

Sonoma State University

Program Review Self Study

Department of Economics
School of Business and Economics
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Program Overview

Overview

The mission of the program is to offer both majors and minors a high-quality foundation in economics with particular emphases in theory, quantitative analysis, and application to policy. This foundation is designed to prepare students for a wide variety of careers such as economics, banking and finance, insurance, management, in addition to graduate studies. The Department of Economics works toward this mission by requiring a rigorous set of core courses and offering a wide variety of upper division field courses taught by faculty with a similar breadth of knowledge. The mix of theory, quantitative, and policy themes in our Program Learning Objectives show the Department's alignment with Sonoma State University's: to prepare learned persons who have foundations for life-long learning, have an appreciation for intellectual achievements, will be active citizens and leaders, and are capable of pursuing fulfilling careers in a changing world. The Department of Economics serves the local region by preparing students for current job market conditions and demands. Faculty serve the region as a local source for economic expertise in a variety of fields and as consultants to local businesses.

We currently have seven tenure-track faculty members¹ and none in our Faculty Early Retirement Program (FERP) program. Our faculty members serve as practicing economists outside the University, bringing a rich background of experience to the classroom. Course and programmatic assessment is used by our department and is discussed in this study. The Economics Department uses assessment data for both tactical and strategic decision making. We have placed students in major graduate programs and have alumni in many business fields.

Program Learning Outcomes and Program Objectives

The four Program Learning Objectives (PLOs) for the economics major and minor are:

- 1) Articulate an understanding of economic terms, concepts, and theories.
- 2) Identify subjective and objective aspects of economic policy.
- 3) Use both qualitative and quantitative reasoning to analyze social and economic issues.
- 4) Demonstrate an awareness of current and historic economic issues and perspectives.

The Department strives to meet these PLOs through a combination of rigorous core classes that focus on economics theory, policy, and analytics, in addition to a broad offering of upper level classes and seminars that delve into various fields of economics. The 48 units required for the major can be broken up into the following requirements (see Appendix 1 for sample four-year plan):

- Core Classes: All students must complete the 6 core classes (24 units)
 - ECON 204 – Principles of Macroeconomics
 - ECON 205 – Principles of Microeconomics
 - ECON 217 – Statistics for Economics and Business

¹ There were several changes to faculty composition during the study period. We lost Dr. Robert Eyer (Dean of Extended Education and International Studies), and gained two new tenure track faculty hires (Dr. Astha Sen in 2014 and Dr. Puspa Amri in 2017). During the 2019-20 academic year we had seven full-time faculty. Dr. Sen left the department prior to the 2020-21 academic year and Dr. Eyer is exercising retreat rights back to the department starting in Spring 2021. So, for the purpose of this review we will count the number of tenure track faculty as 7

- ECON 304 – Intermediate Macroeconomic Theory
- ECON 305 – Intermediate Microeconomic Theory
- ECON 317 – Introduction to Econometrics
- Upper Division Courses:
 - Students must complete 6 upper division economic elective courses (24 units)
 - At least 2 of those elective courses must be senior seminar courses (400-level)

The core of the major, which also constitutes the full requirements for a minor degree, provide a strong theoretical and analytical foundation. In the upper-division field courses, students are exposed to a wide variety of fields, which are designed to have the students apply the foundational prerequisites to those fields. ECON 204, 205, 217, 426 (Seminar in History of Economics Thought, not listed here) are all part of the GE curriculum (areas D4, D1, B4, and D5, respectively).

Outcome of Previous Review

The last program review was conducted in 2013-2014. The action plan and recommendations that came from that assessment included:

- 1) Continue to improve curriculum
- 2) Increase the number of tenure track faculty by at least one
- 3) Continue to improve assessment data and use
- 4) Seek ways in which the Department can deliver classes in multiple formats and increase student success simultaneously
- 5) Facilitate greater opportunity for professional development, specifically as it relates to conducting and disseminating research
- 6) Improve advising

The Department has addressed these goals to varying extents. One of the primary strategies to improve the curriculum was to add additional tenure track faculty with greater diversity in demographic background and field of study. However, it is important to note that The Department of Economics has always hired the best qualified person available in each hiring cycle. At the time of the previous assessment, we had 6 tenure track faculty: 3 microeconomics, 3 macroeconomists; 5 men, 1 woman. Within the broad disciplines of micro and macroeconomics are many sub-fields that require unique educational and research backgrounds. It was seen as important to hire additional faculty that were trained in fields that would add to the knowledge-base of the Department, and allow us to offer additional courses (or courses that hadn't been offered in recent years). We also felt it was important for students to be taught by as diverse a faculty as possible.

The Department relies primarily on student evaluations of teacher effectiveness (SETES) and planned periodic faculty course assessments to evaluate our PLOs. This information has traditionally been synthesized by the department chair and used for discussion and evaluation during department meetings and retreats. The previous program review encouraged the continued use of this assessment strategy and for the Department to look for new ways to use this information to improve the curriculum.

At the time of the last program review there was a push from the School of Business and Economics (SBE) administration for greater use of technology to deliver courses. A focus was placed on the use of

hybrid courses (mixed in-person and online course delivery). Just prior to the previous review, Dr. Kim offered ECON 204 as a hybrid course. The general of assessment by Dr. Kim at the time was that the hybrid format was not ideal for achieving the departments learning outcomes. Based on Dr. Kim's assessments, we felt that, if such delivery was going to succeed in the future, more attention would need to be paid to optimizing the use of technology and expectations so as to ensure the quality of education.

The last program review noted that generating and disseminating high-quality economic research can be a costly endeavor. It is not uncommon for the necessary datasets and tools (software and hardware) to cost thousands of dollars. Further, the norms in the field require travel to scholarly conferences to share and receive critical peer review of research. We felt it was important to emphasize these requirements to the SBE administration to ensure that adequate, and increased, funding was available in the future.

All major and minor advising is handled by the Department faculty. A stated goal of the previous review was to focus providing advising to students as early as possible in their academic career. We observed that too many students were moving on to upper division classes without having taken the full core. While this is sometimes necessary to facilitate a reasonable matriculation rate, we felt that students would gain more from upper division classes with more exposure to the core classes.

Since the previous program review, the core of the major degree has not seen significant changes. There have, however, been numerous changes in the Department over this period. Below is a list of some of the more notable changes:

- 1) The Department gained two new tenure track faculty: Dr. Astha Sen in 2014 and Dr. Puspa Amri in 2017
 - a. Dr. Sen recently left the Department
- 2) Dr. Rob Eyler left the Department (with retreat rights) for a Dean position in Extended and International Education
 - a. Dr. Eyler will be rejoining the Department in Spring 2021
- 3) The lecturer pool has seen several new additions
 - a. The depth of the lecturer pool is threatened by the current budget situation
- 4) The Department offered the following new classes:
 - a. ECON 313 – Economics of European Integration
 - b. ECON 322 – Urban Economics
 - c. ECON 449 – Seminar in Program Evaluation
 - d. ECON 461 - Seminar in Quantitative Marketing: Limited Dependent Variables
 - e. ECON 462 - Seminar in Quantitative Marketing: Time Series Econometrics
- 5) ECON 217 became a General Education course
- 6) Due to high demand, the Department began to offer additional sections of 304, 305, and 317

The impacts of these changes are addressed in detail throughout this review. In summary, the addition of two new tenure track faculty was part of the long-term goals of the Department from the previous review. The new faculty added to the knowledge-base and diversity of the Department. This allowed us to offer more field courses, and freed up faculty enabling us to offer the new classes from (4) above. Our consistent pool of lecturers also aided in planning and the ability to offer a variety of field courses. We lost one of the faculty hired during the review period (Dr. Astha Sen), which works counter to the long-

term goals of the department. However, this loss will be at least partially offset by the return of Dr. Robert Eyster's return from administrative positions.

Student Profile

The Department of Economics draws most students as either first time students or transfers. The numbers of students enrolling each year is roughly equal between those two groups across the study period). The Department also puts a concerted effort into recruiting students in the principles classes. These classes are a part of the GE curriculum, so they tend to be large and draw students from outside SBE (though most are business or economics majors). The Department sends letters to the home mailing address of top students suggesting they consider economics as a major. Also, as was noted in the previous review, a former professor and alumnus of our department and his family, Barry Ben-Zion, has funded a scholarship that is only for foreign-born, economics majors. This is awarded annually, is relatively robust in terms of the amount (approximately one semester of fees and books costs), and is meant to be an attraction tool for recruiting and retaining international students that lead to more departmental diversity.

Students tend to choose economics as a major because they enjoy the process of economics analysis, the strong emphasis on quantitative analysis, and the jobs that are available to graduates. Data analytics is in high demand across all industries, including many local industries (e.g., wine and technology). The combination of the clear logic emphasized by economics and broad base of econometrics courses offered by the Department differentiates our students. Many of our graduates have gone on to work as analysts both in Sonoma County, the broader Bay Area, and beyond. Graduate studies is another option our students tend to pursue, with 20% of students who graduated between 2013 and 2015 pursuing a graduate degree.

Enrollment Trends

Prior to 2019, enrollment in economics held a steady upward trend since the last review (see Figure 1). There was a 25% increase in major enrollment between 2014 and 2018, which was erased with the decrease enrollment in 2019. Based on observations of other departments, and SSU on the whole, this recent decline does not appear to be unique to economics (SSU enrollment is down ~10%).

Major Enrollment Trends Over Time Fall Census 2014-2019

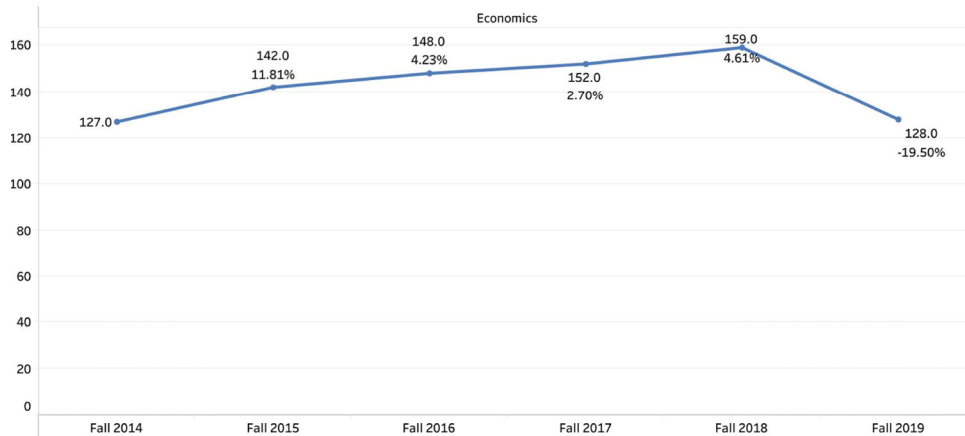


Figure 1. Trends in economics enrollment since the last program review.

Student Demographics

The demographic composition in economics has changed in some ways since the last review, but remained the same in others. The (binary) gender composition has fluctuated, but not changed substantially (see Figure 2) and stands in stark contrast to the SSU composition. The Department has remained composed of approximately 70% male students throughout the review period, while male composition campus-wide remains below 40% (see Figure 3).

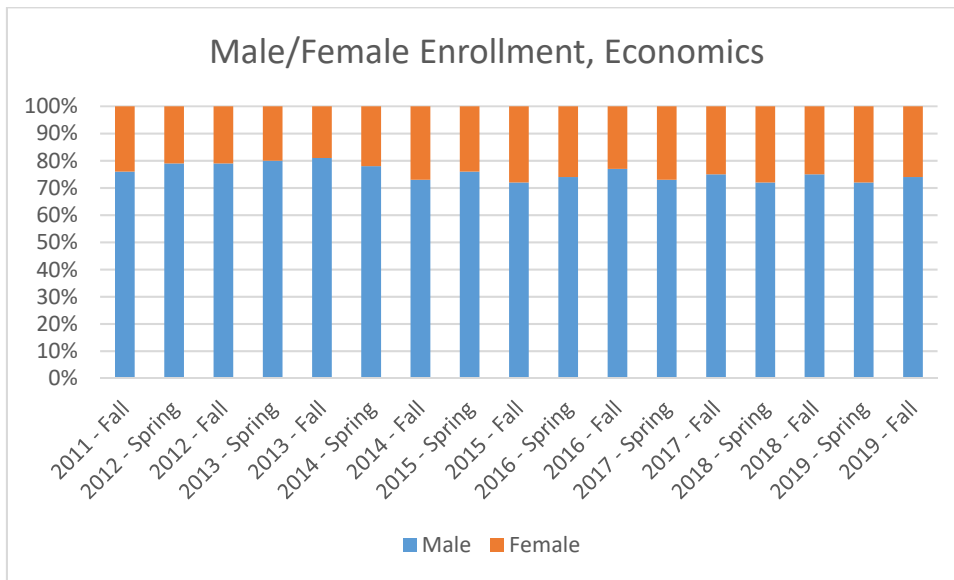


Figure 2. Economics binary gender enrollment across time.

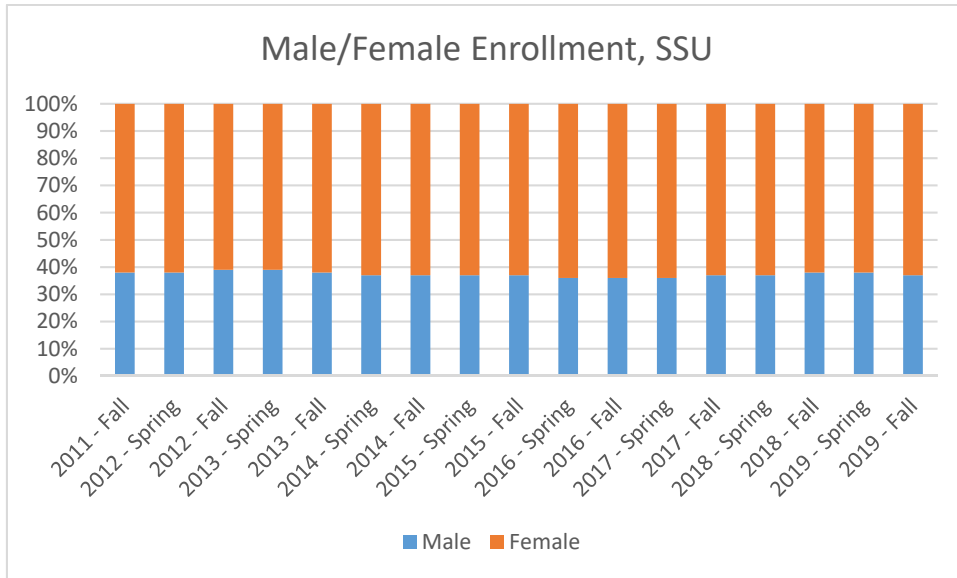


Figure 3. SSU binary gender enrollment across time.

The ethnic composition of economics students has changed over the review period (see Figure 4). The percentage of non-white students in the Department has increased from 45% in Fall 2014 to 58% in Fall 2019, with the share of Hispanic/Latino increasing from 23% to 36% over that same period of time. These changes are similar, in trend, to those seen at the university level (see Figure 5).

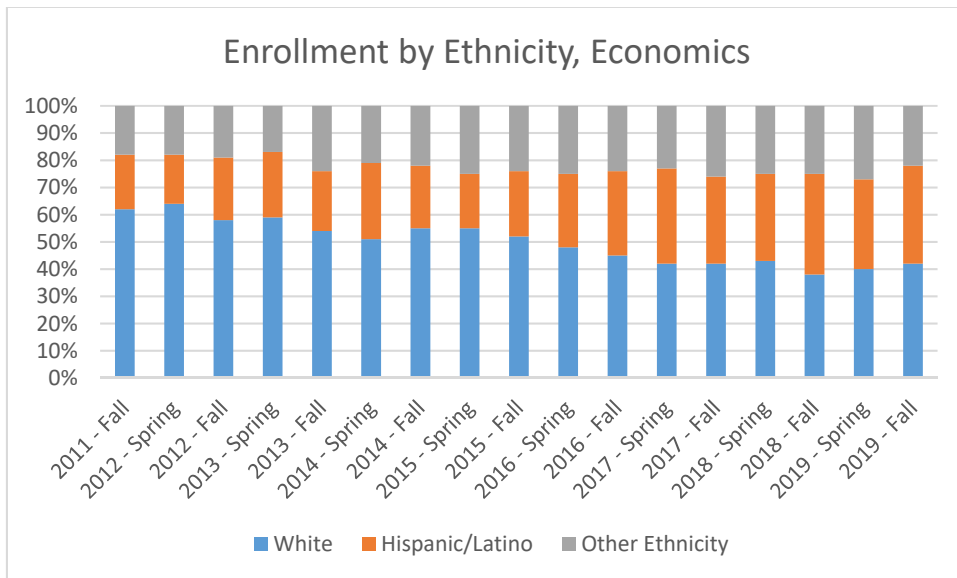


Figure 4. Department of Economics student ethnicity across time.

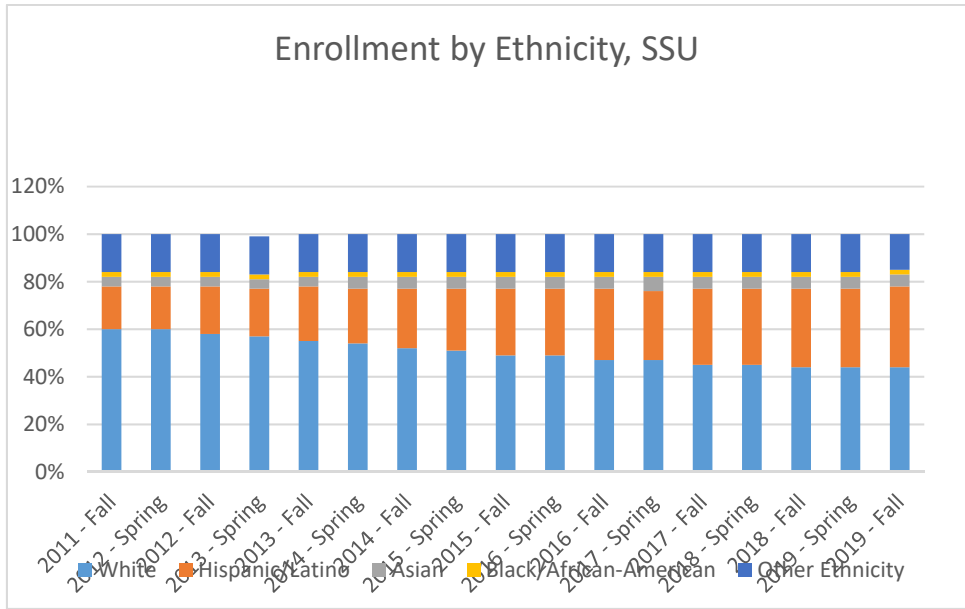


Figure 5. SSU student ethnicity across time.

Graduation Trends

The number of degrees conferred per year has increased slightly over the review period (see Figure 6). The number of graduates increased from 7 in 2014 to 10 in 2018. The composition of all graduates (from 2011) in Table 1 shows that roughly a quarter to a third of graduates were underrepresented minorities, Pell recipients, and/or first generation college students.

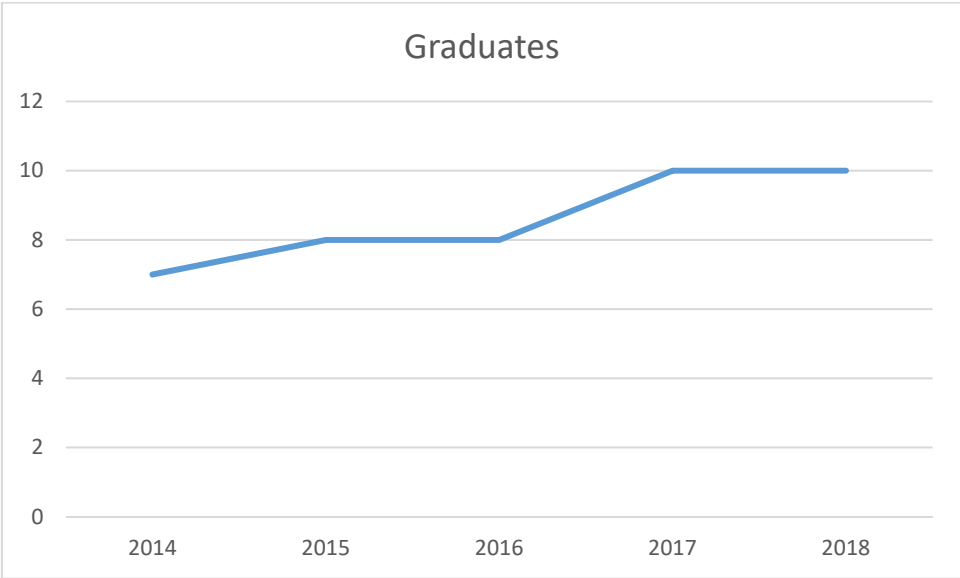


Figure 6. Number of Economics degrees conferred per year.

Table 1. Demographic breakdown of Economics graduates: 2012-2019.

Economics Graduates by Type			
Student Groups	Graduates from Major	Post-Graduate Enrollment	Rate
All Students	65	13	20%
URM	17	5	29%
Non-URM	48	8	17%
Pell	21	6	29%
Non-Pell	44	7	16%
1st Generation	13	3	23%
All Non-1st Generation	52	10	19%

Challenges

The number of students that graduate each with a degree in economics is too small to assess GPAs by demographics (due to privacy concerns). However, decreasing the GPA achievement gaps is a tangible goal of the CSUs Graduation Initiative 2025. Figure 7 shows the economics courses with the highest under-represented minority achievement gaps (left-hand side) in comparison to the highest at SSU (right-hand side) since Fall 2012. Although not near the highest in comparison, closing these gaps is something for the Department to strive toward. We have had discussions in department meetings about the existence of achievement gaps, but have not formally formulated a plan to address them.

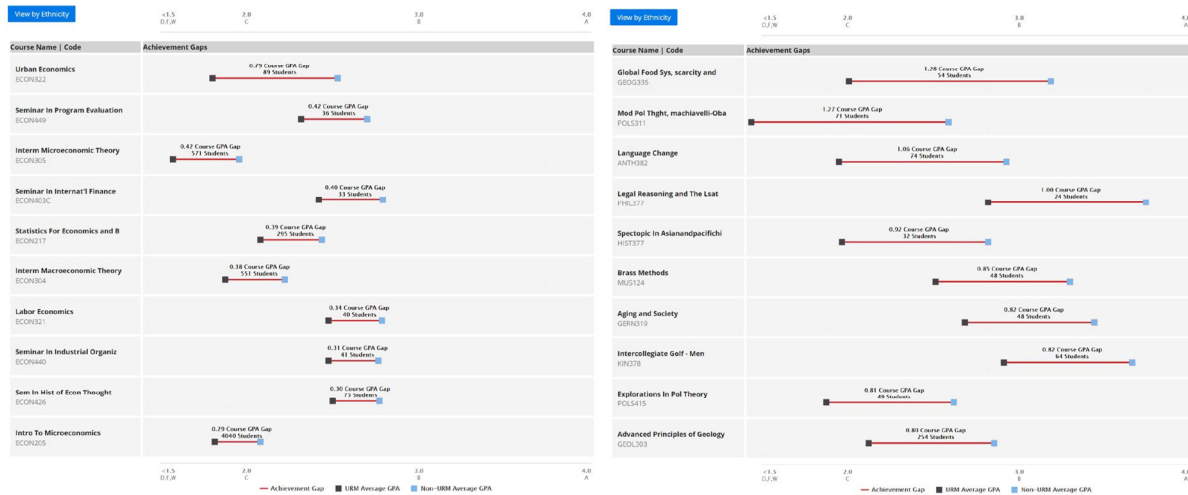


Figure 7. GPA achievement gaps for underrepresented minorities in the Department of Economics (left) and SSU (right).

Faculty Profile

Summary of the Review Period

The Department of Economics currently has seven tenure track faculty at various stages of their careers (see Table 2). The current composition is not the same as the composition during the review period. Dr. Eyster held a position as Dean of Extended Education and International studies throughout the review period, so was not teaching in the Department or participating in decision making. Dr. Astha Sen was

hired in 2014 as part of the Department’s long-term goals, and to fill the void in the curriculum left by Dr. Eyler’s departure. Dr. Sen recently left the Department for another academic position at the end of the 2019/20 academic year. Her departure was largely driven by pull, rather than push, factors. Dr. Sen’s husband primarily works on the east coast, so the move was made to allow their family to spend more time together.

Dr. Sen’s departure served to counter goals of increasing diversity in gender and ethnicity from the previous review. However, the hire of Dr. Puspa Amri in 2017 served to further those goals, and the goals of expanding the curriculum offered to students on a regular basis. Currently, of the seven tenure track faculty, two are women and five are men, while four identify as white, one as Hispanic, one as Korean, and one as Asian. Following the norm in the field, all tenure track faculty hold terminal PHD degrees.

Table 2. Summary of Department faculty.

Summary of Current Tenure Track Faculty						
Name	Degree	Rank	Discipline	Fields	Gender	Ethnicity
Robert Eyler*	PhD, UC Davis	Full	Macroeconomics	Public, Regional	Male	White
Steven Cuellar	PhD, Texas A&M	Full	Microeconomics	Labor, Econometrics, Marketing	Male	Hispanic
Michael Visser	PhD, Oregon	Full	Microeconomics	Game Theory, Industrial Organization	Male	White
Florence Bouvet	PhD, UC Davis	Full	Macroeconomics	International Macro , European Economy, Political Economy	Female	White
Chong-Uk Kim	PhD, Oregon	Full	Macroeconomics	International	Male	Korean
Merlin Hanauer	PhD, Georgia State	Associate	Microeconomics	Environmental, Program Evaluation	Male	White
Puspa Amri	PhD, Claremont	Assistant	Macroeconomics	International Finance, Monetary, Political Economy	Female	Asian

*Professor Eyler held an administrative position during the review period and will rejoin the department in Spring 2021

Tenure Track Faculty

Robert Eyler

Dr. Eyler started teaching at Sonoma State in 1995 and has served as Chair of the Economics Department (2004-2011) and director of the Executive MBA program (2009-2013). He holds a PhD from UC Davis and a B.A. in Economics from CSU, Chico. The author of two books and several academic articles concerning economics, Eyler is often quoted in the media as an expert in local and national economic trends. He also provides economic impact analyses for both private firms and public entities to help guide public policy at the local and state level. He has been a visiting scholar at the University of Bologna and Stanford University.

Eyler serves on the board of directors of both Redwood Credit Union and Marin County Workforce Investment Board, as well as the Economic Advisory Council for the California Chamber of Commerce.

Steven Cuellar, PhD

Dr. Steven Cuellar is Professor of Economics at Sonoma State University where he teaches courses in Microeconomic Theory, Labor Economics, Public Economics, Econometrics and Wine Economics. His research interests are in the fields of consumer behavior especially as it relates to pricing and marketing. Other research interests include issues relating to labor markets, public policy and wine. Dr. Cuellar has presented his research at local, national and international conferences and his research has been published in academic journals, trade publications, and professional journals. He received his Ph.D. from Texas A&M University.

Michael Visser, PhD

Dr. Michael Visser is Professor of Economics, Associate Dean, and prior Chair of the Department of Economics at Sonoma State University (SSU). Dr. Visser is a pedagogical innovator who introduced new courses and classroom constructs, including Behavioral and Experimental Economics, not previously offered to SSU students. He also developed short-term study abroad courses to provide students insight to international business environments and practices. In 2015, he was recognized by colleagues across the University with the coveted "Excellence in Teaching" award. Also in 2015, he was appointed to a U.S. delegation of scholars sent by the Council of Public Liberal Arts Colleges (COPLAC) to Cuba in the interest of education, research, and engagement following the easing of restrictions with Cuba by the administration of President Barack Obama.

In addition to his focus on teaching, research, Dr. Visser is actively involved in supporting inclusive excellence and student success initiatives on behalf of the School of Business and Economics. Together with a committee of faculty, staff, and administration, their goal is to provide education and activities designed to improve community awareness of the role that culture and ethnicity, including privilege and bias, can play in students' ability to succeed.

Florence Bouvet, PhD

Fr. Florence Bouvet is a Professor in Economics at the Sonoma State University. Originally from France, she received her BA and MA from the Political Science Institute of Paris (Science-Po) and her PhD in Economics from the University of California, Davis. Her research interests are in the areas of European economic integration, economic inequality, economic voting, and international economics.

Her recent works have been published in journals including Oxford Review of Economic Policy, Applied Economics, Electoral Studies, China Economic Review, Economic Modelling, Journal of Common Market Studies, Journal of Economic Inequality, Région et Développement, Journal of Chinese Economic and Business Studies, and Modern Economy.

Chong-Uk Kim, PhD - Chair

Dr. Cong-Uk Kim was born in Seoul, South Korea and did his undergraduate (major in international trade and minor in political science), MBA (international economics and finance), and the doctor's course in international economics and finance at the Hankuk University of Foreign Studies, Seoul, South Korea.

Dr. Kim came into the U.S. in 2000 and earned his master and doctoral degrees in economics at the University of Oregon. He have been teaching macroeconomics, international economics, and time series econometrics at Sonoma State University since 2007. The main topics of his research have been immigration, minimum wages, and tertiary education.

Merlin Hanauer, PhD

Dr. Merlin M. Hanauer joined the faculty of the Department of Economics at Sonoma State University in the Fall of 2011. Dr. Hanauer earned his PhD in Economics from Georgia State University (2011) with a concentration in Environmental Economics.

Dr. Hanauer's research addresses the socioeconomic and environmental impacts of environmental policy. He employs extensive use of geographic information systems (GIS), quasi-experimental and experimental design to elucidate policy impacts. Dr. Hanauer's research has been published in journals such as The Proceedings of the National Academy of Sciences, Journal of Environmental Economics and Management, Environmental and Resource Economics, Philosophical Transactions B, Conservation Letters, World Development, Annual Review of Environment and Resources, Journal of Environmental Management, and Environmental Research Letters.

Puspa Amri, PhD

Dr. Puspa Amri is an Assistant Professor of Economics at Sonoma State University. She is also a research associate at the Claremont Institute for Economic Policy Studies. Prior to joining Sonoma State, Dr. Amri held research and teaching positions at Ithaca College, California State University Long Beach, and the Centre for Strategic and International Studies in Jakarta, Indonesia. Her non-academic experience includes consulting for the Indonesian Ministry of Finance and PhD internships at the Milken Institute and Western Asset Management.

Dr. Amri's primary area of research is in the fields of international finance, macroeconomics and monetary policy, and international political economy. Most of her work examines the role of political economy factors in explaining macroeconomic and financial outcomes. She is especially interested in studying causes and consequences of financial crises such as credit booms, financial regulations, elections, and political regime changes. Outside my primary research area, I have worked on globalization and welfare spending, economic integration in Southeast Asia and fiscal decentralization in Indonesia.

Dr. Amri speaks and reads French, she is conversational in Italian and German, and Bahasa Indonesia is her native tongue.

Lecturers

Wendy Williams, PhD

Dr. Wendy Williams teaches principles of microeconomics and macroeconomics. She earned her PhD from UC Davis.

Sam Riewe, MA

Samual (Sam) Riewe is an alumnus of the Economics Department in the School of Business and Economics at Sonoma State University. Mr. Riewe teaches undergraduate macroeconomics, microeconomics, and statistics courses, and teaches modules in the Sonoma MBA and Executive MBA programs. In addition to teaching, he works as a quantitative modeler for Customer Vineyard, where he analyzes large direct-to-consumer wine data using statistical software.

Angel Casas-Gragea, PhD

Dr. Ángel M Casas-Gragea grew up in Spain where he earned his Bachelor's degree at the University of Seville. He received his PhD in 2003 from the University of Cordoba in Spain. Dr. Casas-Gragea has been

involved for more than 15 years with a variety of public and private higher education institutions throughout Europe and Latin America as a full-time and visiting professor. He served 6 years in the Spanish Agency for International Development in Mexico, overseeing extensive education projects. He has also collaborated with the Inter-American Development Bank and Andean Community. Since 2009 he has been distinguished as a member of the National System of Researchers of the Mexican's National Council of Science and Technology.

Faculty Specialization

The Department currently has three microeconomists and four macroeconomists, which is roughly representative of the proportion across the review period. Within those broad disciplines, our faculty have a diverse range of academic research and teaching (see Table 2). Because of this, we have been able to offer 18 elective courses (outside the core) on a semi-regular basis (see Program Curriculum Matrix, Table 4, in next section). How regularly a class was offered over the review period was largely driven by student demand, but was not limited by the ability of our faculty to provide such curriculum.

Growth, and change in composition, of our tenure track faculty over the review period allowed the Department to offer several new courses:

- ECON 313 – Economics of European Integration
- ECON 322 – Urban Economics
- ECON 403C – Seminar in International Finance
- ECON 449 – Seminar in Program Evaluation
- ECON 461 – Seminar in Quantitative Marketing: Limited Dependent Variables
- ECON 462 – Seminar in Quantitative Marketing: Time Series Econometrics

The ability of our faculty to offer a broad array of elective classes is critical to achieving our PLOs (how each class addresses the PLOs is captured in the Program Curriculum Matrix, Table 4, of the next section). Each elective course might apply theory from the core courses, build new economics theory, use core econometric methods to analyze economic research, build new econometric methods, or all of the above. Without a diverse array of electives, students would not be exposed to the many fields and applications of economics in the real world, which would limit our ability to achieve the PLOs. In other words, the more field courses we can offer, the broader the perspective we can offer our students, and the more developed their economic intuition and understanding can become.

Assessment of Teaching

Since the last review, the Department of Economics has continued to use Student Evaluation of Teaching Effectiveness (SETE) feedback from students to assess student satisfaction with our curriculum choices and program structure. Each faculty member is asked to look at their student evaluations (both quantitative and qualitative) and adjust their pedagogy and curriculum accordingly, regardless of tenure status and faculty rank. In some years a departmental retreat is held to analyze and discuss our student and peer evaluations, anecdotal evidence from courses, specific assessment data from courses on a rotating basis, and faculty concerns as needed to drive program evolution related to our mission. This information is also discussed during department meetings.

Each SETEs for economics courses includes discipline specific questions that help the Department evaluate a work toward our learning goals:

- After taking this class, I understand the models or conceptual frameworks taught in this course.
- After taking this class I am more informed about policy issues and problems in our society and economy.
- After taking this class I can understand and explain policy issues better because I can apply the models or conceptual frameworks learned in this course.
- After taking this class I can write a better report or paper on economics issues or policies.
- After taking this class I can read or watch the news about social-economics issues and think more critically about them.
- Taking this class has increased my curiosity for learning.

In addition to evaluation of SETEs, and in accordance with the Department RTP process, junior tenure tack faculty undergo in-class peer review of teaching twice a year.

Finally, faculty volunteer to provide detailed course assessments on a rotating basis. Table 3 shows how this rotation took place over the review period (xx designation serves to allow for periodic assessment of major elective course). The course assessments are rigorous assessments of the curriculum for a course, how this curriculum has changed (or not) from the previous assessment, how students are performing in the class, and how the class performs vis-à-vis the Department’s PLOs. Each class has its own learning objective, which the course assessments are also designed to address. These course assessments are invaluable tools for assuring that course goals align with PLOs. Appendix XX includes a sample course assessment from the review period.

Table 3. Course assessment schedule.

Academic Year	Course
2014-2015	205, 304, 3xx, 4xx
2015-2016	204, 305, 3xx, 4xx
2016-2017	205, 317, 3xx, 4xx
2017-2018	204, 304, 3xx, 4xx
2018-2019	317,3xx, 4xx

Faculty Scholarship

The faculty of the Department of Economics have remained very active in scholarship throughout the review period. In total, the faculty produced 29 original research papers that were published in peer-review journals, with nearly a dozen more currently under review. As with the specialties of our faculty, the topics in these publications vary and include: wine marketing, taxation, trade, firm structure, income inequality, education, voting, conservation, immigration, financial markets, and many more. Faculty have targeted and published their research in top field journals (impact factors up to 4.2) as well as general interest scientific journals (impact factors up to 13.1).

Our faculty members present at regional, national and international conferences, having also chaired and organized sessions at these conferences. During the review period our faculty presented at over 65 conferences and meetings in the United States, Australia, Canada, England, India, Indonesia, Mexico, Singapore, and Sweden. At many of these meetings our faculty were invited speakers or panelists.

Many of our faculty members also engage with private firms, public agencies, and non-government organizations to provide intellectual contributions. These funded assignments are more practitioner-oriented than theoretical, and provide opportunities for faculty to engage at the regional, national, and international levels as economics experts. Such engagements range from non-profit assistance to legal consulting and testifying in civil or criminal matters. Some of the organizations our faculty have worked with over the review period include: Dropbox, Google, USAID, the World Bank, and others.

The Department of Economics continues to have an organized, brown-bag series on faculty and outside research with a focus on economics topics. The lecture series is available to the entire campus community; this series has become a stop for graduate students that are completing their PhD dissertations and are entering the job market for faculty positions at regional universities with graduate programs. We also have had success in inviting economists from regional think tanks, federal and state agencies, and other, non-academic assignments to present their research. This lecture series has also been a way for our faculty to have an outlet to share research or to prepare for a conference presentation or both.

Our faculty members (from the most senior to the most junior) are teaching relatively large classes (average of 33.75 student-faculty ration (SFR) across the review period; for reference, the Department of Business Administration average 24.9 during that same period). Release time for research has been rare. Workload demands for teaching courses detract from time available for research. Our students generally struggle to assist in our research, as we do not have a graduate program and our undergraduates (with some rare, outstanding exceptions) are not at a technical level yet to assist in earnest.

Assessment

Program Learning Outcomes

The program learning outcomes (PLOs) for the Department of Economics are:

- 1) Articulate an understanding of economic terms, concepts, and theories.
- 2) Identify subjective and objective aspects of economic policy.
- 3) Use both qualitative and quantitative reasoning to analyze social and economic issues.
- 4) Demonstrate an awareness of current and historic economic issues and perspectives.

These PLOs are easily accessible on the Department's homepage (<https://sbe.sonoma.edu/economics>) and the course catalogue (https://catalog.sonoma.edu/preview_program.php?catoid=5&poid=1140&returnto=460).

Program Curriculum Matrix

As mentioned in the previous section, the primary tools used by the Department to ensure alignment between course goals and PLOs are SETEs and course assessments. The Department of Economics asks faculty teaching these courses to gather data based on an assessment tool of their choice (embedded

assessment, rubrics, qualitative evaluations, portfolios, etc.) and report a summary of their data and findings to the Department in its annual retreat in August or during department meetings. These meetings engage discussions about the data and findings, discussions on potential curricular change, issues with assessment methodology, and co-curricular aspects of student and faculty experiences that can enhance student learning. This may also include some adjustments to teaching schedules and rethinking of learning objectives. This discussion may also discuss programmatic changes and issues, which acts as ongoing maintenance and continuous improvement for our major.

Table 4. Program Curriculum Matrix

	Economics Program Learning Outcomes			
	Articulate an understanding of economic terms, concepts, and theories	Identify subjective and objective aspects of economic policy	Use both qualitative and quantitative reasoning to analyze social and economic issues	Demonstrate an awareness of current and historic economic issues and perspectives
Course Name and Number				
Core Courses				
ECON 204 Principles of Macroeconomics				
ECON 205 Principles of Microeconomics				
ECON 217 Statistics for Economics and Business				
ECON 304 Intermediate Macroeconomic Theory				
ECON 305 Intermediate Microeconomic Theory				
ECON 317 Introduction to Econometrics				
Junior-Level Courses				
ECON 313 Economics of European Integration				
ECON 319 Managerial Economics				
ECON 321 Labor Economics				
ECON 322 Urban Economics				
ECON 330 Game Theory				
ECON 375 Money and Banking				
ECON 381 Natural Resource and Environmental Economics				
Senior Seminar Courses				
ECON 403A Seminar in International Economic Development				
ECON 403B Seminar in International Trade				
ECON 403C Seminar in International Finance				
ECON 404 Seminar in Macroeconomic Theory				
ECON 411 Seminar in Public Economics				
ECON 417 Seminar in Econometrics and Forecasting				
ECON 421 Seminar in Labor Economics				
ECON 426 Seminar in History of Economic Thought				
ECON 440 Seminar in Industrial Organization				
ECON 449 Seminar in Program Evaluation				
ECON 454 Seminar in Behavioral and Experimental Economics				
ECON 461 Seminar in Quantitative Marketing: Limited Dependent Variables				
ECON 462 Seminar in Quantitative Marketing: Time Series Econometrics				
ECON 495 Special Studies				
ECON 496 Tutoring Economics				
Introduced				
Developed				
Demonstrated				

Summary of Findings

While discussions of specific course curriculum and pedagogy occur at the department level, individual faculty are granted full autonomy in curricular and pedagogical choices. Even at the introductory levels, while the student learning outcomes (SLOs) are consistent across similar courses (e.g., 204, 205), the text, assessment (homework, quizzes, writing, tests), and topics might vary.

Examples of specific findings from course assessment (see Appendix 2 for example of full course review):

- ECON 204 - I have come to understand that, for many students, econ 204 is a challenging (GE) course to take because it requires them to learn and memorize a significant amount of new concepts or definitions, AND to also learn how to use models to capture how different economic variables affect each other. Some students still struggle with basic graphical analysis (difference between what causes a movement along a line and what would shift the line). Over the past three semesters, I have required that students turn in chapter outlines to help them focus on the key concepts covered in each. I am not convinced that for most students this had the expected impact on their study habits, as most of them did not prepare them in a thoughtful manner that would make them useful as study tools for the exams.
- ECON 303 - All together including homework and class participation, students had earned 61.3% for the course, which is at least 7 percentage points lower than usual. The lower average is partly due to the high number of students (4) who failed the course because they did not complete all the assignments or missed several of the exams. It is also the result of the low performance on the final exam, which was not more difficult than what I had asked previous semesters. Overall, many students struggled to apply the key theories or concepts covered in the class beyond the use of our simple graphical tools, which typically requires a deeper understanding of the material. Given how challenging these two short essays were for most students, I would recommend that our department introduces more essay writing in the courses we offer.
- ECON 317 - Overall, students tend to do better when I asked them an explicit task (such as a-iv and a-v) but struggled more for somewhat open-ended questions such as question d where they have to make themselves the connection between econometrics theory and empirical strategy in STATA. The averages on the exams went from 66% to 73%. The grade distribution is typically bimodal or uniform: around a third of the class with solid statistics foundations has a solid understanding of the material, one third really struggles because of very weak statistics foundations.
- ECON 403A - Altogether, students had earned 79.6% for the course, which is in line with the general performance for this course mostly taken by senior students. What surprises me the most is that they still struggle a lot with the analysis of regression tables from applied articles. They don't always understand how researchers deal with endogeneity, or issues that would stem from omitted variables. Even though I now spend a week on reviewing regression analysis (log transformation, dummies, interaction terms, etc), econometrics remains challenging for many senior students.
- ECON 440 – Assessment of paper that was designed and graded in consultation with the Faculty Center around the PLOs:
 - Students generally respond positively to constructive feedback. There was a high degree of anxiety around the assignment since it counts for a significant portion of the grade, it is a large assignment with many different facets, it requires a lot of time, and it is different from any other assignment students are likely to encounter. Providing them an opportunity to submit an ungraded draft upon which they would get my feedback did a lot to ease these anxieties. Further, students mostly understood that I expected them to address the feedback directly, and mostly did so. This is clear from the increased points within each rubric category and overall. Further, in some of the presentations, it became clear that the student had enjoyed the follow-up research suggested in my

feedback. Often, this would manifest as some kind of interesting anecdote or historical feature of note that was discovered by the additional research. In one case, the student actually changed the entire focus of the paper (away from coffee production and into retail coffee), making it easier to find relevant source materials and make a compelling case study.

- Students generally respond to incentives. I have been giving some version of this assignment since the first course I ever taught as a graduate student in 2003. I have varied it in a number of ways. In the early versions, there was no ungraded draft due; students were responsible for consulting with me along the way to get my feedback. At some point I decided that I wanted a more systematic mechanism for providing feedback, and I wanted to do it in a way that would leave students at ease. So, I instituted the ungraded draft. However, there always seem to be a number of students who simply do not turn in a draft. I think that, going forward, I will make the draft part of the grade for the assignment. I will have to give some thought to exactly how to incorporate the draft as I still want students to feel like they are not going to be handicapped if their draft is way off-base or otherwise seriously deficient. The fact is that some drafts were seriously deficient, but in most of those cases students responded appropriately, improving their scores by as many as 12 points.
- In my review of bibliographies, it is clear to me that students are not going to be able to identify and make use of the number of primary sources that I ask for in the assignment. Research resources and methods have evolved rapidly in the time since I was in graduate school, and I need to spend some time thinking about how to better evolve this part of the assignment. I have taken the class to the library for an orientation on relevant databases, and I think that this has been quite helpful. I plan to continue doing that.
- The improvement in the Professional Writing category was the lowest improvement. It went from the best category in the draft to the worst category in the final paper, though writing quality did still improve. There may be some additional instruction on writing, specifically on revision, that is merited.

Changes

At the department level, based on both course assessment and discussion of overarching department goals, the ability to cover a broad array of elective courses was identified as a key curricular goal. As noted above, during the study period we were able to offer five new elective courses. In addition, due to one of our tenure track hires, we were able to offer ECON 403C (Seminar in International Finance), which had not been offered since 2010.

The examples of findings from individual courses highlight how this mode of assessment is used to reflect upon, and make changes to pedagogy so as to continually move toward achieving both class-level SLOs and department-level PLOs.

There have been informal discussions within the Department regarding ways in which we can enhance our assessment process. As a department that prides itself on a deep understanding of how to analyze

data, it seems natural that we would strive to collect more quantitative measures to aid in assessment. This is an area that the Department should explore expanding upon for the next review period. In review of the existing course assessments, the department formulate a method/strategy for synthesizing the information and findings across courses. Toward the end of the review period the department should set aside time to review, as a group, all of the course assessments to look for patterns and draw up suggestions for improvement. For example, there are numerous reviews of the principles courses. It would be beneficial to review these to determine what was successful and what wasn't as a guide for future offerings.

Program Quality and Integrity

Applications, Admittances, and Enrollment

As mentioned in the Student Profile section, the Department of Economics draws most students as either first time students or transfers. The numbers of students enrolling each year is roughly equal between those two groups across the study period see Tables 5 and 6). The applicant to enroll yield is substantially higher for transfer students, which likely reflects the more focused search parameters of transfer students in addition to our strong relationship with the Santa Rosa Junior College.

Table 5. Application and Enrollment for First Time Students.

Application and Enrollment for First Time Students					
Term	Distinct Applicants	Admitted Count	Deposited Count	Enrolled Count	Applicant to Enroll Yield
Fall 14	168	124	15	15	8.90%
Fall 15	184	134	17	16	8.70%
Fall 16	211	174	22	22	10.40%
Fall 17	198	156	27	24	12.10%
Fall 18	168	146	16	16	9.50%
Fall 19	181	168	12	12	6.60%
Total	1,110	902	109	105	9.50%

Table 6. Application and Enrollment for Transfer Students.

Application and Enrollment for Transfer Students					
Term	Distinct Applicants	Admitted Count	Deposited Count	Enrolled Count	Applicant to Enroll Yield
Fall 14	95	46	24	22	23.20%
Fall 15	106	60	20	18	17.00%
Fall 16	106	53	24	21	19.80%
Fall 17	101	47	17	16	15.80%
Fall 18	111	92	24	21	18.90%
Fall 19	112	74	24	22	19.60%
Total	631	372	133	120	19.00%

In the next five years there are multiple factors that will likely affect demand for our program. Some of the factors that are likely to increase demand for our program are specific to the Department while others more general, and include: increased demand in the job market for graduates with strong analytical skill (specific); economic downturns should tend to increase college enrollment (general); targeted recruitment strategies (specific). Factors that are likely to decrease demand include: COVID-19 pandemic (general); shift.

Retention and Time to Degree

Retention and time to degree are integral components of the CSUs Graduation Initiative 2025. During the review period, the Department of Economics identified early advising as a goal. In part, this was meant to ensure preparedness for upper division major classes, and thus address PLOs. Another intention of early advising was to increase the pace of matriculation through forward-looking, efficient planning of course work.

Tables 7 and 8 show the 4-year graduation rates during the review period for first-time freshmen (FTF) and transfer students, respectively. Graduation rates for FTF showed marked and, largely, steady increases from 0.25 to 0.34 during the review period. The rates for transfer students are higher than that of FTF, but did not increase during the review period. While rates for both groups remain below SBE and SSU averages, this is likely a function of the rigor of the requirements in the Department of Economics (our numbers are similar to the Department of Computer Science). The 6 year graduation rate during the review period (for 2013 first-time freshman) was 69%, which is comparable to the rate in Business Administration (67%).

Table 7. Four-year graduation rate for first-time freshmen.

4 Year Graduation Rate First-Time Freshmen						
Dept	2014	2015	2016	2017	2018	2019
All	0.337	0.35	0.39	0.41	0.41	0.38
ECON	0.25	0.27	0.29	0.34	0.31	0.34
BUS	0.38	0.39	0.4	0.43	0.44	0.45

Table 8. Four-year graduation rate for transfer students.

4 Year Graduation Rate - Transfer						
Dept	2014	2015	2016	2017	2018	2019
All	0.51	0.51	0.52	0.54	0.56	0.56
ECON	0.52	0.44	0.45	0.43	0.44	0.44
BUS	0.61	0.64	0.66	0.68	0.7	0.69

Table 9 shows the retention rate for FTF during the review period. The Department showed marked increases in retention rates across that time, increasing from 0.69 to 0.84, bring us in line with SBE and

SSU. These data, in tandem with the graduation rates, are heartening in light of the goals of early advising discussed above. These improvements suggest that the Department should continue its focus on early advising and perhaps look for ways to discuss these goals specifically with students during the advising process. In addition to early advising, consistent advising (e.g., every semester) was one of the suggestions made by the external reviewer of the last department program review.

Table 9. Retention rate for First-Time Freshmen.

Dept	Retention Rate FTF			
	2014	2015	2016	2017
All	0.84	0.84	0.81	0.88
ECON	0.69	0.65	0.83	0.84
BUS	0.84	0.86	0.88	0.85

Instruction, Advising, and Resources in the Program

Headcount Data

Enrollment, full-time equivalent students (FTES, Figure 9), and FTES to full-time equivalent employee ratio (FTES/FTE, Figure 10) have followed similar trends over the review period. The dip in FTES/FTE in 2017 corresponds to the new faculty hire of Dr. Amri. Still FTES/FTE remains relatively high in comparison to other department over the study period:

- Higher than the Department of Business administration
- Higher than every department in the School of Arts and Humanity
- Higher than all the departments in the School of Education
- Higher than all the department in the School of Science and Technology
- Comparable to the departments of Political Science, Psychology, Sociology, and Women’s and Gender Studies, in the School of Social Sciences

These discrepancies are due in large part to the fact the Department of Economics has long taught relatively large classes. Principles classes are capped at 60 and we typically offer two sections (one 204 and one 205) with 120 students each semester. Our upper division classes tend to run relatively large as well, with 300-levels capped between 30-40 and 400s capped at 30. These high caps, particularly in upper-level courses, cause a tremendous grading burden, which significantly affects overall workload for faculty. During the review period, the Department was experiencing upward creep in caps, particularly in upper-level core classes (304, 305, and 317). This prompted the decision to increase the number of sections offered for each of the upper-level core classes from two to three per year. The effect was

beneficial for those classes, but also reduced by three the number of other courses we can offer per year without additional hiring. Given the relatively complex nature of the economics curriculum, finding ways to reduce the FTES/FTE ratio would likely improve student outcomes in courses of all levels.

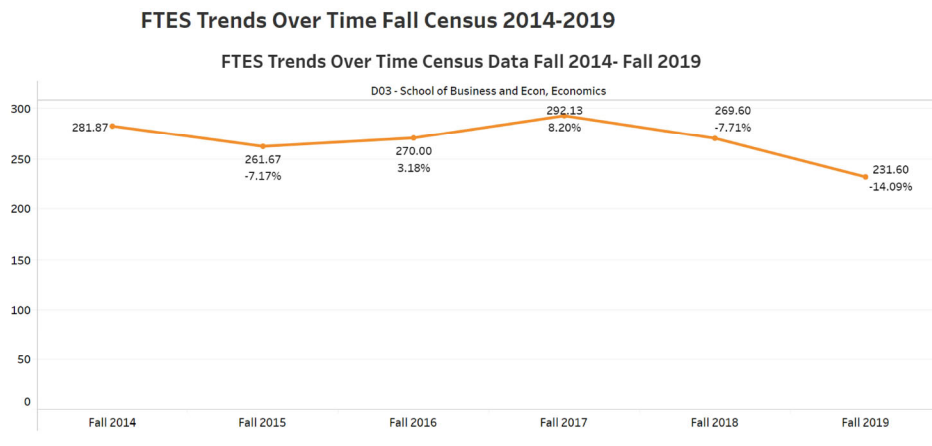


Figure 8. Full-time Equivalent Students across time.

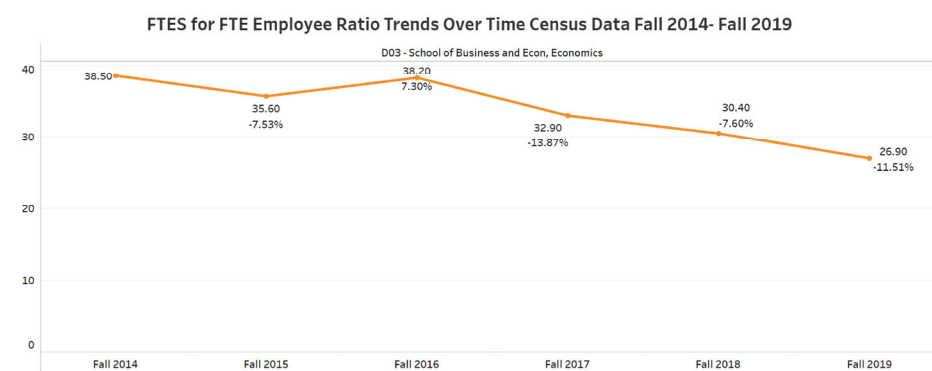


Figure 9. Ratio of Full-time Equivalent Students to Full-Time Faculty across time.

General Education

The Department of Economics offers four courses that are a part of the current general education (GE) curriculum:

- ECON 204 – Principles of Macroeconomics
 - Area D5
- ECON 205 – Principles of Microeconomics
 - Area D1
- ECON 217 – Statistics for Economics and Business
 - Area B4
- ECON 426 – Seminar in History of Economic Thought
 - Area D5

Over the review period, the Department has offered 1,230 seats per year in the principles courses. Based on available resources and demand for upper-level classes, tenure track faculty have taught between approximately 30% and 80% percent of those students in a given semester. As a department we have acknowledged that, while it would be preferable to have tenure track faculty in the principles classes (to represent the Department and facilitate recruitment into the major), this isn't feasible given the size of our department, and we need tenure track faculty to teach the more technical upper-level courses in their fields of expertise.

ECON 217 was designed, and has been taught ever semester, by Mr. Samuel Riewe, who is one of the Departments primary lecturers. The class offers 60 seats per year in two course offerings. ECON 426 is taught once a year by Dr. Kim. The course is an upper-division GE and writing intensive course (WIC) and is thus capped at 25 seats.

Pedagogical Methods

Each faculty member for each course they teach makes choice of pedagogy independently. However, all economics classes have common themes that can be represented in questions: 1) what is the appropriate model to address a given question or situation?; 2) how can we analyze this model to say something that is relevant to policy? This commonality leads to natural satisfaction of the PLOs. The types of activities and assignments tend to differ depending of the level and type of course. For example:

- Principles courses: 204, 205 – Typically will have heavy reliance on whiteboard for exposition of models with use of slides to present concepts, definitions, current events, and policy. These courses will tend to rely more on homework, quizzes, tests, and short writing assignments for assessment. Tests, depending on the class size, typically comprise multiple choice and short-answer questions. Faculty observe relatively normal grade distributions in these classes with approximately 27% of students failing to pass the classes (see Table 10).
- Intermediate courses: 304, 305 – The intermediate theory courses take students beyond the principles courses with in-depth study of both graphical and mathematical models of consumer and producer choice. The courses are much more rigorous than their principles counterparts, including the use of basic calculus. Assessment relies on homework and tests. Tests comprise several long-answer problems that require students to demonstrate a deeper understanding of economic theory. These courses have proven to be some of the more difficult in the Department (24% and 37% non-pass rates for 304 and 305 respectively). Faculty regularly observe bimodal grade distributions in these classes.
- Econometrics courses: 317, 417, 449, 461, 462 – Include heavy use of statistical packages (Stata and R). 317 is students' first introduction to true econometrics, with a majority of the class focused on regression analysis. The class relies primarily on homework (to allow student to apply the concepts to data within a statistical package) and test (to further test students ability to apply econometrics independently) for assessment. 417 requires students to complete an empirical research paper, which includes: 1) formulating an interesting policy question; 2) collecting data; 3) applying the appropriate econometric model to those data; and, 4) synthesizing the results into a research-paper format. 449 uses similar assessment methods to 317 but focusses on study design and methods in the context of experimental and quasi-experimental program evaluation. Students are also required to complete a replication study,

where they use methods learned in class and attempt to replicate the results of a peer-reviewed journal article. 461 and 462 use similar assessment methods to 317 but focus on specific econometric models (limited dependent variable models) and data types (time series), respectively, in the context of marketing research. Faculty tend to observe bimodal distributions in 317. In the other upper-level econometrics courses, where we typically find more motivated students, faculty observe left-hand skewed distributions, with a majority of students at the high-end of the distribution.

- 300-level courses: Each 300-level field course has its own method of assessment. However, there are commonalities across these courses. None of the courses have 304 or 305 (intermediate theory classes) as prerequisites. So all of these classes either introduce new field-specific models, or extend models that students were exposed to in 204 and 205 in new ways. These are also the courses where faculty introduce the literature by integrating scholarly articles into the coursework. All 300-level classes use homework and tests as means for assessment. Most have writing requirements either in short (e.g., responses to journal articles) or long form (e.g., term papers). While the 300-level courses are more rigorous than the principles-level courses, most students are economics majors and thus tend to show greater aptitude. With few exceptions, non-pass rates are lower for this groups of courses than for principles and intermediate courses.
- 400-level course – Senior seminar courses comprise economics majors and a few outside (typically business) students with deep interest in econometric analysis. These courses are the most advanced in theory and provide greater exposure to the literature. Assessment methods vary by class. All use some form of testing, and most have a significant writing component. 426 (Seminar in History of Economics Thought) is unique in the Department. It is an upper-division GE and WIC course. Again, students in these courses tend to have taken a majority of their requirements for the major and thus tend to preform relatively well.

Table 10. Non-pass rate by class: 2012-2019.

Non-Pass Rate by Class 2012-2019				
Course Code	Course Title	Enrollment	Non-passing Rate	Impact
ECON204	Intro To Macroeconomics	5,008	26%	1,291
ECON205	Intro To Microeconomics	4,038	28%	1,145
ECON305	Interm Microeconomic Theory	570	37%	210
ECON317	Introduction To Econometrics	575	27%	155
ECON304	Interm Macroeconomic Theory	550	24%	130
ECON217	Statistics For Economics and B	295	22%	65
ECON303	International Economics	246	24%	58
ECON381	Nat Resourceandenvironmntal Ec	176	22%	38
ECON375	Money and Banking	567	5%	30
ECON313	Economics of Euro Integration	61	26%	16
ECON311	Public Economy	144	10%	15

ECON322	Urban Economics	89	15%	13
ECON417	Sem In Econometrics and Foreca	96	14%	13
ECON494	Special Topics In Economics	62	15%	9
ECON330	Game Theory	64	14%	9
ECON404	Sem In Macroecon Theory	64	11%	7
ECON449	Seminar In Program Evaluation	36	17%	6
ECON426	Sem In Hist of Econ Thought	75	8%	6
ECON462	Seminar In Quantitative Market	88	7%	6
ECON321	Labor Economics	40	13%	5
ECON440	Seminar In Industrial Organiz	41	10%	4
ECON403A	Sem In Int'l Econ Dev	56	7%	4
ECON461	Seminar Quantitative Marketing	48	6%	3
ECON403B	Seminar In International Trade	28	7%	2
ECON454	Sem In Behav and Experim Econ	43	5%	2
ECON403C	Seminar In Internat'l Finance	33	3%	1
ECON421	Seminar In Labor Economics	34	3%	1
ECON497	Sem In Teaching Economics	50	2%	1

Other Relevant Learning Experiences

Outside the classroom there are opportunities for economics students to enhance their education. The Economics Club is a student-led organization. Its goal is to bring students together for studying, to discuss relevant topics related to classes, to socialize, and to build a network and connect with former SSU economics graduates. Activity in the club fluctuated during the study period but did spur the formation of an alumni group that gathers periodically to socialize and network. Anecdotes suggest that this group has opened the doors for job positions to our students.

During the review period the Economics Club would coordinate with a faculty member to organize a field trip to the San Francisco branch of the Federal Reserve Bank. The trip offers a chance for students to see economists working in the real world (at all levels, interns and research assistants, to PhD economists). The activity also allowed students to get to know faculty members outside the classroom.

Internships are managed by faculty members. Students can earn credits toward the major through regular reports to their managing faculty. During the first half of the study period the SBE had a dedicated and well informed internship coordinator. This coordinator acted as a link between the SBE and the local business community, which was very helpful for ensuring we knew about as many positions as possible and for maintaining connections to the community.

Comparison to Similar Departments

We compare our program to the programs at East Bay, Fresno, and Chico. We choose East Bay and Fresno because both their departments are housed in a business school and the number of students served is closest to our department. We choose Chico for comparison because, even though the Department is housed in the College of Behavioral and Social Sciences, Chico is more of a residential campus, the student demographics in the department are similar to ours, and the number of students served is closer to ours than most campuses.

Curriculum

CSU East Bay

[Link](#) to requirements and descriptions.

East Bay offers a Bachelors in Science and requires more units for the major than any of the programs considered here. There are two core section, upper and lower division (42 units) with additional upper division requirements (18 units). Other these differences, the course offerings are roughly similar to ours.

Core

The lower division core (21 units) include the same principles classes, but adds a business calculus and programming class (taught in the Department of Economics). The upper division core (21 units) includes two additional microeconomics theory classes, one macroeconomics theory class, in addition to: Money and Banking, Econometrics (part of our core), Game Theory, and a capstone course.

Upper Division

A total of 18 upper division courses are required, with class offerings roughly similar to ours.

CSU Fresno

[Link](#) to requirements. [Link](#) to course descriptions.

The Bachelors of Arts requires 39 units. After core work, students choose upper division courses out of four areas with the requirement that they must take at least one course from each area.

Core

The core requirements at Fresno are same as SSU.

Upper Division

The upper division requirements ate Fresno are very similar to ours. The primary difference is that the courses are broken into categories (themes): Macroeconomics and International, Microeconomics, Historical and Political Economics, Cross-Cutting Economics, and Special Courses

Chico State University

[Link](#) to requirements. [Link](#) to course descriptions.

The Bachelors of Arts requires a total of 51-54 units. Students chose one of four areas of major studies (12-13 units): international, environmental, financial, or quantitative. Beyond areas of focus, students are required to take an additional 12 units of upper division classes.

Core

The primary core classes at Chico are the same as SSU, under slightly different titles. However, there are four additional core areas, each with 2-3 classes, from which students must choose a class as a part of the core requirements. Roughly, these areas can be characterized as: statistics, senior capstone, programming/digital acumen, and calculus.

Upper Division

Chico requires students choose an area of study within the major (international, environmental, financial, or quantitative). We had such requirements in the past, but chose to remove those because

they were seen to constrain students (e.g., timing of class offerings) without any perceived benefits to the labels.

Faculty and Student Support

Advising

Our faculty members advise, mentor and help any students, regardless of gender, race, other demographic characteristics, or current major. Our faculty members encourage any and all students to become Economics majors if they show acumen for our science. Further, our faculty members are dedicated to advising and mentoring; our department is committed to advising as part of our job as faculty. Throughout the period of review, major students were distributed roughly equally across tenure track faculty, meaning that each faculty member was responsible for advising approximately 20 students at any given time.

Our faculty members also act as potential job links for alumni. Faculty members receive requests on a regular basis about networking and connections to employers. Most of our faculty have a presence in social media (such as Linked In), specifically networks that allow alumni to remain in touch and connect to faculty, labor market networks and other alumni easily and in a professional setting.

Tutoring

The Department of Economics offers a course (ECON 496) that allows students to earn credit toward the major by providing tutoring services to other students taking economics courses. The Department has/had a room in Stevenson Hall near faculty offices dedicated for student tutoring. Tutors are chosen via faculty selection or self-nomination. Either way, students must have performed well in principles and intermediate courses, and must receive a(n) (informal) recommendation from the faculty. The primary focus of the tutoring center is to provide support to students in principles classes (204 and 205). Students that have worked as tutors have found it to be a positive and rewarding experience (based on anecdotes from discussions).

Financial and Professional Development Support

During the review period the School of Business and Economics has offered varying levels of relatively generous support. In addition to yearly allocations the professional development (PD) accounts of all SBE faculty, each semester there was a competitive award process, and incentive payments for publications in peer-reviewed journals.

Competitive PD funding is allocated through a process of application and review. Applications are reviewed by the Professional Development Committee, and allocations are made based on merit. Other things equal, preference is given to junior faculty to aid in the Retention, Tenure, and Promotion process. Funds are often used for travel to scholarly conferences, procurement of data, and research assistance.

The competitive PD funding is an integral component of scholarship for the faculty in the Department of Economics. Our discipline is one in which norms require dissemination of research, and the more exposure one receives, the better. Uncertainty over availability of such funding in light of the current budget constraints are viewed a serious concern to our ability conduct research in-line with the norms of the discipline.

The Department has no support for teaching assistants (TAs). Although TAs were employed by faculty (infrequently) during the review period, payments were made from personal research funds (offset teaching load). Given that the Department of Economics teaches large classes relative to nearly all other departments, availability of funds for TAs seems a very appropriate, especially in large sections and/or courses with heavy grading loads and impact from other departments.

Orientation Support

The School of Business and Economics has provided great support for orientation services over the study period. Highly knowledgeable staff within the school handle a majority of the coordination. During the freshmen and transfer orientation process, the Department of Economics sends a faculty member to meet with major students to offer assistance with planning and answer any questions.

Library and Technology Support

Support from the library has always been made readily available via a liaison. Our primary technology requirements are statistical packages. The Department uses both Stata (primary) and R. While R is a free package, Stata is not. During the review period, the Department has consistently lobbied for support for free access for students, which has been inconsistent. While there are other statistical packages offered by SSU, Stata is by far the most widely-used in our discipline, which makes it important for students to learn. Thus, provision of Stata to students is important for learning outcomes and to ensure equity.

Instructional Space

Most economics classes were offered in Stevenson Hall during the review period. The availability of technology in these classrooms isn't lacking. The primary problem is that most of the classrooms are old and, thus, were not designed with the type of technology used in modern classrooms in mind. In particular, in nearly all those classrooms, using the projector directly affects available whiteboard space, which can make it difficult to use both modes of delivery at the same time.

The addition of the Wine Business Institutes (WBI) classrooms added classrooms designed for integrating technology into the courses. However, the large classroom in the WBI poses auditory issues for some of our faculty, which has been addressed through the use of a microphone.

We hope that any complaints we have about instructional space will be solved by the renovation of Stevenson Hall.

Staff Support

Staff support in the School of Business and Economics, and for the Department of Economics, has been strong during the review period. The staff has been competent, knowledgeable, and always willing to help. One of the only challenges for our faculty is staff turnover, which poses small the small challenge of staying abreast of who should be contacted for what.

Summary Conclusion

Strengths of the Program

The Department of Economics is relatively young, active in research, active at conferences, and devoted to providing high-quality instruction. The Department offers a rigorous economic curriculum that prepares students for the modern job market and graduate studies. During the review period, because of additional faculty hires, the number of field courses and the number of quantitative courses offered

increased and we were able to reduce the number of students in our most challenging intermediate theory courses by offering an additional section each year. After the last review, the Department acted on its long-term goals to increase the number of tenure track faculty, increase diversity in the department, and to engage in early advising to promote better learning outcomes and matriculation. The department has also continued conducting course assessments and using SETEs to assess the Departments achievement of our PLOs.

Weaknesses of the Program

Despite our use of SETEs and detailed course assessments, the Department lacks quantitative data that would allow us to track trends across time and study relationships between course attributes and PLOs. We also lack qualitative and quantitative data from exit surveys of graduating seniors that would give a more holistic picture of the students' perspective of the program and offer better information on what our students are doing after graduation. Further, over the past couple of years the Department as missed the annual retreats, which provided a focused forum to discuss assessment. These discussions were moved to department meetings, but some depth was lost.

The loss of a tenure track faculty member at the end of the review period moves the Department away from our long-term goals and could impact the variety of courses we are able to offer. Dr. Visser's recent appointment to Associate Dean of the SBE further reduces the number of classes that we can offer from tenure track faculty. This problem, I particular as it relates to field courses, will only be compounded by the current budget situation if it affects our lecturer pool.

Faculty workload is a concern in the department. It is not uncommon for tenure track faculty to teach three unique preps each semester, which is not the norm in the SBE outside the Department of Economics. This increases prep and grading burdens in classes that are large by any standard at SSU, and reduces time available for research and other professional development activities.

Moving Forward

Focus on Assessment

The department currently uses a mix of SETEs and detailed course assessments to asses PLOs. The Department should continue using these tools, and should consider adding to them. The Department should commit to scheduling retreats prior to each academic year. This would allow for formal review of all assessment material, which could in turn help to inform strategies for the coming year. The course assessments are highly detailed and provide invaluable information for assessment. All course assessments should include a summary section that reflects on how well, and to what extent, the class is meeting the PLOs. Further, toward the end of the review period the Department should synthesize the results of all class assessments to look for trends and areas for improvement.

The Department should look to enhance assessment through the use of surveys during the course of the academic year, and to obtain information from graduating seniors. Ideally these surveys would collect both qualitative and quantitative data, the latter of which could be used to analyze trends and relationships across time. The composition of such surveys would need to be discussed as a department.

Summary:

- 1) Make sure retreats are consistently scheduled
- 2) Synthesize the results from assessments at the end of the review period
- 3) Course reviews should include summaries that reflect on PLOs
- 4) The Department should use yearly surveys of current and graduating students to enhance assessment

Focus on Recruitment

Given the recent decline in enrollment numbers for the Department, it is important to focus on recruitment. Prior to the 2020-21 academic year, faculty in the Department made calls to SSU applicants that were interested in Economics. This strategy should be used in the future and the Department should devise a way to follow up in order to assess the efficacy of these efforts. The Department should discuss additional methods of enhancing recruitment, which might include engaging in “College Nights” and local high schools, making more formal connections with junior colleges, or leveraging alumni relationships.

Summary:

- 1) Continue targeted recruitment calls
- 2) Find ways to assess the efficacy of those efforts
- 3) Find new ways to recruit (e.g., college nights, JCs, alumni)

Hire New Tenure Track Faculty

One of the primary critiques from the external reviewer of the previous review was:

“In my opinion, the department’s largest challenge is the lack of breadth in course offerings. Understandably, the department devotes many of its resources to teaching core courses and does not have enough faculty members to offer breadth in upper division elective courses.”

The Department worked to address this by making two new tenure track hires. Unfortunately, those efforts have been counteracted by the departure of one of those hires. The Department has also lost FTE over this period due to increased administrative work. Despite the current budget concerns, it is important that the Department push for a new hire to as to maintain and enhance the quality of the program.

Summary:

- 1) New tenure track hire in the coming years to replace Dr. Astha Sen

Reduce the GPA Achievement Gap

The Department should strategize on ways to address the GPA achievement gaps in our courses. The existence of these gaps has been discussed in department meetings. Now the Department should discuss strategies and research best practices to reduce these gaps.

Summary:

- 1) Discuss and research ways to address gaps

Mission Statement and Visibility

The Department PLOs are highly visible on the landing page for the major. The department should consider adding a clear mission statement to that page and potentially link it with the mission statement of SSU.

Summary:

- 1) Formulate mission statement and make sure that it is visible

Changes to the Major

The Department already offers five distinct econometrics courses and quantitative skills are highly desirable in the job market. In line with informal discussion that have already occurred, the Department should consider leveraging the expertise that already exists. For instance, the Department could explore offering a BS in Quantitative Economics. In addition to the econometrics class, such a degree would require additional units in mathematics or computer science. Not only would this degree likely be highly regarded in the job market, it would distinguish our program and aid in recruitment.

Another strategy that leverages the Departments specialties would be to collaborate outside the department to create an interdisciplinary data analytics program. For example, a minor that exposes students to various forms of analytics such as: econometrics, data management (SQL), geographic information systems, computer science, etc. This strategy would leverage existing resources in the University and could increase demand for the Department's courses.

Summary:

- 1) Consider quantitative-based BS degree
- 2) Consider quantitative-based interdisciplinary program

Selected Suggestions from External Reviewer

See the full report in Appendix 3.

Suggestions for the Department:

- 1) Enhance assessment through the use of surveys during the course of the academic year, and to obtain (exit survey) information from graduating seniors.
- 2) Research and develop methods to reduce the achievement gap.
- 3) Link mission statement to PLOs and make that clear on Department website.
- 4) While the Department is in relatively good shape in terms of tenure-line faculty density, they would like to develop a roadmap for an additional hire. In the current hiring freeze context, this may involve joint-appointment hires (for example, Econ (quant) and Business (data analytics/quant marketing) in the context of a new quant minor or major. Another might derive from strengthened alumni/major gift donor relationships that could create one or more rotating course buyouts for faculty scholarship that would require backfill.
- 5) In conjunction with the Business Department and SBE, consider creation of a Business and Economics student internship program, with an internship coordinator, as a vehicle for alumni/fund-raising/major gift donor campaign.

- 6) If such internships were for credit, then in addition to lining up internship providers in the community, the coordinator could also assist providers with providing an adequate learning experience to warrant university credit.
- 7) Fund-raise for student-alum-employer mixers or dinners, at least once per semester, with concrete opportunities for students to make professional connections (i.e., prep the students for the experience, make it free for them).
- 8) I suggest the Department consider using SSU institutional data to identify students who fail to progress from becoming an economics major to graduating. Determine what proportion are students seeking future entry into the impacted Business program, and what proportion are not thriving in the department (and why). Use this information to reflect on Departmental practices supporting student progression to degree.

Suggestions for administration:

- 1) Provide external assistance to build an alum database, likely as an initiative for both the Department as well as the Business program.
- 2) Likewise, build a major regional employer database.
- 3) Develop one or more mixer events each semester that connect students, alums, major employers, and faculty. In addition to mixers these could include dinners, awards events, commencement gatherings, or field trips.
- 4) Build a strategic plan for a rigorous internship program for both economics and business majors in the SBE. This could be for-credit, or more informal. Make an internship coordinator (likely a lecturer) a fund-raising priority. The coordinator would help internship-providers develop internships worthy of academic credit, create a competitive internship application process, and supervise an internship course.
- 5) Build a staged plan of action for a quantitatively-focused program of study, perhaps starting with a survey of students, alums, and major employers. It might be easiest to begin this at first through a targeted minor, and then assess its popularity for a baccalaureate. This could prove to be a vehicle for making another tenure-line hire in the future, perhaps a joint appointment with Economics and Business.

Appendix 1- Sample Four Year Plan for Bachelor of Arts in Economics

Freshman Year: 30-31 Units

Avoid upper division GE until Junior year.

Computer Competency Requirement should be met in Freshman year, and is a prerequisite for any upper division Business Core class. Computer Competency can be met by taking designated sections of CS 101 (GE B-3) at SSU.

Fall Semester (15-16 units)	Spring Semester (15 units)
PHIL 101 or PHIL 102 or FLC (A-3) (4) OR ENGL 101 or ENGL 100A (A-2) (4-3)	ENGL 101 or ENGL 100B (A-2) (4-3) OR PHIL 101 or PHIL 102 (A-3)(4)
ECON 204 (D-5) (4)	ECON 205 (D-1) (4)
ECON 217 (B4)* (4)	GE (D4) (3)
GE (B1 or B2) (3)	GE (C3)** (4)

*May take BUS 211 (B4) or MATH 165 (B4) instead of ECON 217.

Sophomore Year: 29-31 units

Avoid upper division GE until Junior year.

Fall Semester (15-16 units)	Spring Semester (14-15 units)
ECON 304 (4)	ECON 305 (4)
ECON 317 (4)	GE (B1 or B2 with lab) (3-4)
GE B3 (3-4)	GE (C1)** (4)
GE (D3 or D2)** (3)	Elective (4)

Junior Year: 31 units

Take the WEPT.

Fall Semester (15 units)	Spring Semester (16 units)
Economics Electives (8)	Economics Electives (8)
UD GE (C2)** (4)	UD GE (E)** (3-4)
Elective (3)	Elective (4)

Senior Year: 31-32 Units

Apply for graduation at beginning of senior year.

Fall Semester (16 units)	Spring Semester (15-16 units)
Economics Seminar (4)	Economics Seminar (4)
Elective courses (9)	Elective Courses (11)
UD GE (D2 or D3)** (3)	

Total Semester Units: 120 (Refer to catalog & consult advisor(s) for additional information.)

***One of these courses must be Ethnic Studies.*

Appendix 2 – Sample Course Review

Course Assessment for Econ 440: Seminar in Industrial Organization

Fall 2018

Dr. Michael S. Visser

Program Learning Objectives

1. Articulate an understanding of economic terms, concepts, and theories;
2. Identify subjective and objective aspects of economic policy;
3. Use both qualitative and quantitative reasoning to analyze social and economic issues; and
4. Demonstrate an awareness of current and historic economic issues and perspectives.

Evaluation methods for this course include problem-solving and short written response examinations, a research paper on a single industry in the Structure-Conduct-Performance case study form, and a class presentation of the SCP case study. Extensive description of the requirements for this paper are provided in a Syllabus Addendum. I also used a grading rubric, which was designed in consultation with the Faculty Center around the department's Program Learning Objectives. The presentation was graded separately from the paper.

One of the key features of the writing assignment is the fact that a complete draft is due well before the end of the semester. The draft is ungraded, but I use it to provide extensive feedback to the students. The graded final draft is due nearer to the end of the semester, and the grade is based largely on responsiveness to the feedback. I was not able to provide the rubric before the draft was due, but I did provide it with the feedback. Also, I did record points on the draft using the rubric, even though it was not part of students' grades. So, I can make a complete before and after analysis for each student's paper.

Ten students were enrolled in the course, but four did not turn in completed drafts, and one did not turn in the final paper. The following table shows average scores on each of the three categories included in the grading rubric for both the draft and final papers.

	Draft	Final	Relevant PLOs
Articulation of Economic theories, terms, and concepts (10 points)	5	7.78	1, 2
Qualitative and Quantitative Analysis (10 points)	5.33	7.89	3
Professional Writing and Grammar/Punctuation (10 points)	5.67	7.44	4
Total (30 points)	16	23.11	

Here are some things that I learned about student learning in the course pursuant to this assignment.

1. Students generally respond positively to constructive feedback. There was a high degree of anxiety around the assignment since it counts for a significant portion of the grade, it is a large assignment with many different facets, it requires a lot of time, and it is different from any other assignment students are likely to encounter. Providing them an opportunity to submit an ungraded draft upon which they would get my feedback did a lot to ease these anxieties. Further, students mostly understood that I expected them to address the feedback directly, and mostly did so. This is clear from the increased points within each rubric category and overall. Further, in some of the presentations, it became clear that the student had enjoyed the follow-up research suggested in my feedback. Often, this would manifest as some kind of interesting anecdote or historical feature of note that was discovered by the additional research. In one case, the student actually changed the entire focus of the paper (away from coffee production and into retail coffee), making it easier to find relevant source materials and make a compelling case study.
2. Students generally respond to incentives. I have been giving some version of this assignment since the first course I ever taught as a graduate student in 2003. I have varied it in a number of ways. In the early versions, there was no ungraded draft due; students were responsible for consulting with me along the way to get my feedback. At some point I decided that I wanted a more systematic mechanism for providing feedback, and I wanted to do it in a way that would leave students at ease. So, I instituted the ungraded draft. However, there always seem to be a number of students who simply do not turn in a draft. I think that, going forward, I will make the draft part of the grade for the assignment. I will have to give some thought to exactly how to incorporate the draft as I still want students to feel like they are not going to be handicapped if their draft is way off-base or otherwise seriously deficient. The fact is that some drafts were seriously deficient, but in most of those cases students responded appropriately, improving their scores by as many as 12 points.
3. In my review of bibliographies, it is clear to me that students are not going to be able to identify and make use of the number of primary sources that I ask for in the assignment. Research resources and methods have evolved rapidly in the time since I was in graduate school, and I need to spend some time thinking about how to better evolve this part of the assignment. I have taken the class to the library for an orientation on relevant databases, and I think that this has been quite helpful. I plan to continue doing that.
4. The improvement in the Professional Writing category was the lowest improvement. It went from the best category in the draft to the worst category in the final paper, though writing quality did still improve. There may be some additional instruction on writing, specifically on revision, that is merited.

Structure-Conduct-Performance Case Study Grading Rubric

	Excellent	Good	Developing	Problematic
	9 to 10	7 to 8	4 to 6	0 to 3
Articulation of economic theories, terms, and concepts (10 points)	Good use of economic terminology. Acknowledgment/identification of potential failures of theory. Appropriate discussion of ambiguities. All common elements of SCP are explored.	Use of economic terminology is appropriate but could be simplified. Good use of theory, but linear or simplistic thinking. Problems which may be present include: omitting one or two SCP elements, cursory treatment of important market characteristics.	Improper use of economic jargon. Unclear connection between market stylized facts and theory. Unclear connection between SCP elements.	Little or no attempt to use economic terminology or concepts. Incorrect use of theory.
Qualitative and Quantitative Analysis (10 points)	Analysis shows depth of thinking. Argument is consistently supported throughout. Examples are clearly related to the analysis/theory and strengthen the argument. <u>Student comes to new insights about the concept/theory through the analysis.</u>	Analysis presented and generally supported. Appropriate use of data to identify market characteristics. Some parts of the argument could be stronger/better supported. Minor gaps in analysis, but overall coherent story. Most relevant and available data are used appropriately.	Analysis present but is underdeveloped. Thinking is unfocused and/or too simplistic. Examples are clear but the analysis with the theory/concept needed to be deeper. Analysis needs to be more fleshed out. Inappropriate use of relevant and available data, or substantial omissions.	Reads as a rough first draft. Argument is too simplistic and/or lacks support or analysis. Examples lack detail and/or are minimally interpreted. Incoherent and/or unsupported thesis. Failure to use relevant and available data.
Professional Writing and Grammar/Punctuation (10 points)	Clear thesis. Supporting points are introduced and followed throughout the paper. Writing is concise and professional in tone. Paragraphs well-built and transitions are clear. Sentences are clear and writing is strong. No grammar/punctuation errors, or errors are fairly minor. It is clear that the writer reviewed and revised.	Writing generally clear but prose is choppy in some instances. Some minor problems with informal writing. Argument sometimes strayed from the thesis. References cited according to Chicago Manual of Style. Paper contained errors such as comma splices, run on sentences, spelling or grammar problems.	Thesis unclear or missing/ Argument does not match thesis. Sentences are often choppy or unclear. Paragraphs require more structure. Writing tone is often conversational or informal. Paper needed much more revision. Punctuation/grammar, and/or spelling errors through the paper.	No clear thesis statement or Writing is not in professional tone at all and is far too informal for this assignment. Paper needed much more revision. Punctuation/grammar, and/or spelling errors through the paper.

Grading Rubric

Appendix 3 – External Review

External Review, Department of Economics, School of Business and Economics, Sonoma State University

Dr. Steven C. Hackett, Professor Emeritus of Economics, Humboldt State University

6th October, 2020

Executive summary

- I have prepared this document to summarize my external reviewer remarks for the current program review and self-study effort conducted by the Sonoma State University Department of Economics (hereafter “the Department”).
- The Department has a coherent and rigorous program of study for its majors that adheres to the current conventions of the discipline.
- The Department has a relatively deep and diverse elective course offering for a modest-sized program, one that gives its students opportunities to explore the breadth of the discipline.
- The Department has a tractable general education offering that provides outside students with reasonable introductory exposure to the discipline.
- The Department has a coherent and rigorous program of study for its minors that adheres to (and perhaps goes beyond) the current conventions of the discipline.
- The Department’s Program Learning Objectives (or Outcomes) or PLOs are relevant and aligned with academic norms of the discipline.
- The PLOs are reasonably clear.
- The PLOs are integrated with the curriculum as demonstrated by the PCM curriculum map.
- The available evidence suggests the Department is doing a satisfactory job with learning outcomes assessment, and using assessment information in a closed-loop fashion with faculty reflection and discussion to implement curricular and other improvements in the program.
- I support the “proposed improvements” listed in the self-study document.
 - In particular, it would be worthwhile to renew reviewing the PLOs at annual retreats in the context of recent assessment information, and to reflect upon their alignment with the curriculum, modes of teaching, and strategic goals for the program.
 - Moreover, developing an exit survey of graduating seniors could yield useful information on topics such as PLO-curriculum alignment, the effectiveness of advising, polling regarding potential curricular changes, and future contact information.
- To build on the idea of “researching and developing methods,” if shrinking the achievement gap is a strong SSU priority, then it could be useful to support the department in convening one or more faculty meetings with outside experts on how to shrink the achievement gap in economics courses, with a goal of identifying a set of high-impact practices.
- Faculty resources are relatively strong due to the current mix of tenure-line faculty and lecturers.
- While the Department is in relatively good shape in terms of tenure-line faculty density, they would like to develop a roadmap for an additional hire. In the current hiring freeze context, this

may involve joint-appointment hires (for example, Econ (quant) and Business (data analytics/quant marketing) in the context of a new quant minor or major. Another might derive from strengthened alumni/major gift donor relationships that could create one or more rotating course buyouts for faculty scholarship that would require backfill.

- I urge the Department faculty to assess their capacity for robust improvements in assessment, including implementation of an exit survey, and to approach the Dean of SB&E for modest additional resources if they are required.
- In conjunction with the Business Department and SBE, consider creation of a Business and Economics student internship program, with an internship coordinator, as a vehicle for alumni/fund-raising/major gift donor campaign.
- If such internships were for credit, then in addition to lining up internship providers in the community, the coordinator could also assist providers with providing an adequate learning experience to warrant university credit.
- Fund-raise for student-alum-employer mixers or dinners, at least once per semester, with concrete opportunities for students to make professional connections (i.e., prep the students for the experience, make it free for them).
- My interview with students indicates a broadly positive view of Department faculty, curriculum, and teaching effectiveness, as well as the tutoring program.
- I suggest the Department consider using SSU institutional data to identify students who fail to progress from becoming an economics major to graduating. Determine what proportion are students seeking future entry into the impacted Business program, and what proportion are not thriving in the department (and why). Use this information to reflect on Departmental practices supporting student progression to degree.
- I encourage the Department to assess student satisfaction (and outcomes, if possible) with the Department's tutoring program, particularly in the new online environment necessitated by the Covid-19 pandemic. This could involve anonymously surveying users, with survey strata clearly identifying first-gen and URM students and the adequacy of the program in supporting their progression and success.

1. Introduction

I have prepared this document to summarize my external reviewer remarks for the current program review and self-study effort conducted by the Sonoma State University Department of Economics (hereafter “the Department”). These remarks are informed by the following sources:

- *Program Review Self Study* document, (September 2020), provided to me by the Department of Economics, School of Business and Economics, Sonoma State University.
- Video tele-conferences with
 - Department lecturers;
 - Department probationary faculty;
 - Department tenured faculty;
 - Dean of the SSU School of Business and Economics;
 - Interim Associate Vice President for Academic Programs and Interim Dean of Undergraduate and Graduate Studies; and
 - Students from Prof Amri’s Econ 375 class.
- Review of pertinent online materials.

Contextualization of the above materials and sources is provided by my professional experience as an academic. This experience includes a three-decade record of service as a tenure-line economics professor, first as a member of the Graduate Faculty at Indiana University in Bloomington, and later as a member of the Department of Economics at Humboldt State University. This experience also includes extensive and diverse administrative service at Humboldt as an Acting Dean, appointed Associate Dean, Department Chair (three times for the Department of Economics; once for the School of Business; and once as interim Chair of Nursing), and many times as research PI/project leader. I successfully developed new courses, programs of study, and methods of assessment – both within economics and in multi-disciplinary programs such as Environmental Science, Environmental Studies, and Environmental Resources Engineering.

My external reviewer remarks are intended as constructive feedback to support the Department faculty as they pursue their shared mission, which is to offer both majors and minors a high-quality foundation in economics with particular emphases in theory, quantitative analysis, and application to policy.

The remainder of this external review document is organized around the following key considerations, provided to me via email on 01 Oct 2020 by Prof Karen Thompson, Professor of Management and Director of Assessment and Accreditation:

- Curriculum coherency and currency.
- Relevance and clarity of learning outcomes and integration with curriculum.
- Meaningfulness and effectiveness of learning outcomes assessment and use of assessment for program improvement.
- Sufficiency of resources and how they affect the quality of the learning experience; consider, for example, faculty, facilities, support, information resources, and research resources.
- Understanding of students’ needs, challenges, and characteristics and ability to effectively serve the program’s students.

A number of additional summary remarks are offered at the end of this document.

2. Curriculum coherency and currency

The Department has put into place a six-course, 24-unit core program of study for their majors that also serves as the requirement for the economics minor. It is note-worthy that the 2020-2021 SSU General Catalog states that Minor programs [of study] ordinarily consist of approximately 16-20 units. The core curriculum in economics includes a four-course micro/macro theory sequence that is standard in the field of economics. Moreover, congruent with the Department's mission and PLOs, and with reportedly strong industry and student demand for quantitative analytic skills, the core curriculum also includes two quantitative courses (statistics and econometrics). This two-course quantitative sequence is not unusual, and it helps differentiate the SSU Department of Economics from economics programs at some other US universities. In addition to the six-course core, the economics major also includes a requirement that economics majors take six upper-division economics electives, two of which must be senior-level seminar courses. Thus the economics major is a 48-unit program of study. The Department also provides a number of courses that meet various general education requirements for all majors.

To receive a baccalaureate in economics at SSU requires a minimum of 120 academic units, 48 of which come from the major, with the balance coming from completion of the SSU general education curriculum requirements, and any additional coursework such as a minor.

My overall views on the Department's curriculum are as follows:

- The Department has a coherent and rigorous program of study for its majors that adheres to the current conventions of the discipline.
- The Department has a relatively deep and diverse elective course offering for a modest-sized program, one that gives its students opportunities to explore the breadth of the discipline.
- The Department has a tractable general education offering that provides outside students with reasonable introductory exposure to the discipline.
- The Department has a coherent and rigorous program of study for its minors that adheres to (and perhaps goes beyond) the current conventions of the discipline.

3. Relevance and clarity of learning outcomes and integration with curriculum

The Department's major and minor curricula is guided by four "Program Learning Objectives" (or outcomes) (PLOs), in which students are to have acquired a capacity to:

- 1) articulate an understanding of economic terms, concepts, and theories;
- 2) identify subjective and objective aspects of economic policy;
- 3) use both qualitative and quantitative reasoning to analyze social and economic issues; and
- 4) demonstrate an awareness of current and historic economic issues and perspectives.

At some point in the past the Department engaged in a curriculum mapping effort (I was told that this effort coincided with an AACSB accreditation process undertaken by the Business Department within the School of Business and Economics), the outcome of which is the Program Curriculum Matrix (PCM) included in the self-study document. The PCM curriculum map documents how the Department's

curriculum supports students progressively being introduced to, developing, and ultimately demonstrating the Department's PLOs.

My overall views on the relevance and clarity of learning outcomes and integration with curriculum are as follows:

- The PLOs are relevant and aligned with academic norms of the discipline.
- The PLOs are reasonably clear.
- The PLOs are integrated with the curriculum as demonstrated by the PCM curriculum map.

4. Meaningfulness and effectiveness of learning outcomes assessment and use of assessment for program improvement

The Department relies on student evaluations of teacher effectiveness (SETES) and planned periodic faculty course assessments to assess alignment of curriculum and PLOs. The self-study document notes that SETES and course assessments have traditionally been synthesized by the department chair and used for discussion and evaluation during department meetings and retreats.

The self-study document includes the following description of the course assessment process:

The Department of Economics asks faculty teaching these courses to gather data based on an assessment tool of their choice (embedded assessment, rubrics, qualitative evaluations, portfolios, etc.) and report a summary of their data and findings to the Department in its annual retreat in August or during department meetings. These meetings engage discussions about the data and findings, discussions on potential curricular change, issues with assessment methodology, and co-curricular aspects of student and faculty experiences that can enhance student learning. This may also include some adjustments to teaching schedules and rethinking of learning objectives. This discussion may also discuss programmatic changes and issues, which acts as ongoing maintenance and continuous improvement for our major.

It is evident that the Department's PCM was informed by the course assessment process outlined above.

The self-study document notes that the previous program review encouraged the continued use of this assessment strategy, but also called for the Department to look for new ways to assess student learning.

The self-study document includes a list of proposed improvements, a form of task list for the Department to take on following the current program review. Proposed improvements germane to this section include:

- Resume regularly-scheduled annual faculty retreats focused on recent assessment outcomes as they relate to the Department's PLOs, and reflect on the extent to which the curriculum and course delivery methods are helping students achieve the PLOs.
- All course assessments should include a summary section that reflects on how well, and to what extent, the class is meeting the PLOs.
- Enhance assessment through the use of surveys during the course of the academic year, and to obtain (exit survey) information from graduating seniors.
- Research and develop methods to reduce the achievement gap.

- Link mission statement to PLOs and make that clear on Department website.

My overall views on the meaningfulness and effectiveness of learning outcomes assessment and use of assessment for program improvement are as follows:

- The available evidence suggests the Department is doing a satisfactory job with learning outcomes assessment, and using assessment information in a closed-loop fashion, with faculty reflection and discussion, to implement curricular and other improvements in the program.
- I support the “proposed improvements” listed above.
 - In particular, it would be worthwhile to renew reviewing the PLOs at annual retreats in the context of recent assessment information, and to reflect upon their alignment with the curriculum, modes of teaching, and strategic goals for the program.
 - Moreover, developing an exit survey of graduating seniors could yield useful information on topics such as PLO-curriculum alignment, the effectiveness of advising, polling regarding potential curricular changes, and future contact information.
- To build on the idea of “researching and developing methods,” if shrinking the achievement gap is a strong SSU priority, then it could be useful to support the department in convening one or more faculty meetings with outside experts on how to shrink the achievement gap in economics courses, with a goal of identifying a set of high-impact practices.

5. Sufficiency of resources and how they affect the quality of the learning experience; consider, for example, faculty, facilities, support, information resources, and research resources

As noted in the self-study document, the Department had seven tenure-line faculty at the time of this external review. Of the seven tenure-line faculty, the program review documents that two are women and five are men; four identify as white, one as Hispanic, one as Korean, and one as Asian. Following the norms of the field, all tenure-line faculty hold earned, terminal PhD degrees. Dr. Eyler returns to the Department after having held a position as Dean of Extended Education and International Studies during the Department’s program review period, and was not active in teaching or department governance during his administrative service. Dr. Astha Sen was hired in 2014, in part to fill the void in the curriculum left by Dr. Eyler’s departure. Dr. Sen recently left the Department for another academic position closer to her family at the end of the 2019/20 academic year. Dr. Puspa Amri was hired in 2017, building Department capacity in the fields of international finance and monetary economics.

Seven tenure-line faculty in a department with about 130 to 160 majors (or ~ 20 majors per tenure-line faculty) puts the Department in a relatively strong stance in terms of advising load and tenure-line density in Department course offerings. It will also help the Department remain strong and stable as declining enrollments across the US force a degree of retrenchment at American universities.

In the program review prior to current one (2013-14), the Department faculty developed an action plan and set of recommendations that included facilitating greater opportunity for professional development, specifically as it relates to conducting and disseminating research. In the current program review self-study document, the Department states that:

The last program review noted that generating and disseminating high-quality economic research can be a costly endeavor. It is not uncommon for the necessary datasets and tools

(software and hardware) to cost thousands of dollars. Further, the norms in the field require travel to scholarly conferences to share and receive critical peer review of research. We felt it was important to emphasize these requirements to the SBE administration to ensure that adequate, and increased, funding was available in the future.

No other major issues regarding resource adequacy was raised in the self-study document or in interviews for this external review report.

My overall views on the sufficiency of resources are as follows:

- Faculty resources are relatively strong due to the current mix of tenure-line faculty and lecturers.
- While the Department is in relatively good shape in terms of tenure-line faculty density, they would like to develop a roadmap for an additional hire. In the current hiring freeze context, this may involve joint-appointment hires (for example, Econ (quant) and Business (data analytics/quant marketing) in the context of a new quant minor or major. Another might derive from strengthened alumni/major gift donor relationships that could create one or more rotating course buyouts for faculty scholarship that would require backfill.
- I urge the Department faculty to assess their capacity for robust improvements in assessment, including implementation of an exit survey, and to approach the Dean of SBE for modest additional resources if they are required.
- In conjunction with the Business Department and SBE, consider creation of a Business and Economics student internship program, with an internship coordinator, as a vehicle for alumni/fund-raising/major gift donor campaign.
- If such internships were for credit, then in addition to lining up internship providers in the community, the coordinator could also assist providers with providing an adequate learning experience to warrant university credit.
- Fund-raise for student-alum-employer mixers or dinners, at least once per semester, with concrete opportunities for students to make professional connections (i.e., prep the students for the experience, make it free for them).

6. Understanding of students' needs, challenges, and characteristics and ability to effectively serve the program's students

The 4-year graduation rate for first-time freshmen in the Department has improved from 25% at the start of the period, to 34% by the end. The same measure for transfers has remained fairly steady at around 40-45% during the period. These fall a bit below comparable values for the Business program. Freshman retention rates have increased during this program review period, up to 84% by 2019.

A key question for the program is reconciling the in-flow of approximately 30-40 students per year into the major, and the graduation of approximately 8-10 students per year out of the program. There seems to be considerable attrition within the major. Interviews with faculty indicate that one reason for this attrition may be that students enter the Economics major as a temporary placement from which to stage future attempts into the impacted Business major. It is also possible that there are other factors

such as mathematics or statistics preparedness, or difficulties surmounting one or more high failure rate courses.

Tutoring: The Department has a course (Econ 496) in which majors can gain credit from tutoring other students. This likely helps contribute to the relatively strong pass rates for courses taught in the Department.

My overall views on understanding students' needs, challenges, and characteristics, and ability to effectively serve the program's students are as follows:

- My interview with students indicates a broadly positive view of Department faculty, curriculum, and teaching effectiveness, as well as the tutoring program.
- I suggest the Department consider using SSU institutional data to identify students who fail to progress from becoming an economics major to graduating. Determine what proportion are students seeking future entry into the impacted Business program, and what proportion are not thriving in the department (and why). Use this information to reflect on Departmental practices supporting student progression to degree.
- I encourage the Department to assess student satisfaction (and outcomes, if possible) with the Department's tutoring program, particularly in the new online environment necessitated by the Covid-19 pandemic. This could involve anonymously surveying users, with survey strata clearly identifying first-gen and URM students and the adequacy of the program in supporting their progression and success.

Summary remarks

I believe the SSU Department of Economics is a strong and successful program:

- The curriculum is appropriately rigorous and prepares students for careers and as educated citizens.
- Faculty are active and engaged in teaching, curriculum design, assessment of learning outcomes, and scholarship.
- Students interviewed for this external review uniformly spoke highly of the program faculty and curriculum.
- Despite being the small program in the School of Business and Economics, I saw no evidence of a targeted lack of support or unreasonable expectations by the School's Dean or other academic administrators.
- Faculty are active in the community, sharing their expertise by way of applied research, consulting, and board service.

I suggest the faculty and administrators overseeing the Department and SBE consider the following ideas:

- Provide external assistance to build an alum database, likely as an initiative for both the Department as well as the Business program.
- Likewise, build a major regional employer database.

- Develop one or more mixer events each semester that connect students, alums, major employers, and faculty. In addition to mixers these could include dinners, awards events, commencement gatherings, or field trips.
- Build a strategic plan for a rigorous internship program for both economics and business majors in the SBE. This could be for-credit, or more informal. Make an internship coordinator (likely a lecturer) a fund-raising priority. The coordinator would help internship-providers develop internships worthy of academic credit, create a competitive internship application process, and supervise an internship course.
- Build a staged plan of action for a quantitatively-focused program of study, perhaps starting with a survey of students, alums, and major employers. It might be easiest to begin this at first through a targeted minor, and then assess its popularity for a baccalaureate. This could prove to be a vehicle for making another tenure-line hire in the future, perhaps a joint appointment with Economics and Business.
- The internship and quantitative ideas can be synergistic in the context of data analytics – data analytics internships run through an internship course could strengthen a quantitative program of study.
- Strengthen linkages with the Wine Institute. For example, faculty with interests in wine industry economics should be assisted in building links to the Wine Institute and major regional wineries. A wine economics course taught through extended education by a lecturer could offer one way to build these linkages, which could also tie in to the internship concept.

Appendix 4 - School Curriculum Committee Comments

The department of economics should be congratulated on the comprehensiveness of this program review, but most importantly on the quality of their program and continuous improvement in multiple areas. Furthermore, the economics department has generated excellent ideas and has identified potential opportunities to further increase the quality and success of the program. Some areas of improvement in the undergraduate economics program include the increasing diversity of the composition of the student body over the past 10 years and the increase in the 4-year graduation rate during the past 5 years, although the transfer student 4-year graduation rate has remained at the same level during the past 5 years. The retention rate of 1st time freshmen has increased substantially, suggesting that students who enter the program find it desirable and want to remain enrolled in the program. The undergraduate economics program should be commended for its emphasis on equipping enrolled students with practical skills that are directly transferable to jobs in the public and private sectors. The department is also considering a quantitative-based program, as well as a quantitative-based interdisciplinary program. Both of these options could be promising. I concur with the external reviewer that a plan for hiring a new tenure-track faculty member, administering an exit survey to graduating seniors, setting up a student internship program, and exploring opportunities to build programs and relationships with donors that could lead to funding from industry and private donors are promising avenues to explore for the economics department. Overall, this report is reflective of the high quality and the continuous improvement of the undergraduate economics program at SSU during recent years.

Appendix 5 – Dean’s Comments

I have reviewed the Economics Department Program Review Self-Study, as well as the External Reviewer’s assessment. I agree with the overall assessment that the department is providing a rigorous

program of study and meeting its Program Learning objectives. The scholarship produced in the department is of good quality, thanks to strong and collaborative faculty.

I encourage the department to follow-up on its plan to better measure its Assessment of Learning, pursue the evolution of its BA in Economics into a BS in Economics, and collaborate with other campus stakeholders, especially the Business Department, in bolstering Data Analytics offerings, and possibly creating a minor or other programs in that field.

Dr. Jean-Francois Coget

Dean

School of Business and Economics

Sonoma State University