PROGRAM REVIEW Fall 2019

Program: Biology
Division: STEM
Date: 07/27/2019
Writer(s): Ann Hight, Segal Boaz, Darcy Ernst, Jill Carbone, Michal Shuldman, Barbara Zingg, Dana Nakase
SLO/SAO Point-Person: Ann Hight

Audience: Deans, Vice Presidents of Student Services and Academic Services, All Planning and Allocation Committees. This document will be available to the public.

Uses: This Program Review will be used to inform the campus and community about your program. It will also be used in the processes of creating Division Summaries, determining College Planning Priorities and allocating resources. A final use is to document fulfillment of accreditation requirements.

Please note: Program Review is NOT in itself a vehicle for making requests. All requests should be made through appropriate processes (e.g. Instructional Equipment Request Process) or directed to your dean or supervisor.

Time Frame: This Program Review should reflect on program status during the 2019-20 academic year. It should describe plans starting now and continuing through 2020-21. This document also provides the opportunity to describe more long-term plans (optional).

Sections: The first section of this Program Review focuses on general program reflection and planning. The second section has specific questions to be filled out by all programs this year. The third section is a review of curriculum. The fourth section is a review of data for CTE programs. Only programs with curriculum need to complete Section 3, and only CTE programs need to complete Section 4.

Topics: The Program Review Glossary defines key terms. Writers should review this glossary before writing: https://bit.ly/2LqPxOW

Help: Contact Karin Spirn: kspirn@laspositascollege.edu

Instructions:

1) Please respond to each question as completely as possible.
2) If the requested information does not apply to your program, write “Not Applicable.”
3) Optional: Meet with your dean to review this document before October 21.
4) Send an electronic copy of this form to Karin Spirn and your Dean by October 21.

Links:

Program Review Home Page: https://bit.ly/2Y0j7fW
Fall 2018 Program Review Updates : https://bit.ly/2GIWzsM
Frequently Asked Questions: https://bit.ly/2DHLnfj

No Significant Changes Option

☐

Contact person:

_____

By marking an X in the box above, the writers of this Program Review indicate that there have been no significant changes to their program or their program's needs in the past year. In this case, programs may opt not to complete Program Review Section One: Program Snapshot. **Programs must still complete all other sections (as applicable).**

Please note: Choosing this option means that your program's information may not be included in the yearly Division Summary.

The No Significant Changes Option may only be used for two years in a row; after two years, programs must complete a full Program Review including the Program Snapshot. Our program's most recent Program Snapshot was submitted in the following semester: Fall 20_____.

Section One: Program Snapshot

A. Program Description: Briefly describe your program, including any information or special features of your program that will provide helpful context for readers of this Program Review.

Examples of program descriptions can be found here: https://bit.ly/2VwjNvZ

The Biology Program provides a diverse array of educational opportunities to meet the needs of our community. Academic pathways are available for students seeking transfer to four-year institutions, an AS degree in Biology for UC Transfer, an AA degree in Biology or AA in Biology: Allied Health, AS-T Biology, pre-nursing and pre-dental hygiene program preparation, and pre-professional goals (e.g., medicine, radiology, optometry, paramedic, veterinary). Additionally, the program offers courses required for various AA/AS degrees and certificates (e.g., Horticulture, Kinesiology, Psychology, Viticulture/Enology), and to meet general education requirements

B. IR Data Review: Describe any significant trends in your program's data from the office of Institutional Research and Planning. (Note: Not all Programs have IR data packets available; if your program does not have a data packet, you may note that in the response box). You may also discuss any other data generated for your program by the Office of Institutional Research and Planning.

IR Data packets are available here: https://bit.ly/2IYaFu7

Course Success Rates Dashboard can be found at the bottom of this page: https://bit.ly/2Y9vGpl

(Data for AY18-19 will be available at the links above by the beginning of Fall 2019).

The biology department is continually growing, with an increased student headcount (increased 3% from 2018, 14.5% from 2015) and course enrollment (increased 4% from 2018, 18.5% from 2015). We are continuing to grow despite having a decreased budget and limits on facilities and staff (faculty and lab technicians).

There is increased success in our courses (Fall up 3% to 69% from 2018, Spring up 7% to 75% course success from 2018) and a decreased withdrawal rate (F: 16%, Sp 12%)

The increase we see in Latinx students (33%) reflects total LPC data, however we see an equity gap with lower success rates and higher withdrawal rates in our Latinx students compared to white and Asian students. The success rate of Latinx students was 66% (compared to 75% for white students and 77% for Asian students) and the withdrawal rate of Latinx students was 16% (compared to white students at 14% and Asian students at 11%).

There was an increase in % FTEF from full-time faculty due to a new full-time faculty hire (Fall: 47% SP 53%), and we have high fill rates for our courses (Fall: 98%, Spring: 95%)

Our success rate in biology is 73.1%, above the set standard of 64%.

Mark an X before each area that is addressed in your response.				Definitions of terms: https://bit.ly/2LqPxOW			
	Community Partnerships/Outreach		Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students
	Course Offerings		Financial/Budgetary		LPC Collaborations		SLO/SAO Process

	Curriculum Committee Items		Human Resources		Pedagogy		Student Equity
	External Factors		Learning Support		Professional Development		Technology Use

C. Other Data Review (Optional): Describe any significant findings based on other data regarding your program. Possible sources of relevant information might include, but are not limited to, the following:

- **Data generated by your program**
- **CEMC Data**
- **Labor Market Data**

Labor market data shows an increased need for biological science technicians, and jobs at this level remain unfilled in our area. To support training of biological science technicians in our area, we submitted a grant to the National Science Foundation this year to increase training opportunities in our biology courses.

Mark an X before each area that is addressed in your response.				Definitions of terms: https://bit.ly/2LqPxOW			
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D. Accomplishments: What plans from the 2018 Program Review or any previous Program Reviews/Updates have been achieved and how? You may also describe achievements that were not planned in earlier Program Reviews. Please highlight any positive impacts to students.

1. Through the Curriculum Committee, we updated the course outlines for Bio 1B (Zoology for biology majors), Bio 7B (Human Physiology), and Bio 20, Bio 30, Bio 40, Bio 50, and Bio 60 (all general GE courses that may serve as career exploration).

2. We developed a Biology UC Pathway Certificate of Achievement which more accurately follows the degree requirements for students transferring to a UC. The certificate was written in alignment with initiatives such as SCFF and Guided Pathways.

3. Part time and full time faculty who taught Bio 30 met to discuss the development of a new introductory lab which would introduce students to the metric system, scientific method, graphing, and other important foundational concepts and skills. We applied for an LPC Foundation grant to compensate part time faculty members who contribute to developing the new lab.

4. The Biotech Entrepreneurship Program was awarded an LPC Foundation Grant.

5. During the Summer of 2019, Biotech Bootcamp was offered for a third year.

6. Bio 55: Orientation to Healthcare was offered in the spring of 2019, providing in-depth exploration of the varied careers available in health care.

7. Two full time faculty members, Darcy Ernst and Michal Shuldman, participated in the NSF Mentor Connect grant writing workshops. They subsequently wrote a grant proposal for the NSF Advanced Technical Education program. The proposal will increase biotechnology skills in the curriculum while also addressing equity gaps.

8. Full time and part time faculty ran smart shops on: the metric system, navigating the bio major, dissecting a scientific paper, and using microscopes.

9. Construction on a pond outside of the 1850 building began, supported by a grant from the LPC Foundation. The pond will become an outdoor laboratory for students in Bio 70: Field Biology, which will be offered in Spring 2020.

10. Despite lower enrollment across campus, the biology department has continued to add and fill new sections.

11. A grant from the LPC Foundation allowed Bio 1A: Botany students to conduct independent research projects.

Mark an X before each area that is addressed in your response.	Definitions of terms: https://bit.ly/2LqPxOW

X	Community Partnerships/Outreach		Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students
X	Course Offerings	X	Financial/Budgetary	X	LPC Collaborations		SLO/SAO Process
X	Curriculum Committee Items		Human Resources	X	Pedagogy	X	Student Equity
	External Factors	X	Learning Support		Professional Development		Technology Use

G. Uncompleted Plans: What plans from your 2018 Program Review have not been achieved and why?

1. Planning for a new Science Building has been our primary goal. We are in the preliminary stages of the Facilities Master Plan.

2. We submitted a Faculty Position Request for a new faculty member in the Allied Health area last year, which was not approved. Despite recent full-time hires, the department's continued growth of sections has resulted in a low full-time to part-time faculty ratio. We did resubmit this year.

3. We plan to work with the lead lab technician and Dean to assess that our supply budget is able to fund the expenses of adding sections each semester.

4. BIO 50 is still under development to become our first laboratory course to be taught entirely online. Our intent is to make it OEI compliant. It takes a massive amount of time to accomplish this, but our hope is to have it ready to go either Summer or Fall semester 2020.

5. We plan to continue to research the possibility of the development of an Environmental Science class and degree.

6. We plan to research and develop an "on-boarding" program for newly hired part-time faculty.

7. We project the need to hire full-time faculty in Biotechnology to help develop a Biotechnology program and a new full-time faculty in the Biology majors area. This has not been requested yet because we have more urgent needs for new hires for current biology programs.

8. We expect to develop more certificates, perhaps in areas of wildlife technician, phlebotomist, and clinical lab scientist, which we cannot complete without an increase in full-time faculty.

9. We need to hire more lab technicians as we continue to add more sections and especially night classes to the schedule. Often, one person is covering 8 lab rooms, across two buildings. Labs end at 10:00 PM and the technician is supposed to leave at 10:30 PM. The technician is expected to take down evening labs and prep some morning labs. Last semester we needed to hire a replacement lab technician and were not able to hire a new position. We put in a new request this year for an additional evening staff member.

Mark an X before each area that is addressed in your response.				Definitions of terms: https://bit.ly/2LqPxOW			
	Community Partnerships/Outreach	**X**	Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students
X	Course Offerings	**X**	Financial/Budgetary		LPC Collaborations		SLO/SAO Process
	Curriculum Committee Items		Human Resources		Pedagogy	**X**	Student Equity
	External Factors		Learning Support		Professional Development	**X**	Technology Use

E. Challenges, Obstacles and Needs: Describe any significant challenges, obstacles or needs for your program. Please highlight any negative impacts for students.

LPC Planning Priorities:

1. As discussed previously, the largest obstacle that our program is facing is the urgent need for more facilities due to the growth of the program.

a. We continue to add classes to the schedule to meet students' needs, which results in back-to-back labs and lectures. This has led to increased challenges with scheduling and with the lab technicians' ability to prepare for the lab classes.

b. The Biology Learning Center (BLC) is heavily used by a variety of classes and is continually impacted. Adding more sections magnifies this impaction. The support that students gain from the use of the BLC is often related to student success in Anatomy and Cell and Molecular.

c. Due to an increase in sections, Honors and Independent Study Projects have increased student use of the Microbiology workroom. This impairs the ability of the Microbiology students to effectively use the space and complete their course objectives.

d. We do not have a permanent location to store the food used in many biology labs (Bio 1A, Bio 7B, Bio 1B, Bio 30, Bio 50). We have the use of room 1813 temporarily, but need long term space.

e. The Biology and Chemistry departments hold lab courses in two different buildings, and have both increased their offerings and therefore the workload of prep staff. This results in times when one of the buildings has low technician coverage, especially in the evenings and the summer.

f. We are adding more Anatomy course sections, which requires the use and storage of anatomy models, we are running out of places to securely store the models where they can be easily accessed for the courses.

Financial/Budgetary

2. The general budget for supplies doesn't match the growth of our course offerings or the industry-level technology used in our curriculum. Not only are we adding more sections, but the budget is planned to be decreased for our program significantly, by about $9,000 for next.

a. Many Biotechnology related activities require reagents that expire yearly and aren't included in the current supply budget. Many of our course-level and program-level SLOs reflect student's competency in lab skills and using this industry-level equipment.

b. There is currently no budget for fixing industry-level equipment when it falls into disrepair.

c. We still do not have a budget for Honors and Independent Study Projects, creating an inequity of opportunity.

d. We do not yet have institutionalized, reliable funding to accomplish goals each semester, and are required to constantly pursue stop-gap measures. Faculty time is spent seeking funding each semester to fulfill curriculum goals, when it should be put to other uses. Our department is currently exploring adding a Biotechnology course(s), degree or certificate to the program, however it is difficult to imagine this manifesting when we lack sufficient and sustainable funding for our current programs.

Mark an X before each area that is addressed in your response.				Definitions of terms: https://bit.ly/2LqPxOW			
	Community Partnerships/Outreach	x	Facilities, Supplies and Equipment, Software	x	LPC Planning Priorities	x	Services to Students
	Course Offerings	x	Financial/Budgetary		LPC Collaborations		SLO/SAO Process
	Curriculum Committee Items	x	Human Resources	x	Pedagogy	x	Student Equity
	External Factors		Learning Support		Professional Development		Technology Use

H. Short Term Planning: What are your most important plans (either new or continuing) for next year? Describe plans starting now and continuing through AY 20-21.

1) Planning for a new Science Building is our primary short and long term goal. In spring 2019 we documented our basic facility needs and how that correlates to square footage in the Facilities Master Plan.

2) This fall we resubmitted a Faculty Position Request for a new faculty member in the Allied Health area. Despite recent full-time hires, the department's continued growth of sections has resulted in a low full-time to part-time faculty ratio. We also submitted a Faculty Position Request for a new faculty member to serve the biology majors and a Faculty Position Request for a new faculty member in general biology.

3) We plan to work with the lead lab technician and Dean to assess that our supply budget is able to fund the expenses of adding sections each semester.

4) As mentioned above we are in the process of developing a BIO 50 online course.

5) As part of Guided Pathways we are continuing to examine our degree requirements, course scheduling, and potential completion barriers for students. This often requires extensive collaboration with faculty in other disciplines that offer courses required for biology degrees and certificates. This is a short and long term goal.

6) Our department would like to learn more about, and hopefully decrease, potential areas of

inequity for students in our programs. This will involve collaboration with adjunct faculty, the Student Equity committee, and the Office of Research, Planning and Institutional Effectiveness . This is both a short and long term goal.

Mark an X before each area that is addressed in your response.				Definitions of terms: https://bit.ly/2LqPxOW			
	Community Partnerships/Outreach	X	Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students
X	Course Offerings	X	Financial/Budgetary	X	LPC Collaborations		SLO/SAO Process
X	Curriculum Committee Items	X	Human Resources		Pedagogy	X	Student Equity
	External Factors		Learning Support	X	Professional Development		Technology Use

I. Long Term Planning (Optional): Please detail any long-term plans for the next 3-5 years. (Only if you have significant plans, such as implementation of a grant project, creation of long-term initiatives including those using restricted funds such as Equity or SSSP, construction and outfitting of a new building).

1) Planning the new Science Building is our primary short and long term goal.

2) We project the need to hire full-time faculty in Biotechnology to help develop a Biotechnology program and a new full-time faculty in the Biology majors area.

3) We expect to develop more certificates, perhaps in areas of wildlife technician, phlebotomist, and clinical lab scientist.

4) We resubmitted the Faculty Position Request for a new faculty member in the Allied Health area. We expect this will be granted in the next few years, but if not, it will take priority over hiring in Biotechnology, Biology majors, and General Biology faculty

5) We expect to hire more lab technicians as we continue to add more sections and especially night classes to the schedule.

6) As part of Guided Pathways we are continuing to examine our degree requirements, course scheduling, and potential completion barriers for students. This often requires extensive collaboration with faculty in other disciplines that offer courses required for biology degrees and certificates. This is a short and long term goal.

Mark an X before to each area that is addressed in your response.				Definitions of terms: https://bit.ly/2LqPxOW			
	Community Partnerships/Outreach	X	Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students
	Course Offerings		Financial/Budgetary	X	LPC Collaborations		SLO/SAO Process
X	Curriculum Committee Items	X	Human Resources		Pedagogy		Student Equity
	External Factors		Learning Support		Professional Development		Technology Use

Section Two: Current Topics (Required for All Programs)

A. Program-Set Standard (Instructional Programs Only): The program-set standard is a baseline that alerts programs if their student success rates have dipped suddenly. There may be many

valid reasons a program does not meet the Program Set Standard; when a program does not meet this standard, they are simply asked to examine possible reasons and note any actions that should be taken, if appropriate.

Program-set standard data can be found on this page:
http://www.laspositascollege.edu/research/outcomes.php

(Data for AY 18-19 will be available by the beginning of Fall 2019).

Did your program meet its program-set standard for successful course completion?
__X__yes _____no

If your program did not meet your program-set standard, discuss possible reasons and how this may affect program planning or resource requests.

B. SLOs/SAOs: Describe an example of how your program used course SLO data (SLOs) or SAO data from last year (2018-19) to impact student learning, access, achievement, or other services to students. (Copy the box below if you would like to discuss multiple examples).

Course (SLOs only): BIO 7A (Human Anatomy)
SLO or SAO: Upon completion of BIO 7A, students will be able to identify the structures of the body systems using models, slides, cadavers, and/or visual media.
Describe the quantitative or qualitative results: Various assessments have been used resulting in a spread of achievement.
Discuss any actions taken so far (and results, if known): After multiple semesters of using different types of assessments, three anatomy faculty members met to discuss and share best practices based on our previous data and reflections.
Discuss your action plan for the future: The anatomy faculty will meet to develop a common format for assessing comprehensive and applicable knowledge gained throughout the semester and to be assessed using a final comprehensive practical exam.

C. Program SLOs (Degree/Certificate granting programs only): Describe an example of how your program used program-level SLO data (PSLOs) from last year (2018-19) to impact student learning or achievement. (Copy the box below if you would like to discuss multiple examples).

Degree/Certificate: All
Program SLO:
Describe the quantitative or qualitative results: There is not enough data to examine PSLOs.
Discuss any actions taken so far (and results, if known):
Discuss your action plan for the future: The only way to examine PSLOs is to have all CSLOs assessed during the academic year. Without the CSLOs completed, examination of PSLOs would be inadequate.

D. SLO/SAO Progress Review: SLO and SAO results should be reported at least once every three years. To see if your program is up to date with the creation and assessment of SLOs, please consult the list available here: [this link will be added by the beginning of Fall 2019].

D1. List any courses or services areas that do not have SLOs or SAOs approved. These SLOs/SAOs need to be written as soon as possible; please work with your SLO/SAO coordinator for help submitting new SLOs/SAOs to the SLO Committee.

None

D2. List any courses or service areas that do have approved SLOs/SAOs but do not have any SLOs or SAOs that do not have recorded assessments during the past three years (Fall 2016-Spring 2019).

None

D3. Describe your plans for assessing the SLOs or SAOs listed under Question D2 above.

NA

E. SLO/SAO Suggestions (optional): What questions or suggestions do you have regarding SLO/SAO planning, assessment and reporting?

F. Student-Centered Funding Formula (SCFF): The state funding allocation model has shifted to include socio-economic status and student achievement metrics. LPC will begin to be funded by this model by AY 21-22. The district and college are using this opportunity to develop projects that support these funding considerations and the needs of our students. The projects should help LPC achieve the goals listed below.

Goals for SCFF Projects
· Ensuring eligible students receive financial aid, if desired · Removing barriers that hinder students from moving toward their goals · Offering additional information and support about educational pathways · Offering academic support that increases English/math completion in the first year · Enhancing career readiness through coursework · Increasing completion of degrees and certificates · Increasing transfers and transfer readiness

F1. SCFF Actions Taken: Describe one initiative or action your program or area has taken in support of one of the goals in the list above.

- **What was the action?**
- **What was the result, if known?**
- **If your action or initiative was successful, please explain why and whether it could be used in other areas or scaled for use across the campus.**
- **If your action or initiative was not successful, please indicate why (lack of resources, unforeseen variables, etc.)**
- **If you did not take any actions in support of the goals above, you may write "N/A."**

Our program created a UC Transfer Degree designed for biology majors. Most biology majors already satisfy the degree requirements, so we plan to advertise the degree application. Increasing the number of degrees achieved supports the SCFF. It is too early to see results.

F2. Future Strategies (optional): Please describe any possible strategies or actions that your program or the college could use to support the goals listed above. What resources would be needed?

G. Student Equity and Achievement Program: To ensure equitable outcomes for vulnerable student populations, Las Positas College plans to close equity gaps in the areas listed below. For each area/metric, the listed impacted groups have had proportionately lower rates than other groups.*

Area/Metric	**Impacted Groups**

Access: Enrollment at LPC	Black or African American (Female), Black or African American (Male), Filipino (Female), White (Female)
Readiness: Completion of both transfer-level Math & English	American Indian or Alaska Native (Female), Black or African American (Female), Black or African American (Male), Hispanic or Latino (Male/All), First Generation (Male/All), Foster Youth (Female), Foster Youth (Male), LGBT (All)
Retention: Retention from Fall to Spring	Black or African American (Female/All), First Generation (Female/All), Foster Youth (Male)
Completion: Completion of an Associate Degree, Certificate	American Indian or Alaska Native (Male/All), Asian (Male), Black or African American (Male/All), Native Hawaiian or other Pacific Islander (Female), Native Hawaiian or other Pacific Islander (Male), Foster Youth (Male), LGBT (Female), LGBT (Male)
Completion: Transfer to a Four-Year Institution	Disabled (Male/All), Black or African American (Female), Hispanic or Latino (Male), Native Hawaiian or other Pacific Islander (Female), Native Hawaiian or other Pacific Islander (Male), First Generation (Female), Foster Youth (Male), LGBT (Female)

*The full list of impacted groups with supporting data can be found here: https://bit.ly/2XZVGDb

G1. Equity Actions: Describe any actions your program has taken in the past two years (2017-2019) or actions currently in progress to improve the metrics above for the impacted groups listed (for example, to increase the ability for African American students to enroll in classes at LPC, or to increase the ability of LGBT students to complete Associate's Degrees or Certificates). What has been the effect of these actions, if known?

1. Two Biology faculty members wrote a grant proposal for the NSF Advanced Technical Education Program. The proposal increases biotechnology skills in the curriculum while also focusing on closing equity gaps.

2. Faculty wrote and distributed a student survey to identify barriers faced by Allied Health and Biology students. A key finding was working students found it difficult to find classes that fit in their schedule. In response, we have begun offering more night sections. An

all-day Friday anatomy section also was added to the schedule to serve working students.

3. Several faculty held office hours in the tutoring center to increase access and support for their students and others.

4. Full time and part time biology faculty held smart shops focused on skills such as using the metric system and reading scientific literature to help prepare students for their biology courses.

5. Biology faculty teaching the majors sequence (Bio 1A, 1B, 1C) collaborated to adopt the same textbook starting Fall 2019, significantly reducing costs for students.

6. Biology faculty participated in Guided Pathways program mapping to identify barriers to retention and completion for Allied Health and Bio Majors

7. Faculty continue to supervise & coordinate the Biology & Nursing club which supports students and offers career exploration.

8. Biology 30 faculty are working to develop a new introductory lab with a focus on student preparation and readiness for the course and will include introducing students to available campus support.

G2. Equity Challenges: Describe any challenges your program has faced in promoting equity and equity-based decision making in the metrics listed above (or any other areas).

1. Data (disaggregation)
2. Lack of funding for student tutors/mentors, making sure students are trained
3. faculty oversight (release time)
4. Flexibility of course offerings- not enough lab techs at night or on weekends
5. Facilities, lab space, BLC

H. Program Review Suggestions (optional): What questions or suggestions do you have regarding the Program Review forms or process?

Section Three: Curriculum Review

(Programs with Courses Only)

The following questions ask you to review your program's curriculum. To see the last outline revision date and revision due date:

1. Log in to CurricUNET
2. Select "Course Outline Report" under "Reports/Interfaces"
3. Select the report as an Excel file or as HTML

Curriculum Updates

A. Title V Updates: Are any of your courses requiring an update to stay within the 5 year cycle? List courses needing updates below.

Biology 1A

B. Degree/Certificate Updates: Are any degrees/certificates requiring an update to do changes to courses (title, units) or addition/deactivation of courses? List needed changes below.

No

C. DE Courses/Degrees/Certificates: Detail your department's plans, if any, for adding DE courses, degrees, and/or certificates. For new DE degrees and/or certificates (those offered completely online), please include a brief rationale as to why the degree/certificate will be offered online.

As mentioned above, we are in the process of developing an online course for BIO 50 with the goal to have it OEI approved. Earliest possible launch date to teach the course is Summer 2020.

Section Four: CTE Updates
(CTE Programs Only)

A. Labor Market Conditions: Examine your most recent labor market data. Does your program continue to meet a documented labor market demand? Does this program represent a training need that is not duplicated in the college's service area? (Please note: your labor market data should be current within two years. Contact Vicki Shipman or the current CTE Project Manager for access to data).

B. Advisory Boards: Has your program complied with advisory board recommendations? If not, please explain.

C. Strong Workforce Program Metrics: Utilizing LaunchBoard, review the Strong Workforce Program Metrics. Review the data and then answer the following questions.

(Contact Vicki Shipman or the current CTE Project Manager for help accessing the data).

C1. Does your program meet or exceed the regional and state medians **for increased enrollments, completions, and/or transfer since your last program review**? If not, what program improvements may be made to increase this metric?

C2. Does your program meet or exceed the regional and state medians **for students gaining employment in their field of study**? If not, what program improvements may be made to increase this metric?

C3. Does your program meet or exceed the regional and state medians **for student employment rates after leaving the college**? If not, what program improvements may be made to increase this metric?

C4. Does your program meet or exceed the regional and state medians **for increased student earnings and median change in earnings?** If not, what program improvements may be made to increase this metric?