APPENDIX G: IPR SBMITTAL AND CHECKLIST FORM

This form is to be complete	e and submitted as a cover sheet for the self-study report
Name of the program:	Economics
Date submitted:	4/29/21
Scheduled visitation date:	4/20/21
IPR Committee Liason:	Chris Wilson
All courses in the program Yes	have been reviewed by the Curriculum Committee within the last six-year cycle. No
Explain any exception for i	non-compliance with curriculum requirements:

Econ 204 was not reviewed since it has not been offered for over 20 years.

Check-list to ensure the self-study report adequately addresses the following components:

Components	Yes	No
Overview of the program	•	0
Analysis of program data	•	0
Assessment and student learning outcomes (SLOs)	•	0
Curricular course review	•	0
Six-year program reflection	•	0
Program's direction, vision, and goals	•	0
Resource requests	•	0
Conclusion and recommendations	•	0

Program review prepared by: Solomon Namala and Edward Chi

Date: 4/29/21

Reviewed by Division Dean: Rachel Mason

Date:

ECONOMICS

Program Review Report: 2020-21



Edward Chi, FT Faculty Solomon Namala, Chair Rachel Mason, Dean BHSS

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1. Overview of the Program

The <u>Economics department's</u> principal objective is to promote a sound, critical and a well-rounded understanding of the U.S. economy and its major economic institutions. We strive to reach this objective by offering courses that are insightful, accessible and relevant to our student population. One of our department's goals is to help economics majors and other related majors seamlessly transfer to CSU and other four-year institutions by offering needed coursework in economics. Furthermore, we seek to provide non-economics majors and other allied majors in the social sciences courses that promote a broad interest in economics, public policy and contemporary social and political issues.

Our department was one of the first at Cerritos College to receive approval for the Associate in Arts Degree for Transfer (AA-T) in Economics in 2015. The department also offers an Associate in Arts Degree (AA) in Economics. The AA degree requires 18 units of core classes in economics and math. The AA-T degree requires 20-23 units in economics, math, business and accounting (see brochure).

An overwhelming majority of our students are Business Administration (BA) majors who need two of our core classes – Principles of Macroeconomics (Econ 201/201M)¹ and Principles of Microeconomics (Econ 202/202M) – to complete their major requirement for their Associate Arts degree and the Associate Degree for Transfer. Besides Business Administration, there are 7 other programs/majors that require or recommend courses in economics to pursue their career pathways (Appendix A). Surprisingly, this list contained 18 programs that required or recommended courses in economics during our last review cycle! For some inexplicable reason, the Business Administration department decided to remove economics course requirements from many of

 $^{^{\}mathrm{1}}$ See Appendix A, for an explanation for the "M" sections.

their certificates like Retail Management, Entrepreneurship, International Business, and Human Resource Management. But despite this, we have grown as a department in terms of sections offered and students served.

Besides our two core courses, we have three other courses in our catalog: 1) Econ 101: Economic Issues and Policy, 2) Econ 102: Women in the Global Economy and 3) Econ 204: Money, Ethics and Economic Justice. It must be noted, however, that we have not offered Econ 204 for over two decades. Over this review cycle, we have aggressively promoted Econ 101. This class introduces economics through its application to contemporary social, political and environmental issues. We envision this class would serve as a gateway course for students to explore other upper division courses. Hence, as we discuss later, this is an important class in terms of the future growth of our program.

Our department relies on the resources provided by the campus library services to meet the needs of our students. We place several copies of our textbooks on reserve at the library for students who cannot afford to purchase a hard copy of the textbook. Every year the librarians reach out to the faculty in our department to update the library's collection of resources in Economics – both digital media (like movies, documentaries, periodicals) and physical books. Furthermore, the library services provide our department with a dedicated online guide for our students to assist them in writing research papers on topics within economics. Over the last six years we have also had dedicated workshops for our students conducted by the librarians to give our students a hands-on experience in researching library databases.

One of the hallmarks of our department is its commitment to teaching excellence and innovative pedagogy. The department has historically emphasized collaborative, team-based learning methods in its classes. Professor Diane Keenan who was a full-time instructor for many years (and is currently one of our part-time faculty) is one of the earliest to adopt collaborative, active learning techniques within our discipline at the community college level. She won the Community College Teacher of the Year

Award in 1995 given by the Carnegie Foundation for the Advancement of Teaching. Her workbook, "Economics Live!" is still used in the principles of microeconomics and macroeconomics classes around the state. Thanks to Professor Keenan's efforts, this emphasis on active learning in the classroom has remained an integral facet of our pedagogy for most of our faculty – full-time and part-time faculty. Our recent full-time hire in 2019, Professor Edward Chi, continues in this tradition with his team-based learning approach in all of his classes. In fact, Professor Chi's doctorate and research is in the area of education. And this approach has continued into online (synchronous and asynchronous) modalities with the onset of the pandemic.

This emphasis of collaborative learning extends beyond classroom as well. For almost 20 years the department has supplemented student learning in the classroom with tutorials outside of class. The department currently offers six tutorial hours scheduled over three sessions per week. These sessions are open to all of our students who can walk-in (Zoom-in these days) for help with any of their economics classes on campus. Each session is run by a faculty member (Solomon Namala) and two tutors employed by the campus Success Center.

Another hallmark of this department is its approach to heterodox economics. A couple of our faculty in the department are trained in heterodox economics (Keynesian, Post-Keynesian, Marxian, Feminist, Environmental and Institutional approaches) and as such many of our students are exposed to divergent perspectives of economic thought. Though this approach is manifested in all of our course offerings, the two classes that particularly embody this pluralist approach are Economics Issues and Policy (Econ 101) and Women in the Global Economy (Econ 102). These are two of our elective courses particularly designed for non-economics majors. However, these courses can be useful electives for any aspiring economics major as well. These courses convey to our students that economics is not just about conventional economic issues such as profit maximization, economic growth and optimization of resources but it is also an integral discipline in analyzing

public policy issues such as income and wealth inequality, mass incarceration, access to health care, and social and environmental justice.

In sum, the objectives of the economics department encompass three general areas that align with our college's mission of providing equity-minded pathways for our students. First, our overarching objective is to promote an interest in economics as a discipline and provide a critical understanding of economic issues. We strive to do this by offering courses that are insightful, accessible and relevant to our student population. Our heterodox approach gives students a diversity of oppositional and critical economic perspectives seldom found elsewhere at the community college level. Second, a more specific objective is to provide courses for economics majors and other transferring majors to fulfill their major requirements. As mentioned before, Economics 201/201M (Principles of Macroeconomics) and Economics 202/ 202M (Principles of Microeconomics) are two courses that are at the core of our program. These two courses are a requirement for Economics as well as all Business Administration majors. The third objective is to provide nonbusiness majors and economics majors classes of interest that broaden and extend their understanding of economics. The following courses serve this purpose: Economics 101 (Economic Issues and Policy), Economics 102 (Women in the Global Economy), and Economics 204 (Money, Ethics and Economic Justice). As noted, Econ 204 was not offered in two decades and one of our goals in this review cycle is to revive this class.

2. Analysis of Program Data

A. Enrollment

Our student demographics in general mirrors that of the overall student population at the college. A majority of our students as of 2019-20 academic year (AY) are Hispanic at 69.4%, Asian 11.6%, White 6.3% and African American at 5.6%. In terms of the population in our service area (15)

surrounding cities) a greater portion of our Hispanic students (69.7% of students vs. 53.2% in the community) enroll in our classes and a lesser portion of our Asian (11.6% vs. 23.4%) students and White (6.3% vs. 16.9%) students enroll in our classes.²

Across the span of the last six academic years (2014-2020), our review cycle, the race/ethnic composition has been relatively stable. Perhaps the most noticeable change is that the Hispanic student composition has risen from 64% to 69%, while the Asian, African American and White student composition has marginally declined.

Over the review cycle years, enrollment has generally increased in the Economics department. In terms of unduplicated headcount, it went up by almost 16%, although the headcount peaked in 2016. We see a similar pattern for the Full-Time Equivalent Student (FTES) count - it went up by 8.8% (see fig.1 & 2). One possible explanation for the dip in enrollment since the peak is the booming economy (up until the pandemic in 3/2020) making it that much harder for our students to go to school at the expense of giving up their jobs. Another possible reason is the loss of one of our FT faculty members in 2017, Prof. Jennifer Pakula, who left us for another position at Saddleback College.

Fig.1: Unduplicated Counts

² Data for our service area is from our <u>Accreditation Self-Study Report (2020)</u>, p.9

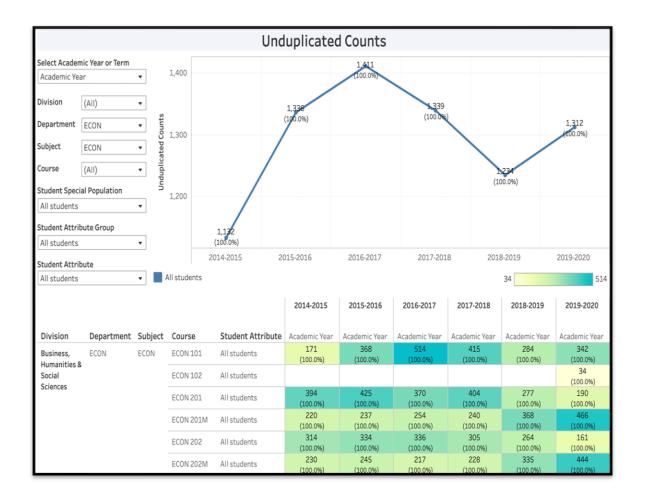
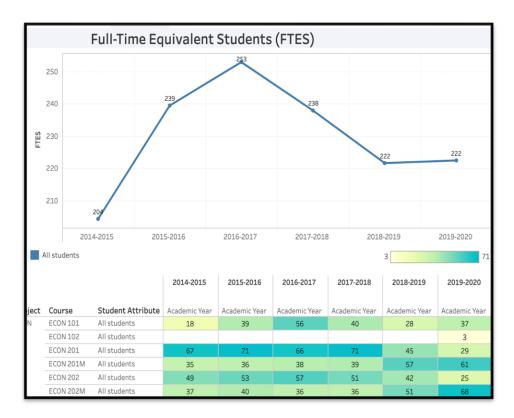


Fig.2: FTES



Interestingly enough, the picture is a little different when we look at enrollment figures for the college. While the unduplicated enrollment count for the college rose marginally, a little over 2%, enrollment by FTES *dropped* by 3.28% over this review cycle (see fig. 3 & 4) possibly due to the same reasons – the booming economy.

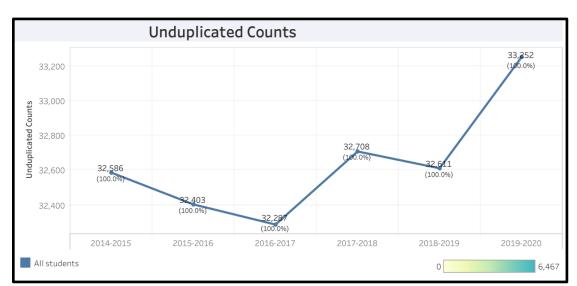
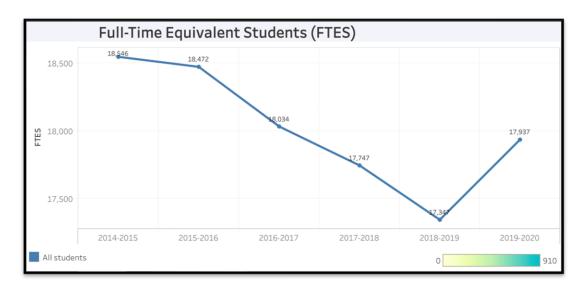


Fig. 3: Unduplicated Counts - College





What then explains the growth in enrollment with our department despite an overall decline for the college? One possible explanation is the expansion of course offerings – especially Econ 101 and Econ 102 sections. This was one of our goals in the last review cycle. Over this cycle, we more than doubled our Econ 101 sections from four per year to ten. For the first time, we started offering Econ 101 sections in the summer semesters. We also revived Econ 102 which was not offered for almost ten years. Several semesters this class

was cancelled due to low enrollment but eventually we were able to convince our dean the importance of this class in fostering our department's growth. Thanks to that support, we are now at a stage where we can offer this class on a regular basis without fear of cancellation.

A second factor contributing to our growth is the doubling of our online sections over this review cycle from nine in 2014-15 to eighteen sections in 2019-20. Our overall offering of sections went up by 65% from 32 sections to 53. Sadly, as we discuss below, this is a double-edged sword: It leads to growth of FTES but it's detrimental in terms of success and retention rates. Recent research finds that online students at the two-year college level generally underperform compared to their face-to-face counterparts in terms of success in the course and persistence in the major (see here for references). Increased persistence, leading to more degrees and transfers, can result in more funding for the college (reference here). A final factor for the increase in our enrollment is due to the growth of the Business department which has grown by almost 40% in terms of FTES and by 160% in degrees (AA & AS-T) conferred over this review cycle.

If this growth trend continues, there will be a need for us to expand sections as well as offer more tutoring sessions. Currently our department consists of two full-time faculty and eight part-time faculty. Out of the 53 sections that will be taught this year, only 11 will be taught by the full-time faculty, a mere 21%. This suggests that there is a need to hire at least one more full-time faculty member and more tutors for our tutoring services.

B. Success Rates

The department's success rates in the aggregate have shown a slight improvement over the review cycle rising by about 3.25% from 68.4% to 70.7%. The average success rate over the six years is 68.2%, this is slightly

better (by one percentage point) over the previous six-year review cycle. Our success rate this review cycle is slightly below Business Administration (69.3%) and above Accounting (64%).

Though the department's average success rates rose slightly, there are some patterns – some surprising and some not - that can be observed when the success rates are disaggregated. First, the success rates for online were only slightly below traditional classes for all years except for 2015 and 2016 academic years. In fact, the success rates were higher those two years for online sections! This is surprising and is worth exploring further. One possible explanation for this is that our (then) new FT faculty member with us for just those two years was a specialist in online teaching. The average success rate for online classes over the review cycle was 66.7% and 68.9% for traditional classes.

A second surprising observation is that the success rates of online classes dropped as more online sections were added. This is particularly true for our core classes – Econ 201 and Econ 202 sections – as shown below by the two charts (figs. 5 & 6). Over the review cycle, our success rate for online Econ 201 and 202 classes dropped marginally by just 1.9% but since the addition of online sections in 2017-18, they dropped significantly by 15%. The success rates for traditional Econ 201 and 202 classes, on the other hand, rose by 13.8% (see fig.7). This is another important factor to explore further as the administration nudges us to offer more and more online classes in the post pandemic era.

2016-2017

2014-2015 2015-2016

2017-2018

2018-2019

2018-2019

13

2019-2020

13

Student Attribute

Business, ECON Humanities & Social Sciences

Division Department Subject Course

Online

▼ ■ Online

ECON 201 Online
ECON 202 Online

ECON 202M Online

Fig.5: Online Section Counts - Econ 201 & 202

Fig. 6: Online Success Rates - Econ 201 & 202

Student Attribute Academic Ye

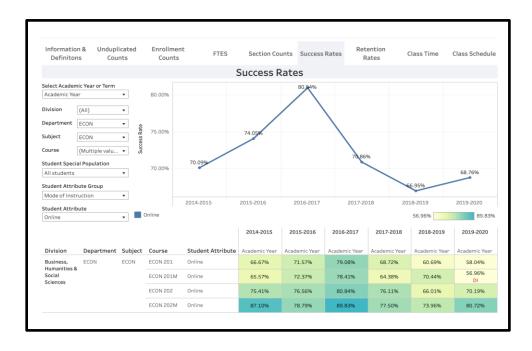




Fig. 7: Traditional Success Rates - Econ 201 & 202

A third observation about our aggregate success rates is that though our success rates rose marginally by 3.25% over the review cycle, success rates dipped for two years from 2014 to 2016. The success rates reached their lowest level in the 2016 academic year (see fig.8). A possible explanation for this is that we quadrupled our Econ 101 sections from four to sixteen sections from 2014 – 2016 (see fig.9). This action came out of our last review cycle. It was part of our effort to make Econ 101 as a gateway class by offering more of these sections to cast a wider net in terms of enrollment. These lower division classes typically have much lower success rates and this was a major factor for the dip in our success rates those two years. In retrospect, we may have been too aggressive in our offerings.

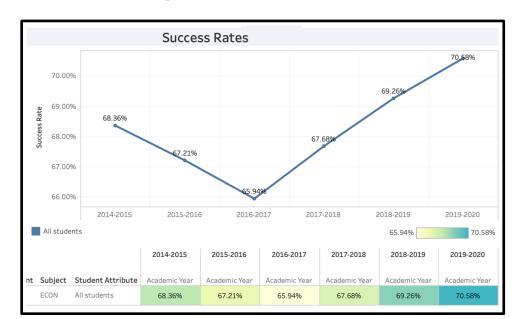
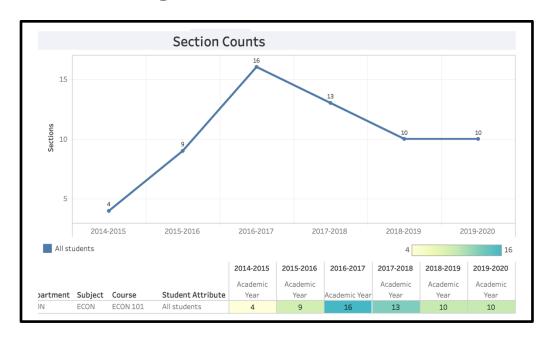


Fig.8: Econ Success Rates

Fig.9: Econ 101 Section Count



C. Retention Rates

Our retention rates have hovered around 82.5% over the last 6 years. This is about half a percentage point higher than the average retention rate over the previous review cycle. On the other hand, Accounting's retention rates are on the average seven percentage points below Economics over this period. Much like the success rates, Economics department's retention rates go up as you move from 100-level to 200-level classes. Furthermore, retention rates for traditional classes are higher than online classes in the aggregate, as seen in the chart below. This gap is particularly pronounced in the Econ 101 classes. What is also interesting to note is that retention rates for some online Econ 201 and 202 classes in certain years were even higher than traditional classes. You will see that in the table below fig.10. We observed a similar pattern with success rates in the preceding section.



Fig.10: Retention Rates

D. Disaggregated Success Rates by Race/Ethnicity & Gender

When success rates are disaggregated by race/ethnicity, we see that Asian students perform at the top with an average success rate of 80% over the review cycle followed by 75% for White, 67% Hispanic and 55% for African American students. Success rates for each of the groups fluctuated with the Asian and White student success rates dropping marginally by about 1% or so. On the other hand, we note some steady improvement notably for Hispanic student success rate which increased by 6.8%, and to a lesser extent for African American students whose rate went up by 4.6%. However, this average improvement for African American students masks some deep disparities when disaggregated. What must also be noted here is that even at the aggregated course level, African American student performance was disproportionally impacted for four of the six review cycle years (see fig.11).



Fig.11: Success Rates by Race/Ethnicity

When we disaggregate further by course, the data for Econ 101 stands out in terms of its disproportional impact on African American student performance. Over the last six years of the review cycle, 144 African American students enrolled in our Econ 101 classes and a mere 43 succeeded. This is an average

success rate of 29.86%! This statistic (see fig.12) is perhaps the most sobering and poignant statistic in this review cycle for us. True, many of our students are disadvantaged, but what this indicates is that we, as a department and an institution as a whole, have failed our African American students to overcome those hurdles despite our tutorials, embedded tutors and our best efforts. Our efforts were not good enough – plain and simple. In "Equity-Minded and Culturally-Affirming Teaching Practices" workshops, Drs. Frank Harris and Luke Wood point out the skills our students lack are not student deficiencies but are in fact institutional deficiencies.

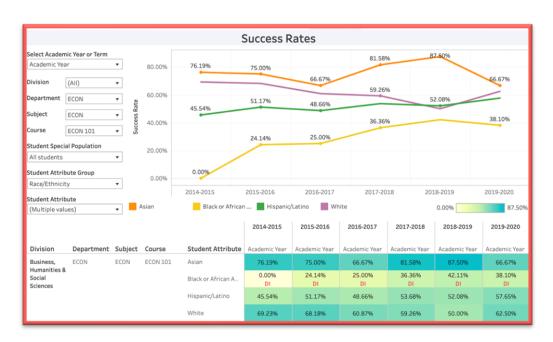


Fig.12: Success Rates for Econ 101

As mentioned earlier, we have expanded our section offerings of Econ 101 to draw more students in and yet, ironically, we are failing the very students we want to enroll and diversify our enrollment!

How do we then encounter this issue? There are a couple of changes we can adopt in the very short term: A) We can make sure that we include in the curriculum topics and issues that resonate with the lived experience of our students – issues such as poverty and inequality, access to healthcare, funding of public education, crime and mass incarceration, and environmental justice.

B) Identify students who are performing poorly early enough in the semester and refer them to our department's tutoring services. This requires being intentional and "intrusive" in terms of our teaching practice. C) We need smaller class sizes. Smaller class sizes, allowing increased personal support from instructors, have been shown to increase student success, increase retention, and reduce student equity gaps in higher education (see references here).

We partially succeeded in reducing our class size in Fall 2016 for Econ 201 and 202 courses from 48 students to 40. It is a partial success because though the curriculum committee deemed it appropriate to reduce our class size to 35 students per our request, however, this was disallowed by the administration due to "fiscal" reasons. It is worthy to note here that all Accounting courses have a cap of 35 students. A strong case can be made that Economics is as challenging, if not more, than Accounting in terms of the quantitative aspects of the discipline. Class size thus continues to be a sore point for our department. With respect to Econ 101 classes, however, they are capped at 48. This needs to be reduced to 35 students as well and this would be one of our near-term goals. If students are to have a sound foundation in economics we need smaller classes so there is more engagement in the classroom. While we realize smaller class size is a necessary condition for student success, it is not a sufficient condition. For smaller classes to translate into student success, our teaching practices also to be modified – we need to be conscientious and "intrusive." Increased student success in our courses can lead to more degrees and transfers, which is factored in state funding for the college (reference here). Additionally, successful students aid in student recruitment, which can also increase funding for our college.

When success rates are disaggregated by gender, we see that male student success rates are 70% on average over the review cycle and female student success rates are 66%. Male success rates improved by 5.1% and female rates, despite volatility in the intervening years, remained largely unchanged

(see fig. 13). As observed from the figure below this gap narrowed in 2016 academic year and widened thereafter. This coincides with the departure of aforementioned FT faculty member, Prof. Jennifer Pakula. This indicates that gender is a factor to consider in our future recruitment of FT faculty. It must be mentioned though that five out of eight of our PT faculty are female. Yet, FT faculty play an important role with their on-ground presence and their mentorship of students on campus. As such, gender plays an important role.



Fig.13: Success Rates by Gender

E. Disaggregated Retention Rates by Race/Ethnicity & Gender

Retention rates when disaggregated present a similar picture as the success rates discussed above. Asian students have the highest average retention rates of 89% over the review cycle, followed by White (85%), Hispanic (82%) and African American (79%) (see fig.14). Given that the disparity in retention rates is not that significant, this is a positive indicator for our department. We are keeping students engaged and retained in the class, however we need to transform this statistic into higher success.

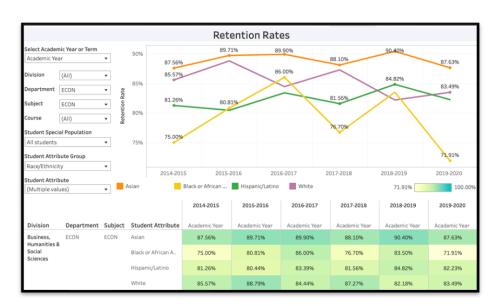


Fig.14: Retention Rates by Race/Ethnicity

In terms of gender rentention rates, we see a similar pattern as seen with success rates, males had a higher average retention rate at 85% and females at 81% over the review cycle (fig.15) Retention rates for males show a marginal improvement while the rates for females showed some volatility in 2016 and 2017 academic years but barring that hovered around 80% or so.

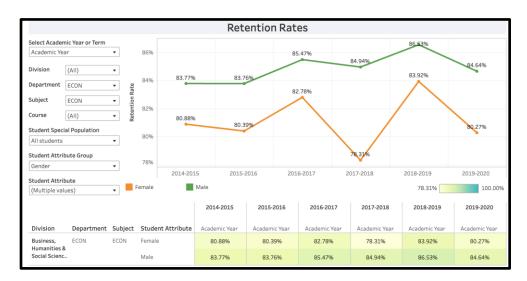


Fig.15: Retention Rates by Gender

A final note before we close this section. A glaring shortcoming of our analysis here is that we are unable to assess how the delivery method impacts student performance across race/ethnicity and gender identities. Both our campus IERP's website and the Data Mart at the Chancellor's website is unable to provide this data. Perhaps we were looking at the wrong place? We believe this data could give more insights as we try to close the equity gaps.

3. Assessment and Student Learning Outcomes (SLOs)

A. Data

Data from the SLO Coordinator (see Tables 1 & 2) suggest increased attainment of SLOs, as indicated by percentage assessed as "good." The share increased from 45.6% in fall 2014 to 74.4% in spring 2019, the last year of data available. Disaggregated data by student background is not yet available.

Table 1

Cerritos College SLO Committee - SLO Assessment Results - Three Year Comparison(Fall 2016 to Spring 2019)Course SLOs

Humanities and Social Sciences		Number of Assessments				Percentages		
Division	Semester	Good	Satis.	Emergent	Total	Good	Satis.	Emergent
Economics	Spring 2019	348	76	44	468	74.4%	16.2%	9.4%
	Fall 2018	252	68	56	376	67.0%	18.1%	14.9%
	Spring 2018	558	217	99	874	63.8%	24.8%	11.3%
	Fall 2017	818	211	176	1,205	67.9%	17.5%	14.6%
	Spring 2017	61	20	8	89	68.5%	22.5%	9.0%
	Fall 2016	349	372	157	878	39.7%	42.4%	17.9%
	Total	2,386	964	540	3,890	61.3%	24.8%	13.9%

Table 2

Cerritos College SLO Committee - Assessment Results - Three Year Comparison (Fall 2014 to Spring 2017)

Control Conego C2C Committee / Accordance (Accordance) Three Teal Companion (an 2011 to Opining 2017)								
Economics		Number of Assessments			Percentages			
Department	Semester	Good	Satis.	Emergent	Total	Good	Satis.	Emergent
Report Totals	Spring 2017	53	20	8	81	65.4%	24.7%	9.9%
	Fall 2016	349	372	157	878	39.7%	42.4%	17.9%
	Spring 2016	240	68	140	448	53.6%	15.2%	31.3%
	Fall 2015	-	-	-	-		-	-
	Spring 2015	634	87	670	1,391	45.6%	6.3%	48.2%
	Fall 2014	-	-	-	-		-	-
	Total	1,276	547	975	2,798	45.6%	19.5%	34.8%

For earlier years (not for more recent years), data is available disaggregated by course (see Table 3). Assessment results of the lower-division ECON 101 course suggest relatively lower attainment of SLOs. The share of "good" evaluations averaged 38.8% in ECON 101 compared to evaluations averaging over 45% in ECON 201, ECON 202, and ECON 202M. In ECON 201M, the share of "good" evaluations in ECON 201M was an average 39.9% in this earlier period: 20.3% in fall 2016 and 60.8% in spring 2016. The 20.3%, which weighs down the average for ECON 201M as a whole, is abnormally low, compared to the "good" percentages in other courses and semesters. Perhaps this result is idiosyncratic to that semester or possibly erroneous.

The more important conclusion to note is the relative underperformance in ECON 101 relative to the higher-division courses. This finding supports our conclusions regarding success and retention, which was relatively weaker in ECON 101. As explained in the previous section, students in these courses need curriculum that is more tailored, more engagement with instructors, decreased class sizes, more tutors, and more caution in the design and delivery of online sections of ECON 101.

Table 3

Cerritos College SLO Committee - Assessment Results - Three Year Comparison (Fall 2014 to Spring 2017)

Economics	lege SLO Commit			ssessments			ercentage	
Department	Semester	Good	Satis.	Emergent	Total	Good	Satis.	Emergent
ECON 101	Spring 2017	-		-				-
	Fall 2016	78	106	49	233	33.5%	45.5%	21.0%
	Spring 2016	-	-	-	-			-
	Fall 2015	-	-	-	-			-
	Spring 2015	150	-	205	355	42.3% -		57.7%
	Fall 2014	•	-	-	-			-
	Total	228	106	254	588	38.8%	18.0%	43.2%
ECON 201	Spring 2017	53	20	8	81	65.4%	24.7%	9.9%
	Fall 2016	92	16	32	140	65.7%	11.4%	22.9%
	Spring 2016	78	21	29	128	60.9%	16.4%	22.7%
	Fall 2015	-	-	-	-			-
	Spring 2015	217	34	257	508	42.7%	6.7%	50.6%
	Fall 2014	-	-	-	-			-
	Total	440	91	326	857	51.3%	10.6%	38.0%
ECON 201M	Spring 2017	-	-	-	-			-
	Fall 2016	32	104	22	158	20.3%	65.8%	13.9%
	Spring 2016	90	6	52	148	60.8%	4.1%	35.1%
	Fall 2015	-	-	-	-			-
	Spring 2015	-	-	-	-			-
	Fall 2014	-	-	-	-			-
	Total	122	110	74	306	39.9%	35.9%	24.2%
ECON 202	Spring 2017	-	-	-	-			-
	Fall 2016	84	85	43	212	39.6%	40.1%	20.3%
	Spring 2016	38	32	50	120	31.7%	26.7%	41.7%
	Fall 2015	-	-	-	-			-
	Spring 2015	267	53	208	528	50.6%	10.0%	39.4%
	Fall 2014	-	-	-	-			-
	Total	389	170	301	860	45.2%	19.8%	35.0%
ECON 202M	Spring 2017	-	-					-
	Fall 2016	63	61	11	135	46.7%	45.2%	
	Spring 2016	34	9	9	52	65.4%	17.3%	17.3%
	Fall 2015	-	-	-	-			-
	Spring 2015	-	-	-	-			-
	Fall 2014	-	-	-	-			-
	Total	97	70	20	187	51.9%	37.4%	10.7%

B. Frequency Cycle

The department's SLO assessment cycle first begins with an annual review of the course-level SLOs in the summer of each year. Instructors report on their recent SLO assessment results and revisions to instruction and SLOs are discussed. The review is a department-level exercise.

These SLOs are then assessed the following spring term, annually. Instructors are to plan their own assessments of the SLOs including the collection and analysis of the data. The rationale for an instructor-centered approach is to allow instructors to create assessments the provide data that is more specific to the instructor's teaching methods to make more informed decisions on what changes to instruction may be needed at the instructor level to meet the course-level SLOs.

As discussed, SLO assessment results are reviewed annually at a department meeting in the summer. Based on the review, changes are made to instructional practices and SLOs are revised, if needed. Because of the instructor-led SLO assessment model our department has adopted, in our discussions we can counsel one another from different perspectives on one another's approaches to assessment, instructional practices, and on how SLOs may need to be revised.

C. Process

After the annual departmental SLO review, department-wide changes to improve instruction are adopted. This has included, for example (1) changing laboratory exercises and (2) changing course reading materials. Those

examples were implemented upon the conclusion that students needed more support in understanding concepts in reading materials.

Additionally, instructor-level changes to improve instruction are recommended. This has included, for example (1) adoption of a collaborative teaching tools (e.g., Padlet, Perusall); (2) adoption of classroom exercises (e.g., income inequality); (3) adoption of assessment methods (e.g., authentic assessment, use of Proctorio). Those examples arose after discussion of individual needs and insights upon reviewing assessment results.

4. Curricular Course Review

During the last review cycle one of our mid-range goals was to develop a process for continuous updates for course outlines. Although we don't have an explicit process in place, we do update our course outlines whenever we make changes to our textbook adoption. To contain rising textbook prices, as a department, we collectively decided to limit our textbook adoption to one book for all sections of that course. This is our policy for all the courses we offer – Econ 101, Econ 102, Econ 201/201M and Econ 202/202M. For Econ 201/201M and Econ 202/202M classes, however, we limited our options to two textbooks. Since we decide this collectively, usually in the summer, whenever we make a change to our textbook adoption, we also review and revise our course outlines. Thus, all of our course outlines were updated in 2019. The exception to this is Econ 204 (Money, Ethics and Economic Justice). As noted previously, this course has not been offered in over 20 years. But we hope to offer this class in this coming review cycle and our goal is to update this course outline prior to that.

Two of our courses, Econ 201 and Econ 202, will be deactivated this Fall semester. Since the CSUs decided to lower their math prerequisites for these two courses from Intermediate Algebra (Math 80) to Elementary Algebra (Math 60), we made similar changes to our prerequisites for Econ 201M and 202M so that these classes are more accessible to our students. Given this change, we no longer need Econ 201 and Econ 202 and effective Fall 2021 we will no longer be practicing voiding since these two courses will be deactivated. This was one of our goals from the last review cycle. This goal will come to fruition this Fall semester.

Last summer we revised our course outline for Econ 102 to allow for full certification for distributed education. With this approval for DE certification from the curriculum committee, all of our classes (except for Econ 204) can be taught online now. All the four classes that we have – Econ 101 (Economic Issues and Policy), Econ 102 (Women in the Global Economy), Econ 201M and Econ 202M – meet the student needs for transfer and degree completion. They are offered every semester. The only exception to this is Econ 102, which is not offered during the summer semesters.

Over the course of this review cycle, we have awarded 55 degrees – 25 AA degrees and 30 AA-T degrees. The number of degrees awarded rose by 511% over these years. This statistic is perhaps misleading because we began this review cycle with only 9 degrees in total, hence this increase is amplified. We have made an effort to promote our Econ AA-T degree with the Counseling faculty. However, there is more we can do raise the number of degrees awarded.

5. Six-Year Program Reflection

In retrospect, we were moderately successful in three areas – enrollment, success rates and retention rates. As a department, we grew by 8.8% in terms of FTES over the review cycle. This growth was primarily fueled by our expansion of our gateway course – Econ 101. We also doubled our online course offerings over the review cycle. Finally, the growth in the Business Administration helped our growth as well given our overlapping course requirement for our majors.

Our success rates increased by 3.25% over the review cycle and remain relatively high at an average rate of around 68%. However, our goal in the previous review cycle was to boost our success rates by 10%. From this context, we fell short of our goal. A surprising finding in the area of success rates is the relatively high rates for our core (Econ 201/201M & Econ 202/202M) online classes. The success rates for these classes were just two percentage points short of traditional classes. On a disaggregated level, Hispanic student success rates showed a steady improvement over the cycle with an overall improvement by 6.8%. When success rates are disaggregated by course, we see an improvement in Econ 101 course of almost 19% over the review cycle. We also see a slight improvement for Econ 202/202M classes by 2.1% However, success rates for Econ 201/201M classes dropped by 3.75%. For Econ 102, there is no trend since we revived this course only in the last year of our review cycle.

Our retention rates also remain relatively high at around 82% over the review cycle and grew marginally by 0.5% over this period. What is promising here is our relatively high retention rates for online classes at around 78%. As noted before, our degrees conferred has also increased from 9 to 55 over this period.

In terms of our goals from the previous review cycle, we achieved the following:

- a) We expanded our course offerings by reviving Econ 102 (Women in the Global Economy)
- b) We more than doubled the section offerings of our gateway course Econ 101 (Economic Issues and Policy).
- c) We doubled our online course offerings.
- d) We initiated Friday classes (prior to the pandemic)
- e) Partially succeeded in reducing our class size for Econ 201/201M & Econ 202/202M courses.
- f) We successfully negotiated textbook prices for our core classes to around \$50 to make it more affordable for our students.
- g) As club advisors, we helped revive the Econ Club on campus. The club has played an important role in connecting our students with former students fostering a mentorship process that has helped our students transfer to CSUs, UCs and some to Stanford, Cornell and Columbia. In fact, three of our former students currently employed at Nike, Goldman Sachs and Cornell University will be speaking to our Econ Club meeting on March 25. Previously, the club, in collaboration with our department, History and Philosophy department invited famous Marxist economist, Richard Wolf for a campus-wide talk in Spring 2016.

Those are some of our successes. Failures, we have a few as well. There are, of course, two factors that hampered our progress. First, as mentioned earlier, of our FT faculty abruptly left in 2017 and we were a department of just one FT faculty member until 2019. Secondly, the pandemic impacted our success and retention rates (as it did across the board for all institutions) for our last year of the cycle. But these are no excuses for our shortcomings. The most glaring of our failures is the performance of our African American students, particularly in our gateway, Econ 101 course. We have done a good job in the retention of our students, but we have failed to transform this into a higher success rate. To remedy this, we need to rethink our curriculum and our teaching practices – our pedagogy. What we do to help our African American students will also help all of our students. Another gap that we need to close

is the gender gap in the success rates. This too involves changes in our curriculum and teaching practices. We also need to improve our online teaching and adopt a more cautious approach in the expansion of online sections. Though we have conferred more degrees than ever before, our growth pales in comparison to the growth in Business Administration. Given that the course requirements for both of our disciplines overlap, there is an opportunity for growth in this area for our department. And finally, we need to revive Econ 204. We also need to develop new courses that generate more interest in our discipline. The latter two were our long-term goals in the previous review cycle that remain unfulfilled.

6. Our Direction, Vision and Goal

Our vision for the future is simple. Less than 5-10% percent of our students go on to pursue an undergraduate degree in economics. An overwhelming majority of our students go on to pursue a degree in business, accounting or other majors in social sciences. We want these students to have a sound, critical foundation of economics. As such, we want to build on our strengths to demystify economics and make economics an analytical tool for our students so they can make informed choices in their everyday lives and beyond. As a department, we have two unique assets - our heterodox theoretical approach and our innovative teaching strategies. We want to use these strengths to achieve two principal goals: a) grow our department and b) improve our student success rates.

A. How do we grow our department?

We do this through multiple paths.

1. Expansion of course offerings: Though Econ 204 (Money, Ethics and Economic Justice) was developed over two decades ago, it was never offered as a class. This was one of our goals in our last review cycle but for various reasons was not fulfilled. Given the events of last summer that exposed police brutality against African Americans, there is an

opportunity for us to review and revise the curriculum for this class to reflect the current realities. A class such as this could be appropriately revised so the curriculum resonates with the lived experience of many of our students. This will not only deepen student engagement but also promote an interest in economics as a discipline. Our goal is to offer this class in the next two years.

Beyond the medium-term, we want to develop a new course in environmental economics. This goal is a carryover from our last review cycle. Given the impact of rapid global economic growth on planetary species and resources, a class of this nature makes economics relevant to their lives. A few of the economics departments in the community college system offer such a course and we hope to develop this course in the next six years. For this to occur we also need another FT faculty member who is trained in these specific areas to complement our existing faculty strengths.

- 2. Promote People-Centered Economics: We need to go beyond economics for busines to promoting economics as a social science. This involves the following:
 - a. Invite guest lectures, organize speaker series, and movies on topics related to race, mass incarceration, healthcare, drug addiction, climate change, etc.
 - b. Initiate a student led publication of an economic index that measures economic vitality of our surrounding cities (service area) by gathering key economic data such as local unemployment rates, hotel vacancy rates, retail sales of key businesses, home sales, etc. The Economics department of CSU Humboldt publishes one such index, The Humboldt Economic Index. Such a collaboration between our students, surrounding business community and local governments serves a dual purpose: a) it makes economics relevant to our students' lives and makes them more engaged, and b) it can lead to more interest in economics and lead to growth in enrollment. This is our long-term goal contingent on funding.
 - c. Organize regional economics teaching collaborations and workshops with local high school and local community college teachers to share effective teaching practices. This can lead to

meaningful revisions to our curriculum and enhance our pedagogy that could potentially lead to more high school recruits to our department.

All three of these activities align with our college's mission in terms of building constructive bridges to our local communities, businesses and governments.

B. How do we improve our student success rates?

- 1. We can make revisions to our syllabi to include topics that are relevant and topical for our students. Our textbooks for our core classes have chapters that are of topical interest such as climate change, racial income and wealth inequality, access to healthcare, mass incarceration, etc. But some of us choose not to cover those chapters. Hence, the department as whole can meet towards the end of every academic year to collaboratively decide on the topics to include so there is a variety of topics that engage students that also match with the teacher's research interests. This is our short-term goal to be achieved in the coming academic year.
- 2. We need to expand our department specific tutorial services for more hours spread through the week five days a week. These tutorials services should be led by teachers with the help of student tutors. All of our faculty should have the option of hosting at least a one-hour tutorial session a week that is open to all of our students in economics. These sessions help build a more personal relationship with the student outside of class that can lead to better engagement in the classroom. These sessions can be in-person when we return to campus or can be virtual via Zoom. What is imperative here no matter the modality (online synchronous, online asynchronous, or traditional) of the tutorial session is the need for iPads for student tutors as well as instructors. This is also our short-term goal to be achieved in a year.

- 3. We need to develop and adopt early intervention strategies for our students. Many of our students need tutoring to help their confidence in math related economics computing ratios, making graphs, etc. The earlier we identify the low performing students and refer them to our tutoring services (possibly led by the faculty member), the better. Only then will the expansion of our tutoring services will bear fruit. Without this intervention, offering more tutoring services will be an exercise in futility. However, for the intervention to occur though all of us need training in equity-minded teaching practices on a department level. We have we can have this training within the next two years.
- 4. Offer a flexible schedule that meets the needs of our students and faculty. This entails offering multiple effective modalities of instruction (synchronous, asynchronous, individual, collaborative, hybrid) that support student success. This also ensures that a schedule entails traditional face to face instruction that is perhaps most effective for many of our students. Appropriate equipment is needed to support effective instruction in all of these modalities. We hope to make these changes for the coming academic year.
- 5. A necessary condition to improve student success is smaller class size. In this review cycle, our goal is to reduce all of our sections class size to 35. Our core classes have a cap at 40. The rest of our classes have a cap of 48. This is particularly detrimental to our lower division gateway classes such as Econ 101 and Econ 102. As discussed earlier, smaller classes allow for more personal attention from the instructor and has the potential to build confidence in a student's math skills to lay a solid foundation for upper division economics courses.

All of these above activities ensure that we lay an equity-minded pathway for our students to reach their educational and career aspirations. Our hope is that these activities will eventually lead to the elimination of disproportional impact on our African American students by the end of this review cycle. These practices will also necessarily help all of our students' success rates.

7. Resource Requests

a. Staffing

- i) Currently, we have two FT faculty and eight PT faculty. We also have four embedded tutors that help with a few of our classes and at the tutorial sessions.
- ii) In the next two years we want to expand our tutorial services to provide 10 additional hours a week. These tutorial sessions will be staffed by a faculty member and a student tutor. The rationale for these services is given in Section 6. B. 2.

We also need an additional FT faculty to expand our course offering. This was discussed in Section 6. A. 1. Currently, only 21% of our students are taught by FT faculty. Without these resources we will be unable to help improve the success rates of our most disproportionately impacted students nor can we expand our program.

Funds for the development and the publication of the local Economic Index. (See section 6. A. 2b.)

Annual Cost estimate:

Student tutors: \$8,000

Faculty compensation for added tutoring sessions:

\$42,000

1 FT faculty hire: \$100,000

Faculty release time (20%): \$20,000

b. Professional Development

i) Our faculty need training specific to the needs of our student community as explained in Section 6, B. 3. As we continue in this online modality, this training in equity-minded teaching is much needed. We also need funds for a speaker series to invite distinguished leaders (see Section 6. A. 2a.)

Cost estimate:

Faculty training: \$5,000

Speaker Series: \$2,500 per year

c. Facilities

- i) Both of our FT faculty have laptops issued by the college. The department also owns one iPad that is used by the chair of the department for all his synchronous online classes.
- ii) Given the move towards online teaching, the use of iPads is integral to effective teaching both for synchronous and asynchronous teaching. It is an effective tool for drawing graphs and charts that are integral to all of our classes. It allows students to follow along step-by-step so it aids their comprehension of the basics. It is a great tool to annotate and evaluate their work on Canvas and give appropriate feedback in a way that is not cumbersome. Lastly, these are also incredibly useful for our tutorial sessions and should be made available for all of our tutors. Please refer to Section 6. B. 2.

For-in person classes, we need portable document cameras to connect to projectors in classrooms and college laptops. Since not all classrooms are equipped with document cameras, these help in displaying student work. This particularly helps with our active learning instructional methods in the classroom and during the lab hours. Without this supporting equipment (iPads and document cameras), instruction will be negatively impacted and will hamper the progress of our students.

Cost estimate:

8 iPads: \$7,200

2 Document cameras: \$200

d. Technology and Software

 Given that we are all teaching online, we are all reliant on Canvas. Our textbooks have two ancillary programs (Achieve and MindTap) that help students with their lab exercises.

ii) Given the expected continued increase in the number of online sections offered and the rapid technological advances in teaching and learning, the department needs to purchase tools that are currently available. Additionally, allowing instructors the choice of using different online tools to better meet the needs of students can help. For instance, some instructors may more collaborative teaching synchronously, other instructors may use more individual teaching methods asynchronously, some instructors may be better with Apple products, etc. However, some of technology is not free and not provided by the college. These tools include Intedashboard (\$25 per student) and Padlet (\$100 per instructor) for collaborative instruction. Microsoft Teams is a collaboration tool available to many college employees, but not available currently to students. (Since the district is a Microsoft customer and provide

Microsoft Office to students, the cost to provide Microsoft Teams to students is unclear.) Funds to allow instructors to purchase tools suited to different courses, student needs, and online modalities (synchronous, asynchronous, individual, collaborative) can improve instruction online.

Cost estimate:

Intedashboard: \$10,000

Padlet: \$ 1,000

Technology Fund: \$1,000

e. Prioritized Recommendations

Prioritization with Recommendations	Cost	Program Goal
Mission Critical must have		
1. Faculty training in equity-minded teaching	\$5,000	6. B. 3
2. 8 iPads/document cameras and Padlet	\$8,300	6. B. 2 & 4
3. Expansion of tutoring services (student tutors	\$50,000	6. B. 2
and faculty compensation)		
Creates value and efficiency for the program		
1. 1 FT faculty hire	\$100,000	6. A. 1.
2. Document cameras and Padlet	\$1,100	6. B. 4
3. Faculty release time for the Economic Index	\$20,000	6. A. 2b
Would be nice if the money is available		
1. Intedashboard	\$10,000	6. B. 4
2. Speaker series	\$2,500	6. A. 2a

8. Conclusion and Recommendations:

Overall, this is a fruitful exercise, painful as it is! In the big picture, we have expanded our program over the last six years despite the obstacles of the pandemic and the loss of one FT faculty member in the intervening years. In terms of success and retention rates we have held our own with marginal improvements. Our retention rates continue to be high even disaggregated by race/ethnicity and gender. Our Hispanic student success rate has shown a steady and consistent improvement. We have increased our degrees six-fold over the review cycle. These are all positive takeaways from this review.

Where we have fallen short is with our African American student performance. They are disproportionally impacted in almost all of our courses but particularly in our gateway course, Econ 101. Another area that needs improvement is the gender gap in our success rates. Though our approach to the discipline is heterodox and our teaching is innovative with varied emphasis on team-based learning, we realize we need to adopt a more mindful teaching approach. An approach that is mindful of the equity gaps and empowers our students to succeed. Some of these changes need financial resources for personnel, training, equipment, etcetera and some do not. Some require curricular changes, some are changes in our pedagogical practices - being mindful and paying purposeful attention to the needs of our students. We hope the end result of our changes, if meaningful, will be the transformation of our students. A transformation that builds bridges to their career pathways and leads to an improvement in the quality of their lives and beyond.

Appendix A: Explanation for the Econ 201 & 202 M sections

Around 2008 some CSUs, specifically CSU Long Beach, CSU Fullerton and San Diego State University decided that they would no longer accept any community college Econ 201s (Principles of Macroeconomics) or Econ 202s (Principles of Microeconomics) that did not have Math 80 (Intermediate Algebra) as a prerequisite. Since CSU Long Beach and CSU Fullerton are one of our principal feeder institutions for our transfer students, the department was in a dilemma as to what steps to take in light of this policy change. Implementing the higher (Math 80) prerequisite at that time would have essentially decimated our program considering over 70% of entering students at Cerritos College then tested into Math 20 (Basic Mathematics which deals with fractions, decimals and ratios). Furthermore, the department believed and continues to hold the view that Math 40 (Pre-algebra) provides sufficient background knowledge for students in introductory economics courses. In fact this view is widely held by community college economists as well as CSU economics faculty up and down the state based on email traffic on the CC list serv. It should also be noted that CSU Long Beach has since removed the Math 80 prerequisite.

However, given the decision that CSUF one of our main feeder schools no longer articulated our courses, we were essentially left with no choice but to create two new courses Econ 201M (Principles of Macroeconomics) and Econ 202M (Principles of Microeconomics) in 2010 with a higher math prerequisite, namely Math 80 (Intermediate Algebra). To minimize the negative impact on enrollment, the department practices what is known as "voiding." Essentially students enroll separately in Econ 201 and in Econ 201M depending on whether they completed Math 80 or not but they are taught in a combined class. The same applies to Econ 202 and Econ 202M sections. For example in a class of 48 students, 35 students might be enrolled in Econ 201 and 13

students enrolled in Econ 201M. At the beginning of every semester the instructor explains to the students the difference between the two sections and encourages all students with a Math 80 under their belt to switch to the M section so they can keep their options open in terms of their transfer goals. The M class essentially allows them to transfer to any institution of their choice, while the non M section does not allow them to transfer to CSU Fullerton. Thankfully, economics department at CSU Fullerton, at our behest, were convinced that student did not need Math 80 for principles level economics courses and lowered the Math requirement to Math 60. We have consequently lowered the prerequisite for all the M sections to Math 60. We have also deactivated all non M sections. This will be effective Fall 2021.