%
	30-34					1	0.06	100%	100%	1	0.06	100%	100%
	35-39									2	0.12	100%	100%
	40-49					1	0.06	100%	100%	4	0.24	100%	100%
	50+									1	0.06	100%	100%
ENVT450	20-24	2	0.03	100%	100%					2	0.03	100%	100%
	25-29	5	0.08	100%	100%	1	0.02	100%	100%	3	0.06	100%	100%
	30-34	5	0.08	100%	100%	4	0.06	100%	100%	4	0.08	100%	100%
	35-39	3	0.05	100%	100%	1	0.02	100%	100%				
	40-49	10	0.15	100%	100%	6	0.09	100%	100%	5	0.08	100%	100%
	50+	14	0.21	100%	100%	10	0.15	100%	100%	8	0.11	100%	88%
ENVT454	Under 20	1	0.02	100%	100%	4	0.06	100%	100%	3	0.05	100%	100%
	20-24	37	0.56	100%	100%	28	0.43	100%	100%	27	0.43	100%	100%
	25-29	13	0.20	100%	100%	16	0.24	100%	100%	19	0.29	100%	100%
	30-34	3	0.05	100%	100%	5	0.08	100%	100%	3	0.05	100%	100%
	35-39	2	0.03	100%	100%	3	0.05	100%	100%	1	0.02	100%	100%
	40-49	5	0.08	100%	100%								
	50+					1	0.02	100%	100%				
ENVT455	25-29	1	0.00	100%	0%								
	30-34	1	0.03	100%	100%								
	35-39	5	0.15	100%	100%								
	40-49	2	0.06	100%	100%								
	50+	3	0.09	100%	100%								
ENVT456	20-24	5	0.08	100%	80%	1	0.02	100%	100%	1	0.02	100%	100%
	25-29	16	0.26	100%	75%	4	0.06	100%	100%	9	0.15	100%	67%
	30-34	33	0.53	100%	58%	3	0.05	100%	100%	33	0.57	100%	71%
	35-39	39	0.63	100%	64%	2	0.03	100%	50%	37	0.62	100%	71%

Appendix A: Program/Course Demographics by Outcome ENVT

		Academic Year											
		2017-18				2018-19				2019-20			
		Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %
ENVT101	Hispanic	4	0.41	75%	75%	3	0.31	100%	67%	4	0.41	75%	50%
	White	9	0.93	89%	78%	1	0.10	100%	0%	1	0.10	100%	100%
	Unknown									1	0.10	100%	100%
ENVT150	Asian									1	0.06	100%	0%
	Hispanic	7	0.53	100%	71%	5	0.38	100%	80%	2	0.15	100%	100%
	Native Am	1	0.08	100%	100%	1	0.08	100%	100%				
	White	2	0.15	100%	100%	4	0.30	100%	100%	2	0.15	100%	100%
	Unknown									1	0.08	100%	100%
ENVT152	Black									1	0.10	0%	0%
	Hispanic					2	0.21	100%	100%	8	0.83	80%	80%
	Native Am					1	0.11	100%	100%				
	White					5	0.53	100%	100%	5	0.52	100%	100%
ENVT153	Black									1	0.03	100%	100%
	Hispanic	3	0.09	100%	100%	1	0.03	100%	100%	6	0.17	100%	100%
	Native Am					1	0.03	100%	100%				
	White	6	0.18	100%	100%	2	0.06	100%	100%	3	0.09	100%	100%
ENVT154	Black									2	0.05	50%	50%
	Filipino	1	0.00	100%	0%								
	Hispanic	3	0.12	100%	67%					6	0.36	100%	100%
	Native Am									1	0.06	100%	100%
	White	8	0.42	100%	88%								
ENVT155	Black									2	0.03	100%	100%
	Hispanic	1	0.02	100%	100%	2	0.03	100%	100%	5	0.08	100%	100%
	Native Am					1	0.02	100%	100%				
	White	4	0.06	100%	100%	1	0.02	100%	100%	3	0.03	100%	67%
ENVT156	Asian	2	0.06	100%	100%								
	Black	2	0.06	100%	100%					1	0.03	100%	100%
	Hispanic	6	0.18	100%	100%	8	0.24	100%	100%	9	0.24	89%	78%
	White	38	1.16	100%	100%	28	0.85	100%	100%	7	0.21	100%	86%
	Unknown									1	0.03	100%	100%

Appendix A: Program/Course Demographics by Outcome ENVT

		Academic Year											
		2017-18				2018-19				2019-20			
		Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %
ENVT158	Black					2	0.06	100%	100%				
	Hispanic	1	0.03	100%	100%	3	0.09	100%	100%	5	0.15	100%	100%
	Native Am					1	0.03	100%	100%				
	White	7	0.21	86%	86%	1	0.03	100%	100%	5	0.15	100%	100%
ENVT159	Black	1	0.03	100%	0%					2	0.03	100%	50%
	Hispanic	8	0.24	100%	88%	2	0.06	100%	100%	5	0.14	100%	100%
	Native Am					1	0.03	100%	100%				
	White	6	0.18	83%	83%	2	0.06	100%	100%	2	0.06	100%	50%
ENVT160	Black									1	0.06	100%	100%
	Hispanic					3	0.18	100%	100%	7	0.43	86%	86%
	Native Am					1	0.06	100%	100%				
	White					2	0.12	100%	100%	4	0.24	100%	100%
ENVT450	Asian	1	0.02	100%	100%	1	0.02	100%	100%	1	0.02	100%	100%
	Black					1	0.02	100%	100%	2	0.03	100%	100%
	Hispanic	7	0.11	100%	100%	7	0.11	100%	100%	11	0.20	100%	100%
	Native Am	3	0.05	100%	100%	4	0.06	100%	100%	1	0.02	100%	100%
	White	28	0.43	100%	100%	9	0.14	100%	100%	7	0.09	100%	86%
ENVT454	Asian	2	0.03	100%	100%								
	Black	2	0.03	100%	100%					1	0.02	100%	100%
	Filipino					1	0.02	100%	100%				
	Hispanic	10	0.15	100%	100%	9	0.14	100%	100%	11	0.18	100%	100%
	Native Am					1	0.02	100%	100%	1	0.02	100%	100%
	Pac Isl									1	0.02	100%	100%
	White	47	0.72	100%	100%	45	0.69	100%	100%	37	0.56	100%	100%
	Unknown					1	0.02	100%	100%	2	0.03	100%	100%
ENVT455	Black	1	0.00	100%	0%								
	Hispanic	2	0.06	100%	100%								
	Native Am	1	0.03	100%	100%								
	White	8	0.24	100%	100%								
ENVT456	Asian	3	0.05	100%	67%					2	0.03	100%	100%

Appendix A: Program/Course Demographics by Outcome ENVT

		Academic Year											
		2017-18				2018-19				2019-20			
		Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %	Headcou..	FTES	Retention %	Success %
ENVT101	First Time	2	0.21	100%	100%					1	0.10	100%	100%
	First Time Transfer	2	0.21	50%	50%	1	0.10	100%	0%				
	Continuing	6	0.62	83%	83%	3	0.31	100%	67%	4	0.41	75%	75%
	Returning	3	0.31	100%	67%					1	0.10	100%	0%
ENVT150	First Time					1	0.08	100%	100%	1	0.08	100%	100%
	First Time Transfer	3	0.23	100%	100%	1	0.08	100%	100%	1	0.08	100%	100%
	Continuing	3	0.23	100%	67%	5	0.38	100%	80%	2	0.15	100%	100%
	Returning	4	0.30	100%	75%	3	0.23	100%	100%	2	0.13	100%	50%
ENVT152	First Time									1	0.10		
	Continuing					7	0.75	100%	100%	9	0.93	86%	86%
	Returning					1	0.11	100%	100%	4	0.41	75%	75%
ENVT153	First Time					2	0.06	100%	100%				
	First Time Transfer	1	0.03	100%	100%					1	0.03	100%	100%
	Continuing	3	0.09	100%	100%	1	0.03	100%	100%	7	0.20	100%	100%
	Returning	5	0.15	100%	100%	1	0.03	100%	100%	2	0.06	100%	100%
ENVT154	First Time	1	0.06	100%	100%								
	First Time Transfer	1	0.06	100%	100%								
	Continuing	9	0.42	100%	78%					8	0.41	88%	88%
	Returning	1	0.00	100%	0%					1	0.06	100%	100%
ENVT155	First Time Transfer	1	0.02	100%	100%								
	Continuing	2	0.03	100%	100%	3	0.05	100%	100%	6	0.09	100%	100%
	Returning	2	0.03	100%	100%	1	0.02	100%	100%	4	0.05	100%	75%
ENVT156	First Time									1	0.03	100%	0%
	First Time Transfer	16	0.49	100%	100%	10	0.30	100%	100%				
	Continuing	24	0.72	100%	100%	21	0.64	100%	100%	16	0.49	100%	94%
	Returning	8	0.24	100%	100%	5	0.15	100%	100%	1	0.00	0%	0%
ENVT158	First Time	1	0.03	100%	100%								
	First Time Transfer					2	0.06	100%	100%				
	Continuing	7	0.21	86%	86%	5	0.15	100%	100%	7	0.21	100%	100%
	Returning									3	0.09	100%	100%

Appendix B: Major match detail

--If a student has the same program of study and major as the award earned they will be a 'Major Match'. If not they will be a 'Major Split'.

--Headcount & Percentages are the students who are a major match/split for a specific award.

--Data is sorted by program/major of the earned award.

Major Match	Program Desc	Degree	Degree Major	Student Major	Degree Desc (group)	Academic Year Graduation Desc					
						2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	
Match	Environm ental He..	AS	Environmental Health & Saf..	Environmental Health & Safety	Associate in Science (S)				4	1	
		Total							4	1	
	Environm ental Te..	AS	Environmental Technology	Environmental Technology	Associate in Science (S)		2	1			
		Total					2	1			
Total							2	1	4	1	
Split	Environm ental Hea lth & Safe ty	AS	Environmental Health & Safety	Business Administration	Associate in Science (S)	1					
				Environmental Technology	Associate in Science (S)	1	2			1	
		C2	Environmental Studies	Environmental Technology	18 to fewer than 30 unit..		1				
		CT	Environmental Health & Safety	Environmental Health & Safety	Environmental Health & Safety	Other Credit Award <6 u..				2	
				Environmental Technology	Environmental Technology	Other Credit Award <6 u..	1				
			Hazardous Mat -8-hr Refresher	Administration Of Justice	Other Credit Award <6 u..					1	
				Agricultural Science	Other Credit Award <6 u..					1	
				Arts and Humanities	Other Credit Award <6 u..	1					
				Auto Body Technology	Other Credit Award <6 u..	1					
				Automotive Chassis	Other Credit Award <6 u..		1				
				Biology	Other Credit Award <6 u..				1	1	
				Business Admin for Transfer	Other Credit Award <6 u..	1					
				Business Administration	Other Credit Award <6 u..	1			2		
				Chemistry	Other Credit Award <6 u..		1				
				Community Ed Non Credit	Other Credit Award <6 u..		1				
				Emergency Medical Services	Other Credit Award <6 u..	1	1		1		
				Engineering	Other Credit Award <6 u..	1					
				English	Other Credit Award <6 u..	1					
				Environmental Health & Safety	Other Credit Award <6 u..		7		13	11	
				Environmental Technology	Other Credit Award <6 u..	9	1		2	2	
				Fire Technology	Other Credit Award <6 u..	2				1	
		Human Services General	Other Credit Award <6 u..	1							
		Kinesiology for Transfer	Other Credit Award <6 u..	1							
		Management	Other Credit Award <6 u..		1		1	1			

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Major Match	Program Desc	Degree	Degree Major	Student Major	Degree Desc (group)	Academic Year Graduation Desc							
						2015-2016	2016-2017	2017-2018	2018-2019	2019-2020			
Split	Environmental Health & Safety	CT	Hazardous Mat -8-hr Refresher	Marketing	Other Credit Award <6 u..	1							
				Operations	Other Credit Award <6 u..	1	1						
				Police Academy	Other Credit Award <6 u..	1							
				Psychology	Other Credit Award <6 u..					1			
				Undeclared	Other Credit Award <6 u..					1	1		
				Viticulture	Other Credit Award <6 u..					1	1		
				Welding Technology	Other Credit Award <6 u..					1			
				Hazardous Mat-8-Hour Refresher				Art	Other Credit Award <6 u..	1			
								Biology	Other Credit Award <6 u..	1	1	1	
								Business Administration	Other Credit Award <6 u..	1	1	2	
								Civil Engineering	Other Credit Award <6 u..	2			
								Community Ed Non Credit	Other Credit Award <6 u..		1		
								Engineering	Other Credit Award <6 u..	2			
								English	Other Credit Award <6 u..	1			
								Environmental Health & Safety	Other Credit Award <6 u..		3	3	
								Environmental Technology	Other Credit Award <6 u..	15	4	2	
								Human Services General	Other Credit Award <6 u..	2	1		
								Management	Other Credit Award <6 u..	1			
								Operations	Other Credit Award <6 u..	2			
								Undeclared	Other Credit Award <6 u..	6	1	1	
								Viticulture	Other Credit Award <6 u..	2	1	1	
								Welding Technology	Other Credit Award <6 u..	1			
								Total		56	29	10	24
	Environmental Technology	AS	Environmental Technology	Civil Engineering	Associate in Science (S)	1							
				Environmental Health & Safety	6 to fewer than 18 units ..				2				
				Environmental Technology	6 to fewer than 18 units ..			2		1			
				Art	Other Credit Award <6 u..						1		
				Community Ed Non Credit	Other Credit Award <6 u..						3		
		CT	Hazardous Mat-Gen Site Worker	Fire Technology	Other Credit Award <6 u..					1			

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--Data is sorted by program/major of the earned award.

Major Match	Program Desc	Degree	Degree Major	Student Major	Degree Desc (group)	Academic Year Graduation Desc				
						2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Split	hnology	Total				1	2		3	5
	Total					56	29	10	25	25
Grand Total						56	30	11	26	25

To: Dean Margaret Lau
From: Kristy Treur, Environmental Health & Safety Program, Faculty/Coordinator
Date: Sept. 9, 2022
Re: 2022 Program Review Annual-Update Amendment
V. Continuous Improvement, (d) Request for Resources

Since the finalization of the 2022 Environmental Health and Safety (EH&S) Program Review - Annual Update a previously unidentified need has been realized. As the EH&S program is now a program within the Industrial Technology department the opportunity to increase awareness and provide enhanced student learning experiences is on track.

To facilitate the awareness and enhanced learning experiences the EH&S program requests the following resource.

Resource Request: Utility/Cargo Trailer 6' x 12

Program Goal: To increase program awareness and provide student learning opportunities

One Time Cost: \$8775.00

Type: Equipment

Completion: Spring 2023

Thank you for your consideration.