2018-19 Program Review – Instructional

Program Overview

Please verify the mission statement for your program. If there is no mission statement listed, please add it here.

The most important goal of the science department, in which chemistry is one of the disciplines, is to provide students with the knowledge and skills they will need in order to perform successfully in the next stage of their careers, whether that stage involves transfer to a 4-year institution, entering a professional program of study such as nursing, or entering the workplace in a specialized field such as biotechnology. Another important goal is to build stepping stones to science in order to make careers in science accessible to students who have little or no background in science and math but who have been excited by the news and the potential of interesting jobs in biotechnology and other science related fields.

List your Faculty and/or Staff

FT Barbara Des Rochers Ph.D. (Biol) Pieter de Haan Ph.D. (Biol) Siraj Omar Ph.D. (Chem) Samuel Gillette Ph.D. (Chem) Francisco Monsalve Santa Ph.D. (Phys) Staff Azul Lewis BS (Chem) Amir Jaberi BS (Biol) Natalia Federova MS (Biol)	PT Ali Deghani Ph.D. (Chem) Anu Sharma MS., MEd., MBA. (Chem) Gurnam Singh Ph.D. (Chem) Neeta Sharma Ph.D. (Chem) Paul Henderson Ph.D. (Chem) Andrea Sproul MS. (Geog) Elena Givental Ph.D. (Geog) Don Woodrow Ph.D. (Geol) Matthew Fillingim Ph.D. (Astr + Phys)	Rosa Alvis Ph.D. (Phys) Doug Schmidt Ph.D. (Biol) Jamie Acosta Ph.D. (Biol) Linda McPheron Ph.D. (Biol) Randy Yang Ph.D. (Biol) Riva Bruenn Ph.D. (Biol) Julia Chang Ph.D. (Biol) Lili Banihashemi MS. (Biol) Scott Blitch MS. (Biol) Janelle Barbier MS. (Biol) Erika Yeh Ph.D. (Biol) Sheldon Nelson MS(PhysS)

The Program Goals below are from your most recent Program Review or APU. If none are listed, please add your most recent program goals. Then, indicate the status of this goal, and which College and District goal your program goal aligns to. If your goal has been completed, please answer the follow up question regarding how you measured the achievement of this goal.

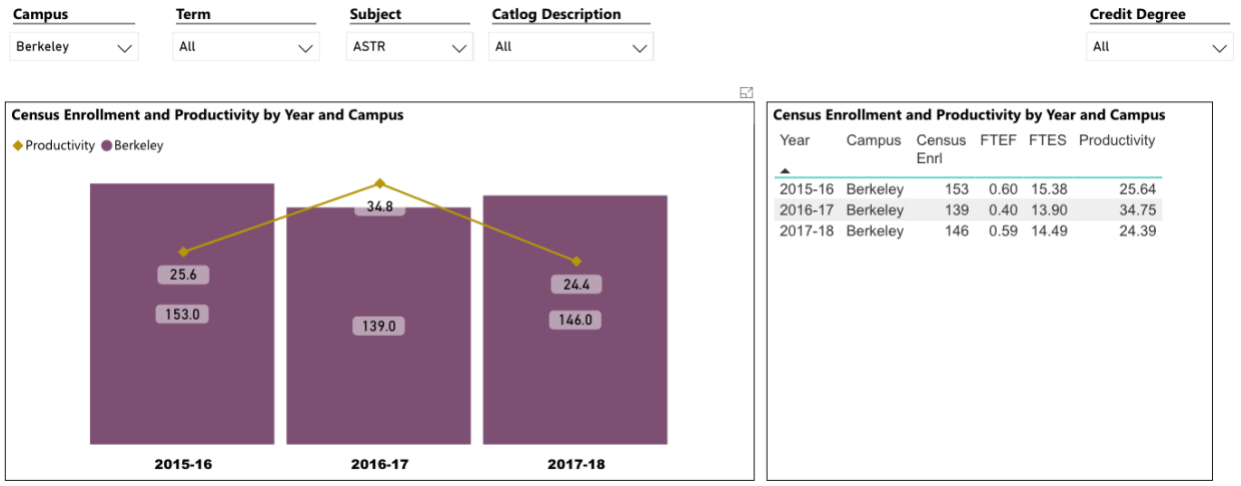
The goal of the Biotechnology Program at Berkeley City College is to provide students with the knowledge and skills they will need in order to perform successfully in the next stage of their careers, whether that stage involves entering the workplace in a research or industrial laboratory, transferring to a 4-year institution to complete an undergraduate degree, or entering a professional program of study such as nursing or medicine. The programs and courses are designed to include both academic and laboratory training and emphasize development of competence and confidence. There are two Certificates of Achievement (CA) and an A.S. degree in Biotechnology and they are stackable: The first CA prepares students for entry level biotechnology laboratory assistant positions in industry and academic laboratories, the second CA is designed for students who have completed the first certificate and want to progress in their education and training so that they can either enter the workforce directly or transfer to a 4 year institution. The second CA also has been designed for professionals in the industry and research laboratories, who desire more up to date laboratory training. The A.S. degree in Biotechnology prepares students for employment as

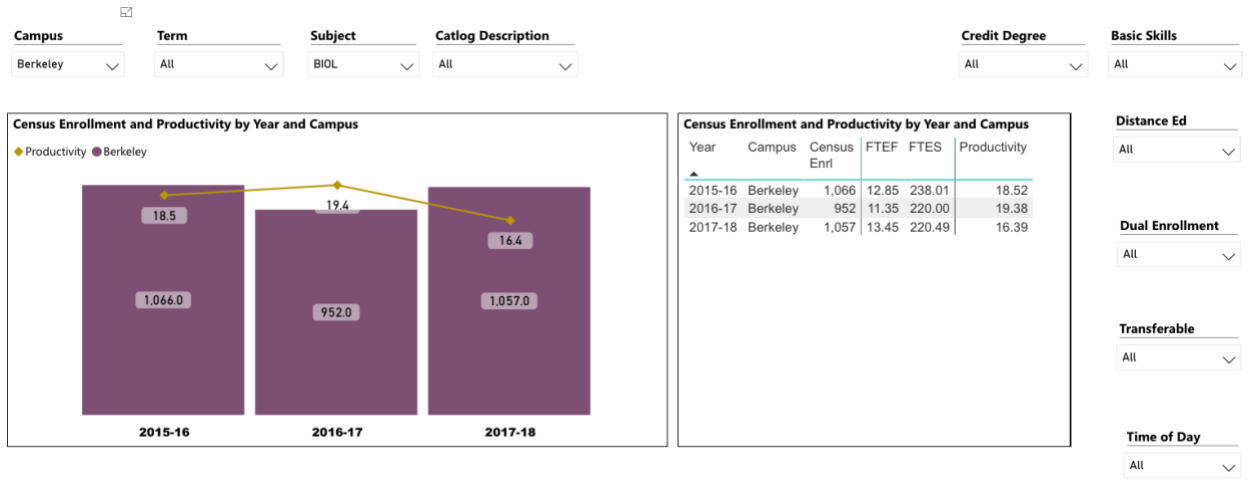
technicians and research associates in the pharmaceutical and biotechnology industries, state and federal laboratories, and a range of clinical and academic laboratories.
BIOL-AST: The Associate in Science in Biology for Transfer Degree is designed to prepare students to complete the baccalaureate degree in Biology upon transferring into the CSU system. This program assists in seamlessly transferring to a CSU in order to earn a bachelor's degree in Biology. The courses in the BIOL-AST degree program are also articulated to allow students to transfer to local U.C.'s. All classes in this program are currently being offered at BCC.

Describe your current utilization of facilities, including labs and other space

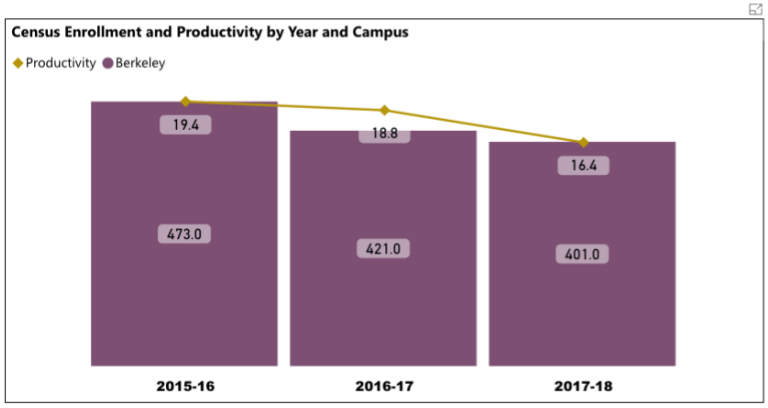
We are using all Lab spaces in our building. Lectures are held in different lecture rooms. The tiered classroom 431 is always used for double sections. We need more of these tiered classrooms! Lunch seminars are also held at the tiered classroom. Evening seminars utilize the auditorium.

Enrollment Trends





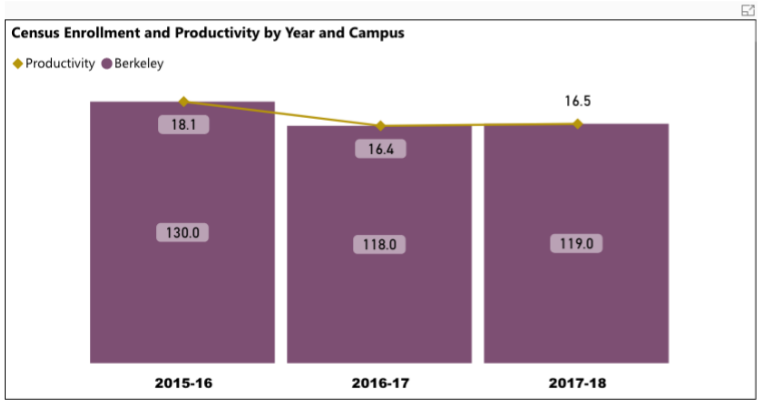
Campus	Term	Subject	Catlog Description	Credit Degree
Berkeley	All	GEOG	All	All



Census Enrollment and Productivity by Year and Campus

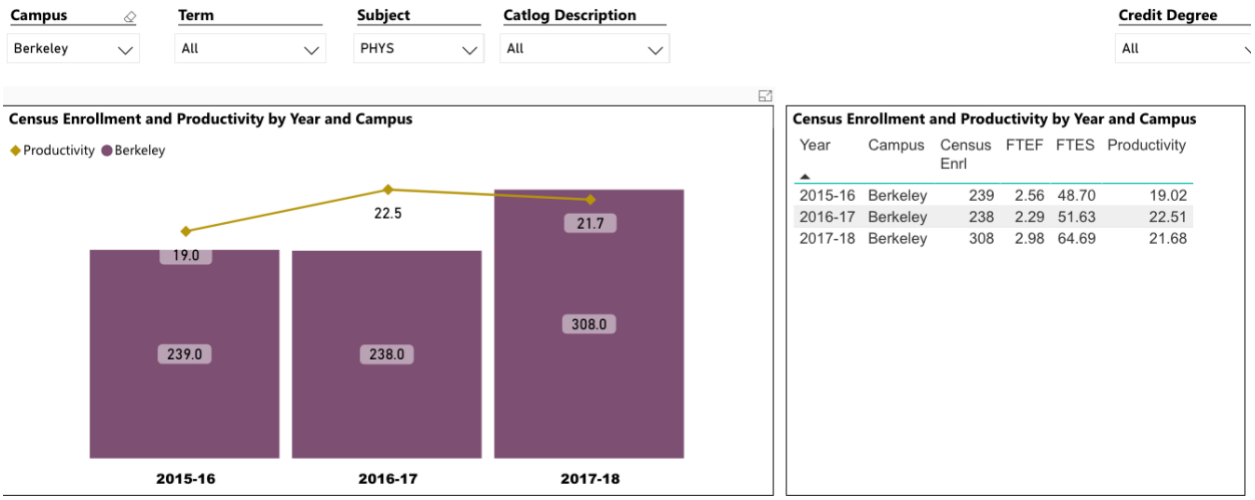
Year	Campus	Census Enrl	FTEF	FTES	Productivity
2015-16	Berkeley	473	2.44	47.41	19.43
2016-17	Berkeley	421	2.24	42.10	18.79
2017-18	Berkeley	401	2.43	39.99	16.43

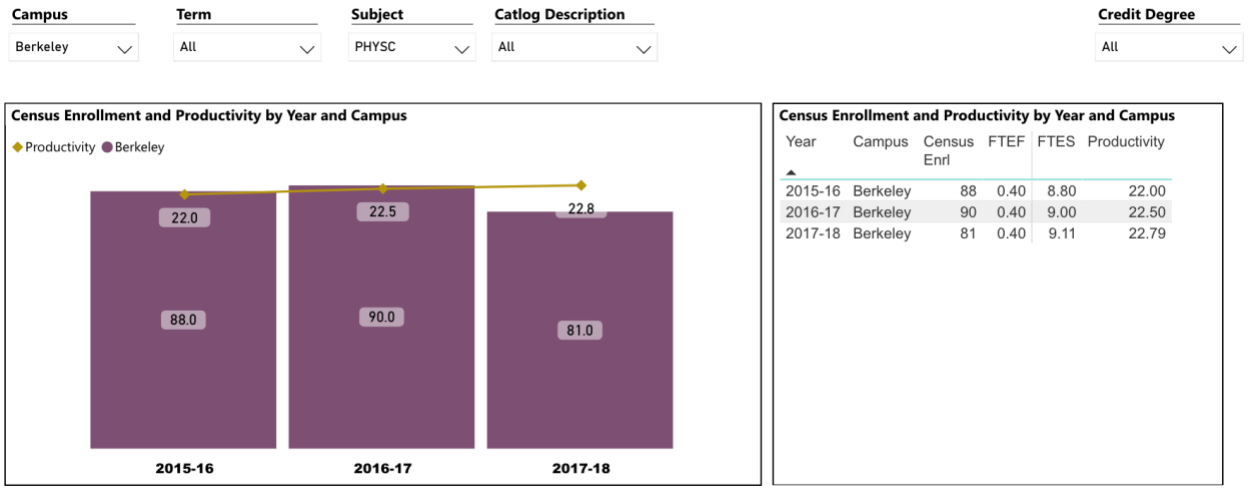
Campus	Term	Subject	Catlog Description	Credit Degree
Berkeley	All	GEOL	All	All



Census Enrollment and Productivity by Year and Campus

Year	Campus	Census Enrl	FTEF	FTES	Productivity
2015-16	Berkeley	130	0.72	13.00	18.06
2016-17	Berkeley	118	0.72	11.80	16.39
2017-18	Berkeley	119	0.72	11.90	16.53





Enrollment Trends Power BI dashboard

Note: Please consider the most recent 3 years when answering the questions below.

Set the filters above to your discipline, and discuss enrollment trends over the past three years

Astronomy: The FTES went down from 15.38 in 2015-2016 to 14.49 in 2017-2018 (-5.8% decline).
Biology: The FTES went down from 238.01 in 2015-2016 to 220.49 in 2017-2018 (-7.4% decline).
Chemistry: The FTES went up from 178.78 in 2015-2016 to 186.36 in 2017-2018 (4.2% increase).
Geography: The FTES went down from 47.41 in 2015-2016 to 39.99 in 2017-2018 (-15.7% decline).
Geology: The FTES went down from 13.00 in 2015-2016 to 11.90 in 2017-2018 (-8.5% decline).
Physics: The FTES went up from 48.70 in 2015-2016 to 64.69 in 2017-2018 (33% increase).
Physical Sciences: The FTES went up from 8.80 in 2015-2016 to 9.11 in 2017-2018. In Spring 2019 we added an extra Physical Science class on Wednesday evenings (3.5% increase).
In summary we found a slight downturn in enrollment for Astronomy, Biology, Geography and Geology (-8.6%), a strong upward trend in Physics and a slight upward trend in Chemistry and Physical Sciences. In total the decline for the Sciences including Chemistry is -0.6% which is substantial less the decline we witness at BCC overall (-11.2%).

Set the filter above to consider whether the time of day each course is offered meets the needs of students.

Faculty meeting sets the schedule in a manner that meets the student needs and demands such as transferring as a cohort.

Are courses scheduled in a manner that meets student needs and demands? How do you know?

Faculty meeting sets the schedule in a manner that meets the student needs and demands such as transferring as a cohort.

Describe effective and innovative teaching strategies used by faculty to increase student learning and engagement.

Lab classes include hands-on experiments.
Challenging take home assignments.
Active learning strategies.

How is technology used by the discipline, department?

Lectures: power point, white board, clickers
Labs: assorted equipment

How does the discipline, department, or program maintain the integrity and consistency of academic standards with all methods of delivery, including face to face, hybrid, and Distance Education courses?

In the Sciences all classes are face to face classes. This means that we know the students well during the semester and that we can help them if there are some problems. This strategy is reflected in a higher completion rate for the sciences compared with BCC's completion rate. The only hybrid class is in Physical Sciences that actually showed a 3.5% increase in completion rate over the last three years.

Curriculum

Please review your course outlines of record in CurricUNet Meta to determine if they have been updated or deactivated in the past three years. Specify when your department will update each one, within the next three years.

ASTR-10-Updated ASTR-15-Updated BIOL-1A-Updated BIOL-1B-Updated BIOL-3-Updated BIOL-10-**Spring19** BIOL-13-**Spring-19**	BIOL-13L-**Spring-19** BIOL-25-**Spring-19** BIOL-32-Updated BIOL-33-Updated BIOL-34-Updated BIOL-50A-Updated BIOL-50B-Updated	BIOL-50C-Updated CHEM-1A-**Spring-19** CHEM-1B-**Spring-19** CHEM-30A-**Spring-19** CHEM-30B-**Spring-19** CHEM-12A-Updated CHEM-12B-Updated	PHYS-3A-Updated PHYS-3B-Updated PHYS-4A-Updated PHYS-4B-Updated PHYS-4C-Updated PHYS-10-**Spring-19** PHYSC-20-**Spring-19**	

CurriQunet Meta

Please summarize the Discipline, Department or program of study plans for curriculum plans for improvement. Below, please provide details for individual course improvement. Add plans for new courses here.

Biotech: Tissue Engineering, Bioethics, Bioinformatics and Drug discovery.
GEOG: (Need a FT Faculty), GIS course and AS-T degree are needed. There are plans to create a new Geography course that combines GEOG-1 Lec and GEOG-1Lab.
Engineering: (Need a FT Faculty), Engineering courses and AS-T degree.

Assessment – Instructional

Student Learning Outcomes Assessment

List your Student Learning Outcomes

See Curricunet. All our courses have SLOs.

Were there any obstacles experienced during assessment? What worked well? (Mainly based on evidence in the report, attach other evidence as necessary)

None. On time received.

What percent of your programs have been assessed? (mainly based on evidence in the report, attach other evidence as necessary; note: a complete program assessment means all Program Learning Outcomes (PLOs) have been assessed for that program)

In the last round 100% of our courses were assessed. With the recent round we are almost on schedule.

How has your dept worked together on assessment (planning together)? Describe how your dept works well on assessment? Describe things that went well or obstacles. What aspects of assessment work went especially well in your department and what improvements are most needed?

No complaints

Collaboration

We are now assessing BIOL-10 that consist of 8 sections. All instructors are involved.

Leadership Roles

As Assessment Coordinator and liaison, I oversee all the assessments in our department and the college overall (Pieter de Haan).

Planning Process

During Department meetings at the beginning of the semester.

Dept meetings for Collaboration

During Flex day.

Data Analysis

Done individual for single section courses and done during Flex days and sharing of google-docs when doing courses with multiple sections.

What were the most important things your department learned from assessment? Did implementation of your action plans result in better student learning? In other words, how has your department used the results of assessment to improve student learning and/or curriculum? Please be as detailed as possible.

We as the Science Faculty learned a lot about the assessments and we are adjusting our courses based on the action plans formulated. This resulted in different teaching strategies, changing laboratory exercises, changing course outlines, creating new courses, programs, and adjusting exam questions etc.

Does your department participate in the assessment of multidisciplinary programs? If Yes, Describe your department's participation and what you learned from the assessment of the program that was applicable to your own discipline.

Yes. Program assessments will be attempted during the Fall semester 2020 when all course assessments are done.

Does your department participate in your college's Institutional Learning Outcomes (ILOs) assessment? If Yes, Please describe your departments participation in assessing Institutional Learning Outcomes.

Not at the moment.

What support does your department need from administrators, assessment coordinators and/or your campus assessment committee to continue to make progress in assessment of outcomes and implementation of action plans?

None.

Please verify the mission statement for your program. If there is no mission statement listed, please add it here.

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Course Completion

Course Completion Power BI Dashboard

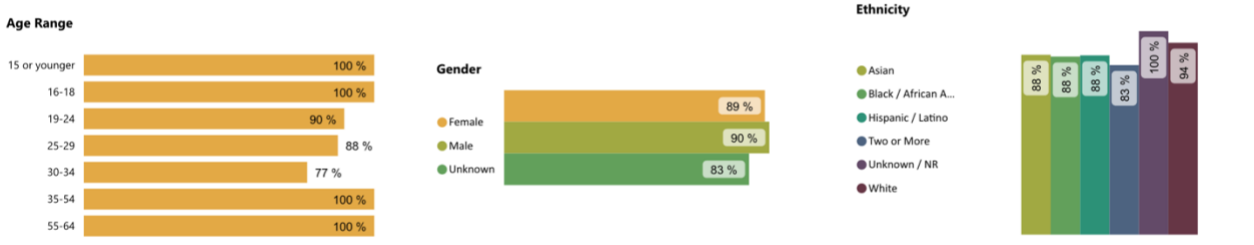
College: Berkeley City College | Semester: All | Subject: ASTR | Catalog No.: ASTR 10 DESCRIPTIV... | Academic Year: 2017-18

Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	89 %	95 %

Completion & Retention Rates by Subject

Academic Year	Subject	Completion Rate	Retention Rate
2017-18	ASTR	89 %	95 %



Age Range

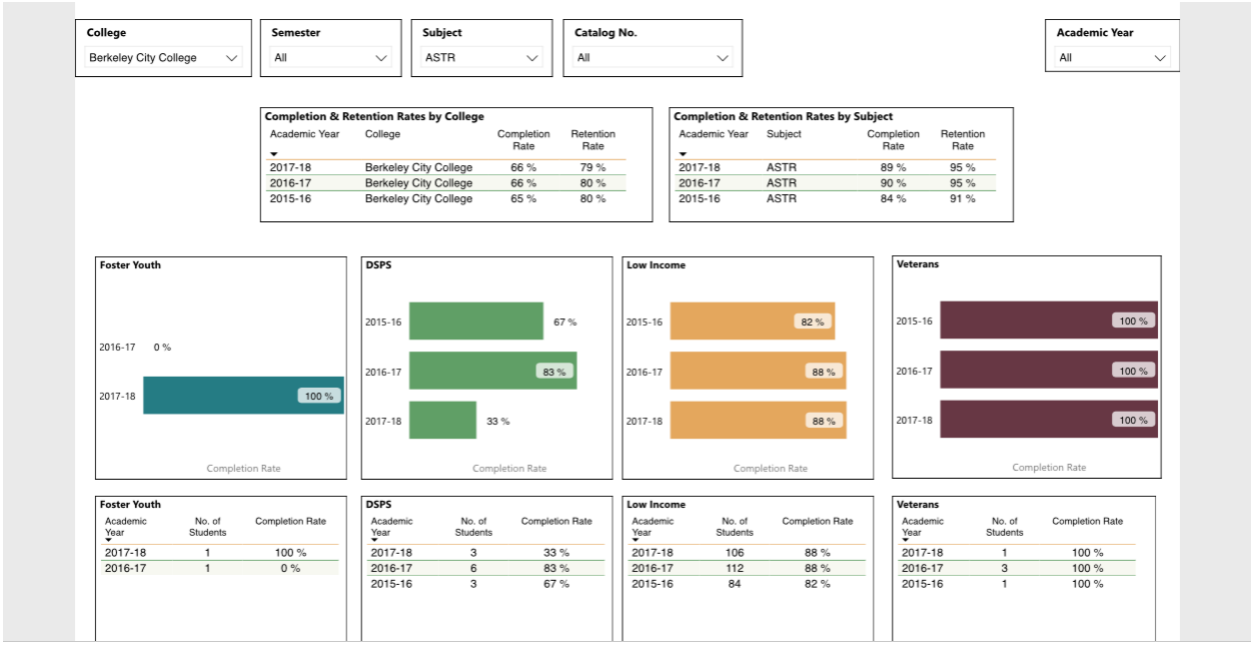
Age Range	Ttl Graded	Completions	Completion Rate
15 or younger	2	2	100 %
16-18	8	8	100 %
19-24	97	87	90 %
25-29	24	21	88 %
30-34	13	10	77 %
35-54	5	5	100 %
55-64	1	1	100 %

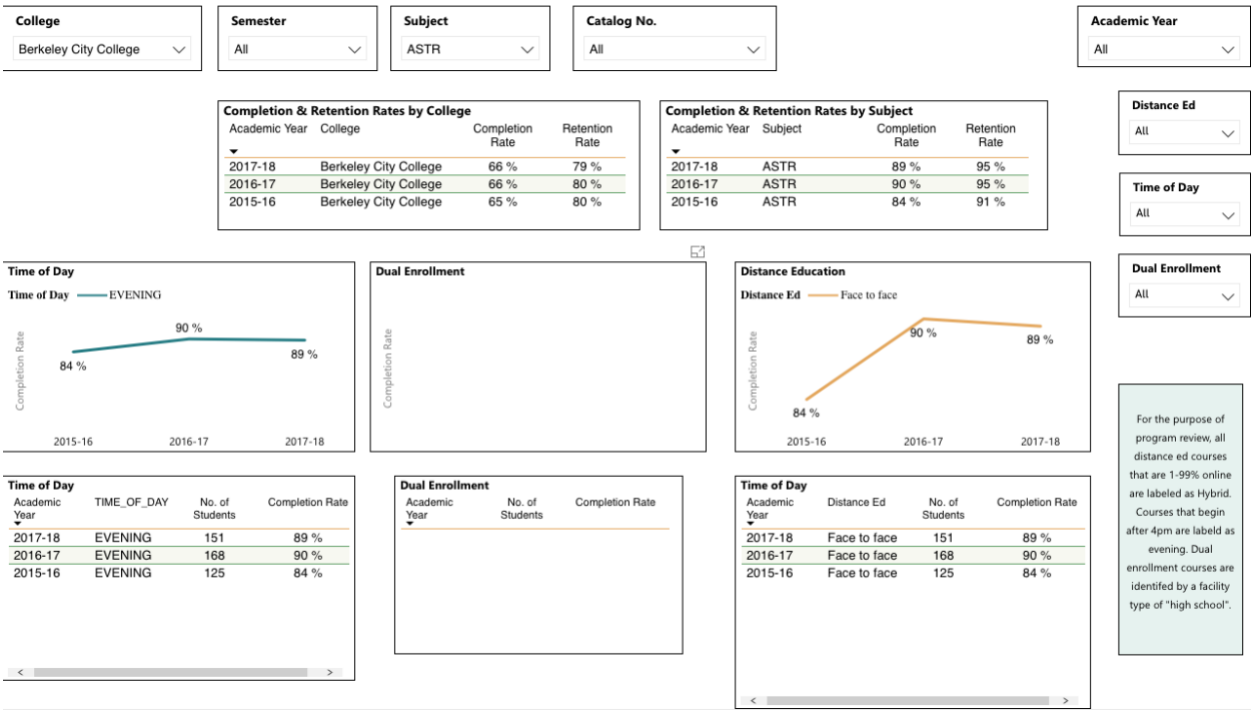
Gender

Gender	Ttl Graded	Completions	Completion Rate
Male	82	74	90 %
Female	62	55	89 %
Unknown	6	5	83 %

Ethnicity

Ethnicity	Ttl Graded	Completions	Completion Rate
Asian	43	38	88 %
Black / African American	16	14	88 %
Hispanic / Latino	42	37	88 %
Two or More	12	10	83 %
Unknown / NR	2	2	100 %
White	35	33	94 %


College
Berkeley City College
Semester
All
Subject
ASTR
Catalog No.
All
Academic Year
All
Completion & Retention Rates by College
Academic Year College Completion Rate Retention Rate
2017-18 Berkeley City College 66 % 79 %
2016-17 Berkeley City College 66 % 80 %
2015-16 Berkeley City College 65 % 80 %
Completion & Retention Rates by Subject
Academic Year Subject Completion Rate Retention Rate
2017-18 ASTR 89 % 95 %
2016-17 ASTR 90 % 95 %
2015-16 ASTR 84 % 91 %
Foster Youth
2016-17 0 %
2017-18 100 %
Completion Rate
DSPS
2015-16 67 %
2016-17 83 %
2017-18 33 %
Completion Rate
Low Income
2015-16 82 %
2016-17 88 %
2017-18 88 %
Completion Rate
Veterans
2015-16 100 %
2016-17 100 %
2017-18 100 %
Completion Rate
Foster Youth
Academic Year No. of Students Completion Rate
2017-18 1 100 %
2016-17 1 0 %
DSPS
Academic Year No. of Students Completion Rate
2017-18 3 33 %
2016-17 6 83 %
2015-16 3 67 %
Low Income
Academic Year No. of Students Completion Rate
2017-18 106 88 %
2016-17 112 88 %
2015-16 84 82 %
Veterans
Academic Year No. of Students Completion Rate
2017-18 1 100 %
2016-17 3 100 %
2015-16 1 100 %


College
Berkeley City College
Semester
All
Subject
ASTR
Catalog No.
All
Academic Year
All
Completion & Retention Rates by College
Academic Year College Completion Rate Retention Rate
2017-18 Berkeley City College 66 % 79 %
2016-17 Berkeley City College 66 % 80 %
2015-16 Berkeley City College 65 % 80 %
Completion & Retention Rates by Subject
Academic Year Subject Completion Rate Retention Rate
2017-18 ASTR 89 % 95 %
2016-17 ASTR 90 % 95 %
2015-16 ASTR 84 % 91 %
Distance Ed
All
Time of Day
All
Dual Enrollment
All
Time of Day
Time of Day EVENING
Completion Rate
84 %
90 %
89 %
2015-16
2016-17
2017-18
Dual Enrollment
Completion Rate
Distance Education
Distance Ed Face to face
Completion Rate
84 %
90 %
89 %
2015-16
2016-17
2017-18
Time of Day
Academic Year TIME_OF_DAY No. of Students Completion Rate
2017-18 EVENING 151 89 %
2016-17 EVENING 168 90 %
2015-16 EVENING 125 84 %
Dual Enrollment
Academic Year No. of Students Completion Rate
Time of Day
Academic Year Distance Ed No. of Students Completion Rate
2017-18 Face to face 151 89 %
2016-17 Face to face 168 90 %
2015-16 Face to face 125 84 %
For the purpose of program review, all distance ed courses that are 1-99% online are labeled as Hybrid. Courses that begin after 4pm are labeld as evening. Dual enrollment courses are identifed by a facility type of "high school".

College: Berkeley City College | Semester: All | Subject: BIOL | Catalog No.: All | Academic Year: 2017-18

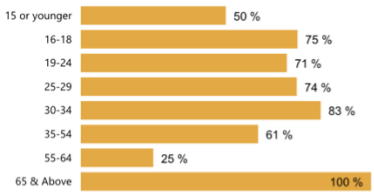
Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %

Completion & Retention Rates by Subject

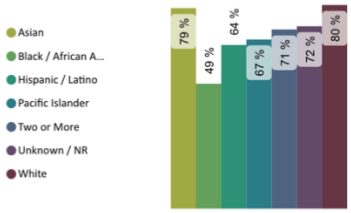
Academic Year	Subject	Completion Rate	Retention Rate
2017-18	BIOL	72 %	82 %

Age Range



Gender

Ethnicity



Age Range

Age Range	Ttl Graded	Completions	Completion Rate
15 or younger	8	4	50 %
16-18	79	59	75 %
19-24	666	473	71 %
25-29	172	128	74 %
30-34	75	62	83 %
35-54	72	44	61 %
55-64	8	2	25 %
65 & Above	2	2	100 %

Gender

Gender	Ttl Graded	Completions	Completion Rate
Female	581	418	72 %
Male	482	343	71 %
Unknown	19	13	68 %

Ethnicity

Ethnicity	Ttl Graded	Completions	Completion Rate
Asian	338	267	79 %
Black / African American	126	62	49 %
Hispanic / Latino	259	167	64 %
Pacific Islander	6	4	67 %
Two or More	68	48	71 %
Unknown / NR	32	23	72 %
White	253	203	80 %

College: Berkeley City College | Semester: All | Subject: BIOL | Catalog No.: All | Academic Year: All

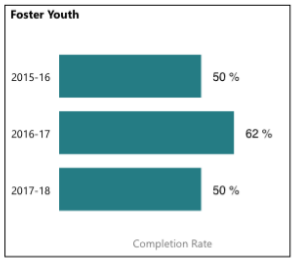
Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %
2016-17	Berkeley City College	66 %	80 %
2015-16	Berkeley City College	65 %	80 %

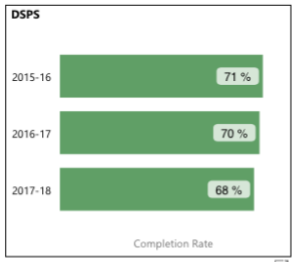
Completion & Retention Rates by Subject

Academic Year	Subject	Completion Rate	Retention Rate
2017-18	BIOL	72 %	82 %
2016-17	BIOL	77 %	85 %
2015-16	BIOL	76 %	85 %

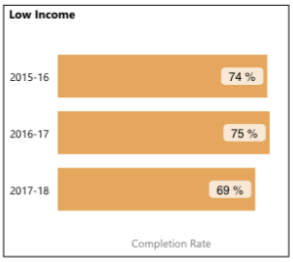
Foster Youth



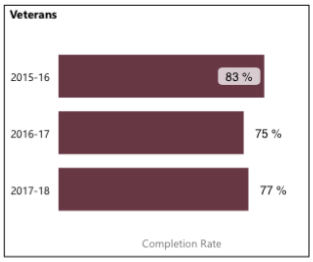
DSPS



Low Income



Veterans



Foster Youth

Academic Year	No. of Students	Completion Rate
2017-18	3	50 %
2016-17	9	62 %
2015-16	2	50 %

DSPS

Academic Year	No. of Students	Completion Rate
2017-18	53	68 %
2016-17	32	70 %
2015-16	38	71 %

Low Income

Academic Year	No. of Students	Completion Rate
2017-18	602	69 %
2016-17	609	75 %
2015-16	639	74 %

Veterans

Academic Year	No. of Students	Completion Rate
2017-18	12	77 %
2016-17	11	75 %
2015-16	13	83 %

College: Berkeley City College | Semester: All | Subject: BIOL | Catalog No.: All | Academic Year: All

Completion & Retention Rates by College

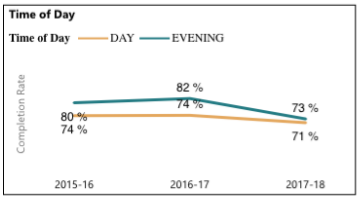
Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %
2016-17	Berkeley City College	66 %	80 %
2015-16	Berkeley City College	65 %	80 %

Completion & Retention Rates by Subject

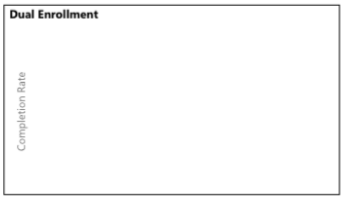
Academic Year	Subject	Completion Rate	Retention Rate
2017-18	BIOL	72 %	82 %
2016-17	BIOL	77 %	85 %
2015-16	BIOL	76 %	85 %

Distance Ed: All | Time of Day: All | Dual Enrollment: All

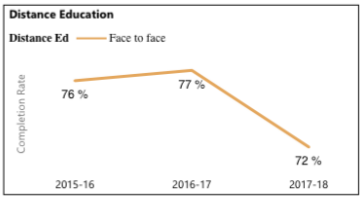
Time of Day



Dual Enrollment



Distance Education



Time of Day

Academic Year	TIME_OF_DAY	No. of Students	Completion Rate
2017-18	DAY	654	71 %
2017-18	EVENING	365	73 %
2016-17	DAY	604	74 %
2016-17	EVENING	364	82 %
2015-16	DAY	608	74 %
2015-16	EVENING	356	80 %

Dual Enrollment

Academic Year	No. of Students	Completion Rate

Time of Day

Academic Year	Distance Ed	No. of Students	Completion Rate
2017-18	Face to face	986	72 %
2016-17	Face to face	935	77 %
2015-16	Face to face	924	76 %

For the purpose of program review, all distance ed courses that are 1-99% online are labeled as Hybrid. Courses that begin after 4pm are labeld as evening. Dual enrollment courses are identifed by a facility type of "high school".

College: Berkeley City College | Semester: All | Subject: CHEM | Catalog No.: All | Academic Year: 2017-18

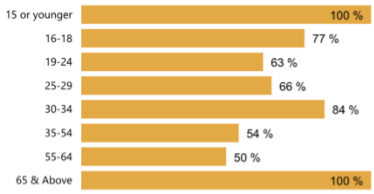
Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %

Completion & Retention Rates by Subject

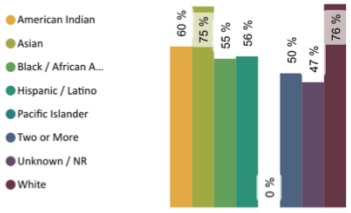
Academic Year	Subject	Completion Rate	Retention Rate
2017-18	CHEM	66 %	75 %

Age Range



Gender

Ethnicity



Age Range

Age Range	Ttl Graded	Completions	Completion Rate
15 or younger	5	5	100 %
16-18	61	47	77 %
19-24	408	256	63 %
25-29	134	88	66 %
30-34	56	47	84 %
35-54	46	25	54 %
55-64	2	1	50 %
65 & Above	1	1	100 %

Gender

Gender	Ttl Graded	Completions	Completion Rate
Unknown	9	6	67 %
Male	277	184	66 %
Female	427	280	66 %

Ethnicity

Ethnicity	Ttl Graded	Completions	Completion Rate
American Indian	5	3	60 %
Asian	239	179	75 %
Black / African American	83	46	55 %
Hispanic / Latino	151	85	56 %
Pacific Islander	3	0	0 %
Two or More	56	28	50 %
Unknown / NR	15	7	47 %
White	161	122	76 %

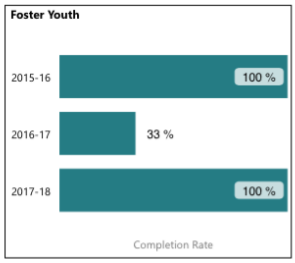
College: Berkeley City College | Semester: All | Subject: CHEM | Catalog No.: All | Academic Year: All

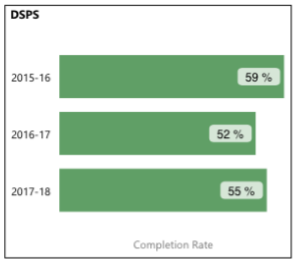
Completion & Retention Rates by College

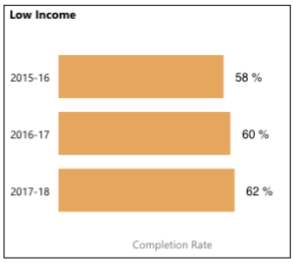
Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %
2016-17	Berkeley City College	66 %	80 %
2015-16	Berkeley City College	65 %	80 %

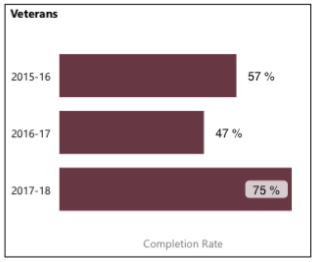
Completion & Retention Rates by Subject

Academic Year	Subject	Completion Rate	Retention Rate
2017-18	CHEM	66 %	75 %
2016-17	CHEM	63 %	73 %
2015-16	CHEM	63 %	74 %









Foster Youth

Academic Year	No. of Students	Completion Rate
2017-18	2	100 %
2016-17	6	33 %
2015-16	2	100 %

DSPS

Academic Year	No. of Students	Completion Rate
2017-18	29	55 %
2016-17	28	52 %
2015-16	21	59 %

Low Income

Academic Year	No. of Students	Completion Rate
2017-18	422	62 %
2016-17	365	60 %
2015-16	435	58 %

Veterans

Academic Year	No. of Students	Completion Rate
2017-18	6	75 %
2016-17	14	47 %
2015-16	13	57 %

College: Berkeley City College | Semester: All | Subject: CHEM | Catalog No.: All | Academic Year: All

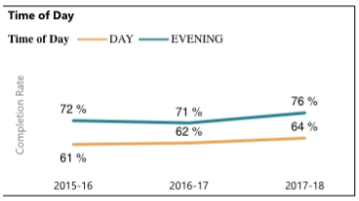
Completion & Retention Rates by College

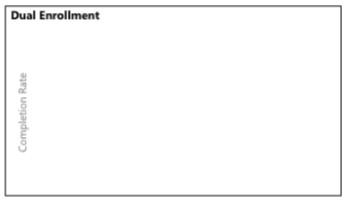
Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %
2016-17	Berkeley City College	66 %	80 %
2015-16	Berkeley City College	65 %	80 %

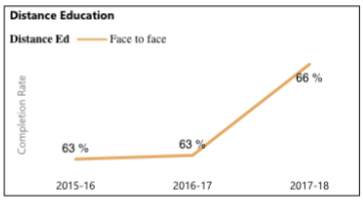
Completion & Retention Rates by Subject

Academic Year	Subject	Completion Rate	Retention Rate
2017-18	CHEM	66 %	75 %
2016-17	CHEM	63 %	73 %
2015-16	CHEM	63 %	74 %

Distance Ed: All | Time of Day: All | Dual Enrollment: All







Time of Day

Academic Year	TIME_OF_DAY	No. of Students	Completion Rate
2017-18	DAY	536	64 %
2017-18	EVENING	103	76 %
2016-17	DAY	466	62 %
2016-17	EVENING	89	71 %
2015-16	DAY	489	61 %
2015-16	EVENING	120	72 %

Dual Enrollment

Academic Year	No. of Students	Completion Rate

Time of Day

Academic Year	Distance Ed	No. of Students	Completion Rate
2017-18	Face to face	630	66 %
2016-17	Face to face	540	63 %
2015-16	Face to face	603	63 %

For the purpose of program review, all distance ed courses that are 1-99% online are labeled as Hybrid. Courses that begin after 4pm are labeld as evening. Dual enrollment courses are identifed by a facility type of "high school".

College: Berkeley City College | Semester: All | Subject: GEOG | Catalog No.: All | Academic Year: 2017-18

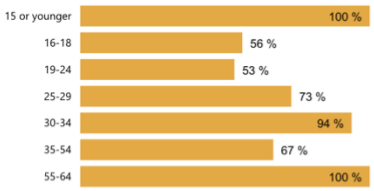
Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %

Completion & Retention Rates by Subject

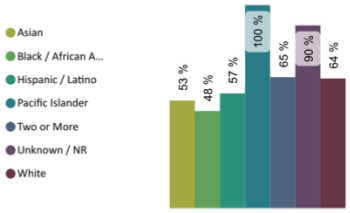
Academic Year	Subject	Completion Rate	Retention Rate
2017-18	GEOG	59 %	75 %

Age Range



Gender

Ethnicity



Age Range

Age Range	Ttl Graded	Completions	Completion Rate
15 or younger	1	1	100 %
16-18	25	14	56 %
19-24	291	155	53 %
25-29	48	35	73 %
30-34	16	15	94 %
35-54	21	14	67 %
55-64	3	3	100 %

Gender

Gender	Ttl Graded	Completions	Completion Rate
Unknown	17	11	65 %
Female	183	111	61 %
Male	205	115	56 %

Ethnicity

Ethnicity	Ttl Graded	Completions	Completion Rate
Asian	83	44	53 %
Black / African American	46	22	48 %
Hispanic / Latino	115	65	57 %
Pacific Islander	1	1	100 %
Two or More	31	20	65 %
Unknown / NR	10	9	90 %
White	119	76	64 %

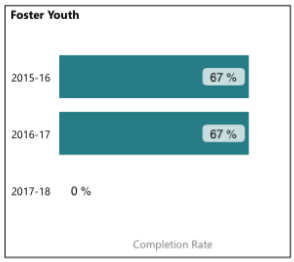
College: Berkeley City College | Semester: All | Subject: GEOG | Catalog No.: All | Academic Year: All

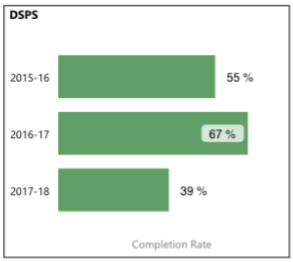
Completion & Retention Rates by College

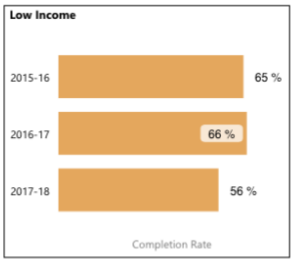
Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %
2016-17	Berkeley City College	66 %	80 %
2015-16	Berkeley City College	65 %	80 %

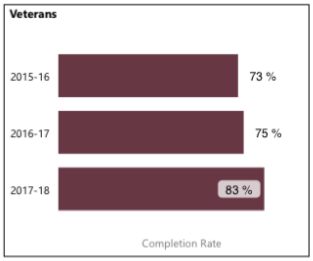
Completion & Retention Rates by Subject

Academic Year	Subject	Completion Rate	Retention Rate
2017-18	GEOG	59 %	75 %
2016-17	GEOG	67 %	80 %
2015-16	GEOG	69 %	85 %









Foster Youth

Academic Year	No. of Students	Completion Rate
2017-18	2	0 %
2016-17	2	67 %
2015-16	3	67 %

DSPS

Academic Year	No. of Students	Completion Rate
2017-18	16	39 %
2016-17	23	67 %
2015-16	23	55 %

Low Income

Academic Year	No. of Students	Completion Rate
2017-18	200	56 %
2016-17	253	66 %
2015-16	257	65 %

Veterans

Academic Year	No. of Students	Completion Rate
2017-18	5	83 %
2016-17	8	75 %
2015-16	9	73 %

College: Berkeley City College | Semester: All | Subject: GEOG | Catalog No.: All | Academic Year: All

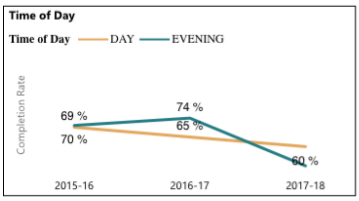
Completion & Retention Rates by College

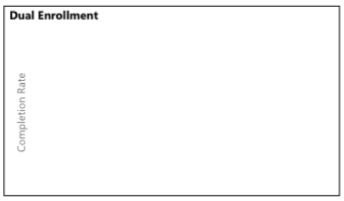
Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %
2016-17	Berkeley City College	66 %	80 %
2015-16	Berkeley City College	65 %	80 %

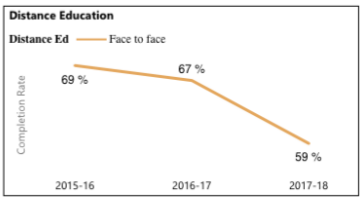
Completion & Retention Rates by Subject

Academic Year	Subject	Completion Rate	Retention Rate
2017-18	GEOG	59 %	75 %
2016-17	GEOG	67 %	80 %
2015-16	GEOG	69 %	85 %

Distance Ed: All | Time of Day: All | Dual Enrollment: All







Time of Day

Academic Year	TIME_OF_DAY	No. of Students	Completion Rate
2017-18	DAY	264	60 %
2017-18	EVENING	74	51 %
2016-17	DAY	289	65 %
2016-17	EVENING	118	74 %
2015-16	DAY	310	69 %
2015-16	EVENING	87	70 %

Dual Enrollment

Academic Year	No. of Students	Completion Rate

Time of Day

Academic Year	Distance Ed	No. of Students	Completion Rate
2017-18	Face to face	309	59 %
2016-17	Face to face	362	67 %
2015-16	Face to face	366	69 %

For the purpose of program review, all distance ed courses that are 1-99% online are labeled as Hybrid. Courses that begin after 4pm are labeld as evening. Dual enrollment courses are identifed by a facility type of "high school".

College	Semester	Subject	Catalog No.	Academic Year
Berkeley City College	All	GEOL	All	2017-18

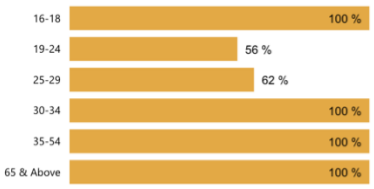
Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %

Completion & Retention Rates by Subject

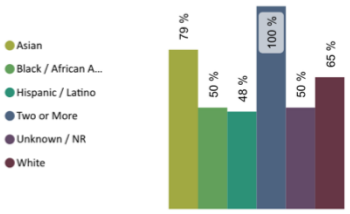
Academic Year	Subject	Completion Rate	Retention Rate
2017-18	GEOL	64 %	77 %

Age Range



Gender

Ethnicity



Age Range

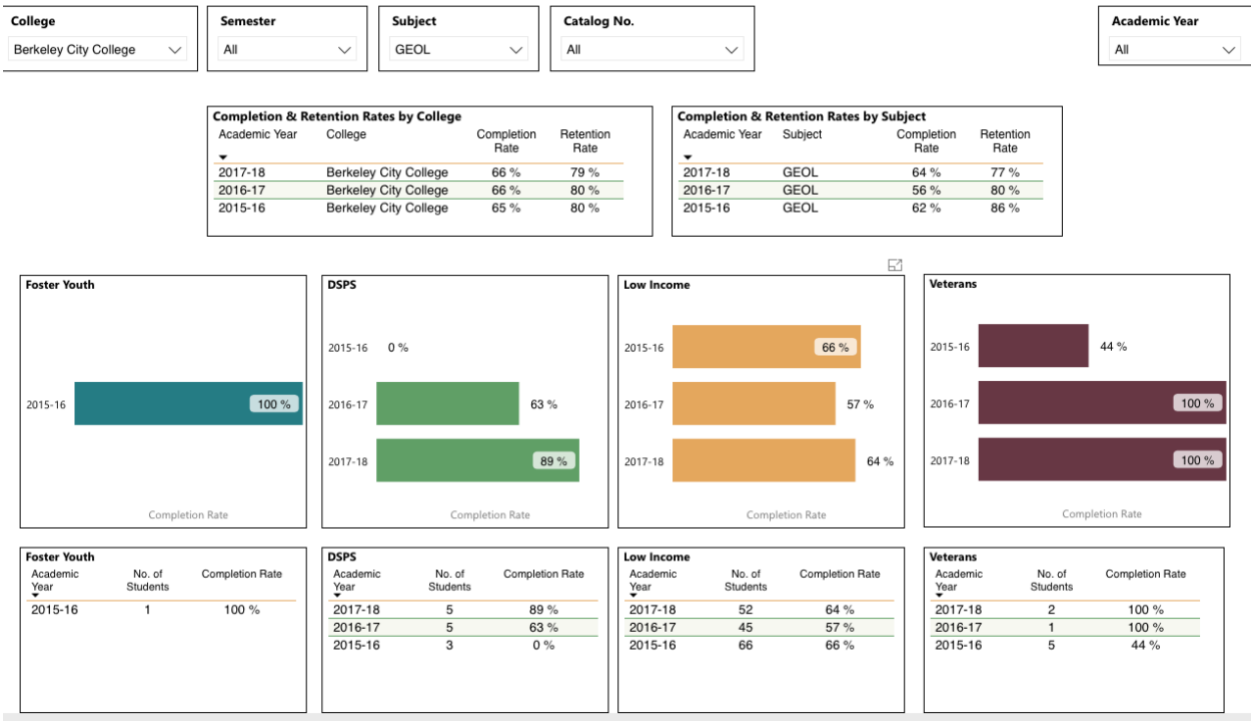
Age Range	Ttl Graded	Completions	Completion Rate
16-18	5	5	100 %
19-24	75	42	56 %
25-29	26	16	62 %
30-34	3	3	100 %
35-54	9	9	100 %
65 & Above	2	2	100 %

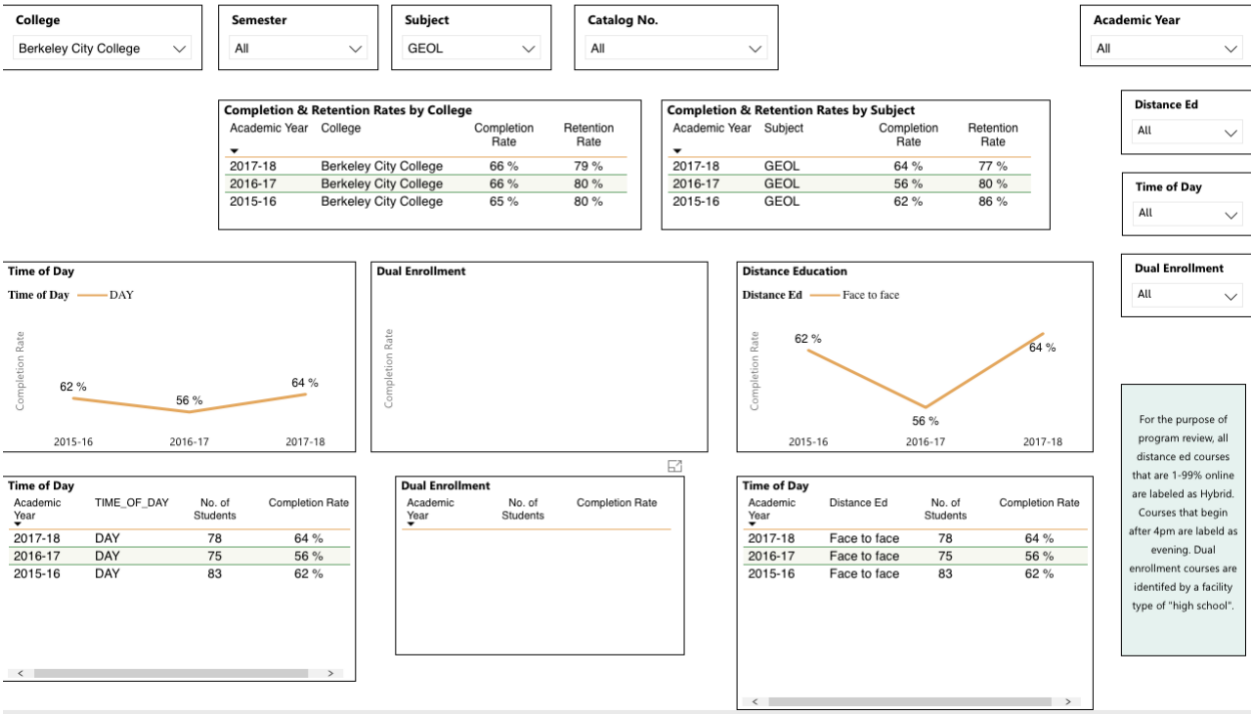
Gender

Gender	Ttl Graded	Completions	Completion Rate
Unknown	6	6	100 %
Female	66	42	64 %
Male	48	29	60 %

Ethnicity

Ethnicity	Ttl Graded	Completions	Completion Rate
Asian	28	22	79 %
Black / African American	16	8	50 %
Hispanic / Latino	25	12	48 %
Two or More	7	7	100 %
Unknown / NR	4	2	50 %
White	40	26	65 %


College
Berkeley City College
Semester
All
Subject
GEOL
Catalog No.
All
Academic Year
All
Completion & Retention Rates by College
Academic Year College Completion Rate Retention Rate
2017-18 Berkeley City College 66 % 79 %
2016-17 Berkeley City College 66 % 80 %
2015-16 Berkeley City College 65 % 80 %
Completion & Retention Rates by Subject
Academic Year Subject Completion Rate Retention Rate
2017-18 GEOL 64 % 77 %
2016-17 GEOL 56 % 80 %
2015-16 GEOL 62 % 86 %
Foster Youth
2015-16 100 %
Completion Rate
DSPS
2015-16 0 %
2016-17 63 %
2017-18 89 %
Completion Rate
Low Income
2015-16 66 %
2016-17 57 %
2017-18 64 %
Completion Rate
Veterans
2015-16 44 %
2016-17 100 %
2017-18 100 %
Completion Rate
Foster Youth
Academic Year No. of Students Completion Rate
2015-16 1 100 %
DSPS
Academic Year No. of Students Completion Rate
2017-18 5 89 %
2016-17 5 63 %
2015-16 3 0 %
Low Income
Academic Year No. of Students Completion Rate
2017-18 52 64 %
2016-17 45 57 %
2015-16 66 66 %
Veterans
Academic Year No. of Students Completion Rate
2017-18 2 100 %
2016-17 1 100 %
2015-16 5 44 %


College
Berkeley City College
Semester
All
Subject
GEOL
Catalog No.
All
Academic Year
All
Completion & Retention Rates by College
Academic Year College Completion Rate Retention Rate
2017-18 Berkeley City College 66 % 79 %
2016-17 Berkeley City College 66 % 80 %
2015-16 Berkeley City College 65 % 80 %
Completion & Retention Rates by Subject
Academic Year Subject Completion Rate Retention Rate
2017-18 GEOL 64 % 77 %
2016-17 GEOL 56 % 80 %
2015-16 GEOL 62 % 86 %
Distance Ed
All
Time of Day
All
Dual Enrollment
All
Time of Day
Time of Day DAY
Completion Rate
62 %
56 %
64 %
2015-16
2016-17
2017-18
Dual Enrollment
Completion Rate
Distance Education
Distance Ed Face to face
Completion Rate
62 %
56 %
64 %
2015-16
2016-17
2017-18
Time of Day
Academic Year TIME_OF_DAY No. of Students Completion Rate
2017-18 DAY 78 64 %
2016-17 DAY 75 56 %
2015-16 DAY 83 62 %
Dual Enrollment
Academic Year No. of Students Completion Rate
Time of Day
Academic Year Distance Ed No. of Students Completion Rate
2017-18 Face to face 78 64 %
2016-17 Face to face 75 56 %
2015-16 Face to face 83 62 %
For the purpose of program review, all distance ed courses that are 1-99% online are labeled as Hybrid. Courses that begin after 4pm are labeld as evening. Dual enrollment courses are identifed by a facility type of "high school".

College	Semester	Subject	Catalog No.	Academic Year
Berkeley City College	All	PHYS	All	2017-18

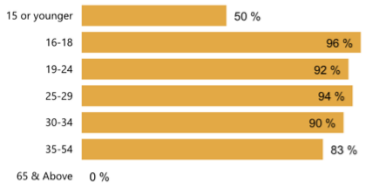
Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %

Completion & Retention Rates by Subject

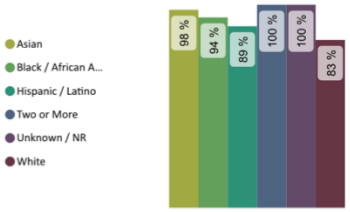
Academic Year	Subject	Completion Rate	Retention Rate
2017-18	PHYS	92 %	94 %

Age Range



Gender

Ethnicity



Age Range

Age Range	Ttl Graded	Completions	Completion Rate
15 or younger	2	1	50 %
16-18	28	27	96 %
19-24	204	188	92 %
25-29	47	44	94 %
30-34	21	19	90 %
35-54	6	5	83 %
65 & Above	1	0	0 %

Gender

Gender	Ttl Graded	Completions	Completion Rate
Male	169	156	92 %
Female	140	128	91 %

Ethnicity

Ethnicity	Ttl Graded	Completions	Completion Rate
Asian	120	117	98 %
Black / African American	32	30	94 %
Hispanic / Latino	66	59	89 %
Two or More	13	13	100 %
Unknown / NR	3	3	100 %
White	75	62	83 %

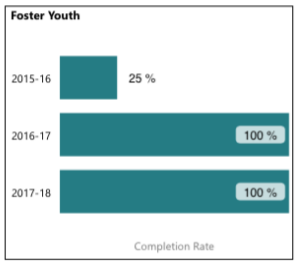
College: Berkeley City College | Semester: All | Subject: PHYS | Catalog No.: All | Academic Year: All

Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %
2016-17	Berkeley City College	66 %	80 %
2015-16	Berkeley City College	65 %	80 %

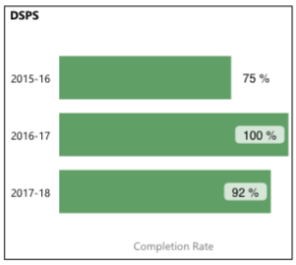
Completion & Retention Rates by Subject

Academic Year	Subject	Completion Rate	Retention Rate
2017-18	PHYS	92 %	94 %
2016-17	PHYS	87 %	91 %
2015-16	PHYS	84 %	89 %



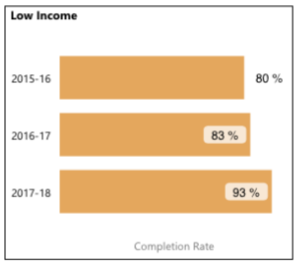
Foster Youth

Academic Year	No. of Students	Completion Rate
2017-18	1	100 %
2016-17	3	100 %
2015-16	4	25 %



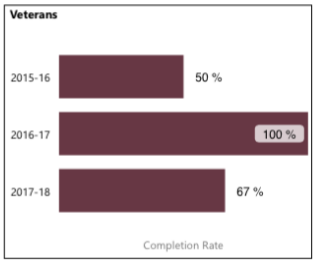
DSPS

Academic Year	No. of Students	Completion Rate
2017-18	11	92 %
2016-17	9	100 %
2015-16	4	75 %



Low Income

Academic Year	No. of Students	Completion Rate
2017-18	145	93 %
2016-17	131	83 %
2015-16	134	80 %



Veterans

Academic Year	No. of Students	Completion Rate
2017-18	2	67 %
2016-17	1	100 %
2015-16	5	50 %

College: Berkeley City College | Semester: All | Subject: PHYS | Catalog No.: All | Academic Year: All

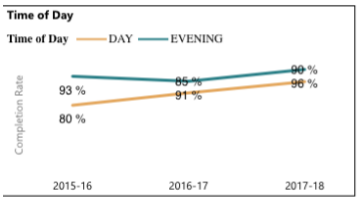
Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2017-18	Berkeley City College	66 %	79 %
2016-17	Berkeley City College	66 %	80 %
2015-16	Berkeley City College	65 %	80 %

Completion & Retention Rates by Subject

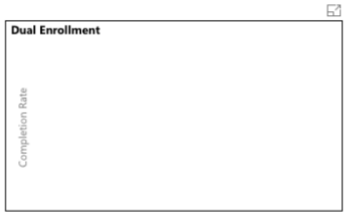
Academic Year	Subject	Completion Rate	Retention Rate
2017-18	PHYS	92 %	94 %
2016-17	PHYS	87 %	91 %
2015-16	PHYS	84 %	89 %

Distance Ed: All | Time of Day: All | Dual Enrollment: All



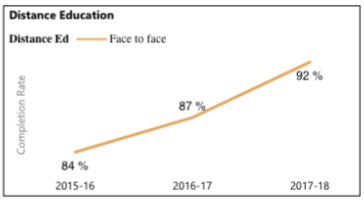
Time of Day

Academic Year	TIME_OF_DAY	No. of Students	Completion Rate
2017-18	DAY	188	90 %
2017-18	EVENING	54	96 %
2016-17	DAY	170	85 %
2016-17	EVENING	51	91 %
2015-16	DAY	145	80 %
2015-16	EVENING	51	93 %



Dual Enrollment

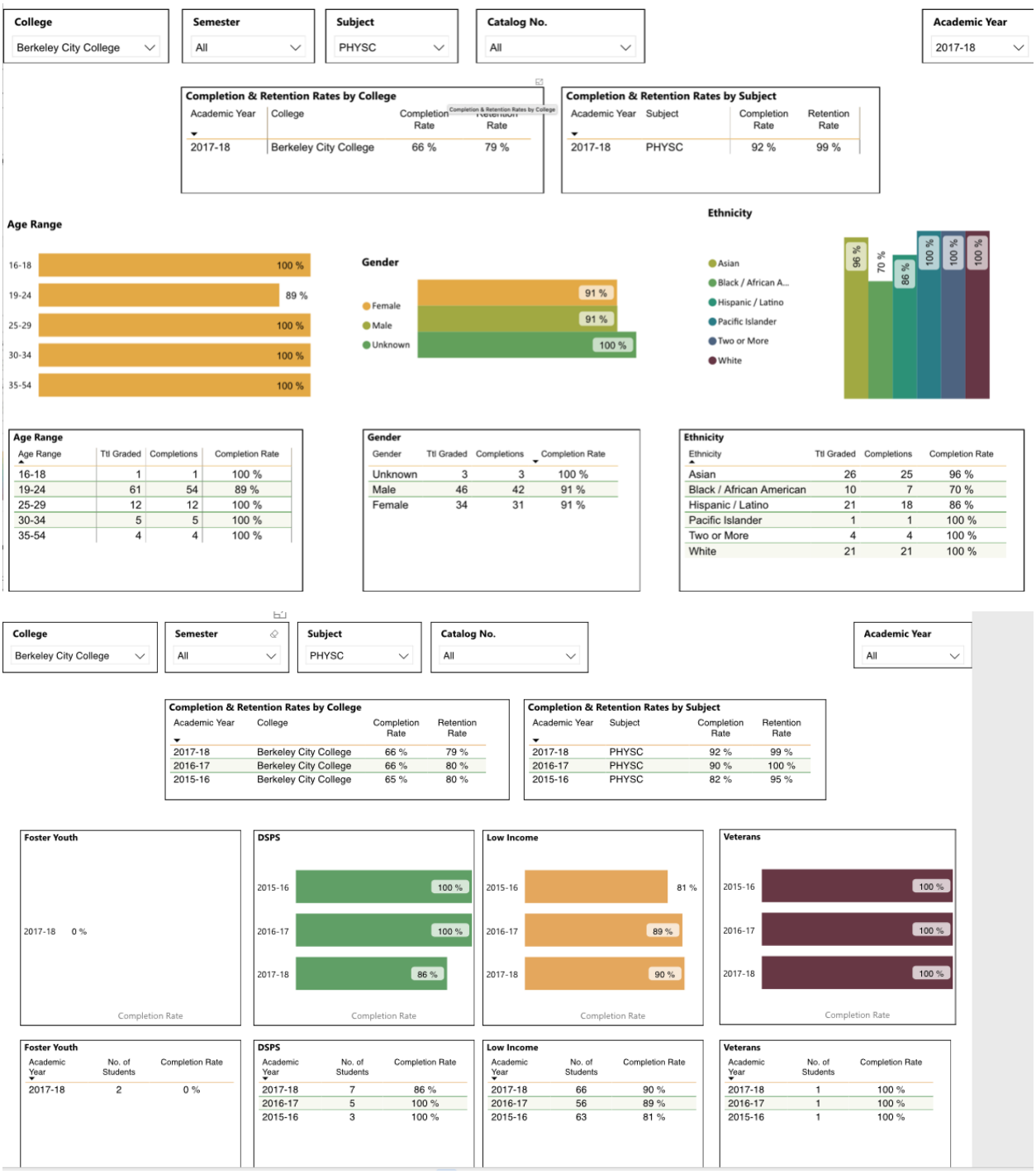
Academic Year	No. of Students	Completion Rate

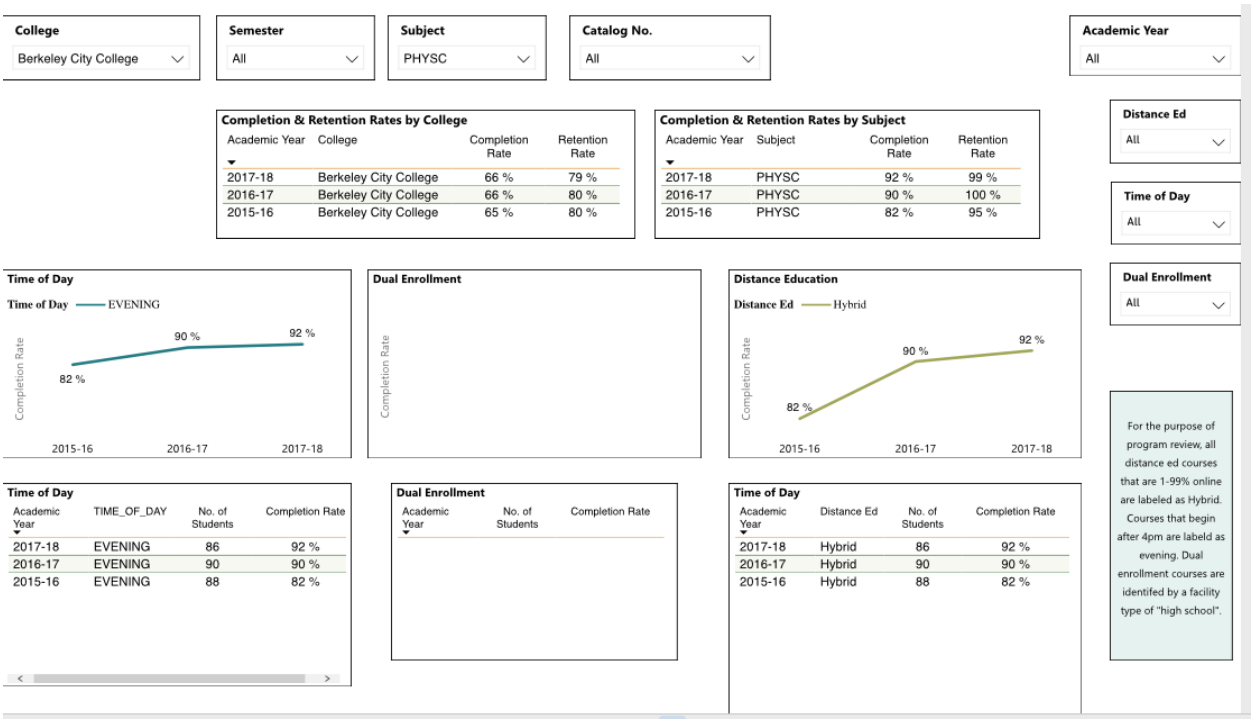


Time of Day

Academic Year	Distance Ed	No. of Students	Completion Rate
2017-18	Face to face	242	92 %
2016-17	Face to face	219	87 %
2015-16	Face to face	196	84 %

For the purpose of program review, all distance ed courses that are 1-99% online are labeled as Hybrid. Courses that begin after 4pm are labeld as evening. Dual enrollment courses are identifed by a facility type of "high school".


College
Berkeley City College
Semester
All
Subject
PHYSC
Catalog No.
All
Academic Year
2017-18
Completion & Retention Rates by College
Academic Year College Completion Rate Retention Rate
2017-18 Berkeley City College 66 % 79 %
Completion & Retention Rates by Subject
Academic Year Subject Completion Rate Retention Rate
2017-18 PHYSC 92 % 99 %
Age Range
16-18 100 %
19-24 89 %
25-29 100 %
30-34 100 %
35-54 100 %
Gender
Female 91 %
Male 91 %
Unknown 100 %
Ethnicity
Asian
Black / African A...
Hispanic / Latino
Pacific Islander
Two or More
White
96 %
70 %
86 %
100 %
100 %
100 %
Age Range
Age Range Ttl Graded Completions Completion Rate
16-18 1 1 100 %
19-24 61 54 89 %
25-29 12 12 100 %
30-34 5 5 100 %
35-54 4 4 100 %
Gender
Gender Ttl Graded Completions Completion Rate
Unknown 3 3 100 %
Male 46 42 91 %
Female 34 31 91 %
Ethnicity
Ethnicity Ttl Graded Completions Completion Rate
Asian 26 25 96 %
Black / African American 10 7 70 %
Hispanic / Latino 21 18 86 %
Pacific Islander 1 1 100 %
Two or More 4 4 100 %
White 21 21 100 %
College
Berkeley City College
Semester
All
Subject
PHYSC
Catalog No.
All
Academic Year
All
Completion & Retention Rates by College
Academic Year College Completion Rate Retention Rate
2017-18 Berkeley City College 66 % 79 %
2016-17 Berkeley City College 66 % 80 %
2015-16 Berkeley City College 65 % 80 %
Completion & Retention Rates by Subject
Academic Year Subject Completion Rate Retention Rate
2017-18 PHYSC 92 % 99 %
2016-17 PHYSC 90 % 100 %
2015-16 PHYSC 82 % 95 %
Foster Youth
2017-18 0 %
Completion Rate
DSPS
2015-16 100 %
2016-17 100 %
2017-18 86 %
Completion Rate
Low Income
2015-16 81 %
2016-17 89 %
2017-18 90 %
Completion Rate
Veterans
2015-16 100 %
2016-17 100 %
2017-18 100 %
Completion Rate
Foster Youth
Academic Year No. of Students Completion Rate
2017-18 2 0 %
DSPS
Academic Year No. of Students Completion Rate
2017-18 7 86 %
2016-17 5 100 %
2015-16 3 100 %
Low Income
Academic Year No. of Students Completion Rate
2017-18 66 90 %
2016-17 56 89 %
2015-16 63 81 %
Veterans
Academic Year No. of Students Completion Rate
2017-18 1 100 %
2016-17 1 100 %
2015-16 1 100 %



Consider your course completion rates over the past three years (% of student who earned a grade of "C" or better).

Use the filters on the top and right of the graphs to disaggregate your program or discipline data. When disaggregated, are there any groups whose course completion rate falls more than 3% points below the discipline average? If so, indicate yes and explain what your department is doing to address the disproportionate impact for the group.

Age

ASTR: Age range 30-34 Completion rate is 77%. This is well below 86.33%
BIOL: Age range 15 or younger is 50% and 55-64 is 25%. This is well below 69.84%
CHEM: Age range 19-24 is 63%; 35-54 is 54%; 55-64 is 50%
GEOG: Age range 16-18 and 19-24 completion rate is 56 and 53% respectively.
GEOL: Age range 19-24 Completion rate is 56%. This is below 62.08%
PHYS: Age range 15 or younger is 50% and 45-54 is 83%. This is below 89.24%
PHYSC: None

Ethnicity

ASTR: "Two or more" Completion rate is 83%
BIOL: Black/African American Completion rate is 49%; Hispanic/Latino rate is 64% Pacific Islander rate is 67%
CHEM: American Indian is 60%; Black/African American is 55%; Black/African American rate is 56% Pacific Islander rate is 0%; Two or more and Unknown are at 50 and 47% respectively.
GEOG: Asian, and Black/African American completion rate is 53 and 48% respectively.
GEOL: Black/African American, Hispanic/Latino completion rate is 50 and 48% respectively.
PHYS: White completion rate is 83%

PHYSC: Black/African American, and Hispanic/Latino completion rate is 70 and 86% respectively.
In most disciplines the underrepresented minorities have a lower completion rate. In Fall 2019 we will start a pilot program with UCB CSUEB Biology majors that addresses equity gaps.

Gender

ASTR: None
BIOL: None
CHEM: All genders are at 66%
GEOG: Male are at 56% slightly under 57.23%
GEOL: Males are slightly below 62.08%
PHYS: None
PHYSC: None

Foster Youth Status

ASTR: 50% (2 students)
BIOL: 54% (14 students)
CHEM: 77.7% (10 students)
GEOG: 44.7% (7 students)
GEOL: 100% (1 students)
PHYS: 75% (8 students)
PHYSC: 0% (2 students)

Disability Status

ASTR: 61% (12 students)
BIOL: 69.6% (123 students)
CHEM: 53.3% (78 students)
GEOG: 53.7% (62 students)
GEOL: 50.7% (13 students)
PHYS: 89% (24 students)
PHYSC: 95.3% (15 students)

Low Income Status

ASTR: 86% (302 students)
BIOL: 72.7% (1850 students)
CHEM: 60% (1222 students)
GEOG: 62.3% (710 students)
GEOL: 62.3% (163 students)
PHYS: 85.3% (410 students)
PHYSC: 86.7% (185 students)

Veteran Status

ASTR: 100% (5 students)
BIOL: 78.3% (36 students)
CHEM: 59.7% (33 students)
GEOG: 77% (22 students)
GEOL: 81.3% (8 students)
PHYS: 85% (8 students)

PHYSC: 100% (3 students)

Consider your course completion rates over the past three years by mode of instruction. What do you observe?

Face-to-Face

BCC: 65.6%
ASTR: 87.7%
BIOL: 75%
CHEM: 64%
GEOG: 65%
GEOL: 60.7%
PHYS: 87.7%

Hybrid

PHYSC: 88%

100% Online

Does not exist

Dual Enrollment

Does not exist

Day time

ASTR: No day classes
BIOL: 73%
CHEM: 62.3%
GEOG: 65%
GEOL: 65% (No evening classes)
PHYS: 85%
PHYSC: No day classes

Evening

ASTR: 87.7% (All evening classes)
BIOL: 78.3%
CHEM: 73%
GEOG: 65%
GEOL: No evening classes

PHYS: 93%
PHYSC: 88% (All evening classes)

How do the course completion rates for your program or discipline compare to your college's Institution-Set Standard for course completion?

BCC completion rate over the last 3 years is 65.6%
ASTR completion rate is 87.7%
BIOL: completion rate is 75%
CHEM: completion rate is 64%
GEOG: completion rate is 65%
GEOL: completion rate is 60.7%
PHYS: completion rate is 87.7%
PHYSC: completion rate is 88%

How do the department's Hybrid course completion rates compare to the college course completion standard?

The overall department completion rate over the last 3 years is 84.8% well above the completion rate of the college (65.6%).

Are there differences in course completion rates between face to face and Distance Education/hybrid courses? If so, how does the discipline, department or program deal with this situation? How do you assess the overall effectiveness of Distance Education/hybrid course?

NA

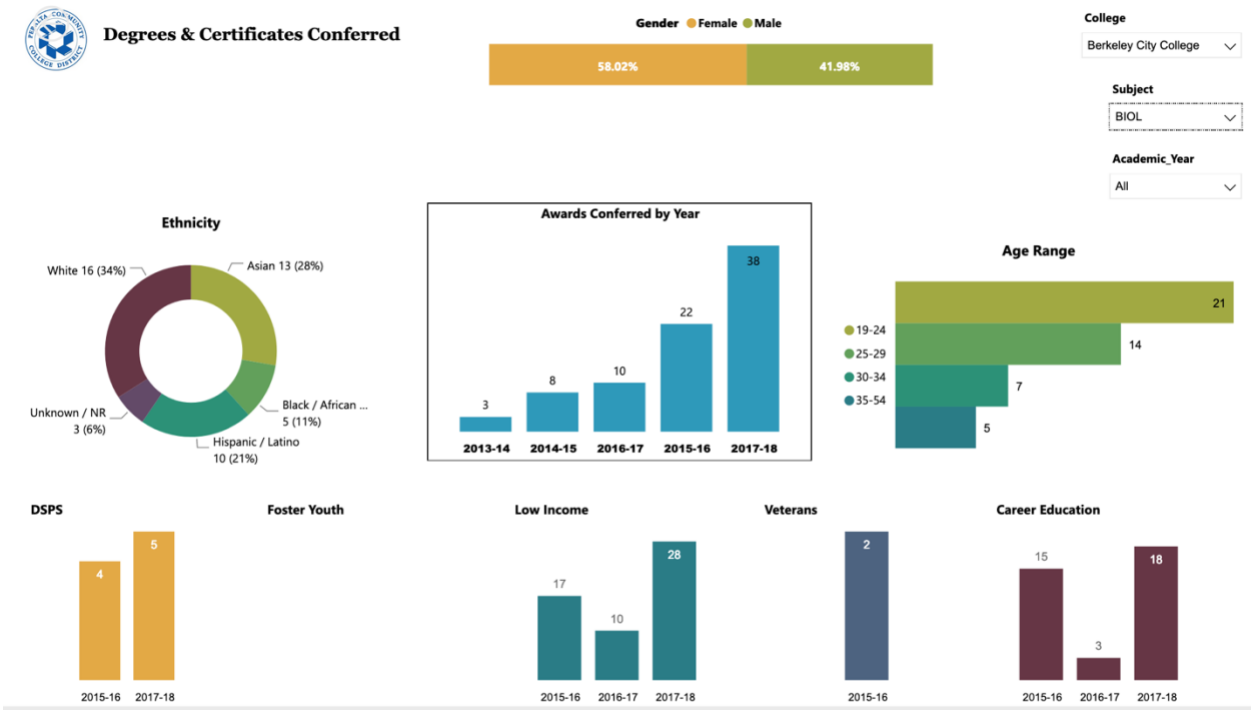
Describe the course retention rates over the last three years. If your college has an Institution-Set Standard for course retention, how does your program or discipline course retention rates compare to the standard?

BCC Retention rate over the last 3 years is 79.6%
ASTR completion rate is 93.7%
BIOL: completion rate is 84%
CHEM: completion rate is 74%
GEOG: completion rate is 80%
GEOL: completion rate is 81%
PHYS: completion rate is 91.3%
PHYSC: completion rate is 98%

What has the discipline, department, or program done to improve course completion and retention rates?

Our retention rate as a department has an 86% retention rate that is well above the retention rate of BCC (79.6%)

Degrees & Certificates Conferred



Degrees & Certificates Power BI dashboard

What has the discipline, department, or program done to improve the number of degrees and certificates awarded? Include the number of degrees and certificates awarded by year, for the past three years.

In the Sciences we have one BIO-AS-T degree. In Biotech we have an AS, CA, CP and a Certificate in Stem Cell Biology. In Biology overall the degrees and certificates grew from 3 to 38 over 5 years
In Chemistry we have The Analytical Chemistry AS degree Over the last 2 years the degrees awarded grew from 1 to 10.

Over the next 3 years, will you be focusing on increasing the number of degrees and certificates awarded?

Yes. We are planning to increase the number of AS-T degrees in Geography and Engineering.

What is planned for the next 3 years to increase the number of certificates and degrees awarded?

The college should invest in a program that tracks every student and should award any student that passes the courses of the different programs. Right now, the student needs to petition for the degrees. This is today an old fashion method.

Engagement

Discuss how faculty and staff have engaged in institutional efforts such as committees, presentations, and departmental activities. Please list the committees that full-time faculty participate in.

Pieter de Haan serves in the PIE committee and is Co-chair of the department.
Barbara Des Rochers serves in the curriculum committee and roundtable.
Siraj Omar serves on the tech committee is Co-chair of the department.
Sam Gillett Serves as VP at the Academic Senate and serves on the facilities committee
Francisco Monsalve Santa serves as the Academic Senate Science representative.

Discuss how faculty and staff have engaged in community activities, partnerships and/or collaborations.

We are involved in outreach to local High Schools and Middle Schools and we are connected with faculty at UC Berkeley and Cal State University East Bay with the following grant:
Faculty and staff representing UC Berkeley (UCB), California State University East Bay (CSUEB), and Berkeley City College (BCC) propose to address equity gaps while improving our campuses' collective understanding of learning science.

Discuss how adjunct faculty members are included in departmental training, discussions, and decision-making.

All Faculty in the Science department are involved in Hazardous Waste and Fire training.
All Faculty are involved in assessment of their courses.

Prioritized Resource Requests Summary

In the boxes below, please add resource requests for your program. If there are no resource requested, leave the boxes blank.

Resource Category	Description/Justification	Estimated Annual Salary Costs	Estimated Annual Benefits Costs	Total Estimated Cost
Personnel: Classified Staff	1 full-time classified bio technician Dish washer (part-time) 500hrs @ $15.25	$70,630/yr $7,630/yr		$78,260/yr

Personnel: Student Worker	Biology 60 hrs/wk x 35 wks @ $15/hr Chemistry 36 hrs/wk x 35 wks @ $15/hr Geography 9 hrs/wk x 35 wks @ $15/hr Physics 9 hrs/wk x 35 wks @ $15/hr	 $31,500/yr $18,900/yr $4,725/yr $4,725/yr		$59,850/yr
Personnel: Part Time Faculty				
Personnel: Full Time Faculty	**Release Time for the Director of the Biotechnology program should be at least 75%!** Geography Engineering			

Resource Category	Description/Justification	Total Estimated Cost
Professional Development: Department wide PD needed	For the sciences this means sabbaticals to work in research areas that contribute to updating knowledge and understanding of latest technologies – which translates into improved and updated information passed on to students and student success in the workplace.	
Professional Development: Personal/Individual PD needed		
Supplies: Software	Courslets.org	Free
Supplies: Books, Magazines, and/or Periodicals	Science Nature	$360
Supplies: Instructional Supplies	Geography/Geology: Kits and demos	$1,000
Supplies: Non-Instructional Supplies		
Supplies: Library Collections		
Technology & Equipment: New	Sonicator 3D printer for tissue engineering 3 Dissecting Microscopes	$1,500 $1,500 $7,500
Technology & Equipment: Replacement	Desktop computers in labs 518, 514, and 513 need to be replaced with laptops because the desktop computers block part of the white board to the students. *MAINTENANCE CONTRACTS:*	$5,000

	Fume hoods, autoclave, microscopes, pipetman	$15,000
Facilities: Classrooms	Science is in need of more dedicated classrooms e.g. Geography needs certain supplements in classrooms. They are now wheeled around.	
Facilities: Offices	Science is in need of more office space for the adjunct faculty. Supplies: Printer cartridges HP B/W + color	$400
Facilities: Labs	More Labs are needed for Biology, Biotechnology, Chemistry, Geography, Geology, and in the future for Engineering.	
Facilities: Other	Study space is needed for students where they can access scientific publications and where tutor session can be held. We envision a Science Learning Center.	
Library: Library materials		
Library: Library collections		
Resource Category	**Description/Justification**	**Total Estimated Cost**
Marketing	BCC needs a full time Marketing Specialist if any of the specialty programs are to survive. For example, in Northern California there are many biotechnology programs a student can select to attend – there are several in the Peralta District alone (PCCD is the only multi-college district in the State of California where this exists). The faculty cannot carry the burden of developing the programs, coursework, maintaining their disciplines, upgrading experiments, counseling students, assisting students locate jobs AND advertising	