

Date: June 15, 2018

To: Martha Venn, Deputy Vice Chancellor for Academic Affairs, University System of Georgia

From: Michael Galchinsky, Associate Provost for Institutional Effectiveness, Georgia State University

Cc: Risa Palm, Senior Vice President for Academic Affairs and Provost, Georgia State University

Re: Comprehensive Program Review

This memorandum explains the reporting mechanism used by Georgia State University for the purpose of Comprehensive Program Review in 2018.

The following Georgia State University programs underwent Comprehensive Program Review (CPR) using the System's CPR reporting vehicle in Spring 2017:

Bachelor of Arts with a major in Applied Linguistics (16010201)

Bachelor of Arts with a major in Economics (45060100)

Bachelor of Arts with a major in History (54010100)

Bachelor of Arts with a major in International Economics and Modern Languages (45060501)

*Bachelor of Business Administration with a major in Business Economics (52060101)

Bachelor of Business Administration with a major in Hospitality Administration (52090105)

Bachelor of Science with a major in Criminal Justice (43010401)

Bachelor of Science with a major in Economics (45060100)

Bachelor of Science with a major in Physics (40080101)

Bachelor of Science in Nursing (51380101)

Bachelor of Science in Nursing, RN to BSN (51380105)

Master of Arts with a major in Applied Linguistics (13140101)

Master of Arts with a major in Economics (45060100)

Master of Arts with a major in History (54010100)

Master of Global Hospitality Administration (52090101)

Master of Heritage Preservation (30999901)

*Master of Science with a major in Business Economics (52060101)

Master of Science with a major in Criminal Justice (43010401)

Master of Science with a major in Nursing (51380105)

Master of Science with a major in Physics (40080101)

*Master of Laws (22020101)

*Juris Doctor (22010100)

Doctor of Nursing Practice (51380101)

Executive Doctorate in Business (52029901)

Doctor of Philosophy with a major in Applied Linguistics (13140101)

Doctor of Philosophy with a major in Astronomy (40020100)

Doctor of Philosophy with a major in Criminal Justice and Criminology (43010401)
Doctor of Philosophy with a major in Economics (45060100)
Doctor of Philosophy with a major in History (54010100)
Doctor of Philosophy with a major in Nursing (51389901)
Doctor of Philosophy with a major in Physics (40080101)

In all but four cases (those indicated with an asterisk), these CPR reports were used as inputs in the preparation of self-study study reports by units as part of the comprehensive Academic Program Review (APR) process during the past year.

The following units successfully completed the APR process in 2018:

Department of Applied Linguistics and English as a Second Language
Department of Criminal Justice and Criminology

Department of Economics

Department of History
Department of Physics and Astronomy
School of Hospitality Administration
School of Nursing

In addition, the Executive Doctorate in Business program, which is not located within any single department, completed the APR process.

Unlike CPR, APR at Georgia State University involves the entire unit in which the program is based. Thus, in APR, a department's bachelor's, master's, doctoral, and other programs are all reviewed as part of a holistic evaluation of the unit's viability, quality, and productivity. The robust APR process involves data collection, a self-study, an external review by disciplinary specialists, an internal review by the University Senate, an action plan, and a series of implementation reports. The units must demonstrate their contribution to the University's Mission and Strategic Plan, and must articulate a series of goals aimed at continuous quality improvement.

Consequently, in lieu of a CPR reporting vehicle for each program, we are submitting the following documents for those programs housed in units that conducted APR in 2017-2018 on a unit by unit basis:

- 1) For each program in the unit, the signed final page of the CPR vehicle, attesting that the program "meets" the institutional criteria for retention
- 2) The unit's self-study report
- 3) The report of the external reviewers for the unit
- 4) The report of the University Senate's Academic Program Review Committee for the unit
(The action plans will be developed over the summer and are not yet available)

As noted above, four programs were not covered by the APR process. For two of these programs (BBA with a major in Business Economics, MS with a major in Business Economics), we are submitting an updated CPR reporting vehicle. The two other programs (Master of Laws, Juris Doctor) are scheduled to undergo APR in 2020.

Please let me know if you have any questions. Thank you for your consideration.

SENIOR VICE PRESIDENT OF ACADEMIC AFFAIRS AND PROVOST
Office of the Provost

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June 15, 2018

To whom it may concern:

I hereby certify that each of the programs scheduled for Comprehensive Program Review at Georgia State University in 2018 MEETS the institution's criteria for retention. I have designated Michael Galchinsky, the Associate Provost for Institutional Effectiveness, as the signatory for the individual reports.

Sincerely,

A handwritten signature in cursive script that reads "Risa Palm".

Risa Palm
Senior Vice President for Academic Affairs and Provost

**Comprehensive Program Review
Instructions, Reporting Vehicle, and Definitions**

Reporting Vehicle

Institution: Georgia State University

Academic Program Name: Bachelor of Arts with a major in Economics

CIP Code: 45060100

**College or School and Department: Andrew Young School of Policy
Studies - Economics**

Date of Last Internal Review: 2008-2009

Outcome of Previous Program Review (brief narrative statement):

Date: June 2018

**Program Reviewed at the Institution for this report: Bachelor of Arts
with a major in Economics**

Comprehensive Program Review
Instructions, Reporting Vehicle, and Definitions

Provost/VPAA Categorical Summation:

Check any of the following to categorically describe action(s) the institution will take concerning this program.

Program MEETS Institution's Criteria

Program is critical to the institutional mission and will be retained.

Program is critical to the institutional mission and is growing or a high demand field and thus will be enhanced.

Program DOES NOT MEET Institution's Criteria

Program will be placed on a monitoring status.

Program will undergo substantive curricular revisions.

Program will be deactivated.

Program will be voluntarily terminated.

Other (identify/add text): _____

Provost/VPAA Signature and Date: _____

----- OR -----

Provost/VPAA's Designee Signature and Date: _____

 6/14/2018

Comprehensive Program Review
Instructions, Reporting Vehicle, and Definitions

Reporting Vehicle

Institution: Georgia State University

**Academic Program Name: Bachelor of Arts with a major in
International Economics and Modern Languages**

CIP Code: 45060501

**College or School and Department: Andrew Young School of Policy
Studies - World Languages and Cultures and Economics**

Date of Last Internal Review: 2008-2009

Outcome of Previous Program Review (brief narrative statement):

Date: June 2018

**Program Reviewed at the Institution for this report: Bachelor of Arts
with a major in International Economics and Modern Languages**

Comprehensive Program Review
Instructions, Reporting Vehicle, and Definitions

Provost/VPAA Categorical Summation:

Check any of the following to categorically describe action(s) the institution will take concerning this program.

Program MEETS Institution's Criteria

Program is critical to the institutional mission and will be retained.

Program is critical to the institutional mission and is growing or a high demand field and thus will be enhanced.

Program DOES NOT MEET Institution's Criteria

Program will be placed on a monitoring status.

Program will undergo substantive curricular revisions.

Program will be deactivated.

Program will be voluntarily terminated.

Other (identify/add text): _____

Provost/VPAA Signature and Date: _____

----- OR -----

Provost/VPAA's Designee Signature and Date:  6/14/2018

Comprehensive Program Review
Instructions, Reporting Vehicle, and Definitions

Reporting Vehicle

Institution: Georgia State University

**Academic Program Name: Bachelor of Science with a major in
Economics**

CIP Code: 45060100

**College or School and Department: Andrew Young School of Policy
Studies - Economics**

Date of Last Internal Review: 2008-2009

Outcome of Previous Program Review (brief narrative statement):

Date: June 2018

**Program Reviewed at the Institution for this report: Bachelor of
Science with a major in Economics**

Comprehensive Program Review
Instructions, Reporting Vehicle, and Definitions

Provost/VPAA Categorical Summation:

Check any of the following to categorically describe action(s) the institution will take concerning this program.

Program MEETS Institution's Criteria

 X Program is critical to the institutional mission and will be retained.

 Program is critical to the institutional mission and is growing or a high demand field and thus will be enhanced.

Program DOES NOT MEET Institution's Criteria

 Program will be placed on a monitoring status.

 Program will undergo substantive curricular revisions.

 Program will be deactivated.

 Program will be voluntarily terminated.

 Other (identify/add text): _____

Provost/VPAA Signature and Date: _____

----- OR -----

Provost/VPAA's Designee Signature and Date: _____

[Handwritten Signature] 6/14/2018

**Comprehensive Program Review
Instructions, Reporting Vehicle, and Definitions**

Reporting Vehicle

Institution: Georgia State University

Academic Program Name: Master of Arts with a major in Economics

CIP Code: 45060100

**College or School and Department: Andrew Young School of Policy
Studies - Economics**

Date of Last Internal Review: 2008-2009

Outcome of Previous Program Review (brief narrative statement):

Date: June 2018

**Program Reviewed at the Institution for this report: Master of Arts
with a major in Economics**

**Comprehensive Program Review
Instructions, Reporting Vehicle, and Definitions**

Provost/VPAA Categorical Summation:

Check any of the following to categorically describe action(s) the institution will take concerning this program.

Program MEETS Institution's Criteria

Program is critical to the institutional mission and will be retained.

Program is critical to the institutional mission and is growing or a high demand field and thus will be enhanced.

Program DOES NOT MEET Institution's Criteria

Program will be placed on a monitoring status.

Program will undergo substantive curricular revisions.

Program will be deactivated.

Program will be voluntarily terminated.

Other (identify/add text): _____

Provost/VPAA Signature and Date: _____

----- OR -----

Provost/VPAA's Designee Signature and Date: _____

M J 6/14/2018

Comprehensive Program Review
Instructions, Reporting Vehicle, and Definitions

Reporting Vehicle

Institution: Georgia State University

**Academic Program Name: Doctor of Philosophy with a major in
Economics**

CIP Code: 45060100

**College or School and Department: Andrew Young School of Policy
Studies - Economics**

Date of Last Internal Review: 2008-2009

Outcome of Previous Program Review (brief narrative statement):

Date: June 2018

**Program Reviewed at the Institution for this report: Doctor of
Philosophy with a major in Economics**

Comprehensive Program Review
Instructions, Reporting Vehicle, and Definitions

Provost/VPAA Categorical Summation:

Check any of the following to categorically describe action(s) the institution will take concerning this program.

Program MEETS Institution's Criteria

Program is critical to the institutional mission and will be retained.

_____ Program is critical to the institutional mission and is growing or a high demand field and thus will be enhanced.

Program DOES NOT MEET Institution's Criteria

_____ Program will be placed on a monitoring status.

_____ Program will undergo substantive curricular revisions.

_____ Program will be deactivated.

_____ Program will be voluntarily terminated.

_____ Other (identify/add text): _____

Provost/VPAA Signature and Date: _____

----- OR -----

Provost/VPAA's Designee Signature and Date:

 4/14/2018

Academic Program Review

Self-Study Report

Department of Economics

Andrew Young School of Policy Studies

Georgia State University

Shif Gurmu, Department Chair

November 26, 2017

Approved by the Department of Economics Faculty on November xx, 2017

Academic Program Review Committee (Economics):

Andrew Feltenstein

Garth Heutel

Barry Hirsch, Chair

Grace O

Vjollca Sadiraj

Yongsheng Xu

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Note: In this report, peer programs are those of major state universities in adjoining states: University of Tennessee, University of South Carolina, Florida State University, and University of Alabama. Aspirational programs are the University of Houston and University of Pittsburgh, two large urban-based universities with excellent economics departments, and Syracuse University, whose Maxwell School of Citizenship and Public Affairs houses the University’s Economics Department and was the model for creation of the Andrew Young School of Policy Studies at GSU. Alabama is a Board of Regents Aspirational Institution; Houston is a proposed peer institution. Houston and Pittsburgh are included in the “Urban 13” university list that includes Georgia State.

1. Where Is Your Unit Now?

The Department of Economics at Georgia State is unique. The Department is seated in a policy school and specializes in a limited number of fields within economics – public, labor, health, education, urban and regional, environmental, experimental, and applied econometrics. Specialization has made it possible to create clusters of expertise. These areas of research specialization are closely aligned to several of the University’s strategic plan goals and are complemented by research centers within the Andrew Young School of Policy Studies. This structure has enabled the Department to attract productive faculty and achieve high national rankings in research output, and success in attracting external funding. The Department supports a large and successful PhD program, a robust MA program, three undergraduate programs, and substantial service to undergraduate and graduate students in business and social science programs.

1.a Undergraduate education

The Department of Economics offers three undergraduate degrees, a BS in Economics, a BA in Economics, and a BA in International Economics and Modern Languages (with concentrations in French, German, Spanish, and other languages). The BS degree has substantial overlap with the BA, but requires students to take more quantitative courses. It provides students with professionally demanding analytic skills and prepares students for graduate studies in economics and related areas. The relatively small BA-IEML program is similar to the BA, but is more internationally focused and has foreign language requirements. The program serves students with career aspirations in international economics and international relations. The BS and BA programs are roughly of equal size. Total numbers of majors were 112, 112, and 131 during fiscal years 2015, 2016, and 2017 (Appendix 1.a(1)). The average annual number of undergraduate degrees per full-time faculty over the review period was 4.3 (Appendix 1.a(3)). This ratio is lower than seen in some other social sciences (Sociology and Political Science); the lower ratio of degrees-to-faculty is due to large enrollments in Principles of Economics (hence need for faculty) among students across the University and enrollments in upper level economics courses heavily populated by students majoring in business programs and in public management and policy (PMAP).

1.a.1 Quality of undergraduate students attracted to the unit’s program. The quality of incoming students (full-time native and transfer freshmen) displays little year-to-year change (Appendix 1.a.1). High-school GPA averaged 3.4 over the three years; the freshman index (FI) averaged 2848; the SAT 1132, and the ACT 25.3. For all four of the quality measures, the 2016 values equaled or exceeded those in 2014.

1.a.2 Scholarship support for undergraduates. There is limited departmental scholarship support for undergraduates. The Zeinah Danielle Aouani Scholarship was established in Spring 2017 and will begin awards in Fall 2018. Initially it will provide a small number of modest scholarships to undergraduate students in the Economics Department for support of undergraduate research. We expect the number and size of awards to increase over time. Once a year, the Department of Economics grants four undergraduate students a small monetary award (\$100) during the annual AYS Honors Day Awards Ceremony. The four awards include the Best Student Achievement Award, the Excellence in Microeconomics Award, the overall Economics Award, and the overall International Economics and Modern Languages Award. These awards are based on student GPA and/or nominations.

1.a.3 Student success and satisfaction

1.a.3.1 Learning outcomes. Our programs use the following four student learning outcomes (SLO):

SLO1: Economics Basic Theories: Demonstrate knowledge of basic theories, concepts, and analytical methods of microeconomics and macroeconomics.

SLO2: Apply to specific fields: Be able to apply theories, concepts, and analytical methods of microeconomics and macroeconomics to specific fields of economics.

SLO3: Benefits and costs: Be able to identify the relevant benefits and costs to consider when comparing policy choices.

SLO4: Communication: Be able to communicate, using appropriate writing and oral conventions, basic economic theories, concepts, analytical methods, and policy choices.

Embedded in SLO4 are our Critical Thinking through Writing (CTW) goal to assess and evaluate concepts in economics as they relate to the real world and be able to recognize: (1) how economic theory relates to policy and (2) how assumptions in economic theory provide useful points of departure and enable students to compare outcomes using alternative assumptions. Although our courses provide substantial value added to students, many students struggle in acquiring a deep understanding of economic theory and applications. Because of substantive changes in the assessment methods and targets over the review period, it is difficult to assess the extent to which students have or have not met desired targets. Based on pre-2014 test methods, student outcomes were typically slightly above or slightly below target levels. Assessments administered since then indicate targets have been met; these assessments have focused more clearly on material emphasized in ECON 4999 (the capstone course).

1.a.3.2 Recruitment rates, input quality metrics, and advisement. Input quality metrics were previously addressed in Section 1.a.1. Students with credit hours less than 90 hours are assisted by the University Advisement Center. Students with more than 90 credit hours are assisted by the Andrew Young School Office of Academic Assistance. There are three faculty undergraduate mentors in the Economics Department: Shelby Frost, Grace O, and Glenn Ross. In Fall 2014 and 2015 there was an Open House for the Economics Undergraduate Program in which potential economics major students were invited to learn about the major. In Spring 2014 and 2015, an Economics Undergraduate Program Orientation provided students with information regarding the program and available services.

1.a.3.3 Undergraduate retention rates and graduation rates. The six-year graduation rate for first-time full-time freshman enrolling in Fall 2010 was 70.4% (19 of 27 students), with no students remaining enrolled [Appendix 1.a.3.3 (2)]. This rate is well above the university six-year average graduation rate 52.8% for the Fall 2010 cohort (it was 54% for the Fall 2009 cohort). Rates for the 2009 and 2008 freshman cohorts in Economics were 59.5% and 56%. For junior majors in economics, the four-year graduation (retention) rates for the 2010 cohort were high, 79 (81) percent. The graduation (retention) rates for the 2011 and 2012 cohorts were 70 (74) and 70 (76) percent, respectively. These rates exceed those for the university, which were 66 (73) percent for 2011 and 65 (72) percent for 2012. [Appendix 1.a.3.3 (1)].

1.a.3.4 Output quality metrics: Placement rates and/or acceptances into advanced degree programs. Data are not available on placement and/or acceptance rates for advanced degrees. Data are available on students who have attended and graduated from advanced degree programs. Appendices 1.a.3.4 and 1.a.3.4(1) show that among the 63 AY 2008 economics bachelor degree recipients, 30 students had attended an institution for an advanced degree (a

48% enrollment rate) and 15 of these students had completed and been awarded an advanced degree (a 24% rate).

1.a.3.5 Enrollment by program, gender, and race. Over the combined three years of study, 2014-2016, total undergraduate enrollments were 36% female and 64% male [Appendix 1.a.3.5]. The female ratio for economics is substantially lower than the University average for undergraduates, among whom men are a minority. For the same three years, average racial composition among undergraduate students was 11% Asian, 38% Black, 37% White, 6% multiracial, and 8% not reported [Appendix 1.a.3.5].

1.a.3.7 Student Surveys. The survey of current undergraduate students indicate satisfaction with respect to general learning outcomes, the program's rigor and success in preparing students for the future, program quality, and interaction with faculty. The response rate for Economics majors (13%) was below the University average (22%) for the 24 departments surveyed in Spring 2017. Each question included six possible responses, ranging from a low of 1 (strongly disagree with statement) to 6 (strongly agree with statement). For all questions, responses were highly concentrated among the highest three responses. That said, mean scores for most (but not all) questions in the first three categories tended to be similar or slightly below the university-wide averages. Mean scores in the fourth category (faculty interaction) were somewhat higher than the university average for all six questions.

The undergraduate alumni survey had a 15% response rate, equivalent to the university-wide rate. Mean scores on the three general outcomes were slightly lower among the economics alumni than the university average. Current employment rates for economics alumni were slightly lower than the university average (76% versus 81%), reflecting a higher rate of graduate program enrollment (29% in economics versus 20% university-wide). Employment among economics majors was highly concentrated in business/finance (40% versus 10% university-wide), government/public administration (10% versus 5%), and law (8% versus 4%). Graduate program enrollment was concentrated in M.A. and M.S. masters programs, law (J.D.), and business (M.B.A). Open-ended comments from current undergraduates concentrated on concerns regarding course offerings and times. Open-ended comments from alumni were mostly positive regarding the quality of teaching and the relevance of skills acquired in their economics courses.

1.a.3.8 Curriculum quality based on internal and external benchmarks

1.a.3.8.a Syllabi, degree requirements, advisement procedures. Syllabi for all courses are collected each semester and are available on request. During the review period, there have been minor changes in degree requirements and the addition of 4 new courses.

Courses created since 2008: Econ 4100–Econ, Phil & Public Policy; Econ 4941–Internship; Econ 3050–Career Planning & Management; Econ 4150–Theory of Risk (taught by RMI faculty, cross-listed with us).

Courses Deleted since 2008: Econ 3000–Economics for Life; Econ 3010–Economics of Atlanta & GA; Econ 3020–Race, Sex, and Economy; Econ 3030–Economics of Sports; Econ 4700–Economics of the Internet; Econ 3610–The Economy of South Africa (replaced by 4000 level section); Econ 3620–EC Study Abroad S. Africa (replaced by 4000 level section).

Changes in the program: IEML: Chinese Studies was added as a concentration (2014/2015 catalog); CTW (Critical Thinking through Writing) was added to Econ 3900 (Macroeconomics) and Econ 4999 (Capstone); CTW was later removed from Econ 4999 but left in Econ 3900. Dual Degree programs were introduced (MAT was already in place, changes have been minor). Econ 4950 (Introductory Econometrics) became required for the BS degree. MATH 1070 is a

requirement in both the BA and BS. MATH 1220 is a requirement in the BS program. In Fall 2014, Econ 2105 and 2106 (principles) have adopted a new textbook with online assessment system, Smart Work. Using an online course template, a more consistent and uniform course is taught throughout different sections. Advisement procedures are discussed in section 1.a.3.2 .

1.a.3.9 *Contribution to the core curriculum/general education outcomes.* Three courses are offered in area E (General Education Social Science) of the core curriculum: Econ 2100 Global Economy in area E2, Econ 2105 Principles of Macroeconomics and Econ 2106 Principles of Microeconomics in area E3. Our SLOs also reinforce general education outcomes: Students effectively analyze the complexity of human behavior, and how historical, economic, political, social, and/or spatial relationships develop, persist, and/or change (area E). Students will demonstrate understanding of global cultural differences across the globe and how they apply to the field of economics (area E2).

1.a.4 Signature experiences. Research Experience for Undergraduates (REU) was an independent non-course credit producing summer internship program, where undergraduate students worked on a research project with his/her mentor, who were either a faculty member or researcher in the Andrew Young School. It was sponsored by NSF from Summer 2002 to 2010, and then by AYS Summer 2011 to Summer 2015. There were approximately 10 participants each year since 2002. Research Excellence in Economics Program (RE2P) was offered from Fall 2011 to Spring 2016. It was a two-semester course focused on research and econometric analysis in economics.

Our current Research Internship Course, ECON 4941, which began in Fall 2016, is a combination of the REU and RE2P research programs. The course develops students' analytical thinking capabilities in application of theory and concepts to social programs and issues. The course requires a research paper based on work with a mentor who is a faculty member or researcher in the Andrew Young School.

Our Economics Club promotes undergraduate education, provides information and advice that helps undergraduates to succeed in our program, and lends guidance toward graduate school programs and/or professional careers. Activities include volunteer service, a speaker series, access to internship and job opportunities, and networking and social gathering. Dr. John Gibson is the faculty advisor.

During AY2015, 24 distinct GSU students participated in Study Abroad; 16 participated in 2016 (Appendices 1.a.4.4 and 1.e.4.2). Study abroad and exchange program during this period were: The Economic and Business Environment in South Africa (two-weeks); Chinese Economics System (Econ 8910), a joint program of AYS, GSU, and Central University of Finance and Economics (one semester MA program); Economic Studies in Lausanne, Switzerland, a joint program of AYS, GSU, and Haute Etude Commerciales (HEC) (one semester MA program); a dual degree Exchange Program sponsored by AYS, GSU, and the Department of Economics, University of Venice, Ca'Foscari (undergraduate); and an Exchange program sponsored by AYS, GSU and the Department of Economics, Marmara University (one or two semester exchanges).

1.a.5 Honors College. Grace O is a faculty associate with the Honors College for GSU Undergraduate Research Conference (GSURC). GSURC receives each year nearly 150 undergraduate student research presentation submissions from across the University. James Marton is a faculty affiliate, charged with promoting undergraduate research activity, participating in the Honors College committee, and contributing more generally to the Honors College.

1.a.5.1 *Honors courses taught by faculty.* The department has standalone Honors courses for Macro and Micro Principles (Econ 2105 and 2106) and provides honors credit add-ons in 11 upper-division courses. There are a substantial number of Economics courses that provide honors credit. In Fall 2014, 2015, and 2016, Honors credit hours totaled 199, 288, and 294 hours, respectively, most of which are from the principles courses. Honors students who are Economics majors numbered 53, 62, and 46 during Fall 2014, 2015, and 2016. Of these students, 42% are in the BS program, 29% in the AB-Econ, and 29% in AB-IEML. (Appendix 1.a.5.1).

1.a.6 Undergraduate Programs within the GSU Context

1.a.6.1 *Programs undertaken jointly with other units at GSU / Cross-listed courses.* During each fall of the review period, Economics has had a cross-listed course, Career Planning & Management, taught in all departments of the Andrew Young School: Economics, Criminal Justice, Public Administration, and Social Work (ECON3005, CRJU3005, PMAP3005, SW3005). In Fall 2016, a cross-listed internship course for two departments (ECON4941, PMAP4941) was added. Student enrollments in the courses 3005 and 4941 were 21, 26, and 37 in Fall 2014, 2015, and 2016 (Appendix 1.a.6.1). A Philosophy & Economics course cross-listed with the Philosophy Department was taught in Spring 2014 and again in Spring 2017 (ECON4900, PHIL4900). Added in Spring 2017 was a cross-listed Theory of Risk course with the College of Business (ECON4150, RMI4150).

There are five dual degree 4+1 programs combining 4-year undergraduate and one-year MA programs.

Bachelor of Arts Major in Economics and Master of Arts in Economics

Bachelor of Arts Major in International Economics and Modern Languages & Master of Arts in Economics

Bachelor of Science Major in Economics and Master of Arts in Economics

Bachelor of Arts Major in Economics and Master of Arts in Teaching Major in Social Science Education

Bachelor of Science Major in Economics and Master of Arts in Teaching Major in Social Science Education

The Department has two undergraduate interdisciplinary programs.

Bachelor of Interdisciplinary Studies (BIS) Concentration in Philosophy, Politics and Economics (PPE). As with other initiatives, the hope is that a high-quality interdisciplinary program will enhance student success in their post-graduate careers.

Bachelor of Science of Mathematics + Bachelor of Science in Economics (Approved at the department level)

During the review period, the department offered a dual BA degree in economics with the University of Venice-Ca'Foscari, the Italian students taking classes at GSU and vice-versa. GSU recently ended its Italian language program; thus, this dual degree program is being deactivated.

1.a.6.2 *Areas of substantial overlap/redundancy with other units at GSU.* We are not aware of any areas with substantial overlap/redundancy.

1.a.7 Number of students enrolled in fully online and hybrid courses. During the three-year review period, the department shifted sharply away from emphasis on hybrid courses toward those entirely online, finding academic outcomes to be superior in the latter. In Fall 2014 the department enrolled 664 students in hybrid courses, with no entirely online course. In Fall 2015 there were 393 students in hybrid and 319 in entirely online courses; in Fall 2016 there were 489 students in entirely online courses and none in hybrid (Appendix 1.a.7). The Department's

consensus is that the average student performs best in traditional courses and most poorly in hybrid courses. The Department continues to provide entirely online courses, given that many students prefer and perform well in such courses.

1.b Graduate education

The Department of Economics offers two graduate degree programs, the MA and PhD. The PhD is a large program, with up to 15 new students each fall, selected from application pools of 100 or more. In contrast to most PhD programs, our program specializes in a limited number of research fields, with students required to take field exams in public finance, urban & regional, environmental, labor, health, or experimental economics. Limiting major fields of study allows the department to have a faculty that provides expertise and produces intellectual synergies within and across fields. Research seminars play a key role in the intellectual life of PhD students and faculty. PhD students have been successful in obtaining high-quality academic and non-academic jobs. An important constraint in attracting top students to the PhD program has been difficulty in matching stipend levels provided by other programs. The MA program attracts about 20 students per year. Graduating students have been successful in transitioning to private and public sector research positions or into PhD programs. The MA program has recently approved a new 4+1 dual Bachelors/Masters degree program in Economics and has developed a quantitative specialization within the MA program.

1.b.1 Quality of graduate students attracted to the unit's program. Data in Appendix 1.b.1 does not allow us to differentiate MA and PhD students. The GRE quantitative percentile for enrolled graduate students over the three-year review period averaged 67 (65, 71, and 65 in Fall 2014, 2015, and 2016). The GRE verbal percentile over the full period averaged 61 (52, 64, and 68 across the three years). Acceptance rates to the graduate programs average 42%. Among those accepted, the enrolled ratio averaged 43%. The undergraduate GPA for incoming graduate students averaged 3.4 in each of the three years. Separate data on iPort makes a distinction between PhD and MA applicants and enrolled students. As compared to MA students, PhD students have higher grade-point averages, moderately higher verbal scores, and substantially higher quantitative scores.

1.b.2 Scholarship support for graduate students. Most PhD students are funded, with about 15 new stipends awarded each year. Our standard PhD stipend is substantially lower than stipends at many of the programs with which we compete. This issue is discussed subsequently in Section 3, Goal 3, and elsewhere. We have been able to provide funding for most students by supplementing our base number of fellowships with those awarded to the Department through the 2CI and Next Generation programs, from research grants funding, from revenues generated by the School's research centers, and from endowment funding from chaired professors in the Department. Funding for MA students is more limited in size and number of students; 4 each in 2014 and 2015, with expansion to 9 in 2016. [Appendix 1.b.2]

1.b.2.1 Total numbers of graduate students by year, degree program, and concentration. The total number of graduate students has averaged roughly 122 each year. The number of students enrolled in the MA program was 54 in Fall 2014, 46 in Fall 2015, and 46 in Fall 2016. The number of enrolled PhD students was 72 in Fall 2014, 71 in Fall 2015, and 76 in Fall 2016. [Appendix 1.b.2.1]

1.b.2.2 Percentage of graduate students compared to total number of students in the department. The percentage of graduate (MA plus PhD) to total students was 22% in Fall 2014, 21% in Fall

2015, and 22% in Fall 2016. [Appendix 1.b.2.2] These percentages are comparable to the 24% figure at the university level (GSU Fact Book 2015-2016).

1.b.2.3 Graduate student financial support, by type. Nearly all PhD students are funded. During Fall 2014, 2015, and 2016, funding was provided for 68, 69, and 75 PhD students (across all cohorts), respectively. The bulk of the funding is generated and provided by the department. A substantive number of assistantships are partially funded through the Second Century (2CI) programs, with 8 2CI in 2014, 9 2CI in 2015, and 15 2CI in 2016. The 2CI PhD students receive an assistantship ending up with a total \$22,000 annually. Standard department funding has been \$18,000 during the review period, but was recently increased to \$21,000 to reduce the sizable funding gap with our competitors. The PhD stipends do not include money for healthcare or fees, which adds approximately \$4,000 in additional costs to students. Moreover, annual stipends are designated as pay for 12 months of work (fall and spring semesters, plus summer). In contrast to our program, at many (if not most) universities, PhD students can receive additional pay for summer duties.

Much of our information on PhD stipends is anecdotal, received from potential PhD students who either have turned down our offer and gone elsewhere, or agreed to come to GSU only after additional funding was found. A 2014 survey from the Ohio State PhD program surveyed 20 PhD Economics programs, many of which are in competition with OSU (and to a lesser extent GSU). (These results were informally provided to us by the OSU Director of Graduate Studies.) Nearly all programs guaranteed funding for 5 years; in practice many had funded students for 6 years. All but two of the programs funded all (or nearly all) PhD students, with approximately half the funding from fellowships and half from assistantships. The median annual stipend across departments was \$20,000, above the \$18,000 GSU offered. In contrast to GSU, most of these departments provided additional summer financial aid. In 2015, our director of graduate studies received information from the University of Virginia, UC-Irvine, and Indiana University. The GSU program was the least generous among this group, after accounting for fee payments and the availability of additional summer funding. In 2016, two potential PhD student provided us with their offers from competing programs. One PhD student applicant had an offer from the University of Georgia that provided a four-year assistantship of \$22,900 per year (with likely extension to a fifth year). This offer was based on nine months of service, thus allowing the student to receive additional funding for the summer. A second student had received an offer of a \$26,000 annual stipend (inclusive of summer) from Kansas State University.

Masters students generally receive modest funding, typically \$5,000 annually. Roughly a quarter of these are funded entirely by the Department; the remainder of students receives partial funding (less than half) from the University based on departmental enrollments in CTW (Critical Thinking Through Writing) courses and from SI (Supplemental Instruction) provided by MA students in Econ 2105/2106 classes. [Appendix 1.b.2.3] In recent years, the Center for State and Local Finance and the Fiscal Research Center have been supporting increasing numbers of Economics MAs and PMAP MPA and MPP students. These arrangements have proven to be successful in terms of interest, experience, and job placement.

1.b.2.4 Ratio of graduate students to TT faculty. The ratio of graduate students (PhD and MA combined) with respect to all full-time tenure-track faculty, with the exception of faculty in full-time administrative positions, averaged 5.5 over the review period, being 5.5 in Fall 2014, 5.3 in Fall 2015, and 5.8 in Fall 2016. The ratio is larger for PhD than for MA students. [Appendix 1.b.2.4]

1.b.2.5 Internships, service learning programs, research practica, field placements, etc.

MA Program. The department offers an Internship course for MA students. This provides incentives to students to do an internship and at the same time gain experience and academic credit towards their program of study. In recent semesters, students have interned at UPS, Cox Communications, Southern Company, and the Georgia Department of Economic Development.

PhD Program. An Internship Class (ECON 9005) is also in place for PhD students. The total number of internships during 2014–2016 was 38 (13 in 2014, 11 in 2015 and 14 in 2016). The primary place of internships is the Federal Reserve Bank of Atlanta.

1.b.3 National Reputation in Professional Degree Programs. The 2017 US News & World Report's ranking of best graduate economics program places our program #59, in a tie with Virginia Tech, Florida State University and University of Oregon. The ranking is comparable to University of Georgia (#54) and Emory University (#63). See 1.c.1.3 for more detailed rankings.

1.b.3.1 *Number of graduate students in professional degree programs by year.* No professional degree program

1.b.3.2 *Pass rates on national credentialing examinations.* No applicable credentialing examinations.

1.b.4 Student success and satisfaction

1.b.4.1.a Learning outcomes.

a) Student Learning Outcomes. The Master of Arts in Economics program is designed to train students for careers in the public and private sectors. The program emphasizes basic theory and analytical skills needed to achieve productive professional careers. Student Learning Outcomes target: i) basic analytical skills of microeconomics and macroeconomics and ii) quantitative skills such as statistics, basic data management, data analysis, and econometrics. The Ph.D. in Economics program seeks to equip our students with a high level of competence in theoretical and applied policy-relevant economic research. Learning Outcomes include: i) mastery of the use of analytical tools and expertise in applications of a variety of models of microeconomics, macroeconomics, and econometrics; (ii) extensive and accurate knowledge of the issues, models, and latest advances in at least one of the fields of study in economics offered by the program; (iii) ability to conduct independent and original basic and applied research in economics, and (iv) acquiring the knowledge and communication skills required to compete for research and teaching jobs in academia, industry, and government.

b) Assessment Findings, Program Changes and Impact on Student Learning.

Based on yearly assessment reports, all targets are met for both graduate programs. Important changes that have taken place in our two graduate programs are as follows.

MA Program. A new dual degree (4+1) economics bachelors-MA program has been approved. Several high-performing undergraduates majoring in economics have applied and have been accepted to this program. We plan to introduce a new assessment method, a standardized test on microeconomics and macroeconomics to be administered at the start of the program and at completion. The objective is to measure added knowledge. We also have expanded recruiting efforts to our high-performing undergraduate economics majors.

PhD Program. Aiming to enhance job market opportunities for our PhD students, we have expanded their opportunities to teach, following their passing a teaching examination and receipt of training from one of our clinical teaching professors. The dissertation proposal deadline has been extended from 12 to 15 months after completion of comprehensive exams to provide

students with extra time to work on their proposals. In 2015 we redefined the role of comprehensive exams as a requirement for student continuation in the program. We now use a hybrid model, similar to other universities, in which comprehensive theory exams are waived for students whose course grades in required courses exceed a designated threshold. Comprehensive field exam requirements vary among fields with respect to written and/or oral exams and a paper requirement.

c) Other Quality Improvements to Student Learning. We are in process of developing a quantitative field specialty in the MA Program. We also plan to increase data-related and writing content in our MA courses. As of Fall 2016, the department features a weekly 2½ hour seminar in which two PhD candidates present their work each week. This provides an opportunity for job market candidates to refine their presentations, and for younger students to present and receive feedback on research toward their dissertation. In addition to the coordinator, several faculty members attend each of these presentations. This seminar is in addition to separate programs/courses providing guidance on preparation of dissertation proposals and on job market activities (portfolios, job market interviews, and fly-out seminar presentations).

1.b.4.1.b *Courses taught.* During academic years 2014-2016, the department taught 68 distinct graduate courses, some just once during each academic year (or every other year), some in all semesters, and some with multiple sections during some semesters. Altogether, the department offered 239 graduate sections over the study period, about 80 per year (88, 75, and 76 in AY 2014, 2015, and 2016). Just over half of these sections were 8000 level and just under half (112) 9000 level courses.

1.b.4.2 *Recruitment rates, admission requirements and procedures, and advisement.* Input quality metrics were shown previously in Section 1.b.1/Appendix 1.b.1. These data indicated that the graduate programs attract high quality students and are competitive, with roughly 40-plus percent accepted and 40-plus percent of the accepted students choosing to enroll.

Recruitment. The program directors conduct frequent live and online information sessions that are attended by students from anywhere in the world. Department chairs from a large list of economics departments in the U.S. and abroad also are contacted. Our Office of Academic Assistance follows up with anyone expressing interest in the program. Prospective students are invited to a campus visit to meet faculty and staff and are informed of the various activities in the department in addition to program-related information. In the PhD program, recent recruiting practices include: (i) creation of a contact list of economic organizations in the U.S. and abroad, (ii) updated information on *Research Papers in Economics* (RePEc) ranking of our department, (iii) an annual newsletter to alumni, (iv) holding an annual campus visit, (v) conducting online information sessions, and (vi) starting this year, a program overview recorded by the PhD director. All accepted PhD applicants are contacted by the program director. Other new recruiting policies target improvements in teaching preparations and exemptions from comp exams for top students, as previously discussed. Last year we were successful in increasing the level of financial support up to \$21,000; that said, our stipend level is below most of our close competitors. Students are responsible for payments of fees and health insurance.

Advisement. In the MA program advisement is led by the program director and by the staff of our Office of Academic Assistance. Students are initially advised when they arrive in an orientation session for incoming students. Regular group meetings with the director take place once or twice a year. Students are encouraged to meet with the program director for individual advisement. In addition, we have an MA symposium where students are advised on job market preparation by

alumni and a second symposium for students interested in pursuing PhD studies. As summarized previously (section 1.b.4.1.a(c)), multiple programs prepare PhD students for the job market.

1.b.4.3 Retention rates, graduation rates, and output quality measures. Retention and graduation rates for MA and PhD students are shown in Appendix 1.b.4.3. Among MA cohorts entering in Fall semesters 2009 through 2013, a 3-year graduation rate is about 85%. Specifically, 3-year graduation rates were 63%, 87%, 87%, and 86% for the Fall 2009-Fall 2012 cohorts (graduation and retention rates were equivalent). For the Fall 2013 cohort, 64% had graduated but the retention rate was 86%.

For the PhD program, 7-year graduation rates for the Fall 2006-Fall 2009 cohorts were 75%, 50%, 69%, and 73% (with equivalent retention rates). For 5-year PhD graduation (retention) rates, cohorts entering in Fall 2006-2011 had average graduation rate across years of 32% and average retention rates of 70%. Our strong perception has been that GSU's PhD graduation rates are on average higher than seen among comparable PhD programs in economics. A comprehensive 2011 study of Economics PhD programs, conducted in cooperation with the American Economic Association (AEA), compiled PhD completion and retention rates for 27 PhD programs, some highly ranked and some not. [See W.A. Stock, J.J. Siegfried, and T.A. Finegan, "Completion Rates and Time-to-Degree in Economics PhD Programs," *American Economic Review: Papers & Proceedings* 2011, 101:3, 176-187.] Overall, 5-year PhD completion rates nationally were 27.1% and total eight-year attrition rates 36.7%. As one moves from higher-ranked to lower-ranked programs, completion rates fall and attrition rates rise. The five-year completion rate for the GSU PhD program is 32%, higher than both the 27% rate across all programs surveyed nationally and the 24% rate for programs ranked 31-48. GSU's seven year completion rates, stated above as ranging from 50%-75% for the 2006-2009 cohorts, are far higher than the 32% rate nationally across all programs and the 25% rate for programs ranked 31-48. GSU's eight year attrition rate of 30% is lower than both the 37% rate across all programs and the 46.5% rate among programs ranked 31-48.

1.b.4.4 Placement Rates. Appendix 1.b.4.4 provides information on subsequent entry into graduate programs following receipt of the MA in economics at GSU. Among the Economics MA graduates, 16 were placed in graduate programs: 10 in doctoral programs and 6 in other MA programs. One PhD graduate in Economics added an MA degree (field not identified). During the 2008-2016 period a total of 82 PhD students have graduated; 96% (79) have landed high-level positions in academia, research institutes and federal and state government. Recent placements include academic and research appointments at Columbia University, Indiana University, University of Massachusetts (Amherst), and Williams College, and leadership positions at the Centers for Disease Control and Prevention, PricewaterhouseCoopers and the World Bank. The full list of initial placements is shown in Appendix 1.b.4.4(1).

1.b.4.5 Enrollment by program, gender, and race. Over the combined three years of study, 2014-2016, total graduate enrollments were 36% female and 64% male [Appendix 1.b.4.5(1)]. The female ratio for economics is substantially lower than for other social sciences. The combination of Political Science, Sociology, and Anthropology for Fall 2014-2016 has a female share of 65%, almost double that of Economics. For the same three years, average racial composition among graduate students was 32% Asian, 15% Black, 44% White, 2% multiracial, and 7% not reported [1.b.4.5(2)]. The 15% share of black students in our MA and PhD programs (combined) is similar to the one in the graduate programs in Political Science at GSU (14% Black), much higher than in Anthropology (6%), and roughly half the share in Sociology (32%). The share of

Asian students in Economics (32%) is far higher than seen in Anthropology (3%), Political Science (11%), and Sociology (5%). [Appendices 1.b.4.5(1), 1.b.4.5(2)]

1.b.4.6 *Level of financial need*. Students' gross and unmet needs differ for MA and PhD students. Gross needs for MA students are systematically higher than for PhD students. Over the three-year review period, gross needs have increased for MA students, but have decreased for PhD students. Hence, in 2016 we see unmet needs for 13 PhD students (an average \$5,704), and substantial unmet needs for 22 MA students (an average \$10,911) [Appendix 1.b.4.6].

1.b.4.7 *Student surveys*. University-administered surveys of current graduate students (with no distinction between MA and PhD students) show general satisfaction with respect to general learning outcomes, the program's rigor and success in preparing students for the future, program quality, and interaction with faculty. The response rate for Economics graduate students (41% with n=46) was similar to the University average (44%) for the 29 departments surveyed through Spring 2017. Responses were highly concentrated among the highest three responses. Mean scores for most questions tended to be similar or slightly below the university-wide averages. Open-ended comments focused on several points. Student concerns included the following: assistantships were not regarded as competitive as compared to other programs; students were surprised by the difficulty of course material and high expectations of faculty (in economics, the level of difficulty between undergraduate and graduate material is substantial; national attrition rates by the second year are 27.5% [Stock et al. 2011]); the limited support for conferences; and variability in quality of their instructors. Other comments were positive regarding the quality, dedication, and support from faculty and staff.

The graduate alumni survey had a 32% response rate (49 students), slightly above the university-wide rate (29%). Mean scores on two of the three general outcomes were somewhat higher among the economics graduate alumni than the university averages ("my program of study has made a positive contribution to the quality of my life" and "overall, I was satisfied with my degree program"). Alumni responses with respect to skills and employment, in particular research skills, ability to interpret data/information in a critical matter, and ability to analyze problems from different perspectives were substantially higher than from alumni outside of economics. Current employment rates for graduate economics alumni were slightly higher than the university average (94% versus 91%), with employment highly concentrated in government/public administration (33%), college faculty/administration (22%), and business/finance (20%).

In their open-ended comments, graduate alumni expressed several common themes regarding the economics program. These included the presence of a helpful graduate director and an administrative assistant; the emphasis and quality of training in statistics, econometrics, and research skills; faculty quality and mentoring; and the demographic and intellectual diversity of their classmates. Student concerns or suggestions for improvement were varied with few common themes. Several students focused on the need for higher stipends and pay; variation in difficulty and standards across instructors and courses; and the uncertainty associated with the academic job market. Concerns among students in the MA program tilted in opposite directions, some wanting a curriculum and focus more similar to the PhD program while others wanted an MA program more narrowly oriented toward non-academic careers.

1.b.4.8 *Student publications and presentations*. Research collaboration between graduate students and faculty has flourished during the period of this study and beyond. Such collaboration produced a total of 64 publications during 2014-2016; 35 more publications have

appeared in 2017 and 6 are forthcoming. The outlets for this research include highly-ranked field journals such as the *Journal of Health Economics*, *Journal of Labor Economics*, *Journal of Urban Economics*, and the *Journal of Economic Behavior and Organization*, plus highly-ranked general journals such as the *Review of Economics and Statistics* and *American Journal of Political Science*. Our graduate students have also been active in presenting their research at professional conferences. In a survey of our PhD students in which thirty-four responded, nineteen of the students had presented their research at conferences during 2014-2016. The most frequent venues for graduate presentations were the Southern Economic Association Meetings, Western Economic Association Conferences, and the Economic Science Association Meetings.

1.b.4.9 Student accomplishments: exams, theses, dissertations, projects, grants, prizes, and awards. The performance of our PhD students during the last three years (2014-2016) is commendable: 34, 10 and 23 students received University Fellow, Dean's Fellow, and Outstanding GA Funding. There were 31 PhD students who received either a Carolyn Young Fellow, CEAR Scholar, or AYS Fellow award. Other awards were granted to an average of eight students per year in Spring (2014-2016). Twenty-nine PhD dissertations have been successfully defended and another forty students passed the research proposal defense during the review period. A total number of 37 students passed comprehensive exams in Macroeconomics and Microeconomics. During this period PhD students passed 43 comprehensive field exams, spread over our program's six fields. Each year, one student in the MA Program receives a Best MA Award. During the review period, there have been eight PhD teaching and research awards (independent of fellowships) announced each spring on AYSPS Honors Day.

1.b.4.10 Doctoral student time-to-degree. For the 2013-2016 period, the average time-to-degree for graduate students in our PhD Program is 5.5 years, based on our internal records. University data [1.b.4.10] reports an average 6.2 years. Additional information is provided in section 1.b.4.3. In the past, we limited teaching by our PhD students so that they could concentrate on research and completion of their dissertation. This low level of teaching is evident in AY 2012-2013 [Appendix 1.b.4.10(1)], with 5 graduate students teaching 1 course each. The Department then shifted policy regarding graduate student teaching in response to concerns about their competitiveness in the job market. As evident in Appendix 1.b.4.10(1), in the three academic years following 2012-2013, 15 or 16 graduate students taught about 30 classes each year, with approximately 60 students per class.

1.b.4.11 Student outcomes after graduation: admission into further graduate education, postdoctoral fellowships, employment. Information provided in section 1.b.4.4.

1.b.5 Graduate Programs within the GSU Context.

1.b.5.1 Programs undertaken jointly with other GSU units, list of cross-listed courses. See section 1.a.6.1 and Appendix 1.b.5.1 for a list of cross-listed courses. There are thirteen cross-listed courses, five of which are 8000 level. The total number of students enrolled in these courses during the review period (Fall 2014-Fall 2016) is 142. In 2014 we offered a course on Causal Inference (ECON 8999) which was cross-listed with a Causal class in Public Management and Policy (PMAP) and Criminal Justice (CJ). We are currently working on a dual degree program in undergraduate Math and MA in Economics.

1.b.5.2 Areas of overlap/redundancy with other GSU units. None.

1.b.6 Number of Students Enrolled in Fully Online and Hybrid Courses. In the past, no online or hybrid courses have been offered in our graduate programs. An MA level course in international trade will be taught in Spring 2018.

1.b.7 Graduate Degrees Conferred by Fiscal Year. From FY2015 to FY 2017 we produced an average of 23 MA students and 10 PhD students, annually. Our expectation for the future is to maintain a similar level.

1.c Research

The department strives to support the third goal of the University's strategic plan, becoming "a leading public research university addressing the most challenging issues of the 21st century," as well the fifth goal, "globalizing the university." The faculty are fully committed to cutting edge and collaborative research on some of the most pressing and important problems facing the economy and society. Department faculty members have consistently published in leading scholarly journals, have engaged in numerous national and international collaborative research efforts, served on editorial boards, been elected as officers in professional organizations, served as members of prestigious research committees (e.g., Paula Stephan has served on multiple National Academies Committees), awarded prestigious honors, and have been highly successful in securing external funding. The department's strengths in health, labor, education, environmental, and public economics make us well positioned to contribute to the strategic plans' goals 3, 4 and 5.

An integral component of the Department's research culture is its numerous research seminars. The Department has a long-running Friday seminar series featuring distinguished researchers, several major annual lectures from leading scholars, special-topic conferences, and a series of brown-bag and informal seminars for researchers (internal and external) and our PhD students. Researchers from nearby institutions frequently participate in our seminars and conferences.

1.c.1 Success of the Unit's Research Culture

1.c.1.1 2CI and Next Generation Program hires, Regents Professors, Alumni Distinguished Professors, eminent scholars, and endowed professors. The department has made six 2CI and Next Generation Program hires: Dr. Alberto Chong, Dr. Charles Courtemanche, Dr. Tom Mroz, Dr. Michael Pesko, Dr. Michael Price (who left in 2017), and Dr. Tim Sass. Currently, Dr. Jorge Martinez-Vazquez holds the Regents Professor, Dr. Tim Sass is Distinguished University Professor, and Dr. James C. Cox is Georgia Research Alliance Eminent Scholar. The department has three endowed chair professors, Dr. James C. Cox holds the Noah Langdale Jr. Chair, Dr. Barry Hirsch holds the W.J. Uesery Chair of the American Workplace, and Dr. Tom Mroz holds the Bernard B. and Eugenia A. Ramsey Chair of Private Enterprise.

1.c.1.2a Levels of external and internal funding: grants, fellowships, and awards. The department was awarded a total of \$9,776,607.85 external grants in fiscal years 2015, 2016 and 2017: \$1,239,122.58 in FY 2015, \$3,180,140.67 in FY 16, and \$5,357,344.60 in FY 17. These grants were from various prestigious organizations including the National Science Foundation, National Institutes of Health, World Bank, United Nations Development Programme, Department of Agriculture, Georgia Governor's Office, Russell Sage Foundation, International Research and Exchange Board. [The grant totals cited above are from internal departmental records, which are substantially higher than those shown on the APR Dashboard. The two differ because many of the grants received by department members are administered through Andrew Young School research centers.] Over the same period, faculty received several internal grants totaling about \$110,000. These include Scholarly Support Grant, two Research Initiation Grants, and two CETL grants.

1.c.1.2b *Ratio of grants submitted to grants awarded.* The department has a 30% success rate on submitted grants during fiscal years 2014-2016. Of the 46 grant proposals submitted in these years, 14 were awarded. Data for FY 2013 indicates a similar rate. In FY 2017, 3 of 6 proposals were awarded (see Appendix 1.c.1.2b(2)).

1.c.1.3 *National/international rankings of the unit.* Because of the specialization of GSU's economics department, our rankings can be sensitive to the methods applied, in particular the selection of leading journals and/or journal weights. The Economics Department ranked 59th in the most recent (2017) US News and World Report ranking of economics department with graduate programs, sharing this ranking with FSU, Oregon, and Virginia Tech. A rank of 59th is consistent with our aspirational institutions Houston (78th), Pitt (39th), and Syracuse (50th), and peer institutions FSU (59th), Tennessee (72nd), South Carolina (83rd), and Alabama (90th).

In another recent ranking (September 2017), RePEc/IDEAS Top 25% US Economics Departments ranks our department at 40th in the nation. The three departments just above GSU were Rutgers University-New Brunswick, University of Virginia, and Ohio State University. The three just below were University of Texas-Austin, UC-Santa Cruz, and University of Notre Dame. The RePEc ranking of 40th place us above our aspirational institutions Pitt (50th), Houston (66th), and Syracuse (67th), as well as peer institutions FSU (69th), Alabama (87th), South Carolina (107th), and Tennessee (119th). Among all institutions in Georgia, GSU was ranked number 1, followed by the Federal Reserve Bank of Atlanta, Emory, and UGA.

The department's strengths were further reflected in the September 2017 RePEc/IDEAS ranking—several subfields were highly ranked: 11th in Experimental Economics, 15th in Cognitive and Behavioural economics, 23rd in Education, 23rd in Labor Markets, 41st in Public Finance, 46th in Public Economics, 57th in Health Economics, 63rd in Urban and Real Estate Economics, 66th in Environmental Economics, 69th in History and Philosophy of Economics.

The somewhat dated 2011 National Research Council rankings of economics doctoral programs ranked GSU 69th overall. Three departments just above GSU were SUNY Binghamton, Arizona State, and George Washington; just below were Illinois-Chicago, UC-Riverside, and American.

A 2012 article in the *Southern Economic Journal* ranked U.S. Economics Departments based on 1994-2009 publications (M.A. McPherson, *SEJ*, 79(1), 2012). Georgia State was ranked 48th.

The three departments just above GSU were Emory, Arizona State, and George Mason; the three below were Pittsburgh, Rutgers, and University of Washington.

A recent 2016 study ranked the top economics departments in the South, based on a methodology that ranked publications only of the *top-five* researchers in each department. GSU was ranked 5th, with Vanderbilt, GMU, Johns Hopkins, and Maryland ranked above. Just below were Duke, Virginia, Clemson, and Texas. (F. G. Mixon Jr. & K.P. Upadhyaya, "Ranking economics departments in the US South: An update," *Applied Economics Letters*, 2016).

1.c.1.4 *Research productivity that furthers the strategic goals of the university*

1.c.1.4.a *Quantity and quality of disseminated research.* Over the last three academic years, economics faculty published a total of 432 academic works, including 34 books, 174 peer reviewed journal articles (and 94 not recorded as peer reviewed), and 52 book chapters (Appendix 1.c.1.4.a). Most of these contributions were made by the 28 tenure-track faculty in the department today, but some were from active "retired" (EBR) professors. Several of our tenure-track faculty have published in the very top journals in the discipline, including the *American Economic Review*, *Journal of Political Economy*, *Econometrica*, and *Review of Economic Studies*. Many of the books were published by prestigious university and academic presses. The

substantial number (94) of recorded non-peer review journals articles is puzzling given that there are few such journals in economics. We suspect that many or most of these 94 publications were peer reviewed, but recorded incorrectly in Digital Measures.

1.c.1.4.b *Impact of research on relevant disciplines, including analyses of citations of the work of individual faculty members.* Research by economics faculty has had a significant impact. Total citations in Google Scholar for full professors average around 4426, while those for associate professors average around 2186. Productivity and impact measured by the h-index are as follows: for full professors, the h-index ranges from 13 to 48, with an average of 30. For associate professors, the corresponding numbers are 12 to 22 and 16.

1.c.1.6 *Faculty Development, including the number of faculty promoted and/or tenured; the number and ratio of faculty at all ranks; average time in rank; and the recruiting and hiring history.* Over the past 10 years, 7 faculty were tenured and promoted to the rank of associate professor and 4 were promoted to the rank of professor. Among our clinical faculty, 3 were promoted to the rank of Clinical Associate Professor. During the same period, we lost 11 faculty, including 4 who retired (but remain active). In Fall 2017, the faculty consists of 12 professors, 8 associate professors, 8 assistant professors, 3 clinical associate professors, 2 clinical assistant professors, 1 research professor, 2 research assistant professors, 1 senior academic professional, and 1 limited term professor. Two associate professors have been at that rank for a considerable time.

1.c.2 Faculty Partnerships and Professional Service

1.c.2.1 *Faculty participation (direction, affiliation) in research centers and clusters at the Georgia State University.* Department faculty are involved in research centers and clusters throughout the university. Two professors direct centers, the Experimental Economics Center (Cox) and the International Center for Public Policy (Martinez). Many faculty are directly involved with activities at the various centers and clusters, including the Center for State and Local Finance, Fiscal Research Center, Experimental Economics Center, International Center for Public Policies, Georgia Health Policy Center, Evidence-based Policy Workshop, Urban Studies Institute, Usury Workplace Research Group, and the Jean Beer Blumenfeld Center for Ethics.

1.c.2.2 *National and international research collaborations/partnerships.* A number of our faculty (Banzhaf, Courtemanche, Heutel, Pesko, Stephan, and Tchernis) are research fellows of the National Bureau of Economic Research (NBER), the nation's leading nonprofit economic research organization. A cursory review of faculty CVs shows that faculty members collaborate and coauthor extensively with scholars at other institutions in the U.S. and elsewhere. Faculty members have presented their research across the globe.

1.c.2.3 *Evidence of interdisciplinary research.* Department faculty have published academic articles in journals outside the discipline of economics such as Public Administration, Political Science, Philosophy, Public Health, Economics of Science, Statistics, Education, Risk Management, Medical Service. Some faculty (Cox, Sadiraj, Marton, Martinez) have engaged in long-term research collaborations with faculty in other departments at GSU, including Risk Management, Political Science, and Health Policy.

1.c.2.4 *Significant professional service.* Our faculty serve broadly and widely through major roles in the economics profession. For example, Dr. Cox and Dr. Hirsch each served as President of the Southern Economic Association, a major economics association. Dr. Stephan is on the Board of Reviewing Editors at *Science* and a Council Delegate of the American Association for the Advancement of Science (AAAS). Many other faculty have been editors/associate

editors/editorial board members at prestigious journals. Faculty also serve in various committees at many professional organizations, and as outside reviewers for major journals, publishing presses, and grant funders.

1.c.3 Recognition of Scholarly Excellence

1.c.3.1 *Recipients of GSU Faculty Fellowship and other internal awards.* Frost and Grace O were recipients of the Digital Champion Fellowship awarded by GSU's Center for Excellence in Teaching & Learning (CETL). Heutel received a GSU research initiation grant in 2016. Patrick received the Dean's Early Career Award in 2015.

1.c.3.2 *External awards, honors, prizes, and fellowships.* Several faculty have received awards and honors in recognition of their scholarly excellence. Cox and Sadiraj won the Editor's prize for best paper published in *Experimental Economics* (2015). Heutel received an honorable mention for outstanding publication in *Environmental and Resource Economics* in 2015, and won the Outstanding Paper Award in *Public Finance Review* in 2014. Pesko was named an American Cancer Society Research Scholar (2016), received the First Decade Distinguished Alumni Award by Hamline University (2014), named as "10 Outstanding Medical School Professors under Age 40" (2014) by Career and Education, and "30 under 30" in Science and Healthcare (2014) by Forbes. Rioja won the honor of the Outstanding Paper of 2014 by the *Journal of Financial Economic Policy*. Patrick won the William H. Miernyk Research Excellence Medal in 2016 and was a Lincoln Institute Scholar in 2015. Stephan was the ERH Distinguished Lecturer at the NSF in April 2014, the SBE Distinguished Lecturer at the NSF in February 2016, was designated as a National Associate of the National Research Council (NRC) in June 2016, and was recently named a Phi Beta Kappa Visiting Scholar for Fall 2018-19.

1.c.4 Unit Infrastructure for Supporting Research

1.c.4.1 *Unit-level research and travel grants.* Tenure-track faculty members receive \$1000 to \$1500 in professional development funds to be used for conference participation, travel, and other research related expenses. These figures have declined over the last decade. There is limited support for graduate student travel to present at conferences. The Economics Graduate Student Association (GSA) receives a modest amount from a college pot, funded by student fees (Dr. James Marton is the faculty advisor). A large share of GSA's budget is used to provide financial support for graduate student conference travel, typically \$125 per trip. Additional financial support for faculty and graduate student travel and other professional activities is provided on an ad hoc basis by professors with endowed chairs.

1.c.4.2 *Grant support: writing, administration.* The department relies heavily on the college and the university research services and administration for grant support. The department has no dedicated internal resources to help with the writing of grants; there is limited post-award administrative assistance. Faculty working with research centers typically receive administrative support.

1.c.4.3 *Facilities, equipment, technical support and other administrative support.* The department has access to the college's two big conference rooms, and has two small conference room workshops. All faculty have individual offices with access to the server and network printers. The department has no designated technical support staff of its own, but is served by the central technical support staffs of the college and university. See also sections 2.b and 2.c.

1.c.4.4 *Research information resources.* The University Library has a designated Economics Librarian who serves as a liaison and offers a range of information resource services to the department from teaching to research: teaching library research skills to classes with research

assignments; helping students and faculty with their research information needs via the library's databases, catalog, and other online discovery tools; purchasing books and multimedia items for the library's collections; maintaining a collection of online research guides for courses that the department offers regularly as well as general guides for the department as a whole; and communicating library news and information. See also section 2.g.

1.c.5 Contributions to Science and Health/Medical Education.

Faculty have worked with Emory Hospital, the Georgia Health Policy Center, and the CDC on projects, and have published articles dealing with health education, health policy, and medical services. Dr. Stephan's 2012 book, *How Economics Shapes Science* (Harvard U.P.) received international attention from the science community, leading to invitations to serve on science panels and to lecture throughout the world (see 1.c.2.4 and 1.c.3.2).

1.d Contribution to Cities.

Many of the activities of the department contribute to the goal of the GSU strategic plan of being a leader in understanding the complex challenges of cities and developing effective solutions.

1.d.1. Activities with the Council for the Progress of Cities.

Professor Banzhaf served as Chair of the Council in 2012-2014, and as a member of the Council afterwards. Professor Carlianne Patrick has served on the Council from 2014-2017. Professor Sally Wallace was involved in the GSU cities initiative with the University of Pretoria and the City University of Hong Kong.

1.d.2. Contributions of the Arts and Media.

1.d.2.1. *Speaker's series.* The Department does not directly contribute to the University Speaker's series, but seminars and conferences are an integral component of department life. Many of our seminars (open to all) focus specifically on analyses of urban and regional economics. More generally, a substantial share of papers presented in our various seminar programs utilize empirical analyses that rely on differences in outcomes of interest (e.g., health, earnings, employment) with respect to changes in policy or other events across metropolitan areas or cities and/or differences within these areas over time.

1.d.3. Field-specific contributions to cities.

Some of our faculty have advised the city of Atlanta on its various projects. For example, Dr. Banzhaf has been on the City of Atlanta Sustainable Brownfields Project advisory committee. In addition, Dr. Patrick has offered an honors and a regular class on Economics of Cities. Dr. Wallace was a panelist in the conference Global Partnership for Better Cities held in Atlanta, March 27-29, 2016. Dr. Sass, along with Drs. Kreisman and Smith, is partnering with five major schools districts in the Atlanta metro area to use data to evaluate existing policies and develop new interventions to benefit students in the region.

1.e Globalizing the University

The department of Economics is very much involved in the globalization of the university. The research interests of many of our faculty deal with many aspects of the economies of other countries. Faculty have shared their knowledge through published works, consultations with the local and federal governments, foreign governments, and international institutions, appearances in the media, participation in international workshops and conferences, and lectures worldwide. The department has also played a leading role in globalizing the curriculum and sending its faculty and

students to many places in the world. Department faculty head study abroad and exchange programs, and they have developed and led innovative study abroad experiences in South Africa, China, Switzerland, and Italy. The department also has faculty or students who have gone to various countries on research or study missions: Argentina, Belgium, China, Costa Rica, Czech Republic, France, Ghana, Greece, India, Ireland, Italy, Japan, Jordan, Netherlands, Panama, South Africa, South Korea, Spain, Switzerland, Turkey, United Kingdom.

1.e.1 Partnerships with other universities on challenges facing cities. None.

1.e.2 Funded Research on Challenges Facing Emerging Nations.

Department faculty have received a number of individual and group awards from international agencies to study some pressing issues faced by emerging and developing countries. For example, in 2017, Dr. Feltenstein received an award from the World Bank to study fiscal reform and poverty alleviation in Pakistan, and another award from the IMF to study social protection around the world. Faculty have received numerous awards in collaboration with ICEPP to study various pressing issues facing developing and emerging nations.

1.e.3 Establishment of GSU as an International Center

1.e.3.1 *Faculty international exchanges, speakers, cultural events, visiting scholars.* The department hosts a wide variety of visiting scholars, speakers, and cultural events that contribute to the globalization of the university. Several of our faculty (Cox, Feltenstein, Martinez, Rider, Wallace) frequently travel abroad for international conferences and panel discussions, workshops, and consulting activities.

The department has hosted many prominent scholars from other countries and regularly schedules seminars focused on international and global economic issues. A few examples from recent years include: Dr. Alex Karaivanov of Simon Fraser, Dr. Frans van Winden of the University of Amsterdam, Dr. Nikolas Mittag of Charles University in the Czech Republic, Dr. Bindeshwar Pathak of Sulabh International Social Service Organization, and Dr. Daniel Burghard of the University of Zurich. In other seminars, Dr. Jonathan Eaton of Brown University talked about Trade and the Global Recession, Dr. Gilles Duranton of UPenn about land allocation in India, and Dr. Jan Brueckner of UC-Irvine about land-use regulation in China.

The department has hosted several visiting scholars from various countries including China, Nigeria, and Turkey. During their times at the department, they presented their research work and interacted with faculty.

1.e.3.2 *International forums.* Department faculty travel frequently outside of the U.S. to give lectures, participate in workshops, and present their research at conferences. Such activity is recorded in faculty CVs.

1.e.3.3 *Programs for foreign students.* During the review period, the department offered a dual BA degree in economics with the University of Venice-Ca'Foscari, the Italian students taking classes at GSU and vice-versa. As previously stated (1.a.6.1), this program is being deactivated. Our International Center for Public Policy (ICCEP) provides numerous training programs each year for professionals (mostly public sector employees) in multiple countries and at GSU.

1.e.3.4 *Programs coordinated with the University's international initiatives.* Faculty in Economics have participated in three of the university's country task forces: China (Feltenstein, Xu), Korea (O), and South Africa (Ross, Wallace--chair). Department faculty also serve as lead contact persons for international programs listed by the OII: Lausanne, Switzerland (Rioja), Venice, Italy (Frost).

1.e.4 Enhancement of Global Competency

1.e.4.1 *Contribution to international studies: Degree programs:* The department offers a BA in international economics and modern languages. In addition, during the review period, the department offered a dual BA degree in economics with the University of Venice-Ca'Foscari (this program is being discontinued because GSU no longer offers Italian language courses).

1.e.4.2 *Number of students enrolled in study abroad programs.* Undergraduate enrollments in study abroad programs were 21 in FY 2013, 35 in FY 2014 and 34 in FY 2015. The number of distinct students participating in these years were 18, 28, and 24. (Appendix 1.e.4.2). The department has several exchange programs with universities in China, Italy, and Switzerland and has sent about 20 students abroad for these programs in the past 10 years.

1.e.4.3 *Global leadership certificate programs for undergraduates.* Not applicable.

1.e.4.4 *Language programs with learning outcomes and success measures.* Not applicable.

1.e.4.5 *Courses/programs with learning outcomes and success measures.* Fourteen courses with international content have learning outcomes: ECON 2100 (The Global Economy), ECON 4500 (Money and Credit), ECON 4600 (Economic Development), ECON 4610 (The Economy of South Africa), Econ 4620 (Economic Studies Abroad South Africa), ECON 4800 (International Trade), ECON 4810 (International Finance), ECON 4999 (Senior Capstone), ECON 8470 (International Public Economics), ECON 8600 (Economics of Development), ECON 8850 (International Trade), ECON 8860 (Economics of Global Finance). The assessments of ECON 2100 and ECON 4999 constitute a significant portion of the overall assessment of the Economics BA/BS programs. See Appendix 1.e.4.5 for a list of these courses.

1.e.4.6 *Contribution of global/multicultural perspectives to Core and other major courses.* The Department offers many courses with substantial global content, including ECON 2100 (Global Economy), which is in the Core. See 1.e.4.5. As noted in section 1.e.4.1, the department offers a BA in international economics and modern languages, and has offered a dual BA degree in economics with the University of Venice-Ca'Foscari.

1.e.4.7 *Contribution to global competency for staff.* The Economics staff have coordinated activities at several international conferences and at events where many scholars and students from abroad were involved via the ICEPP.

1.e.4.8 *Success in recruiting top international faculty and students.* In recent years, the department has been successful in recruiting graduate students from countries such as China, France, Ghana, Germany, Korea, Nepal, Vietnam, India, Jamaica, Nigeria, Indonesia, Turkey, Iran, and Egypt. Over 50% of our graduate students have come from abroad. This figure is higher than the overall percentage of international graduate students at GSU, 39% in Fall 2016 (GSU International Enrollment Statistics (ISS)).

1.f Overall Assessment

As in all high-quality universities, Economics is central to the mission of GSU. Courses in the principles of economics and the global economy are essential for students in the social sciences and business. Economics is complementary (and arguably essential) to the University's missions of globalization, urban environments, health, etc. The centrality of Economics to the University's mission is demonstrated in the department's success in the receipt of Second Century Initiative (2CI) and Next Generation program/faculty awards. These scholars have complemented and added to the success of the department in its strong record of external research support.

The Department of Economics at GSU is unusual in several ways. First, it is seated in a policy school rather than the more typical inclusion in either a college of arts and sciences or college of business. Although this arrangement is unusual, it has worked well for us. This structure provided the department with the freedom to define clearly its mission and goals, coupled with a level of autonomy that enabled it to achieve these goals. Second, the two founding Andrew Young School departments were structured around Research Centers that complemented and supported the academic, research, and grant programs of the school's faculty. The roles of the Research Centers and their interaction with faculty have evolved over time, but these relationships remain important.

Third, the Economics Department chose to specialize and limit its coverage of fields within economics, specifically public, labor, health, education, urban and regional, environmental, experimental economics, and applied econometrics. Coverage is more limited in the areas of macroeconomics, finance, industrial organization, mathematical economics, and pure theory. Because our PhD program limits fields of concentration, the department can specialize in areas of strength with multiple researchers in each key field. And fourth, within these fields of study, faculty interact with scholars in other disciplines, leading to a substantial degree of interdisciplinary research (see section 1.c.2.3). Likewise, the department has supported and promoted interdisciplinary programs (see section 1.a.6).

The structure described above has been successful in producing faculty research clusters, which in turn enables us to attract high-quality researchers and make our department visible in a highly-competitive research environment. External rankings of the GSU Economics Department place us among departments from prestigious research universities whose overall university reputation and rankings are much higher than the national rankings for Georgia State overall (see section 1.c.1.3). Despite having a large PhD program, all or nearly all our PhD job market candidates are placed in their first year on the market (see section 1.b.4.4). Outcomes for MA graduates are as diverse as the students themselves. Some are employed and move up the ladder with their current employer. Many seek and find rewarding jobs as economic analysts and/or applied researchers in a variety of fields. Others decide to enter PhD programs in economics.

2. How Adequate are Your Unit's Resources?

Resources for faculty and the department more generally have been tight but adequate, as seen by the high level of productivity described in the previous section. The student-faculty ratio has increased slightly over the past few years, indicating a need for more faculty lines. The administrative/staff personnel in our department are exceptional, but have heavy demands on their time. An additional hire(s) would lessen the time pressure on staff. Space resources are barely adequate; the department is soon to be moving to a different location on campus.

2.a Faculty Resources

As of Fall 2016, the department has 26 full-time faculty, tenure-track and non-tenure track (source is our annual State of the Department report; the APR dashboard numbers are not correct). This represents a change from 29 full-time faculty in Fall 2014. Several of our tenured faculty have left for positions at other institutions (Appendix 2.a(2)), including Johns Hopkins, Penn State, American University, UC Merced, University of Alabama, and the University of Connecticut. An associate professor has recently accepted an offer from Tulane. In addition to the full-time faculty, the department in Fall 2016 has 3 part-time instructors, 13 graduate

teaching assistants, and one academic administrative faculty (Appendix 2.a(3)). Hiring in a few critical areas is badly needed.

2.a.1 Faculty composition

The full-time faculty in 2016 consists of 8 assistant professors, 9 associate professors, 10 full professors, and 8 non-tenure-track faculty members of various rank (these numbers are from our State of the Department Report; the Dashboard (Appendix 2.a(4)) has too low a count). In Fall 2016, 7 of 35 (20%) of full-time faculty were female. Of these 35 faculty, 3 were nonwhite, 2 Hispanic, and 4 Asian. According to the 2016 report of the American Economic Association's (AEA) Committee for the Status of Minority Groups in the Economics Profession (CSMGEP), black and Hispanic minority representation among full-time economics faculty nationwide is 6.8%, as compared to 14% in our department. The AEA's Committee for the Status of Women in the Economics Profession (CSWEP) 2016 annual report states that the share of women faculty members among PhD-granting economics departments was 20.1%.

2.a.2 Student/faculty ratio data

Over the last several years, the student/faculty ratio has increased modestly. The undergraduate student/faculty ratio increased from 15.1 in Fall 2014 to 16.5 in Fall 2016 (Appendix 2.a.2(1)). For graduate students, the ratio increased from 4.3 to 4.7. This increase is due solely to the decrease in total faculty, since there was only a small change (in fact a decrease) in the number of students. The undergraduate ratio is slightly higher than the ratio for GSU's anthropology department (13.6), but substantially smaller than the ratios for the political science (22.9) and sociology (28.1) departments. For graduate student/faculty ratios, the numbers across these three departments are roughly similar to economics (Appendix 2.a.2(2)).

2.a.3 Credit hour generation data, by faculty by fiscal year

In FY2016, total student credit hours were 31,425, an increase from 30,280 in FY2015 (Appendix 2.a.3(1)). Of those, 22,211 were attributed to full-time faculty. In Fall 2016, there was a total of 14,336 credit hours, of which 9,087 (63%) was from undergraduate core courses, 3,035 (21%) from undergraduate upper level courses, and 2,214 (15%) from graduate courses. The total credit hours attributed to full-time faculty in economics, averaged from FY2015 through FY2017, was 22,620.5 (Appendix 2.a.3(3)). This was about the same as the average for political science (24,086.27), but higher than for sociology (17,369.7) and anthropology (5,807.5) (Appendix 2.a.3(3)). The number of courses taught by full-time faculty ranged from 60 in Fall 2014 to 55 in Fall 2016 (Appendix 2.a.3(4)). The number of graduate courses taught by full-time faculty ranged from 24 in Fall 2014 to 19 in Fall 2016 (Appendix 2.a.3(5)).

2.b Administrative Resources

The department has four full-time staff positions to assist the faculty, though one of these positions is currently unfilled. The current set-up is as follows. Caroline Griffin, Administrative Specialist-Managerial, manages the department staff and workflow along with handling all human resource paperwork such as promotion and tenure, third year reviews, cumulative reviews, annual reviews, merit increases, faculty contracts, visa applications, visiting scholars, faculty and staff recruiting, personnel files, etc. Brenda (Bess) Blyler, Administrative Specialist-Academic assists with things such as course scheduling, course staffing, grade or enrollment adjustments, course proposal/revisions, student evaluations, classroom issues, comp exams, honors day, graduation, graduate student assignments, graduate student hires, campus visits, letters of recommendation, study abroad, and student complaints. Jamaal Madison,

Administrative Specialist-Administrative, assists with copying, supplies, scantrons, mail, campus runs, office/building access, small event catering, hotel reservations, conference room reservations, forwarding announcements in email, setting up meetings, updating faculty photos, maintaining department public spaces, reserving the team room, and other basic reception duties. Calvin Kwafo, Administrative Specialist-Administrative, processes and reconciles all financial transactions in the department. He moved to a higher-paid position at GSU in late October 2017. The Department has begun a search for a replacement.

2.b.1 Staff support per FTE faculty member

In Fall 2016, the ratio of full-time faculty to staff is 8.75:1 (35 faculty and 4 staff).

2.c Technological Resources

Each faculty member has a desktop computer and/or laptop computer, and many faculty members have access to an office printer as well as the department printers. The department also has a computer lab, and graduate students are given computer access. The department also has access to the experimental economics laboratory.

2.d Space Resources

The department occupies the fourth and fifth floors of the Andrew Young School building, though this space is shared with staff from many of the school's centers. Clinical faculty are also located on the sixth floor. Office space for the department is assigned on an "as needed basis" by the AYS Dean's office. In addition to the full-time faculty, the department employs four full-time staff members. All part-time instructors (about three or four per semester) are assigned one office to share among themselves on the ground floor. This office has four computer stations and a worktable. Visiting faculty members must also share office space and schedule their office hours accordingly. The Department of Economics assigns workstations for their graduate research assistants. This space may be shared, or not shared, according to the GRA's number of appointments, type of assignment, etc.

2.e Laboratory Resources

The econometrics lab has 33 student workstations and an instructor workstation with a projector and document camera. The Experimental Economics lab has 40 experiment subject computers, three experiment monitor and presentation computers, one Apple development computer, a video projector and three HDTVs, a document camera, and three servers. It also has a Portable Laboratory, with 35 ultra portable notebooks, travel cases, and a portable video projector. The Econometrics Lab is shared with the department. The Experimental Economics Lab is a facility of the Experimental Economics Center, and it provides teaching support through the use of experimental methods to the department and research support to faculty, graduate students, and affiliated faculty. The principle users of the laboratory are department faculty and PhD students.

A valuable resource for economists and other researchers at Georgia State is access to the Census Bureau's Atlanta Research Data Center (ARDC). Located at the Federal Reserve Bank of Atlanta, the ARDC provides qualified researchers the opportunity to perform statistical analyses using non-public Census and other Federal microdata in a highly-secure computing environment. The ARDC is a partnership between the U.S. Census Bureau and a consortium that includes Georgia State University, the Federal Reserve Bank of Atlanta, Emory University, Georgia Tech, the University of Georgia, the University of Alabama, the University of Tennessee at Knoxville, and Florida State University. The Economics Department and GSU were PIs on the 2009 Census/NSF proposal that provided approval of the ARDC and partial start-up funding.

2.f GSU Foundation Resources and Other Gifts

The department has thirteen foundation accounts, the largest being the three endowed chairs in the department, the Langdale, Ramsey, and Uesery chairs. The professors in these chairs have been generous in helping fund faculty and student travel and research needs, supporting graduate assistants, and sponsoring research speakers and conferences. In addition, the department has 9 additional funds that support various scholarships, fellowships, graduate and undergraduate performance awards, and teaching awards. We have one small general fund for the department that is used primarily to fund faculty recruiting.

2.g Library Resources

The Department of Economics is fortunate to have a rich collection of resources available for teaching and research needs, necessary due to the cross-disciplinary nature of this discipline. Based on an analysis of library holdings provided by our subject librarian, the GSU library effectively supports the curriculum and research areas of our faculty and students. In addition, our subject librarian is available to consult with students and faculty and to give presentations on the GSU library to both undergraduate and graduate students.

In Economics, the library subscribes to 18 of the top 20 journals as ranked by Impact Factor. For those journals to which the GSU Library does not provide direct access, Interlibrary Loan service is available to quickly fill requests for articles. In comparison to peer institutions designated by the library, the GSU Library provides a collection of databases that is both comparable and includes key titles, such as EconLit, Business Source Complete, Compustat Research Insight, Economist Intelligence Unit's Country Commerce, and Viewswire databases. Beyond subscribed databases, the library links to well-established and respected Open Access resources, such as Social Science Research Network, and World Development Indicators (WDI Online), to assist student and faculty researchers identify free scholarly resources. A comparison with peer institutions shows that the GSU Library acquired the highest number of monograph titles in the last three years (January 2015 – November 2017). For monograph titles that are not available, faculty and students have access to three interstate book-share programs and our Interlibrary Loan service.

3. Where Do We Want to Go?

The Department of Economics has been highly productive in the areas of research and teaching, and has displayed an admirable record in obtaining grants and other forms of external funding. Although the department has had limited resources, available funds have been effectively utilized and the department has maintained or enhanced its national standing. Nonetheless, there are goals we hope to achieve in order to continue our progress. Our proposed goals reflect existing needs and steps needed to achieve higher levels of excellence. These steps build on our current programs and recent innovations. Our aim is to enhance the department's program quality, while contributing to the university's strategic plan.

It is difficult to prioritize our department goals given that each is complementary to the others. Increased resources contribute to the achievement of multiple goals. This interdependence reflects the coherence of the department and its ability to efficiently utilize available resources.

Goal 1: Improve retention and progression to graduation of our diverse undergraduate majors while increasing and strengthening college-career pathways (Sustaining innovation).

We wish to improve the progression of our economics majors both within their enrollment periods, as well as after graduation. To achieve this goal, we first wish to increase the enrollment of economics majors. Very recently, there have been small declines in enrollment in undergraduate courses. These declines, although small in absolute terms, are apparent in ECON 2100, 2105, and 2106. (Table 1.a.3.a.8.b). We will carefully watch future enrollments in these lower level courses and determine how to address any enrollment issues that continue, particularly decline in enrollments in ECON 2100, The Global Economy. We believe that some of this decline is due to the University-wide centralization in advising procedures, which is largely beyond our control. It should be noted there has been little evidence of decline in upper level courses.

Related to this objective, we wish to strengthen the progression to graduation of our undergraduate majors, and improve the connection between an economics major and post-graduation careers. The average number of degrees per full time faculty member remains relatively low in economics, as compared to other social sciences (Table 1a(3)). This result is due to our large service courses for business school students. We are in the process of conducting a review of the undergraduate program, including prerequisite requirements, minimum grade requirements, and course selections and/or sequencing. There are two objectives of this review, which should be completed during the current academic year. The first objective is to increase the attractiveness of the economics major, thereby increasing enrollments. The second objective, related to the overall goal of improving post-graduation progression, is to make the undergraduate curriculum more closely related the requirements of the modern workplace and to continue the development of existing and new courses in ways that improve the undergraduate student learning experience.

This program enhancement is likely to include several new courses. One being considered is an additional applied data and regression analysis course. Another course suggested by faculty is a standalone behavioral economics course. The department also wishes to hire a faculty member who can teach our once-popular law and economics course, last taught about eight years ago (the professor teaching the course took a chaired position at another university).

Among new program initiatives in progress is a MATH-ECON dual degree program. The department hopes to secure final approval for this dual program this academic year, with plans to start admitting students in fall 2018. Additionally, the dual ECON 4+1 (Bachelor + MA) Program is in operation; we enrolled several students in the pilot version of this program last year. An additional initiative in the works is the PPE BIS program, which has been approved and is ready for students to enter. This is a Bachelor in Interdisciplinary Studies with majors in Philosophy, Political Science, and Economics (PPE). As with other initiatives, the hope is that a high-quality interdisciplinary program will enhance student success in their post-graduate careers, as well as contribute to their learning experience while at GSU.

Goal 2: Restructure existing MA programs to better serve contemporary graduate students (Sustaining and disruptive innovation)

We wish to expand the MA program, both in terms of enrollments and in program content. In 2017, the program had an excellent year with respect to applications and enrollment, despite the relatively robust private sector labor market. We received 79 applications (a 60% increase over 2016) and enrolled 23 students (a 44% increase). This was the largest number of applicants and

enrollments in the last decade (Table 1.b.4.2, 1.b.4.3), excluding 2011-2012 when there was a special program with Indonesian students. The dual 4+1 degree (bachelors + MA), discussed previously, is in operation with an initial 4 students.

We have several plans underway for the MA program. To enhance attractiveness and expand content in the MA program, we plan to schedule online orientation sessions on a monthly basis. Second, we will continue publicizing among our undergraduates the dual degree Bachelor + MA program. Third, we wish to develop a quantitative field of specialization within the MA program that will enable students to take more analytical and data-focused courses. This quantitative field will enhance our MA students' post-graduation employment opportunities and their qualifications as PhD applicants. Fourth, we are also planning two MA symposia this fall. One of these will bring former graduates from the program to talk about their experience and provide advice to current students. Our hope is that these discussions will help provide guidance to MA students for when they go on the job market. Their current job searches often seem unfocused. The second symposium will focus on PhD studies in economics. The symposium will introduce the MA students to the possibilities offered by pursuing a PhD, as well as to channel a few outstanding students into our department's PhD program.

Goal 3: Further strengthen the PhD program by attracting and retaining highly qualified students, shortening completion times, and better preparing doctoral candidates for careers (Sustaining innovation)

Historically, our PhD program has been healthy in quality and size. That said, we face current constraints. In the past year we received a large number of applications, 124, up from 123 and 106 in the previous two years. Unfortunately, these numbers did not translate into a successful PhD recruiting year. Our goal was to bring in 15 new students, but only six students had accepted by our April 15 deadline. Of these six, two later reneged, leaving us with a potential incoming class of four students. We were able to recruit seven additional students from our MA program after the deadline, resulting in an incoming 2017 cohort of eleven students. There are several possible reasons for this lack of success. A major reason is the low level of financial support we offer incoming graduate students (subsequently documented). In addition, Emory restarted their PhD program in economics, which had been temporarily cancelled. Four of the students with offers from GSU chose Emory over GSU. Following this experience, the Dean's Office has helped us raise our stipend for PhD students, closing roughly half the gap that had existed with Emory, from roughly 40% to 20%. Emory is not the only PhD program providing substantially higher support than does GSU. The Department continues to explore ways to address the chronic problem of low levels of financial support for our graduate students. Relying on recruits from our MA program is not a strategy we wish to repeat.

We believe that the department's history shows that Goal 3 is achievable. Indeed, given some of the recent and past constraints we have faced, the department has realized remarkable success both in the recruitment and placement of graduate students. Thus, despite a large PhD cohort (13) on the job market this past year, coupled with a difficult job placement market nationwide, all but one of our newly graduated PhD students received job offers. Among these were two students who accepted post-doctoral positions at the CDC in Atlanta, two who went to tenure track positions at the University of Massachusetts–Amherst and the University of Michigan–Dearborn, two more who went to teaching positions at liberal arts schools, while others went to Price Waterhouse Cooper (PwC), the World Bank, post-doctoral positions, and a tenure track position at the University of Mumbai in India. We have a long history of placing PhD students in

a rewarding set of jobs. For example, in 2016 we had former PhD students tenured and promoted at Indiana University, Oklahoma State, and Williams College. The academic job market has tightened in recent years, but our past record of success provides support for further enhancement of the economics PhD program.

Goal 4. Build on previous progress toward creating a world-class research faculty that reflects the diversity of GSU (Sustaining innovation)

The economics department has generally done well in academic rankings, especially in the dimension of research activity (Section 1.c.1.3). We believe these rankings accurately reflect our record of scholarship. When given the opportunity to recruit at the assistant professor level, we have hired outstanding junior faculty. Most (but not all) have earned tenure, and in turn have remained productive. A reflection of the quality of newly tenured faculty is the fact that we have lost several of them to other universities in the past few years. These universities include Johns Hopkins, American University, UC Merced, University of Alabama, and the University of Connecticut. (Table 2.a(2)). The department also has lost several highly productive senior faculty members through retirement. Additional senior faculty are close to retirement. As a result, the department has been weakened in certain key fields in which we have traditionally been strong. The most important of these fields is public economics, which for many years has been the central focus of the department given the college and departmental focus on public policy. We have lost one senior professor who took a position at Tulane, another who moved to an administrative position, and a third who retired. We have two remaining senior professors in public, both of whom are near retirement. When they leave the field will have only two junior faculty members. We are about to lose our senior faculty member in macroeconomics, a fundamental field in any economics program. We wish to rebuild both of these fields through junior and senior hiring. Finally, we have less diversity in the department than we would like, especially with respect to female faculty members (a senior female professor recently retired and two female professors, both previous department chairs, have moved into administrative positions in the AYS and University).

4. What Do We Need to Do or Change to Get There?

To address Goal 1, which focuses on strengthening undergraduate college-career pathways, the department has three objectives.

Objective 1a: We will work to improve assessment procedures for the undergraduate program. In the past, results of these assessments have not been quickly or widely distributed. We are moving to improve this situation. This new assessment procedure is closely related to Goal 1 above, in that it will not be possible to improve the undergraduate learning experience without an adequate evaluation process.

Resources: As the assessment will be done in house, it will require relatively few new resources, beyond staff time.

Objective 1b: As part of the curriculum review of the undergraduate program, we may introduce new prerequisite requirements as well as additional course selections. In particular, the assessment is anticipated to lead to a recommendation to a new applied data and regression analysis course. Additionally, the Economics Department will continue to work on new program development. This will include the continued work on the MATH-ECON dual degree program.

We hope to secure final approval for this dual program this academic year, with plans to start admitting students in fall 2018. We will continue to develop innovative new programs.

Resources: The applied data and regression analysis course is likely to require a new faculty hire. The Economics Department currently has two faculty members who teach econometric courses, and they are already fully engaged in instruction. It might be possible to staff the new course in the short run with an existing staff member, this would not be a long term solution.

Objective 1c: As part of our overall objective of enhancing the undergraduate learning experience, we will continue to advise and consult on the grant-funded adaptive learning pilot. This project should help develop a coherent structure for course progression for undergraduate economics majors.

Resources: We are in the process of moving to scale on that project next year. The grant received for this project was for 3 years. Year 1 was to explore options and decide on which vendor(s) should manage the pilot for AY 2016-2017; year 2 is to pilot an adaptive platform in ECON 2105 & 2106 for AY 2107-2018); depending on the results of the pilot, year 3 would be used to scale up the project if results from the pilot are favorable. This would thus be in AY 2018-2019. The grant will supply the necessary resources for the project.

Objective 1d: The Economics Department has concerns regarding the University's advising system. In the past, much of the advising for undergraduate majors occurred at the local level, in our case within the Andrew Young School. Our understanding is that academic advising has been increasingly centralized within the University and emphasis among advisors has been focused on guiding students toward satisfying needed course requirements and credits for completion of degrees. While such advice is valuable, it is not sufficient. We are concerned that too little attention is being spent on career guidance and worry that some advisors may steer students away from majors/courses that advisors perceive as challenging. Specifically, we wonder whether reduced enrollments in ECON 2100 (The Global Economy) have resulted in part because of the University advising system. If that is the case, we do not believe students are well served by such advice.

To address Goal 2, the restructuring of the MA program to serve contemporary graduate students, the department has established two objectives:

Objective 2a: Although recent recruitment into the program has been successful in terms of numbers enrolled, there are issues we wish to address. There are currently no clear formal measures of what students have learned during their MA program. We intend to implement entry and exit tests related to the learning outcomes of the program to better identify what has been learned. In much the same way as comprehensive exams in PhD programs identify areas of strength and areas that need improvement, the idea of the exit exam should be to identify both the strengths of individual students, as well as possible gaps in the program. Entrance exams can identify areas in which students may need assistance or where courses may require changes in content. Our incoming MA classes come from a variety of backgrounds, and hence we consider it important to be able to offer an appropriate curriculum that produces high value added, based upon these entrance exam performances.

Resources: We may consider hiring an outside consultant to develop the evaluation tests, especially the entry test. As mentioned earlier, our MA students come from a variety of economics backgrounds, some of which are not directly related to economics. Accordingly, we may need to develop tests that evaluate general quantitative and reasoning skills, in addition to knowledge of economics. The creation of such tests may be outside our expertise.

Objective 2b: An objective of the MA program is to offer students courses that will be directly relevant to future employment opportunities. Accordingly, we plan to emphasize the development of the previously mentioned quantitative field of specialization within the MA program. This field, and related courses, would allow students to concentrate on and acquire analytical and data-focused skills increasingly important for post-graduation employment. We believe that the availability of such courses will help us to attract new MA students who view the degree as terminal, rather than as a step to the PhD program.

Resources: Additional resources will be needed to offer the quantitative curriculum planned for the MA program. We would like to offer a graduate curriculum that offers a minimal number of combined MA/PhD courses in elective fields (i.e., as done currently in Economics of Education, Development Economics). In order to offer additional field courses that are MA-only and PhD-only, we will need to add a small number of tenure-track (as opposed to clinical) faculty.

To address Goal 3, a further strengthening of the quality of the PhD program, the department has identified four objectives:

Objective 3a: We need to have competitive funding of graduate students. We believe that a key cause for current difficulties in recruiting PhD students is the low level of funding we offer, as previously documented and discussed. We have been working to increase base funding levels for PhD students so that we can stay competitive in attracting high-quality students. There are two quantifiable reasons that are likely to explain our losing students to PhD economics programs that rank below ours. First is that stipends awarded in our program have lower value than do stipends awarded by competing programs. With much effort, the stipend gap has been narrowed, but not closed. The second reason, over which we have no control, are the relatively low university-wide national rankings and prestige of Georgia State, as compared with other universities with which we compete for PhD students. (We have in mind widely disseminated national rankings recently produced by the *NY Times* and *Wall Street Journal*.) These rankings put GSU at 600–800 nationally, while the ranking of the GSU Economics Department is around 60th (or higher), as reported in Sections 1.b.3 and 1.c.1.3. Thus the Economics department is ranked considerably higher than University. The fact that we have no control over university-wide rankings increases the importance of our objective of providing more competitive financial support to our graduate students, in addition to having competitive faculty salaries that can deter the loss of our most productive faculty.

Resources: In addition to the progress already made on PhD student stipends, we suspect that it will be necessary to further increase stipends by at least 20 percent in order to remain competitive. Of course, successful graduate student recruitment depends crucially on the quality of the graduate faculty. Hence, the total cost would include the resources needed to attract and retain outstanding faculty.

Objective 3b: We wish to improve the job placements of graduate students. Such placements depend upon a variety of factors, including the quality of the students, the research emanating from their dissertations, and the strength of the academic and non-academic job market in any given year. Student quality is influenced by the level of graduate stipends. The quality of students' research depends heavily on available course offerings and faculty who can act as dissertation advisors.

Resources: Success in job placement depends primarily upon the quality of students we are able to recruit. Hence resource requirements here are essentially the same as those outlined in 3a. We

already devote considerable faculty resources (i.e., time) to prepare PhD students for the job market (see 1.b.4.1.a/part c).

Objective 3c: We wish to enhance our offerings of PhD field courses. Some classes routinely taught in the past have had to be cancelled due to lack of staffing. We need to be able to offer these course again. In addition, we wish to be able to add to the course offerings in fields that are currently attracting substantial shares of our PhD students. Among these areas are health, education, environmental and labor.

Resources: In order to staff these courses we will need to hire new faculty members, especially in public economics. We are currently attempting to hire a junior faculty member in environmental economics. We will also soon need to hire faculty in public economics.

Objective 3d: We wish to give high priority to promoting our program through web-based and other marketing channels, as well as working with alumnae. Likewise, we will continue to use personal contacts, both in recruiting and in placement of PhD students. Reliance on recruitment of our own MA students to help populate our PhD program is not a viable long-term strategy. External contacts, more generous stipends, and the opportunity to hire new faculty in a few critical positions will significantly enhance our PhD program.

Resources: Since this objective is to be achieved by relatively low cost networking, the necessary resources should not be significant.

To address Goal 4, continuing progress in building and retaining a world-class research faculty, the department has identified three objectives.

Objective 4a: A primary objective for the department is to retain our most productive faculty, while also having flexibility in hiring to fill gaps and replace key faculty lost to other universities and retirement. The Economics Department has established a reputation as a high-quality, productive research department in applied economics and policy (see section 1.c.1.3). As mentioned previously, the department has lost several senior faculty members in the past few years. The administration's recently announced salary review/adjustment model may help with retention, although it will not be particularly relevant to junior faculty and highly productive tenured faculty whose salaries already match or exceed the target or who fall outside its time window. Salaries in economics are relatively high compared to most fields. At a minimum, the department needs to be able to make compensatory salary increases to address compression and inversion, as well as competitive counteroffers.

Resources: The primary resource need should be higher salaries. If we are not able to significantly raise salaries, an alternative approach might be to offer reduced teaching loads to faculty members who demonstrate unusually high research productivity. Thus, for example, highly productive faculty might be offered a 2/1 teaching load, which can partially substitute for sabbaticals available at most other universities. If they receive course buy-outs from grants, those buy-outs would be applied on top of the reduced teaching load. Beyond course reductions and buy-out possibilities, an alternative avenue for improving retention might be the increased provision of research support, such as travel funding, small research awards, summer stipends, and supplemental graduate student assistance for special research needs.

Objective 4b: We wish to enhance the diversity of the Economics department. The department has a diverse faculty as compared to most research-oriented economics departments nationwide. That said, PhDs in economics are disproportionately white and Asian and, to a lesser extent, male. We currently have fewer female tenure-track faculty than we would like. Two female full professors (each a former department chair) have moved to higher administrative positions. In

hiring tenure track assistant professors in recent years, offers have been extended to several female candidates, but they have chosen to accept other positions. We have a female assistant professor who is going up for promotion and tenure next year.

Resources: We will continue to try to recruit female faculty members, but to do so successfully will require either more competitive salaries or alternative options. These options might include extended teaching reductions, guaranteed summer support, conference budgets, or support for coauthor visits.

Objective 4c: We wish to improve and possibly accelerate the promotion and tenure process for junior faculty members. Junior faculty hired directly out of graduate school have tended to move slowly up the promotion ladder. We have recently voted to promote an outstanding assistant professor within the standard 6 years in rank. However, this is an unusual event for us. The standard track of hiring new PhD's directly out of graduate school has proven problematic. We try to do everything possible to help each new assistant professor achieve tenure within a 5-to-7 year time horizon. As compared to some other disciplines, however, publication in high-quality journals in economics is extremely difficult. Acceptance rates are low, review times are lengthy, and multiple revisions are typical. Hiring new PhDs who have not already published is highly risky for them and for the department. We do not wish to tenure and promote junior faculty who we do not expect to be promoted to full professor in a timely manner. We have a small number of associate professors tenured quite some time ago, but who have not been promoted. This is not an ideal situation and one that we try to avoid.

Resources: The department has been successful in hiring experienced junior faculty members a few years out of graduate school. In short, we have identified economists who have already established a productive research agenda, and we have made them competitive offers. We also have been opportunistic in identifying talented associate professors who we might be able to hire. This hiring practice is clearly more expensive, in the short run, than is hiring new assistant professors. Although our hiring strategy may appear costly, in the long run it allows us to build and maintain a high-quality research faculty and an Economics Department whose national rankings exceed those of the overall university.

Objective 4d: Over many years, the Andrew Young School and the Economics Department have a record of being entrepreneurial, interdisciplinary, academically successful, policy-oriented, and policy relevant. Economics faculty and research centers within AYS have a long history of success in receiving grants and other external funding for research. In most endeavors involving the Andrew Young School, economists have played either a leading role or have complemented faculty from other departments/schools. Such interactions have been most evident recently in the areas of Economics/Public Health and Economics/ Health Informatics. In addition to health, economists in the Department are involved in the areas of international public finance, urban studies, environmental policy, state and local finance, education and labor policy, and risky behaviors. The Department's expertise in experimental analysis, coupled with the Experimental Economics Center infrastructure (EXCEN), complements research in multiple areas within and outside the University. What are the next big things that economists in the Andrew Young School will be doing? We do not know the answer to this question, but it is a question we think about constantly. We are confident that big things will be in our future.

Resources: The above activities are funded largely or in part through external funding.

**Report of the External Committee for the
Academic Program Review of the
Department of Economics
Andrew Young School of Policy Studies
Georgia State University**

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April 16, 2018

Executive Summary

On April 8-10, 2018 we conducted a site visit for the academic program review of the Department of Economics at Georgia State University. In preparation for the visit, we reviewed the Department's self study and associated appendices, the CVs of faculty, and the letters of transmittal from the Department Chair and the Dean of the Andrew Young School. Over the course of our site visit, we held meetings with University and School administration, center directors, groups of faculty separated by rank, directors of undergraduate and graduate programs, and graduate and undergraduate students. Our discussions centered around successes and challenges facing the Department in terms of research productivity and internal and external financial support, recruitment and retention of faculty and staff, the role of research centers in the Department, curriculum of undergraduate and graduate programs, and advising, mentoring, and career services offered to undergraduate and graduate students.

Our assessment is that the Department of Economics is a gem of Georgia State University with national and international recognition for rigorous, policy-relevant research, success in awards of external grants and contracts well in excess of that of departments at peer (and many benchmark) institutions, strong placement of Ph.D. students at academic and research institutions, and broad satisfaction with the curriculum among the undergraduate students. Faculty are publishing regularly in leading peer-reviewed professional journals, securing large grants and contracts from major national and international government agencies and foundations, and presenting at major global economics conferences. Several faculty hold significant campus leadership positions as center directors and university administrators.

Despite the substantial rise in ranking since the last external review, aided in part from the Department's success in securing *2CI* professorships, much of the gain is fragile owing to pending retirements, recent challenges in retaining productive faculty, and insufficient University support for the entrepreneurial research centers. Throughout the report we highlight these challenges of faculty recruitment and retention and make recommendations on how the University and School might address them to prevent loss of national distinction. We also make recommendations in how they might improve mentoring of junior faculty, the productivity of research-active faculty, and the quality and quantity of economics majors and graduate students.

Contributions to the Discipline

The structure of our report follows that provided to us by the University in its External Review Report Guide. In this first section we highlight the subfields of the Economics profession that the Department makes its most significant scholarly contributions, and we discuss the extent to which the number and composition of the faculty adequately meet the research and educational needs of the Department.

The Department of Economics specializes in eight fields within the economics discipline comprising public, labor, health, education, urban and regional, environmental, experimental, and applied econometrics. This specialization is in part an outgrowth of the Department's unique positioning within a School of Public Policy, as opposed to the typical location in arts and sciences, but such specialization (with possible differences in composition) is often found in economics

programs located in a business school. This specialization has enabled the Department to focus resources for research and training, and it has paid dividends in terms of national rankings and external research funding. As noted in the self study, the Department ranked 40th overall in the 2017 RePEc/IDEAS rankings (59th overall in US News rankings), above several of GSU's aspirational schools (including some that are AAU members), and in the top 15 for the subfields of experimental and behavioral economics, and top 25 in education and labor economics. In terms of external funding, securing over \$9 million in external grants in the last three years is well above the national norm for economics departments.

Of the areas that the Department specializes, the current faculty are most noted in the fields of labor, experimental, health, and education. The historic strength of the department that laid the foundation of its international reputation is in the areas of public and urban/regional economics. The influence of these areas has been depleted over the past decade from faculty departures and retirements, and today the Department is acutely underserved in those areas. Given the positioning of the Department in the nexus of Georgia state government and in a large urban area, the loss of faculty expertise on issues of taxation and spending, and the structure and functioning of urban communities, has diminished the Department's local, state, and national influence on pressing public policy issues in these areas. This is highlighted by the fact that there is no longer direct faculty involvement in the Fiscal Research Center, and the majority of influence of the International Center for Public Policy and the Experimental Economics Center are led by the extraordinary efforts of one faculty member in each center. This "thinness" of faculty depth is also in evidence in the areas of experimental and environmental economics, each of which experienced several faculty departures in recent years, as well as in the core methodology areas at the heart of economics graduate education— micro and macro theory and econometrics.

Recommendations on Faculty Size and Composition

In order to restore the reputation of public and urban economics, to re-establish linkages between the research centers, and ensure continuity of program excellence in experimental, health, and labor economics in light of faculty departures and pending retirements, we recommend a sustained program of hiring with "real" growth in faculty size of no fewer than five full-time tenure-track faculty over current faculty size. There is a clear need that some of these new faculty be prominent senior scholars who will be able to take leadership positions in the Department and affiliated research centers in terms of external funding, graduate advising, and overall program direction. The department would also benefit from new faculty members who are early and mid-career faculty at the associate and full professor ranks, as these ranks are currently under-represented in the Department. Several members of the Department expressed frustration at the lack of institutional commitment to the Department in terms of faculty lines. The major concern is due to the fact that lines either revert back to the School (including endowed chairs) or University (e.g. *2CI/Next Gen*) with faculty departures or retirements. When a department is unable to exert control over hires, it makes it quite difficult for a department to sustain existing program areas when there are departures and retirements. This frustration is also understandable given that the Department's rank among the Economics profession far exceeds the University's overall rank, and its reach within the local, state, and national policymaking circles yields outsized potential for wider engagement and influence.

The Department recognizes that further efforts at gender and racial/ethnic diversity among faculty ranks are needed going forward. The three prominent female full professors have either recently retired or moved into full-time University administration, and thus there currently are no female full professors with full-time appointments in the Department. There are currently three female associate professors (one research-track and two clinical), and two assistant professors (one research-track and one clinical). The Department has made efforts in recent offers, but has fallen short. In the course of our discussions, we were made aware that the University has no policy of maternity (or paternity) leave, which falls short of the market. Many universities offer the option of deferred tenure decisions (in some cases up to two years for two children), while others also provide paid leave during the term of the childbirth. The lack of a formal maternity leave policy may deter some potential recruits. What we found to be more problematic about the lack of maternity leave policy is that there was general confusion on the part of the faculty about what exactly the policy was or was not at the University. Policies like this are very important to recruitment of faculty and it is also important that all faculty are clearly informed about what those policies are. Our perception is that on these and several other policy matters, there may not be sufficient communication to the faculty regarding official policies. We were also informed that the University commitment to spousal hiring has changed over time and is less available. This, too, could disproportionately affect recruiting of female faculty. This challenge is not unique to GSU as recruiting of minority and underrepresented groups in Economics is a national challenge as well, but with GSU's location in a large metro area with a diverse population base there are natural advantages for recruiting diverse faculty conditional on aligning some policies and procedures with market norms such as maternity leave.

Quality of the Department's Undergraduate and Graduate Programs

The Department of Economics offers multiple undergraduate degrees as well as Master's and PhD degrees. We will discuss and evaluate each in turn.

Undergraduate Programs

The Department offers three undergraduate degrees including a BS and a BA in Economics as well as a BA in International Economics and Modern Languages. Each of these degrees adheres to traditional standards for curriculum as they all require the standard Principles and Intermediate courses, upper level field courses and then specialized requirements appropriate for each degree. The BS degree requires additional math courses as well as econometrics while the Modern Languages degree requires requisite training in languages. Given the policy focus of the faculty, most of the courses appear to have a clear policy focus which was appreciated by the undergraduates we spoke with. The Department has proposed adding a Math – Econ degree as well. This is a type of degree which is becoming more common around the country. It is definitely a useful degree for students interested in getting a PhD but can also be useful for students who just want to take a more rigorous approach to their work.

The quality of the incoming students appears to be high based on the average SAT score of the incoming students, 1132. The Department also seems to be doing a good job of sending students on to graduate programs. The survey results reported in the study indicate a generally positive level of satisfaction by the students which was confirmed by the impressive group of

undergraduates we interviewed. There were certainly a few complaints in the survey and from the students, but those mostly had to do with scheduling issues and other elements specific to an individual student's case. The students were strong in their praise for the faculty and were quite appreciative for the classes they were able to take. We particularly noted that a few of the students praised the PhD students who had taught some of their courses with the undergraduates saying that the PhD students were very committed to teaching them and they used innovative approaches which allowed the students to better connect with the material.

The Department is in the process of implementing a 4+1 program which a few of the students we talked to were very excited about. This should turn out to be a great opportunity for motivated students.

The only negative we found regarding the undergraduate programs had to do with the students running into consistent problems with centralized advising. The problems included inconsistency regarding when they were allowed to transfer to School-specific advisers (some were approved at 60 hours, others not until 90 hours). Students also reported that while they were supposed to retain a common adviser from semester to semester, this rarely happened as each time they would go for advising they would be directed to someone new. What makes all of this problematic is that the central advisers were ineffective in helping the students navigate specific issues with the degree they wanted. This includes multiple instances of advisers directing bright and ambitious students towards easier and less rigorous courses. The students reported generally better satisfaction with the School advisers. We also received reports of some challenges in registering for 4+1 course offerings; namely, students being denied access to the +1 courses due to inadequate status. The issues were ultimately resolved with intensive intervention of Department staff, but highlight some hiccups in implementing the new 4+1 program.

Recommendations on Undergraduate Program

In general, we found the undergraduate programs to be in good shape. We would strongly advise that the administration take a careful look at the central advising model as there are clearly issues there, but this is nothing the Department can affect on their own. There are, however, a few recommendations we have regarding recruitment of additional majors that we think the Department might be able to pursue.

1. General Recruiting – Given that the Department receives so many students into their principles courses, they might be able to get more majors overall by engaging in active recruitment of these students. Principles classes themselves don't always cover the material best suited for recruiting but the Department could have instructors spend a few minutes of every week talking about the types of issues that professional economists address related to the material for that week and/or talking about different types of jobs available to people trained on solving those problems.
2. Minority Recruitment – This University and the Department are in a unique position to do a service to Academia in general and to the field of Economics due to the number of minority students served (approximately 1/3rd of the students are African American). The general recruitment strategies discussed above can also be targeted at minority students to not only bring them into the major, but where appropriate to introduce them to the idea of getting

- advanced degrees. Academia would be well served by having more minorities among our ranks and GSU could become a leader in providing well trained minorities into the pipeline.
3. Female Recruitment – Females make up only 36% of the Economics majors at GSU. Under representation by females is a common problem in the field and it is one each department must attempt to address. Based on recent research there are a few strategies that appear effective though the Department may find others. Most of the effective strategies involve providing women with more information about what it takes to be successful in the major as well as information on what they can do with the major. The major is typically not well understood and so explaining to women in principles classes all of the career opportunities available to them has been effective at other universities. So too has making it clear to women who might not have quite gotten A's in a principles class that they can still major in Economics. Research shows that males are almost equally likely to major in Economics regardless of their grades in Principles classes while the rate of women in the major falls off substantially for any grades below an A. Explaining to them that they are still viable majors if they receive a B or B+ in their initial classes can help overcome this problem.
 4. Course Sequencing/Prerequisites – Most students begin their program of study taking Principles of Macroeconomics before Microeconomics, which is opposite that of most programs, and we heard some reports that students found the sequencing a challenge. In addition, with few exceptions, the upper-division courses do not require intermediate micro or macro as prerequisites. Some students felt that this resulted in less challenging field courses because they perceived that the faculty were inhibited in the methods used owing to the mixed training of students (some only with principles, some with intermediate micro). Many programs require at least intermediate micro prior to upper-division courses to ensure common training, though this comes at a cost of reduced flexibility in scheduling for students, which may be a challenge for many of the nontraditional students at GSU. Because of this we are reluctant to recommend outright the introduction of upper-level prerequisites, but we do encourage the Department to more fully explore whether the sequencing and prerequisites of the undergraduate program might offer a more fulfilling experience for GSU students.

Graduate Programs

The Department has both a terminal MA program and a separate PhD program, both of which appear to be quite successful. The MA program brings in 20 students per year while the PhD program brings in about 15. The curriculum for both programs adheres to norms for the discipline and by all accounts, the programs appear very effective at training students. The PhD program in particular has an outstanding record of placing students into high quality academic positions. GSU students are generally able to get positions that one might normally expect would go to students at higher ranked departments. This is a testament to the effort the faculty put into training these students for the market.

The alumni survey for the graduate students again reports generally positive results and the students we interviewed were also very positive about the Department. The MA students greatly appreciated the policy focus of their course offerings. The PhD students reported that they almost uniformly received great support from the faculty regarding their research. They in particular appreciated a new innovation in the past few years of an organized seminar that would allow two PhD students per week to present their work. Students found that this experience gave them

excellent preparation for the job market.

The one element the PhD students found unsatisfying was the level of financial support provided and indeed prior years of students were brought in at funding levels that were not only uncompetitive but should be expected to be a hardship for these students to do well in the program. These offers involved providing \$16-18,000 in stipends but requiring that these students pay large amounts back to the University in fees and health insurance. Most recently the Department has upped the stipend to a more competitive \$24,000 but still with the requirement that students pay their health insurance and substantial fees out of that money (around \$4,000 annually). That structure will undoubtedly make it difficult to recruit the best PhD students.

Recommendations Regarding the Graduate Programs

1. Our main recommendation is due to our belief that the Department and the University are missing a great opportunity with the current MA program. The MA students present did mention that while they appreciated the program, they would really like more hands on courses that teach them programming skills and give them practical experience with data. We believe there are many more potential students with such demands. The faculty of the GSU Department are almost perfectly suited to create a MA curriculum with such a focus. This could substantially increase enrollments of full price paying students. Of course, these new classes would require substantial investment by the faculty and it would require freeing them from other duties, and ideally be met with commensurate growth in faculty size. We would strongly recommend a revenue sharing arrangement be worked out that provides the Department and faculty the incentive to create such a program and do the work necessary to make it successful. The additional revenue would benefit the University and sharing some of it directly with the Department could allow them to better support junior faculty research and the PhD program or other needs as identified by the Department.
2. For the PhD program we recommend that something be done about the issue with the stipends and fees. It is quite unusual that a University require PhD students to pay substantial fees out of their stipends. The \$24,000 level of the new stipends is a competitive level that we would hope can be maintained but the University would be well served by finding a way to waive the fees or provide the Department with the resources to cover these fees for the students. We are also concerned about the sustainability of the current funding model. Our understanding is that this new stipend level is funded in part based on some of the research Centers providing the funding. As we discuss elsewhere, the long run viability of some of these centers is in doubt without faculty resources to maintain them. If the Centers cannot be maintained, this could endanger the PhD program. We would encourage the School to find more sustainable funding for the program. Finally, several students expressed the desire for more teaching opportunities, but the current structure of the program that requires those teaching a course to concurrently be assigned as a half-time RA to be too much burden. For those teaching, a 1+1 course load over the academic year without the requirements of being an RA would be a more competitive package, offering the opportunity to gain useful classroom skills while also maintaining ample time to work on dissertation research.

Quality of the Department's Research Culture

The Department hosts two research centers—the newly created Education Policy Lab, and the Experimental Economics Center—and has leadership oversight of two School-based centers—the Fiscal Research Center and the International Center for Public Policy. In addition, several faculty are affiliated with the Georgia Health Policy Center. These research centers play core functions in the intellectual life of the Department, offering support and opportunities for externally funded grants and contracts that provide academic-year course relief and summer salary for faculty, and stipends for graduate students. They also serve as crucial gateways for the Department to engage in outreach to the wider University, Atlanta, and global communities. For example, the Experimental Center offers its lab resources to researchers around the nation (not just economists, but also faculty in accounting, finance, and other social sciences) to conduct rigorous lab-based projects. The International Center hosts an annual summer program in public economics to early and mid-career professionals from Spain and brings leading economists around the world to teach in the program. The Department also sponsors an active seminar series that brings noted national speakers to interact with faculty and students, enriching the research environment for faculty and students.

There are several important challenges facing the Department's research environment. First, as noted previously, the centers, notably the Experimental and International centers, are led by senior faculty in the latter stages of their careers and with no obvious succession plan. Several faculty departures have resulted in lost faculty affiliations with the centers, and in the case of the Fiscal Research Center, there is currently no direct faculty involvement after the recent internal promotion of the director to Dean of the School. Given the historic connection of the centers to academic life in the Department, both for faculty research support as well as for graduate students, means that loss of these monies could jeopardize both the research activities of many faculty (travel funds, course reductions, summer stipends) and support for graduate students. Second, under the current configuration, the centers are "swimming alone" in that there is little in the way of University support in terms of bridge funding, matching funds, and staff support. A recent example is the multi-million dollar foundation grant to establish the Education Policy Lab. The grant requires a progressively larger cost-share, and thus far the Lab is required to raise this share on its own from other grants and contracts rather than a University commitment as one finds at benchmark universities. This lack of institutional commitment actually makes it more difficult for a center carry out the work and to raise those matching funds. This may lead to less money being raised and risks the possibility of a project failing. Given the stated importance by the University for external funding, we found this lack of a two-way partnership places the Department and centers at a strategic disadvantage relative to aspirational programs. Third, the standard teaching load is 2+2, even for the most productive faculty. This was also true for untenured junior faculty until the recent move to a 2+1 load for the first three years of the appointment, and for the newest hires a 2+1 load for the duration of the probationary period. The latter is a positive development to be competitive with the wider market for productive junior faculty in Economics. And even though tenured faculty have the opportunity to buy off courses with external funds, not all faculty have equal opportunities for external support, or there may be cyclicalities in funding, and yet they may still publish papers in leading peer-reviewed outlets, but the 2+2 load potentially places them at disadvantage compared to the current market.

Recommendations for Research Environment

1. We recommend that in order to sustain and grow the research centers, the University and School need to direct resources to the centers, primarily through new faculty lines, both at senior and junior ranks.
2. The Department is fortunate to have exceptional, committed staff, but at present they are overwhelmed with handling all of the standard academic work in the unit and trying to support the contracts and grant work for the Department. While the Centers have staff that can help out people doing work related to the Center, unaffiliated faculty, and especially junior faculty, can find it more difficult to get information on how to navigate contract and grant work. Thus, we recommend that resources be committed to a full-time staff line to support faculty grant and contract activities.
3. Many grants and contracts require substantial cost-share commitments, and to encourage greater entrepreneurial research activities, faculty and centers need access to greater cost-share commitments from the University to grow the research enterprise.
4. The Department needs to establish more clear and systematic policies on travel support to professional meetings and conferences. The standard amount of \$1500/year typically covers one, and likely no more than two, national conferences. Some faculty are able to supplement this amount through informal channels, e.g. asking the right person at the right time, but this can systematically exclude certain groups. One option is to make access to travel funds a progressive function of faculty rank, e.g. \$3000/year for junior faculty, and less for tenured faculty. Also, if the tuition sharing plan is implemented to increase MA enrollments, some of these funds could be directed towards improved travel funding which would provide the resources for solving this problem.
5. The Department needs to explore the viability of moving to a 2+1 course load for research-active faculty, and to establish clear guidelines of how to receive a course reduction, while still permitting additional course releases for buyouts from grants or administrative assignments.

Goals

The Department has outlined an ambitious set of goals that represent their aspirations regarding the key missions of the Department regarding undergraduate and graduate education along with furthering the research mission of the Department. In our view, the goals proposed by the Department are exactly the ones which the Department should be pursuing. The goals are ambitious but attainable. However, successful attainment of the goals will require the Department being provided with the right mix of resources.

In our view, the recommendation we made above regarding how the Department could expand their MA program would be very beneficial to helping them achieve many of their other goals. If the School/University can assist them and provide them the incentives to push this program, then this would deliver substantial resources that could be put towards achieving the other goals of the Department.

We also believe that the Department may be being modest in their request for faculty lines. Given their high number of recent departures and expected near term retirements, the Department will need substantial investment into faculty lines in order to maintain not only its high academic

reputation but also its ability to generate contract and grant work. This means that replacing these departing faculty is essential and at least some of the replacement of these new faculty must be at a senior enough level so that they can replace potential outgoing center directors. As we discuss above, given the current size of the undergraduate and graduate programs, coupled with prospective growth in the latter MA offerings, we believe real growth of faculty by at least five lines would appropriately expand the program integrity.

Summary

We would like to stress our view that the GSU Economics Department is currently a very strong Department. The faculty are doing a great job with undergraduate and graduate education. They are also producing a substantial amount of high quality research. While this would be enough for most departments, the faculty at GSU are also producing an amount of contract and grant activity several standard deviations above the norm for economics departments at its level. It is very rare for a department to be doing this well on all of these elements. We hope that the University appreciates the quality of this department and what it brings to the University in terms of academic prestige as well as in financial resources.

As we have discussed throughout this report, our view is that the Economics department at GSU is currently at something of a crossroads regarding its future. The University and the Department have invested heavily in becoming world leaders in certain areas like Public Economics, International Policy and Experimental Economics. Currently each of these traditional strengths in the Department are either in decline or at risk of precipitous decline should senior faculty members retire. This would be very damaging to the reputation of the Department. Our view is that it is vital to the Department to maintain these traditional strengths while continuing to build on the newer strengths of the Department such as in Health and Education. The Department has proposed a set of goals and plans that will help them maintain this reputation and we hope that the University will give them the capability to pursue those plans. We have provided several specific recommendations above, which we think will help the Department in attaining these goals and may help the University/School in providing the Department the resources necessary.

**Report of the Academic Program Review Committee
For the Department of Economics for FY2015-FY2017
APRC approved May 15, 2018**

Overview: The Department of Economics in the Andrew Young School of Policy Studies (AYSPS) focuses on eight areas in economics (the allocation of scarce resources): public, labor, health, education, urban and regional, environmental, experimental, and applied econometrics. The unit has 28 full-time tenured-tenure track (T/TT) faculty (including six 2CI and Next Generation Program hires; one Regents professor, one Alumni Distinguished professor, one Eminent Scholar, and three endowed professors) and 13 non-tenure track (NTT) faculty. The department offers these degrees: BS, BA, BA-IEML (BA in International Economics and Modern Languages), MA, and PhD. In U.S. News & World Report's ranking of graduate economics programs, the department ranked #59 nationally in 2017.

Quality and Productivity of Research

The faculty direct or are directly involved with research centers and clusters in AYSPS and GSU. Because the funding routed through research centers is not counted on the APR Dashboard, the funding amounts were taken from Spectrum, which showed the department was awarded three-year external funding of \$9,776,607, giving an annual average per T/TT faculty of \$116,388. From the APR Dashboard, T/TT (NTT) faculty published annual averages per person of 1.57 (0.93) peer-reviewed journal articles, 0.25 (0.14) books, 0.33 (0.19) book chapters, 0.76 (0.69) non-peer-reviewed articles, and 0.52 (0.90) other contributions.

Quality and Productivity of Teaching

Economics is taught as a major and a core component across GSU. For majors, high-school GPA/freshman index/SAT/ACT averaged 3.4/2848/1132/25.3, increasing slightly over the period. The six-year graduation rate for first-time full-time freshman enrolling in Fall 2010 was 70.4% (19 of 27 students), above the GSU rate of 52.8%. The average female enrollment percentage was 36%. The average racial composition was 11% Asian, 38% Black, 37% White, 6% multiracial, and 8% not reported. The department has five dual degree 4+1 programs and two undergraduate interdisciplinary programs. Beginning fall 2014, assessment of student learning outcomes (SLOs) was based on a subset of macroeconomics and microeconomics questions from the Test of Understanding in College Economics (TUCE), a nationally-normed test developed by the National Council on Economic Education. Due to issues with data collection, the assessment plan has not been implemented throughout the required courses in the major: Econ 2105-2106, 3900, 3910, 4999, limiting the ability to make program improvements based on assessment results.

The GRE Verbal/Quantitative scores for enrolled MA and PhD students averaged 67/61. Acceptance rates averaged 42% with an enrolled average rate of 43%. PhD students had higher GRE scores than MA students. Graduate enrollments averaged 36% female. Graduate students were 32% Asian, 15% Black, 44% White, 2% multiracial, and 7% not reported. The self-study and external reviewers noted that PhD funding was not competitive with other programs even though funding had recently been increased. A new Economics 4+1 bachelors/master's program has been approved, and a quantitative specialization has been developed within the MA program. Assessment of MA SLOs focused on core exams, a research paper, and an alumni survey. PhD SLOs are assessed through the field examination, the dissertation, job placement, senior PhD student survey, and alumni survey. For both MA and PhD SLOs, not assessing them throughout required coursework increases the difficulty of making changes in courses to improve

learning. Although alumni surveys may be helpful for calibrating program emphases with employment opportunities, they are not direct assessments of learning.

Viability of Programs

There were 112, 112, and 131 BS/BA/BA-IEMML degrees during the review period. Graduate enrollments averaged 122 students per year (49 MA and 73 PhD) with little change over the period. About 20 and about 15 students enter the MA and PhD programs each year, respectively. Funding for MA students was limited, typically \$5,000 annually. Nearly all PhD students were funded. The standard award was recently increased to \$21,000 to reduce the funding gap with competitors.

Unit Goals (self study pp. 23-26)

Goal 1: Improve retention and progression to graduation for BS/BA

Goal 2: Restructure the MA Program to improve recruitment and relevancy to employment

Goal 3: Strengthen the PhD Program

Goal 4: Create a world-class research faculty

External review team recommendations

The external reviewers saw the department as a “gem of Georgia State University” though this status was fragile due to pending retirements, challenges in retaining productive faculty, and insufficient university support for entrepreneurial research centers. The reviewers recommended:

1. For the BS/BA, recruit more diverse enrollments; adjust course sequencing and prerequisites to enable a stronger foundation for more rigorous upper level courses.
2. For the MA, create courses that provide more experience with programming and practical experience with data.
3. Raise PhD stipends from \$21,000 to a competitive \$24,000.
4. Grow the faculty by five emphasizing gender and racial/ethnic diversity including senior level hires; hire to maintain faculty lines in cases of retirement or departure; institute a maternity/paternity policy.

Consistency of goals and recommendations with University Strategic Plan

APRC believes the goals and recommendations discussed above are consistent with the GSU strategic plan subject to:

1. Implementing BS/BA assessment to close the loop on using assessment results to improve learning.
2. Emphasizing more direct assessment measures for MA and PhD SLOs to focus on student performance with the potential to lead to improvements in learning, including assessment earlier in the programs.