Assessment Report Department of Economics California State University, Sacramento June 2013

- 1. As a result of last year's assessment effort, have you implemented **any changes for your** assessment including learning outcomes, assessment plan, assessment tools (methods, rubrics, curriculum map, or key assignment etc.), and/or the university baccalaureate learning goals?
- a. If so, what are those changes? How did you implement those changes?
- b. How do you know if these changes have achieved the desired results?
- c. If no, why not?

B.A. Assessment

The Economics B.A. assessment plan, learning outcomes, and assessment tools are fully developed, and are currently implemented every year. No new changes were made to B.A. assessment in the 2012-13 academic year.

Last year's IPP assessment feedback raised a question about the correspondence between B.A. Program Goals and the Assessment Rubric for the Econ 145 class. We have created a simple table summarizing our goals and rubric questions to illustrate this correspondence. Again, the department has 10 Program Goals, but uses 6 questions to measure achievement of the 10 Program Goals.

Program Goal	Assessment Rubric Question
1. Explain Economic Theories	1. Economic Theory
2. Economic Way of Thinking	2. Critical Thinking and Problem Solving
3. History and Institutions	6. Institutions and Limitations
4. Apply Theory to Social Issues and Policy	2. Critical Thinking and Problem Solving
5. Ethical Values in Economic Decisions	6. Institutions and Limitations
6. Oral and Written Communication	5. Writing and Presenting
7. Quantitative Reasoning Skills	3. Math and Statistics to Analyze Data
8. Collect and Interpret Data	4. Technology to Access and Analyze Data
9. Computer Proficiency	4. Technology to Access and Analyze Data
10. Critical Thinking	2. Critical Thinking and Problem Solving

The Program Goals are ordered and listed in a method consistent with University Learning Goals, but the assessment rubric contains only six questions, because sometimes more than one of the Department's Program Goals can be assessed by a single question. This simplifies the data collection and analysis process. The 6 rubric questions address all 10 program goals by focusing on the way the Goals are experienced through the research process. The program goals describe distinct educational activities that contribute to the learning process, but once these goals are taught, students can express their mastery of multiple outcomes through the research process. For example, a single question on using technology to access and analyze data (Question 4) can assess whether the student is able to collect and interpret data, and whether they have obtained computer proficiency (Program Goals 8 and 9).

M.A. Assessment

The IPP process highlighted the need for the Department of Economics to develop an assessment plan for our Master's degree program, and we began this process during the 2012-13 academic year.

- a) The Department formally adopted M.A. Learning Goals and Objectives (Appendix C), and the Graduate Committee is in the process of expanding upon our current Master's assessment plan and assessment tools, to obtain data for assessment of all 4 M.A. Learning Goals.
- b) Specific Learning Goals provide the foundation from which the Graduate Committee can develop an assessment plan and additional assessment tools. Because this is an ongoing process, reaching consensus among faculty on Learning Goals and Objectives was the desired result of this year's activity.
- 2. As a result of last year's assessment effort, have you implemented any other changes at the department, the college or the university, including advising, co-curriculum, budgeting and planning?
- a. If so, what are those changes? How did you implement those changes?
- b. How do you know if these changes have achieved the desired results?
- c. If no, why not?

The Department of Economics IPP report and assessment provided a comprehensive overview of our Department's current practices. It allowed us to recognize many strengths and a few areas with room for improvement.

a) Based on feedback from the IPP process, the Department adopted the following statement of teaching philosophy:

It is recognized that the primary mission of the university is teaching and learning. It is expected that faculty will continually improve their teaching skills and continually expand their knowledge of the discipline. Quality teaching fosters a student's desire to pursue knowledge, develop tools for intellectual inquiry, and nurture commitment to learning as a serious, lifelong endeavor.

Though this statement has been practiced by the Department for many years, formalizing the adoption of our teaching philosophy allows faculty to refocus on our Department's primary mission.

Over the past two years, the Department has expanded upon the peer mentoring program, Economics Exchange. PARC now sponsors our program by hiring a student coordinator who consults with a faculty advisor to run the program. We hope to expand on past successes, as many of our former mentees become mentors for new Economics majors.

During the 2010-11 academic year, the Department worked to better align Economics 140: Quantitative Economic Analysis and our capstone course, Economics 145: Economic Research Methods. Economics 140 is the most closely related prerequisite for Economics 145 since it introduces empirical research methods that are used in Economics 145, including multiple

regression. We have fully implemented this alignment, and faculty who teach Econ 140 and Econ 145 receive a description of Learning Objectives and Development of Skills expected for each of the courses. These objectives were particularly useful during Spring of 2013, when three faculty taught Econ 145 for the first time.

b) Students participating in the Economics Exchange express enthusiasm for the program, often become involved in the Student Economic Association, serve as tutors in the department tutoring lab, and become more engaged in the Department culture.

By providing a detailed description of course expectations to all faculty teaching these two courses, we have ensured better transition of students from Econ 140 into Econ 145. Faculty who teach Econ 145 are now more confident in the expectations they can set for students entering the course.

Changes made over the past few years have achieved the desired results.

3. What PROGRAM (not course) learning outcome(s) have you assessed this academic year?

B.A. Assessment

This year's report will focus on assessment of B.A. program goals 2 and 10, and their six corresponding learning outcomes. Students demonstrate mastery of these outcomes by critically applying the "economic way of thinking." (see Table 1)

Table 1

B. A. Program Goals	Learning Objectives/Outcomes
2. Demonstrate the ability to employ the "economic way of thinking"	2.1 Explain the application of marginal analysis
	2.2 Explain the use of benefit/cost analysis
	2.3 Explain the contribution of economics to non-market social issues

10. Be able to use critical thinking skills within the discipline of economics and about economic matters	10.1 Present viewpoints and alternative hypotheses on economic issues
	10.2 Recognize underlying assumptions in economic models
	10.3 Demonstrate ability to use the economic tools of analysis

M.A. Assessment

This report will also focus on assessment of M.A. Learning Goal 4, "Engage in and conduct economic research," and its 5 corresponding learning outcomes. (see Table 2)

Table 2

M.A. Learning Goals	Learning Objectives/Outcomes
4. Engage in and conduct economic research	4.1 Identify and clearly state a Master's thesis topic
	4.2 Find or collect appropriate data
	4.3 Present main findings of your research to the department
	4.4 Successfully complete and submit Master's thesis
	4.5 Disseminate research findings

4. What method(s)/measure(s) have you used to collect the data?

B.A. Assessment

The Department of Economics uses two main methods to assess whether stated learning objectives are met by the B.A. program: (1) Faculty observations and scoring of student research presentations in our capstone course, Economics 145: Research Methods in Economics, and (2) Surveys completed by our graduating seniors (Graduating Senior Exit Questionnaire) which contain written responses and quantitative scoring of the perceived strengths and weaknesses of the program.

Economics 145 is taken by all majors, usually during their final semester. In this course, each student must design and carry out an empirical research project. They must submit a project proposal that includes a statement of the problem to be examined, a review of literature relevant to the problem, and a well-defined hypothesis and conceptual framework focusing on the hypothesis to be tested. In addition, students must collect and analyze data using Excel or an econometrics software program, such as EViews or Stata, and reach appropriate and ethical conclusions concerning the data.

Each student is required to make an oral presentation of their project to other Econ 145 students and to faculty in the Department. The research projects are judged by faculty using an assessment rubric that has been developed for this purpose (Appendix B). To successfully complete the capstone course and a research project, the student is expected to master the skills found in the learning objectives of the Department.

At least three faculty evaluate each student's 145 presentation. Every year, faculty rate each student across all 6 areas specified in the rubric. Program Goals 2 & 10, which are assessed this year, are both evaluated using question 2 from the Rubric:

2. Think critically and solve problems (Econ Dept Goals 2, 4, & 10; CSUS Goal 2 and 3)

Expectation: Student should identify question at hand, think critically and solves problem in an illuminating way

In addition to the Economics 145 Assessment Rubric, the Department also administers an Economics Graduating Senior Exit Questionnaire (Appendix D) to all students who have just completed Economics 145.

The Questionnaire consists of sixteen questions calling for scaled responses and eight open-ended questions. The questions seek student assessment of the contribution of the Department's faculty and its B.A. program curriculum to the achievement of the program's goals and objectives (see Appendix D for the complete Questionnaire).

Questions 2, 3, and 4 are relevant to this year's assessment of Program Goals 2 and 10.

Relevant Questions from Graduating Senior Exit Questionnaire

- 2. Courses offered opportunities for problem solving and critical thinking rather than just content acquisition.
- 3. Courses emphasized the connections among theory, critical thinking, and the real world.
- 4. Courses helped me to connect the course content to relevant questions for me and for society.

M.A. Assessment

The Department of Economics assesses M.A. Learning Goal 4 by observing degree completion of our Master's students. All Master's students must conduct independent research, successfully complete a Master's Thesis, and defend the thesis to an audience of faculty and students. At the end of the thesis defense, faculty discuss specific items to be improved before the Master's Degree is awarded, and determine whether the student has passed their defense. Successful completion of the defense and of the Master's Thesis, requires mastery of Learning Objectives 4.1 through 4.5. Degree completion is therefore a direct measure of whether the department is meeting Learning Goal 4.

5. What are the criteria and/or standards of performance for the program learning outcome?

B.A. Assessment

The assessment rubric (Appendix B) clearly lists program expectations and the numerical values used to assess goals are 1 = Does Not Meet Expectations, 2 = Meets Expectations, and 3 = Exceeds Expectations. The rubric identifies and evaluates both the Department goals and objectives, but also the relevant Sacramento State Baccalaureate Learning Goals. As a Department we strive to have our students Meet or Exceed Expectations.

The numerical scores from the Graduating Senior Exit Questionnaire correspond to: 4 = usually, 3 = sometimes, 2 = rarely, and 1 = never. As a Department, we recognize that responses closer to 4 reflect better achievement of our Program Goals.

M.A. Assessment

To assess Learning Goal number 4 in the Master's program, we calculate the ratio of degrees completed to the number of students who first entered the Master's program two years prior. This does not perfectly track any individual's progress through the program, but does indicate whether the pool of graduate students is making good progress towards graduation by conducting independent research and completing their theses.

6. What data have you collected? What are the results and findings, including the percentage of students who meet each standard?

- a. In what areas are students doing well and achieving the expectations?
- b. In what areas do students need improvement?

B.A. Assessment

Tables 1 and 2 present the summary statistics from Econ 145 assessment for Fall 2012 and Spring 2013. For both semesters, over 80% of students meet or exceed department expectations in all Goals and Objectives. The rubric question relating to this year's assessment is question 2, reflecting students' critical thinking and problem solving skills. In Fall 2012, 82.76% of students met or exceeded department expectations, and in Spring 2013, 80.14% of students met or exceeded expectations. In both semesters, the average score was just over 2.0, reflecting that on average, our students meet expectations.

Chart 1 illustrates changes in average ratings for question 2 since Fall of 2008. Ratings on this question have held fairly steady over this time period.

Chart 2 illustrates changes in average ratings for questions 2, 3, and 4 on the Graduating Senior Exit Questionnaire since Fall of 2000. The trend for all three questions shows that scores have risen over the past decade. Students' assessments of the educational experience suggest that faculty now place a greater emphasis on critical thinking skills across all courses. In all semesters, the average ratings fall between 3 and 4, on 4 point scale.

- a) Students, on average, are meeting expectations in all areas (assuming we round 1.99 up to 2.0).
- b) Based on the percentage of students meeting expectations (at just over 80%), there is most room for further improvement in the areas of critical thinking and problem solving.

Table 1 Economics 145 Assessment Results Fall 2012

	ra	11 2012		
	Assessment Goals/Objectives	Mean Score	Standard Deviation	Percent at or Above Expectations
1.	Understand and apply economic concepts and theories	2.01	0.56	88.51
2.	Think critically and solve problems	2.01	0.64	82.76
3.	Utilize mathematics and statistics to facilitate the understanding of economic data	2.05	0.60	87.36
4.	Utilize computers and other technologies to access, retrieve, and analyze data	2.07	0.53	89.66
5.	Communicate findings both orally and in writing	2.14	0.57	90.80
6.	Demonstrate awareness of historical and institutional factors and identify implications and limitations of their work.	1.99	0.48	90.80
	OVERALL	2.05	0.56	88.31

Table 2 Economics 145 Assessment Results Spring 2013

	Assessment Goals/Objectives	Mean Score	Standard Deviation	Percent at or Above Expectations
1.	Understand and apply economic concepts and theories	2.00	0.59	86.30
2.	Think critically and solve problems	2.02	0.63	80.14
3.	Utilize mathematics and statistics to facilitate the understanding of economic data	2.05	0.60	86.30
4.	Utilize computers and other technologies to access, retrieve, and analyze data	1.99	0.64	82.88
5.	Communicate findings both orally and in writing	2.14	0.61	86.99
6.	Demonstrate awareness of historical and institutional factors and identify implications and limitations of their work.	1.99	0.58	83.56
	OVERALL	2.03	0.58	84.36

Chart 1

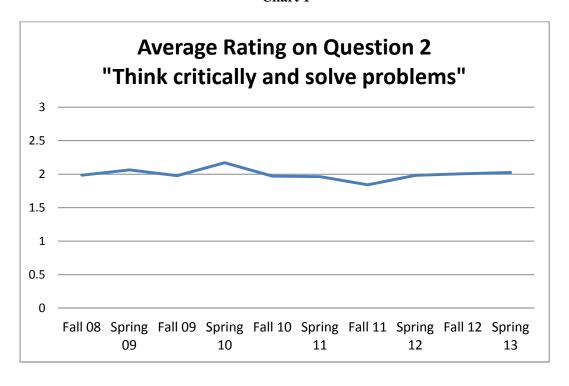
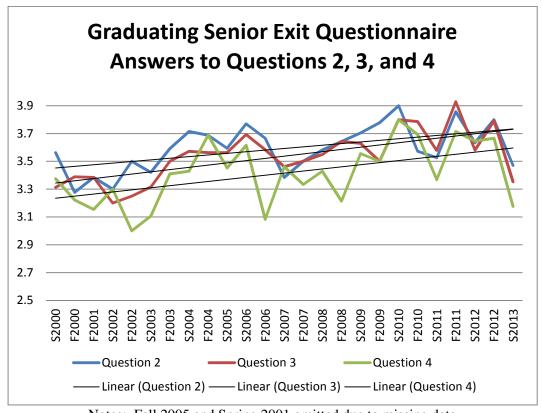


Chart 2



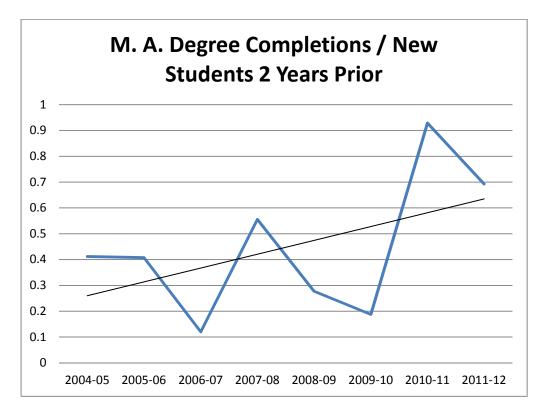
Notes: Fall 2005 and Spring 2001 omitted due to missing data.

M.A. Assessment

Master's students demonstrate competency of Learning Goal 4, "Engage in and conduct economic research," by completing the Master's Thesis. The share of students completing the thesis has risen over the past decade, as seen in Chart 3's trend line. This can be attributed to changes made in the core courses offered in the program, especially Econ 200C and Econ 241, better preparing students for independent research.

- a) In the past two years, a larger share of our graduate students are meeting expectations by completing their theses. The trend line best demonstrates the improvement in this outcome. There are large fluctuations year to year in degree completion, and a year with low completion is often followed by a year with higher completion, because often it takes students more than 2 years to complete the degree. If a large share of students don't complete in 2 years, a number of them may complete the following year, causing a dip in one year and a spike the following year.
- b) The striking improvement in degree completion over the past 2 years will be challenging to maintain and improve upon, but we would like to see even more of our graduate students complete their theses.

Chart 3



M.A. Enrollment and Degree Completion

	New Students Enrolled	Degrees Completed	Degree Completions/New Students 2 years prior
2002-03	17	1	
2003-04	27	2	
2004-05	25	7	41.2%
2005-06	18	11	40.7%
2006-07	18	3	12.0%
2007-08	16	10	55.6%
2008-09	14	5	27.8%
2009-10	13	3	18.8%
2010-11	18	13	92.9%
2011-12	10	9	69.2%
2012-13	14		
Average	17.3	6.4	44.8%

7. As a result of this year's assessment effort, do you anticipate or propose any changes for your program (e.g. structures, content, or learning outcomes)?

- a. If so, what changes do you anticipate? How do you plan to implement those changes?
- b. How do you know if these changes will achieve the desired results?
 - a) In the coming year, we will work toward developing a formal assessment plan for our M.A. program. We will develop methods of data collection so we are able to track student attainment of all 4 M.A. Learning Goals over time.
 - b) If at this time next year we have faculty consensus on a Master's Assessment Plan, and if we begin to implement the plan, we will have achieved our desired result.

8. Which program learning outcome(s) do you plan to assess next year? How?

With completion of this assessment report, we have assessed all ten B.A. learning goals since 2008. In 2014, we intend to revisit the goals assessed in 2008, Goals 7, 8 & 9:

- 7. Demonstrate quantitative reasoning skills
- 8. Demonstrate the ability to collect, process, and interpret data, including statistical inference
- 9. Demonstrate computer proficiency within economics

We will continue to use faculty assessment of student presentations from our capstone course, Econ 145. (see Appendix B)

Next year we will compare students' quantitative proficiency over an extended time period. In future years we can continue our focused assessment of specific learning goals in a 5 year cycle.

Goals to be Assessed**	2008	2009	2010	2011	2013*	2014	2015	2016	2017	2018
7, 8 & 9	X					X				
Quantitative Skills										
6		X					X			
Writing & Presenting										
1 & 4			X					X		
Economic Theory										
3 & 5				X					X	
Institutions & Limitations										
2 & 10					X					X
Critical Thinking										

^{* 2012} omitted for IPP reports.

^{**}Full definitions of Goals and Objectives are attached in Appendix A.

Appendix A Goals and Objectives of the B.A. Program in Economics

Goais and Objectives of the	E. D.A. Frogram in Economics
Program Goals	Learning Objectives/Outcomes
1. Develop the ability to explain core economic terms, concepts, and theories	1.1 Explain the function of markets and prices as allocative mechanisms
	1.2 Apply the concept of equilibrium to both microeconomics and macroeconomics
	1.3 Identify key macroeconomic indicators and measures of economic change, growth, and development
	1.4 Identify and explain the key concepts underlying comparative advantage
	1.5 Identify and explain major types of market failures
2. Demonstrate the ability to employ the "economic way of thinking"	2.1 Explain the application of marginal analysis
	2.2 Explain the use of benefit/cost analysis
	2.3 Explain the contribution of economics to non-market social issues
3. Demonstrate awareness of global, historical, and institutional forces	3.1 Assess the role of domestic and international institutions and norms in shaping economic outcomes
4. Apply economic theories and concepts to contemporary social issues, as well as formulation and analysis of policy	4.1 Describe how economic trade-offs and social values impact public/private policy, and the success or failure of policies to achieve intended outcomes
5. Recognize the role of ethical values in economic decisions	5.1 Distinguish between normative and positive economics
	5.2 Identify the limits of economic analysis
	5.3 Distinguish between efficiency and equity
6. Apply both oral and written communications skills within the discipline	6.1 Present economic arguments in non-quantitative terms
	6.2 Synthesize and summarize the arguments found in both academic and popular economic media

	6.3 Discuss economic concepts in an articulate manner in a classroom or seminar setting
7. Demonstrate quantitative reasoning skills	7.1 Present an economic argument in quantitative terms
	7.2 Demonstrate ability to solve systems of equations
	7.3 Be able to conduct economic analysis using equations and graphs
8. Demonstrate the ability to collect, process, and interpret data, including statistical inference	8.1 Recognize how to use the scientific method in economics
	8.2 Formulate empirically testable hypotheses
	8.3 Identify sources of data to conduct economic analysis
	8.4 Calculate, present, and discuss descriptive statistics
	8.5 Conduct a statistical analysis
	8.6 Critically assess the statistical analysis of other researchers.
9. Demonstrate computer proficiency within economics	9.1 Use electronic databases
	9.2 Use standard software packages
10. Be able to use critical thinking skills within the discipline of economics and about economic matters	10.1 Present viewpoints and alternative hypotheses on economic issues
	10.2 Recognize underlying assumptions in economic models
	10.3 Demonstrate ability to use the economic tools of analysis
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Appendix B

Economics 145 Assessment Rubric Instructions: Please use the following numerical values to assess goals: 1 = Does Not Meet Expectations, 2 = Meets Expectations, 3 = Exceeds Expectations

Assessment Goals/Objectives		Student										
		2	3	4	5	6	7	8	9			
1. Understand and apply economic concepts and theories (Econ Dept. Goal 1; CSUS Goal 1 and 2)												
Expectation: Student should understand and apply economic concepts and theories in a clear and effective manner												
2. Think critically and solve problems (Econ Dept Goals 2, 4, & 10; CSUS Goal 2 and 3)												
Expectation: Student should identify question at hand, think critically and solves problem in an illuminating way												
3. Utilize mathematics and statistics to facilitate the understanding of economic data (Econ Dept Goal 7: CSUS Goals 1 and 3)												
Expectation: Student should cite and utilize mathematics or statistics, and bring them to bear on the issue/topic at hand												
4. Utilize computers and other technologies to access, retrieve, and analyze data (Econ Dept Goals 8 & 9; CSUS Goals 1 and 3)												
Expectation: Student should cite an appropriate data source, present and engage the information, examine and assess it												
5. Communicate findings both orally and in writing (Econ Dept Goal 6; CSUS Goal 3)												
Expectation: Student should clearly communicate findings orally and stimulate interest and discussion from the audience and communicate findings in writing in a clear and stimulating manner												
6. Demonstrate awareness of historical and institutional factors and identify implications and limitations of their work. (Econ Dept Goals 3 & 5, CSUS Goal 4)												
Expectation: Student should demonstrate awareness of real world challenges, global, historical, and/or institutional forces, and interpret results in an ethical manner.												

Appendix C Learning Goals and Objectives of the M.A. Program in Economics

Learning Goals	Learning Objectives/Outcomes
1. Develop an advanced understanding of microeconomic and macroeconomic theory	1.1 Understand the foundations, basic framework, and complexity of microeconomic and macroeconomic theory
	1.2 Recognize the contribution and limitations of traditional theories
	1.3 Explore newer economic theories and modeling of more complex situations
	1.4 Apply introduced theories in a discussion of research interests
2. Demonstrate the ability to apply econometric methods	2.1 Use basic regression analysis, estimation, and/or forecasting
	2.2 Express economic theory on the form of economic models
	2.3 Use econometric techniques in economic research settings
3. Develop an in-depth understanding of one special research field of interest within economics	3.1 Read and discuss research articles in chosen field of interest.
	3.2 Understand the current state of knowledge in this research field.
	3.3 Confidently discuss important findings and limitations of existing research
4. Engage in and conduct economic research	4.1 Identify and clearly state a Master's thesis topic
	4.2 Find or collect appropriate data
	4.3 Present main findings of your research to the department
	4.4 Successfully complete and submit Master's thesis
	4.5 Disseminate research findings

Appendix D Exit Questionnaire for Graduating Seniors in Economics (Space for student responses has been omitted below for presentation purposes)

The faculty of the Department of Economics is interested in learning about your experience as a major in our Department. This questionnaire is part of our B.A. Program assessment efforts. Your input will help us to develop curriculum, improve the quality of instruction, and provide academic and career advice to majors. We would greatly appreciate your assistance in these endeavors by completing this questionnaire and returning it to the Economics Department. Please do not sign your name to this form. Thank you.

PART I

Please respond to the following questions based on your experience in general as a major in economics rather than your experience in any particular class.

Use the following response scale in answering questions 1-16:

- A. Usually B. Sometimes C. Rarely D. Never E. Not Applicable
- 1. My economics courses required me to use and to develop my communications skills.
- 2. Courses offered opportunities for problem solving and critical thinking rather than just content acquisition.
- 3. Courses emphasized the connections among theory, critical thinking, and the real world.
- 4. Courses helped me to connect the course content to relevant questions for me and for society.
- 5. Courses encouraged me to explore questions of values and ethics related to economics.
- 6. Advanced courses required me to use and build upon information I acquired in previous courses.
- 7. Courses developed my ability to understand and use economic vocabulary, to communicate economics by means of diagrams, graphs, and other mathematical devices, and to communicate this understanding to others.
- 8. The major program afforded opportunities to practice and develop writing skills.
- 9. The major program afforded opportunities to practice and develop computer skills.
- 10. The major program afforded opportunities to practice and develop oral communications skills.
- 11. The major program afforded opportunities to practice and develop analytic skills.
- 12. The major program trained me to design and carry out research: forming hypotheses, testing hypotheses with data, and deriving results.

- 13. The feedback I received from my economics instructors on exams, papers, and other assignments helped me to improve my performance in my classes.
- 14. During my major career, semester to semester, I consulted and advisor.
- 15. My advisor was helpful.
- 16. The Department course schedule accommodated my own scheduling needs.

PART II

Please respond to the following 8 questions

- A. Why did you choose to major in economics?
- B. Are there aspects of the major program that you believe are particularly strong? Explain.
- C. Are there aspects of the major program that you believe are particularly weak? Explain.
- D. Which courses in math, statistics, and computer science required or allowed in the major were the most helpful and which the least helpful? Why?
- E. What, if any, math statistics, or computer courses do you believe should be added to or deleted from the major? Why?
- F. What suggestions do you have for improving the economics major program?
- G. In what ways could the department have better helped you while you were pursuing your degree?
- H. Please make any other comments you wish.