Establish a Master of Science in Applied Economics (PCC 18049)

PRESENTED BY	Janna Bianchini, Chair, Senate Programs, Curricula, and Courses Committee
REVIEW DATES	SEC – January 28, 2019 | SENATE – February 5, 2019
VOTING METHOD	In a single vote
RELEVANT POLICY/DOCUMENT	N/A
NECESSARY APPROVALS	Senate, President, University System of Maryland Board of Regents, and Maryland Higher Education Commission

ISSUE

The Department of Economics (ECON) within the College of Behavioral and Social Sciences (BSOS) proposes to establish a Master of Science degree program in Applied Economics. This program exists currently as an iteration of the Master of Professional Studies (MPS) program. The 30-credit program has been in operation since the fall of 2012. The Master of Professional Studies program was approved in 2005 by the University System of Maryland Board of Regents and Maryland Higher Education Commission to allow for the expedited approval of curricula that respond to changing market needs of working professionals. Once a new iteration of the MPS is approved through campus PCC review, it only needs approval by the USM Chancellor to become official.

A limitation of offering this program as an MPS iteration is that all Professional Studies programs must use the same generic Federal Classification of Instructional Programs (CIP) code rather than a CIP code that accurately describes the program content. Searches that use CIP codes to find program offerings will not find the discipline-specific iteration, which reduces market visibility. Moreover, some CIP codes are designated as “STEM” eligible by the US Department of Homeland Security, and international students with F1 visas who graduate from STEM designated programs may continue to work in the United States for two years longer than students in non-STEM designated programs. The generic CIP code for Professional Studies programs does not qualify as STEM-designated, even if the academic content of the Professional Studies program is STEM-related.

Consequently, the Economics Department proposes to transition the program from a Master of Professional Studies program to a stand-alone Master of Science program in order to be classified more accurately. No changes are proposed to the program curriculum or administration. In separate proposals, another BSOS department, Geographical Sciences, is also proposing to convert their Professional Studies programs, Geospatial Information Sciences and Geospatial Intelligence, to stand-alone Master of Science programs.

The Applied Economics program provides rigorous training in economic reasoning, formulating and estimating economic models, and utilizing quantitative methods to evaluate policy proposals and

programs. The curriculum consists of five core courses and five field-courses from a list of nine eligible ECON courses. The core courses are as follows:

- ECON641 Microeconomic Analysis (3 Credits)
- ECON642 Topics in Applied Macroeconomics (3 Credits)
- ECON643 Empirical Analysis I (3 Credits)
- ECON644 Empirical Analysis II (3 Credits)
- ECON645 Empirical Analysis III (3 Credits)

The field courses allow students to apply the tools learned in the core courses to specific fields of economics and public policy analysis.

Through the program, students learn to collect, evaluate, understand and analyze economic data. Students understand and interpret statistical results and apply empirical evidence to economic arguments. They articulate and apply macroeconomic and microeconomic theories and models to policy discussions. They also learn to interpret and communicate economic models to a wider audience, and measure and evaluate the effectiveness of policy programs using sound econometric techniques.

The program has been successful since its inception in 2012, with more than 90% of its graduates finding employment in economics-related positions.

This proposal was approved by the Senate Programs, Curricula, and Courses committee on December 7, 2018.

RECOMMENDATION(S)

The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this new degree program.

COMMITTEE WORK

The committee considered this proposal at its meeting on December 7, 2018. John Straub, Director of the Master of Professional Studies Program in Applied Economics, presented the proposal. The proposal was approved by the committee.

ALTERNATIVES

The Senate could decline to approve this new degree program.

RISKS

If the Senate declines to approve this degree program, the university will lose an opportunity to take an existing program and make it more attractive to international students by simply classifying the program more accurately.

FINANCIAL IMPLICATIONS

There are no significant financial implications with this proposal as the program already exists as a Master of Professional Studies program.

UNIVERSITY OF MARYLAND PCC PROGRAM/CURRICULUM/UNIT PROPOSAL

PCC LOG NO. 18049

Program: Master of Science in Applied Economics – to replace existing Master of Professional Studies in Applied Economics

Department / Unit: Economics

College/School: BSOS

Proposal Contact Person (with e-mail): John Straub – straub@econ.umd.edu

TYPE OF ACTION: *Italics indicate that the proposal must be presented to the full University Senate for consideration.*

- ☐ Curriculum change (including modifying minors, concentrations/specializations, and creating informal specializations)
  - ☐ Curriculum Change is for an LEP Program
- ☐ *Renoming of program or formal Area of Concentration*
- ☐ *Establish/Discontinue a formal Area of Concentration*
- ☐ *Establish a new academic degree/certificate program*
- ☐ ✓ *Establish a new academic degree/certificate program*
- ☐ Create an online version of an existing program
- ☐ Establish a new minor
- ☐ *Suspend/Discontinue a degree/certificate program*
- ☐ Establish a new Master or Certificate of Professional Studies program
  - ☐ New Professional Studies program will be administered by Office of Extended Studies
- ☐ Other:

APPROVAL SIGNATURES: *Please print name, sign, and date. For proposals requiring multiple unit approvals, please use additional cover sheet(s).*

1. Department Committee Chair: John Straub
2. Department Chair: Maureen L. Cropper
3. College/School PCC Chair: (for Karol Soltan) 11/9/18
4. Dean: Wayne McIntosh 11/9/18
5. Dean of the Graduate School (if required): _____
6. Chair, Senate PCC: Janna Bianchini 12-7-18
7. University Senate Chair (if required): _____
8. Senior Vice President and Provost _____

Instructions: When approved by the dean of the college or school, send the proposal and signed form to the Office of the Associate Provost for Academic Planning and Programs, 1119 Main Administration Building, Campus-5031, and e-mail the proposal document as an MSWord attachment to pcc-submissions@umd.edu.

Summary of Proposed Action (use additional sheet if necessary): See the attached Preface for further context.
This proposal is to convert the MPS in Applied Economics to an MS in Applied Economics, with the CIP designation of 45.0603, "Econometrics and Quantitative Economics". The description of this CIP code is *"A program that focuses on the systematic study of mathematical and statistical analysis of economic phenomena and problems. Includes instruction in economic statistics, optimization theory, cost/benefit analysis, price theory, economic modeling, and economic forecasting and evaluation."*
The actual program curriculum is not changing, since the curriculum is already well-matched to this description. The program will also continue to be administered through the Office of Extended Studies. However, a proposal to MHEC is required in order to create the new standalone degree program.

Unit Code(s) (to be entered by the Office of Academic Planning and Programs):

A new degree program proposal will need to be approved not just by campus but also by the University System of Maryland (USM) Board of Regents and the Maryland Higher Education Commission (MHEC). New certificate programs need to be approved by the USM Chancellor and MHEC. The following prompts are based on academic policies for programs and reflect campus requirements and MHEC requirements. The prompts also include questions frequently asked by review committees. For more information about MHEC requirements, see http://mhec.maryland.gov/institutions_training/Pages/acadaff/AcadProgInstitApprovals/NewAcademicProgramProposals.aspx. Please feel free to add additional information at the end of this document or in a separate appendix.

MISSION AND PURPOSE

1. *Describe the program and explain how it fits the institutional mission statement and planning priorities. The University Mission Statement and Strategic Plan can be found on this site: https://www.umd.edu/history-and-mission.*

The proposed Master of Science program is a continuation of the existing Master of Professional Studies in Applied Economics. This Applied Economics iteration of the MPS was established in 2011 with initial operation in a Middle States approved location Washington, DC. A highly successful curriculum, it expanded in 2014 and now has cohorts in session both in Washington, DC location and on the College Park campus.

The re-christened MS in Applied Economics program will continue the nationally ranked professional master's curriculum (Ranked #3 in the Financial Engineer's ranking of US economics master's degree programs). With the appropriate STEM designation, the MS program's international graduates will have more opportunities to intern in the United States after graduation. Combined with the already high (well over 90%) employment rate for domestic graduates, the program's already strong ties to area employers will become even stronger. With the standalone credential and the STEM designation, we also hope to attract a more diverse population of students.

PROGRAM CHARACTERISTICS

2. *Provide a full catalog description of the proposed program. As part of the description, please indicate any areas of concentration or specializations that will be offered.*

   The Master of Science (MS) in Applied Economics provides rigorous training in economic reasoning, formulating and estimating economic models, and utilizing quantitative methods to evaluate policy proposals and programs.

3. *What are the educational objectives of the program?*

   Focusing on the application of modern economic tools to the analysis of public policy questions, **the Master of Science (MS) in Applied Economics** emphasizes the role of econometric analysis and economic policy analysis with a particular focus on real-world policy-relevant examples. The 10-course, 30-credit degree program emphasizes empirical skills, particularly data analysis and interpretation, with respect to economic and public policy applications. The program provides students with advanced training in economics that prepares them for policy analysis positions in the public and private sectors. The policy-oriented curriculum focuses on all aspects of econometric modeling and incorporates instruction using STATA and similar statistical software.

4. *Describe any selective admissions policy or special criteria for students selecting this field of study.*
   Applicants must meet the following minimum admissions criteria as established by the University's Graduate School:

Applicants must have earned a four-year baccalaureate degree from a regionally accredited U.S. institution, or an equivalent degree from a non-U.S. institution.

Applicants must have earned a 3.0 GPA (on a 4.0 scale) in all prior undergraduate and graduate coursework.

International Applicants must also meet the UMD Graduate School's minimum English Language Proficiency requirements, posted at: https://gradschool.umd.edu/admissions/english-language-proficiency-requirements.

A non-refundable application fee of is required (currently $75).

In addition, there are 3 program-specific requirements:

* Introductory course in microeconomics with a grade of at least B
* Introductory course in macroeconomics with a grade of at least B
* One semester calculus course with a grade of at least B-

5. *Indicate the course requirements with course numbers, titles and credits. If applicable, indicate if any course will also count for a general education requirement. In an appendix, provide the course catalog information (credits, description, prerequisites, etc.) for all of the courses.*

The semester-calendar format for the 30-credit MS in Applied Economics (offered in College Park) may be completed in four semesters. Students must complete five core courses (15 credits) and five field courses (15 credits). Full-time students complete three courses in each of their first three semesters (fall, spring, fall) with the final course taken in the last spring semester.

The term-calendar format for the 30-credit MS in Applied Economics (offered in Washington, DC) may be completed in 15 months. Students must complete five core courses (15 credits) and five field courses (15 credits). Full-time students complete two courses per term for five 12-week terms.

CORE COURSES

ECON641 Microeconomic Analysis. 3 credits.
ECON642 Topics in Applied Macroeconomics. 3 credits.
ECON643 Empirical Analysis I: Foundations of Empirical Research. 3 credits.
ECON644 Empirical Analysis II: Introduction to Economic Models. 3 credits.
ECON645 Empirical Analysis III: Econometric Modeling and Forecasting. 3 credits.

FIELD COURSES

ECON670 Financial Economics. 3 credits.
ECON671 Economics of Health Care. 3 credits.
ECON672 Program Analysis and Evaluation. 3 credits.
ECON673 Information, Game Theory and Market Design. 3 credits.
ECON674 Economic Analysis of Law. 3 credits.
ECON675 Environmental Economics. 3 credits.
ECON676 Economic Development. 3 credits.
ECON683 International Macroeconomics and Finance. 3 credits.
ECON684 Applied Time Series Analysis and Forecasting. 3 credits.

Course Catalog Information: See Appendix A.

6. *Summarize the factors that were considered in developing the proposed curriculum (such as recommendations of advisory or other groups, articulated workforce needs, standards set by disciplinary associations or specialized-accrediting groups, etc.).*

The existing **Master of Professional Studies in Applied Economics** program was originally approved in 2011 (PCC Log No. 11008) and has been operating successfully in Washington, DC since the fall of 2012 (MPEC). A parallel version of the program for the main campus in College Park was approved in 2014 (PCC Log No. 14015) and has been operating successfully since the fall of 2016 (MPEM). Four additional elective field courses were also added to the curriculum in both locations when the College Park version of the program was added in 2014.

The economics faculty in College Park were primarily responsible for developing the program's curriculum initially. Based mostly on their world-class academic research, our economics department is consistently ranked among the top 20-30 departments in the US. Many of our faculty also have strong ties to applied work being done in many policy-relevant areas. For example: Our department chair, Maureen Cropper, is a Senior Fellow at Resources for the Future and has served as chair of the EPA Science Advisory Board's Environmental Economics Advisory Committee, and as a Lead Economist at the World Bank. Lawrence Ausubel, Peter Cramton, and Daniel Vincent have been involved in high profile auctions of natural resources, including the radio spectrum. Sebastain Galiani is currently on leave, serving as the Secretary of Economic Policy in Argentina's Treasury Ministry. Professional activities like these make our faculty well positioned to develop the curriculum for a professional program in applied economics, with courses in Environmental Economics, Game Theory and Market Design, Development Economics, and many other important fields.

Over the last 7 years, we have staffed the program's courses with members of our department's teaching faculty, and with PhD economists working at the DC area's many private, governmental, and non-governmental organizations. These highly qualified practitioners have developed specific course syllabi that provide exactly the kind of training that students need to be successful analysts in the same kinds of organizations where many of our instructors work.

We also maintain open lines of communication with the many area employers who hire our students and graduates. In conjunction with our department's undergraduate program and the UMD Career Center, we organize 2 applied economics placement/recruiting events every year – one in October and another in February. Dozens of area employers participate in these events, with many employers returning twice a year. The employment rates for our graduates have been close to 100%, with 26 of the 27 graduates employed in 2016, and 44 of the 45 graduates employed in 2017. For the May 2018 graduates, 26 of the 28 domestic graduates are already working in the field. The high employment rates for our program's graduates speak well to the value that employers place on the training that the curriculum in our professional program provides.

7. *Sample plan. Provide a term-by-term sample plan that shows how a hypothetical student would progress through the program to completion. It should be clear the length of time it will take for a typical student to graduate.*

Course	Course	Term-Calendar	Semester-Calendar
Core Courses			
ECON 641	Microeconomic Analysis	I	Year 1 Fall

ECON 643	Empirical Analysis I: Foundations of Empirical Research	I	Year 1 Fall
ECON 642	Topics in Applied Macroeconomics	II	Year 1 Fall
ECON 644	Empirical Analysis II: Introduction to Economic Models	II	Year 1 Spring
ECON 645	Empirical Analysis III: Econometric Modeling and Forecasting	III	Year 2 Fall
Field Courses			
ECON 670	Financial Economics	III, IV or V	Year 1 or 2 Spring
ECON 671	Economics of Health Care	III, IV or V	Year 2 Fall
ECON 672	Program Analysis and Evaluation	III, IV or V	Year 2 Spring
ECON 673	Information, Game Theory and Market Design	III, IV or V	Year 1 or 2 Spring
ECON 674	Economic Analysis of Law	III, IV or V	Year 1 or 2 Spring
ECON 675	Environmental Economics	III, IV or V	Year 2 Fall
ECON 676	Economic Development	III, IV or V	Year 2 Fall
ECON 683	International Macroeconomics and Finance	III, IV or V	Year 2 Fall
ECON 684	Time Series Analysis and Advanced Forecasting	III, IV or V	Year 2 Spring

8. *Indicate whether the program will be offered in a non-standard delivery format, such as online delivery, off-campus, or through a semester-based, term-based, or non-standard terms calendar. Please note that MHEC requires a separate proposal for off-campus delivery. If the program will be offered in a term-based or non-standard terms calendar, describe the term structure and whether the Office of the Registrar and the Office of International Scholar and Student Services have been notified and support the proposal. If the program will be offered exclusively online or will have both a face-to-face and online version of the program, complete this additional form and add as an appendix:*
https://docs.google.com/document/d/1ojpUBt4mAWlNPCiQNzZ48UH68zGPYj31TPgEOfW3q1E/

The Master of Science (MS) in Applied Economics uses face-to-face, seminar-style classroom delivery. The program is offered through a semester-based (fall/spring) calendar in College Park AND a term-based (12-week) calendar in Washington, DC to more effectively serve student needs. Both the Office of the Registrar and the Office of International Scholar and Student Services have been notified and are in support of the proposal.

9. *For Master's degree programs, describe the thesis requirement and/or the non-thesis requirement.*

The program does not have a thesis requirement. Students must complete the 5 core courses and 5 of the field courses. All courses are 600-level 3-credit courses.

10. *List the intended student learning outcomes. In an appendix, provide the plan for assessing these outcomes.*

Student Learning Outcomes

1. To collect, evaluate, understand and analyze economic data.
2. To understand and interpret statistical results and apply empirical evidence to economic arguments.

3. To articulate and apply standard macroeconomic theories and models to policy discussions.
4. To articulate and apply standard microeconomic theories and models to policy discussions.
5. To interpret and communicate economic models to a wider audience.
6. To measure and evaluate the effectiveness of policy programs using sound econometric techniques.

Assessment of Learning Outcomes: See Appendix B.

11. *Identify specific actions and strategies that will be utilized to recruit and retain a diverse student body.*

The Master of Science (MS) in Applied Economics will use the model established by the University of Maryland's commitment to diversity by marketing and recruiting applicants from various professional organizations with demonstrated respect for individuals regardless of differences in age, race, ethnicity, sex, religion, disability, sexual orientation, class, political affiliation, and national origin. Course content will also demonstrate opportunities for instruction on tolerance and inclusion.

A total of 63 newly admitted students enrolled in the program in 2016/17. Only 23 (36.5%) of these 63 students were female. A very similar proportion of the complete applicant pool was female (105/171 = 38.6%). A slightly higher proportion of our May 2018 graduates were female: 15/36 = 41.7%.

Of the 63 newly admitted students enrolled in 2016/17, 10 were international students on F1 or J1 visas. Five of these were Chinese citizens. The other 5 were from Bulgaria, Kosovo, Peru, Taiwan, and Turkey. Nine of these 10 students graduated from the program in May of 2018. The student from Taiwan interrupted his studies after the first year for military service. He is returning this year and expects to graduate in May of 2019. If this proposal is adopted, and the new MS program has the appropriate STEM designation, the program should be able to attract even more international students. Of the 53 domestic students enrolled 2016/17, five (9.4%) reported themselves to be Black or African-American, and 34 (61.8%) reported themselves to be white.

Teaching assistants are available to all students, and we encourage students with the most need to avail themselves of the assistance. We strive to foster an inclusive and supportive environment for all.

RELATIONSHIP TO OTHER UNITS OR INSTITUTIONS

12. *If a required or recommended course is offered by another department, discuss how the additional students will not unduly burden that department's faculty and resources. Discuss any other potential impacts on another department, such as academic content that may significantly overlap with existing programs. Use space below for any comments, otherwise add supporting correspondence as an appendix.*
    Not applicable.

13. *Accreditation and Licensure. Will program need to be accredited? If so, indicate the accrediting agency. Also, indicate if students will expect to be licensed or certified in order to engage in or be successful in the program's target occupation.*
    Not applicable.

14. *Describe any cooperative arrangements with other institutions or organizations that will be important for the success of this program.*

Not applicable.

FACULTY AND ORGANIZATION

15. *Faculty and organization. Who will provide academic direction and oversight for the program? As an appendix, please indicate the faculty involved in the program. Include their titles, credentials, and courses they may teach for the program.*

A. Academic Direction and Program Oversight

Graduate School
Dean of the Graduate School: Steve Fetter

Program Director
John Straub, Department of Economics

Office of Extended Studies Administrative Support and Oversight
Terrie Hruzd, Director of Programs

B. Faculty

Program Faculty, see Appendix C.

RESOURCE NEEDS AND SOURCES

16. *Each new program is required to have a library assessment in order to determine any new library resources that may be required. Please contact your departmental/programmatic library liaison or Daniel Mack at dmack@umd.edu, Associate Dean of Collections, to request a library assessment that will be added as an appendix.*

Library Assessment, see Appendix D.

17. *Discuss the adequacy of physical facilities, infrastructure, and instructional equipment.*

For the term-based program in Washington, DC, we rent a suite at 1400 16th Street, NW with two classrooms, two small offices, a reception area, a small kitchen, and a lounge/group study area. The building in DC also has a large conference space that tenants can rent for well below the going rate for conference space in the DuPont Circle neighborhood. Our department uses the conference space for Information Sessions, Recruiting/Placement Events, and academic seminars. The space has worked well for our program and is a Middle States approved additional location. The current lease runs through March of 2020.

In College Park, all of our classes meet in the evening (6:30-9:15) when classroom space on campus is plentiful. The economics department has also allocated Morrill 1102 for office space related to the master's program. The space includes offices for the program director, College Park program coordinator, an office for program

instructors to use before class, and an office for the ECON PhD students who serve as TAs and graders in the master's program. There is also a lounge/group study area for students in the master's program.

The space on campus and off campus has been adequate for the program's purposes.

18. *Discuss the instructional resources (faculty, staff, and teaching assistants) that will be needed to cover new courses or needed additional sections of existing courses to be taught. Indicate the source of resources for covering these costs.*

    This proposal does not call for any additional courses, relative to what is already being offered in the already existing program. If enrollments increase, we may need additional faculty, staff and teaching assistants. But if enrollments increase, the additional tuition revenue will be more than sufficient to cover the cost of additional faculty, staff and teaching assistants.

    Source of Resources: Tuition revenue will be used to cover all program expenses (salaries, benefits, program materials, and physical resources). All students will pay all associated mandatory fees and the graduate application fee. This self-support program will have no impact on the unit's traditional programs.

19. *Discuss the administrative and advising resources that will be needed for the program. Indicate the source of resources for covering these costs.*

    As above, no changes to program administration or advising is expected if this proposal is adopted. The following administrative and advising regime will continue:

    The program director serves as the academic adviser to all students in the program. The program director reports to the chair of the department of economics, and to the director of graduate studies in the department of economics. The program director is currently supported by 2 part-time program coordinators – one for the semester-based version of the program on the main campus in College Park, and one for the term-based program in Washington, DC.

    Tuition revenue covers all program expenses (salaries, benefits, program materials, and physical resources). All students will pay all associated mandatory fees and the graduate application fee. This self-support program will have no impact on the unit's traditional programs.

20. *Use the Maryland Higher Education Commission (MHEC) commission financial tables to describe the program's financial plan for the next five years: https://docs.google.com/spreadsheets/d/1V6iSZG05edMitWP6CAOXjCoGO58Gf6VXxPaacKfrhZ4/edit#gid=0. Add these tables as attachments. Use the space below for any additional comments on program funding.*

    Program Financial Five-Year Plan: see Appendix E.

IMPLICATIONS FOR THE STATE (ADDITIONAL INFORMATION REQUIRED BY MHEC AND THE BOARD OF REGENTS)

21. *Explain how there is a compelling regional or statewide need for the program. Argument for need may be based on the need for the advancement of knowledge and/or societal needs, including the need for*

"expanding educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education." Also, explain how need is consistent with the Maryland State Plan for Postsecondary Education. http://mhec.maryland.gov/institutions_training/Documents/acadaff/acadproginstitapprovals/MHECStatePlan_2014.pdf

Since the proposed program will continue a program that already exists, the logic of our response here begins with the fact that the existing program has already been successfully serving students since 2012. The fact that well over 90% of the program's domestic graduates find employment in the field strongly suggests that the program is serving exactly the function that one would hope from a professional master's degree program.

The Washington, DC location targets working professionals with day jobs downtown. Approximately half of the students in each of the first 2 College Park cohorts have been international students on F-1 visas, sponsored by the University of Maryland. The other students in College Park have been domestic students who simply prefer the College Park location, often because of proximity to where they live.

The impetus for the current proposal is to permit the program to have an appropriate CIP code, which would carry a STEM designation. While this would be of specific benefit to the international graduates of the program, it also brings benefits to the area organizations in which the graduates intern, as well as to the domestic students in the program by increasing the diversity of the student body enrolled in the program.

22. *Present data and analysis projecting market demand and the availability of openings in a job market to be served by the new program. Possible sources of information include industry or disciplinary studies on job market, the USBLS Occupational Outlook Handbook https://www.bls.gov/ooh/ , or Maryland state Occupational and Industry Projections http://www.dllr.state.md.us/lmi/iandoproj/ over the next five years. Also, provide information on the existing supply of graduates in similar programs in the state (use MHEC's Office of Research and Policy Analysis webpage http://mhec.maryland.gov/publications/Pages/research/index.aspx for Annual Reports on Enrollment by Program) and discuss how future demand for graduates will exceed the existing supply. As part of this analysis, indicate the anticipated number of students your program will graduate per year at steady state.*

OES has researched the existing supply of graduates in similar programs & using the #'s provided in the budget, have anticipated number of students in proposed program who will graduate.

Domestic students have been graduating from the Washington, DC location of this program since December of 2013. In May of 2018, we also had the first cohort of graduates from the College Park version of the program, which included 8 international students.

Below is the complete list of employers for the 26 employed domestic graduates from the May 2018 graduating class:

Capital One, Financial Industry Regulatory Authority, Gartner, Inc., ISS Governance, Mathematica Policy Research, Northern Virginia Regional Intelligence Center, Office of US Senator Joe Donnelly (D-IN), Regional Economic Studies Institute at Towson University, Resources for the Future, Results for Development, Roosevelt Institute, Service Employees International Union (SEIU), Share Our Strength, US Army, US Bureau of Labor Statistics, US Bureau of the Census (2), US Coast Guard, US Congress, US Department of Agriculture, US Department of Homeland Security, Viget, Wells Fargo, Westat, and Western Union Business Solutions.

23. *Identify similar programs in the state. Discuss any differences between the proposed program and existing programs. Explain how your program will not result in an unreasonable duplication of an existing program (you can base this argument on program differences or market demand for graduates). The MHEC website can be used to find academic programs operating in the state: http://mhec.maryland.gov/institutions_training/pages/HEPrograms.aspx.*

Johns Hopkins University offers a Master of Science in Applied Economics. Our current MPS program in Applied Economics has co-existed with Johns Hopkins' MS in Applied Economics program since the fall of 2012. The demand for this curriculum, along with the complementary geographical reach of the two programs, argues against any unreasonable duplication.

24. *Discuss the possible impact on Historically Black Institutions (HBIs) in the state. Will the program affect any existing programs at Maryland HBIs? Will the program impact the uniqueness or identity of a Maryland HBI?*

    Morgan State University offers a Master of Arts in Economics through its College of Liberal Arts. As with the MS in Applied Economics at Johns Hopkins, the market demand and complementary geographical reach suggest that our curriculum is not in competition with Morgan State's program. The only effect that we anticipate from converting this curriculum from a Master of Professional Studies iteration to a standalone MS degree program would be to enhance the internship opportunities available to international students and graduates of our program.

25. *For new Post-Baccalaureate Certificates derived from existing master's programs only, include the complete curriculum of the existing master's program.*

    Not applicable.

APPENDIX A: COURSE CATALOG INFORMATION

ECON641 Microeconomic Analysis. 3 credits. Prerequisite: Admission to the Master of Science in Applied Economics. This course covers microeconomic analysis applied to public policy problems with an emphasis on practical examples and how they illustrate microeconomic theories. Policy issues such as pollution, welfare and income distribution, market design, industry regulation, price controls, tax policy, and health insurance are used to illustrate the abstract principles of microeconomics.

ECON642 Topics in Applied Macroeconomics. 3 credits. Prerequisite: Admission to the Master of Science in Applied Economics. In this course, focus is on applied macroeconomic models used by federal agencies to explain and predict economic behavior. Course emphasizes macroeconomic data: NIPA accounts, GDP, construction and application of CPI, labor force data, and economic indicators. Students will also study a selected set of current macroeconomic topics including models of economic growth, economic fluctuations, monetary policy, the Great Recession, inflation, and financial markets.

ECON643 Empirical Analysis I: Foundations of Empirical Research. 3 credits. Prerequisite: Admission to the Master of Science in Applied Economics. Fundamental aspects of data management and interpretation emphasizing sampling, descriptive statistics, index numbers and construction of aggregated variables. Students will learn basic probability theory and statistics. The course will include an introduction to simple regression analysis using STATA statistical software.

ECON644 Empirical Analysis II: Introduction to Economic Models. 3 credits. Prerequisite: ECON 643. An introduction to econometric methods with applications to public policy analysis. Primary focus on application and interpretation of multiple regression analysis.

ECON645 Empirical Analysis III: Econometric Modeling and Forecasting. 3 credits. Prerequisite: ECON 644. Refinements and generalizations of multiple regression analysis. Topics can include: panel data methods, instrumental variables, quasi-experimental methods, time series analysis, limited dependent variables, and sample selection corrections.

ECON670 Financial Economics. 3 credits. Prerequisite: ECON 641 and ECON 644 (can be taken concurrently with ECON 644). This course applies microeconomic theory and applied econometric techniques to the study of financial institutions and markets for financial assets. Students will learn how economists model and estimate the value of financial assets. The economic and empirical models are of interest to public policy makers and private wealth managers. Specific topics can include financial intermediation, the regulation of financial institutions, risk management, portfolio theory, the capital asset pricing model and the efficient markets hypothesis.

ECON671 Economics of Health Care. 3 credits. Prerequisite: ECON 641 and ECON 645 (can be taken concurrently with ECON 645). This course is an examination of the structure, conduct, and performance of the health care market including physician services, the pharmaceutical industry, the hospital market, and health insurance using quantitative and analytic economic tools. Special emphasis is on regulatory response to market imperfections.

ECON672 Program Analysis and Evaluation. 3 credits. Prerequisite: ECON 641 and ECON 645. This course examines various methods of program evaluation including randomized and nonrandomized (retrospective)

evaluations. The focus is on evaluation design and implementation including needs assessment, process evaluation, and cost benefit analysis.

ECON673 Information, Game Theory and Market Design. 3 credits. Prerequisite: ECON 641 and ECON 644 (can be taken concurrently with ECON 644). This course focuses on strategic decision-making and the theory and practice of market design. Topics include experimental economics, spectrum auctions, labor markets, electricity markets, and environmental auctions.

ECON674 Economic Analysis of Law. 3 credits. Prerequisite: ECON 641 and ECON 644 (can be taken concurrently with ECON 644). This course applies microeconomic theory to the analysis of legal rules and institutions. Topics include property rights, externalities, contract theory, bargain theory, remedies, industrial organization, patents, damages, and antitrust.

ECON675 Environmental Economics. 3 credits. Prerequisite: ECON 641 and ECON 645 (can be taken concurrently with ECON 645). This course develops a framework for an economic assessment of environmental problems and policy design with respect to market failures and the valuation of environmental resources. Focus is on policy issues, economic incentives, and instruments and valuation of nonmarket goods.

ECON676 Economic Development. 3 credits. Prerequisite: ECON 641, ECON642 and ECON 644 (can be taken concurrently with ECON 644). The course will focus on the consequences of poverty and poor institutions for the behavior and welfare of individuals, households, firms and the aggregate economy in developing countries. Theoretical models and empirical evidence will be used to understand the intended and unintended consequences of policies designed to enhance economic development.

ECON683 International Macroeconomics and Finance. 3 credits. Prerequisite: ECON 642 and ECON 644 (can be taken concurrently with ECON 644). Economic analysis of international macroeconomic issues and policy. Topics can include the study of exchange rates, balance of payments, international financial markets, international business cycles, contagion, and the roles played by international economic institutions.

ECON684 Applied Time Series Analysis and Forecasting. 3 credits. Prerequisite: ECON 642 and ECON 645. Students will learn the theory of stationary processes and how it applied to econometric techniques for estimation and forecasting based on time series data. The techniques will be applied in macroeconomic, financial and business applications.

APPENDIX B: ASSESSMENT OF LEARNING OUTCOMES

When the current MPS program was proposed and approved in 2011, the following items were proposed and approved as Learning Outcomes Assessments:

Assessment Measures

1. Survey of Graduates

Graduates of the program will be asked to complete a survey to address the relevance of the program's course material to their current professional activities. Respondents will be asked to describe the value of the course material in providing quantitative tools for policy analysis. Surveys will be distributed at the time of graduation and one year after graduation to assess program relevance to current and potential employment opportunities.

2. Exit Interview

Graduates will be asked to participate in an exit interview designed to assess the value of the program, the relevance of the course material, and the effectiveness of instructors.

3. Advisory Group

An advisory group has been established to review the results of the assessment methods and, based on examination results and graduate responses, offer changes to continually refine and improve the degree program. The advisory group includes the Department of Economics Chair, Director of Graduate Studies, and Director of the Master's Program.

Since 2011, our Learning Outcomes Assessment practice requires instructors to assess students during their final term in the program. The assessments were along dimensions that match our program's six Learning Outcomes. We have also converted the Exit Interview into a non-anonymous Exit Survey, administered via email, so that we may better track the employment opportunities of our graduates.

The College of Behavioral and Social Sciences is currently working on comprehensive updates of the Learning Outcomes Assessment Plans for all of the college's professional master's degree programs.

The new Learning Outcomes Assessment plan for our program relies partly on performance on an independent 3rd party exam. The 3rd party is the National Association of Business Economics (NABE). The NABE is a professional organization for people who apply economics in business settings. The NABE offers a Certified Business Economist (CBE) credential for professional economists. Economists can take CBE prep courses from the NABE to prepare for the CBE exam, but the NABE also partners with academic programs that offer relevant curricula. We have recently entered a partnership with the NABE, whereby students who have completed certain courses in our program would be able to take the NABE's CBE exam without taking NABE's own courses, and with a discounted exam fee. Students who take the CBE exam may also share their exam score results with our program, so that we may use the exam score data for Learning Outcome Assessment purposes. Data on our students' performance on the NABE's CBE exam will provide a good basis for assessing learning outcomes 1-4.

To assess outcomes 5 and 6, we ask instructors in two of our courses to provide assessments based on student presentations. One of the courses (ECON 643) is taken in students' first term. The other (ECON 672) is taken in students' final term. Data from faculty assessments in these two courses provides a good basis for assessing students' abilities to interpret and communicate economic models to a wider audience, and to measure and evaluate the effectiveness of policy programs using sound econometric techniques.

APPENDIX C: PROGRAM FACULTY

UMD MASTER'S IN APPLIED ECONOMICS – INSTRUCTORS BY COURSE

CORE COURSES – ALL STUDENTS TAKE ECON 641-ECON 645

ECON641 Microeconomic Analysis

Aaron Finkle
Full-time Lecturer, UMCP
Ph.D., Economics, University of Washington–Seattle, 2004
To teach ECON 641 on an overload in CP every fall and in DC every spring.
Terms taught previously in our program:
Fall 2016, 2017, 2018 (College Park), Spring 2018 (DC)

Richard Stahnke
Full-time Lecturer, UMCP
Ph.D., Economics, Columbia, 1999
To teach 2nd section of ECON 641 in College Park as necessary in the fall.
Also teaches ECON 670 in College Park in the spring.
Terms taught previously in our program:
Spring 2018 (ECON 670 in College Park)
Fall 2018 (ECON 641 in College Park)

Maksim Belenkiy
International Economist, US Department of Commerce, International Trade Administration
Adjunct lecturer, UMCP
Ph.D., Economics, University of California, Santa Cruz, 2010
To teach ECON 641 in DC every fall.
Also teaches ECON 644 every summer.
Can also teach ECON 677 (proposed) in future spring terms.
Terms taught previously in our program:
Every summer since 2013 (ECON 644 in DC)
Fall of 2018 (ECON 641 in DC)

ECON642 Topics in Applied Macroeconomics

Mike Barry
Associate Professor of Economics and Law, Mount St. Mary's University
Adjunct Lecturer, UMCP
Ph.D., Economics, University of Wisconsin-Milwaukee, 1998
To teach ECON 642 in CP every fall.
Also to teach ECON 674 in CP every spring.
Terms taught previously in our program:
Fall 2016, 2017, 2018 (ECON 642 in College Park)
Spring 2017, 2018 (ECON 674 in College Park)
Also ECON 684 in the Spring of 2018 in College Park

Aditya Aladangady
Economist, Federal Reserve Board of Governors
Adjunct Lecturer, UMCP
Ph.D., Economics, University of Michigan, 2014
To teach ECON 642 every winter in DC.
Terms taught previously in our program:
Summer 2017, Winter 2017/18

Cynthia Doniger
Economist, Federal Reserve Board of Governors
Adjunct Lecturer, UMCP
Ph.D., Economics, University of Michigan, 2014
To teach ECON 642 every summer in DC.
Terms taught previously in our program:
Summer 2018

ECON643 Empirical Analysis I: Foundations of Empirical Research

John Straub
Full-time Lecturer, UMCP
Executive Director, Master's Degree Program in Applied Economics, UMCP
Ph.D., Economics, University of Wisconsin-Madison, 2001
To teach ECON 643 in CP every fall, and in DC every spring.
Terms taught previously in our program:
Fall 2014, Spring 2015, Fall 2015, Spring 2016 (ECON 641 in DC)
Fall 2016, 2017, 2018 (ECON 643 in College Park)
Spring 2017, 2018 (ECON 643 in DC)

Marina Miller
Principal Analyst, Congressional Budget Office
Adjunct Lecturer, UMCP
Ph.D., Economics, University of California–San Diego, 2015
To teach ECON 643 every fall in DC.
Terms taught previously in our program:
Fall 2018

ECON644 Empirical Analysis II: Introduction to Economic Models

Hossein Abassi
Full-time Lecturer, UMCP
University of Illinois at Urbana-Champaign, 2009
To teach ECON 644 every spring in CP.
Terms taught previously in our program:
Spring 2018

Maksim Belenkiy
International Economist, US Department of Commerce, International Trade Administration
Adjunct lecturer, UMCP
Ph.D., Economics, University of California, Santa Cruz, 2010
To teach ECON 644 in DC every summer.
Also to teach ECON 641 in DC every fall.
Can also teach ECON 677 (proposed) in future spring terms.
Terms taught previously in our program:
Every summer since 2013 (ECON 644 in DC)
Fall of 2018 (ECON 641 in DC)

Razvan Vlaicu
Senior Research Economist, Inter-American Development Bank
Adjunct lecturer, UMCP
Ph.D., Economics, Northwestern University, 2006
To teach ECON 644 in DC every winter.
Terms taught previously in our program:
Every winter since 2015/16 (ECON 644 in DC)
(Was an assistant professor in UMCP Department of Economics from Aug 2006 – June 2014.)

ECON645 Empirical Analysis III: Econometric Modeling and Forecasting

Marquise McGraw
Economist, US Consumer Financial Protection Bureau
Adjunct Lecturer, UMCP
Ph.D., Economics, University of California–Berkeley, 2015
To teach ECON 645 every spring in College Park.
Terms taught previously in our program:
Spring 2018

Cristina Tello-Trillo
Economist, US Bureau of the Census
Adjunct Lecturer, UMCP
Ph.D., Economics, Yale, 2015
To teach ECON 645 every fall and spring in DC
Can also teach ECON 677 (proposed) in the fall and/or spring
Terms taught previously in our program:
Every fall and spring since the spring of 2016.

Shanthi Ramnath
Financial Economist, US Department of the Treasury
Adjunct Lecturer, UMCP
Ph.D., Economics, University of Michigan-Ann Arbor, 2010
Teaching ECON 645 in the fall of 2018 (maternity leave for Cristina Tello Trillo)
Also qualified to teach ECON 672 and/or ECON 643 in the future as needed.
Terms taught previously in our program:
Fall 2018

FIELD COURSES – STUDENTS CHOSE 5 FROM THE FOLLOWING (670-684):

ECON670 Financial Economics

Richard Stahnke
Full-time Lecturer, UMCP
Ph.D., Economics, Columbia, 1999
To teach ECON 670 in College Park every spring.
Also teaches 2nd section of ECON 641 in College Park as necessary in the fall.
Terms taught previously in our program:
Spring 2018 (ECON 670 in College Park)
Fall 2018 (ECON 641 in College Park)

Lubomir Petrasek
Principal Economist, Federal Reserve Board of Governors
Adjunct lecturer, UMCP
Ph.D., Finance, Penn State University, 2011
To teach ECON 670 in DC in the fall and/or spring.
Terms taught previously in our program:
Fall 2017, Spring 2018, Fall 2018

ECON671 Economics of Health Care

Nathan Petek
Economist, Federal Trade Commission
Adjunct Lecturer, UMCP
Ph.D., Business, University of Chicago, Booth School of Business, 2016
To teach ECON 671 in the fall in College Park and/or in the summer in DC.
Terms taught previously in our program:
Fall 2018 in College Park

Patrick Richard
Assistant Professor of Health Economics
Uniformed Services University of the Health Sciences
Adjunct Lecturer, UMCP
Ph.D., Health Economics, Johns Hopkins University, 2007
To teach ECON 671 in the summer in DC.
Terms taught previously in our program:
Spring of 2014 and 2015
Every summer since 2016, and the winter of 2016/17

ECON672 Program Analysis and Evaluation

Misty Heggeness
Chief, Longitudinal Research, Evaluation, and Outreach Branch, U.S. Census Bureau
Adjunct Lecturer, UMCP

Ph.D. Applied Economics, University of Minnesota, 2010
To teach ECON 672 every spring in College Park
Terms taught previously in our program:
Spring 2018 in College Park

Joanne Hsu
Senior Economist, Board of Governors of the Federal Reserve
Adjunct Lecturer, UMCP
Ph.D., Economics, University of Michigan-Ann Arbor, 2011
To teach ECON 672 every summer in DC
Terms taught previously in our program:
Summer 2017, Winter 2017/18

Ryan Nunn
Fellow, Economic Studies Program, Brookings Institution
Adjunct Lecturer, UMCP
Ph.D., Economics, University of Michigan-Ann Arbor, 2012
To teach ECON 672 every winter in DC
Terms taught previously in our program:
Winter of 2015/16, Summer of 2016, Summer of 2018

ECON673 Information, Game Theory and Market Design

David Ovadia
Economist, Federal Trade Commission
Adjunct Lecturer, UMPC
Ph.D., Economics, Northwestern University, 2015
To teach ECON 673 every spring in College Park, and every fall in DC.
Terms taught previously in our program:
Fall 2017 (DC), Spring 2018 (CP), Fall 2018 (DC)

ECON674 Economic Analysis of Law

Mike Barry
Associate Professor of Economics and Law, Mount St. Mary's University
Adjunct Lecturer, UMCP
Ph.D., Economics, University of Wisconsin-Milwaukee, 1998
To teach ECON 674 in CP every spring.
Also to teach ECON 642 in CP every fall.
Terms taught previously in our program:
Fall 2016, 2017, 2018 (ECON 642 in College Park)
Spring 2017, 2018 (ECON 674 in College Park)
Also ECON 684 in the Spring of 2018 in College Park

David Burk
Economist, Congressional Budget Office

Adjunct Lecturer, UMCP
Ph.D., Economics, University of Chicago, 2014
To teach ECON 674 in DC every fall.
Also to teach ECON 684 every spring in College Park and some summers in DC.
Terms taught previously in our program:
ECON 674: Fall 2016, Spring 2018 (DC)
ECON 684: Winter 2016/17, Winter 2017/18 (DC)

ECON675 Environmental Economics

Hong Kim
Labor Economist, US Department of Labor
Adjunct Lecturer, UMCP
Ph.D., Applied and Resource Economics, University of California-Davis, 1994
To teach ECON 675 every fall in College Park
Terms taught previously in our program:
Fall 2017, Fall 2018

Charles Griffiths
Research Economists at the US Environmental Protection Agency
Adjunct Lecturer, UMCP
Ph.D., Economics, UMCP, 1997
To teach ECON 675 every winter in DC (co-instructor with Chris Dockins)
Terms taught previously in our program:
Fall 2013, Fall 2014, Spring 2015, every Winter since 2016/17

Chris Dockins
Senior Economists at the US Environmental Protection Agency
Adjunct Lecturer, UMCP
Ph.D., Economics, Duke, 1996
To teach ECON 675 every winter in DC (co-instructor with Charles Griffiths)
Terms taught previously in our program:
Fall 2013, Fall 2014, Spring 2015, every Winter since 2016/17

ECON676 Economic Development

Oscar Mitnik
Principal Economist, Inter-American Development Bank
Adjunct Lecturer, UMPC
Ph.D., Economics, University of California–Los Angeles, 2004
To teach ECON 676 every fall in DC (co-instructor with Jonathan Rose)
Terms previously taught in our program:
Fall 2018

Jonathan Rose
Lead Economics Specialist, Inter-American Development Bank

Adjunct Lecturer, UMPC
Ph.D., Economics, University of Iowa, 2001
To teach ECON 676 every fall in DC (co-instructor with Oscar Mitnik)
Terms previously taught in our program:
Fall 2018

Currently interviewing candidates to teach ECON 676 in College Park

ECON677 International Trade (Proposed)

Cristina Tello-Trillo
Economist, US Bureau of the Census
Adjunct Lecturer, UMCP
Ph.D., Economics, Yale, 2015
To teach ECON 645 every fall and spring in DC
Can also teach ECON 677 (proposed) in the fall and/or spring
Terms taught previously in our program:
Every fall and spring since the spring of 2016.

Maksim Belenkiy
International Economist, US Department of Commerce, International Trade Administration
Adjunct lecturer, UMCP
Ph.D., Economics, University of California, Santa Cruz, 2010
To teach ECON 644 in DC every summer.
Also to teach ECON 641 in DC every fall.
Can also teach ECON 677 (proposed) in future spring terms.
Terms taught previously in our program:
Every summer since 2013 (ECON 644 in DC)
Fall of 2018 (ECON 641 in DC)

ECON 677 instructor in College Park to be determined.

ECON683 International Macroeconomics and Finance

Mahsa Gholizadeh
Economist, US Bureau of Economic Analysis
Adjunct Lecturer, UMCP
Ph.D., Economics, American University, 2015
To teach ECON 683 every fall in College Park and every spring in DC.
Terms taught previously in our program:
Fall 2017 and 2018 in College Park
Spring 2018 in DC

ECON684 Applied Time Series Analysis and Forecasting

David Burk
Economist, Congressional Budget Office
Adjunct Lecturer, UMCP
Ph.D., Economics, University of Chicago, 2014
To teach ECON 684 every spring in College Park and some summers in DC.
Also to teach ECON 674 in DC every fall.
Terms taught previously in our program:
ECON 674: Fall 2016, Spring 2018 (DC)
ECON 684: Winter 2016/17, Winter 2017/18 (DC)

Thiago Ferreira
Economist, Board of Governors of the Federal Reserve
Adjunct Lecturer, UMCP
Ph.D., Economics, Northwestern University, 2014
To teach ECON 684 in the summer and/or winter in DC.
Terms taught previously in our program:
Summers of 2017 and 2018

Library Assessment
DATE: February 11, 2011
TO: Stephanie C. McKissic, Program Manager Office of Extended Studies
FROM: Zaida Díaz and Lily Griner Business, Economics and Agricultural Economics Librarians; Geraldine Foudy, Manager of Collections and Scholarly Communication; Dr. Desider Vikor, Director for Collection Management and Special Collections
RE: Library Collection Assessment

We are providing this assessment in response to the Master of Professional Studies in Applied Economics degree proposal by the Office of Extended Studies, working with the Department of Economics. This library assessment has been requested to evaluate the ability of the UM Libraries to support this new Master program. The University of Maryland Library already has an established background in providing bibliographic support for researchers and professionals in the related academic disciplines, i.e., Business, Economics as well as Agricultural & Resource Economics. We feel that the University of Maryland Libraries' collections provide a strong base and continued growth to support adequately the curricular and research needs of this newly-proposed Master program.

The Collection: Books
Relevant books in the Libraries' collections appear to be substantial in number, as reflected in the catalog search title results below:
Economic models – 1218; Economic theory – 918; Economic statistics – 1616; Econometrics – 543; Economic data – 116; Economics-decision making – 122; Economics- statistical methods – 92; Economics policy – 1743; Economic forecasting – 1196

The Collection: Serials
A search was performed in *Journal Citations Reports* 2009, a database that uses citation data to rank and determine the impact factor of journals in an academic field. To support the proposed degree access is available at the present time to the following ranked journals:

- Quarterly Journal of Economics Journal of Economic Literature
- Journal of Economic Perspectives.
- Econometrica Journal of
- Economic Growth Journal of Financial Economics
- Applied Economics Applied Economics
- Letters Economic Policy
- Economic Modeling International Journal of Forecasting

The Collection: Electronic Resources
The UM Libraries subscribe and/or have access to the following significant databases that will support the master's program:
Article Databases: AgEcon Search, Berkeley Electronic Press, Business Source Complete, EconLit, Economist Historical Archive (1843-2006), Factiva, JSTOR, NBER Working Papers Online, RePEc/EconPaper, ScienceDirect, Wall Street Journal Historical (1889-1992).

Reference, eBooks and Others: Conference Board, EIU Viewswire, EIU Country Commerce, EIU Country Finance, Digital Dissertations, Encyclopedia of Business and Finance, Gale Encyclopedia of U.S. Economic History, Goldsmiths-Kress Library of Economic Literature Handbooks in Economics, New Palgrave Dictionary of Economics, OECDiLibrary, Oxford Encyclopedia of Economic History, Sage Reference Collection, SourceOECD, Springer eBooks, Worldmark encyclopedia of national economies

Data Sources: Balance of Payment Statistics, Bloomberg, CRSP, Country at a Glance Tables (World Bank), Country Data (PRS Group), Datastream, EIU Viewswire, FRED: Federal Reserve Economic Data, DataInsight Web, Gartner Group, Global Development Finance (World Bank), Global Economic Monitor (World Bank), Historical Statistics of the United States, International Comparison Program, International Financial Statistics (IMF), IHS/Global Insight, Joint External Debt Hub (Joint BIS-IMF-OECD-WB Statistics), Lexis/Nexis Datasets, Reuters 3000 Xtra, Social Science Research Network, Wharton Data Research Services (WRDS), World Economic Outlook, World Development Indicators Online.

Interlibrary Loan

When resources are not part of our holdings within the sixteen University System of Maryland and Affiliated Institutions (USMAI) libraries, the Interlibrary Loan Office can obtain monographs, journal articles, dissertations, government documents and technical reports at no charge to the student or faculty.

Conclusion

Our assessment is, therefore, that the University of Maryland Libraries are able to support the courses that constitute the proposed Master of Professional Studies in Applied Economics degree.

APPENDIX E: FIVE-YEAR BUDGET

Budget: MS in Applied Economics					
Estimated Program Revenue & Support	Year 1	Year 2	Year 3	Year 4	Year 5
I. Total Tuition Revenue	**$1,040,000**	**$1,615,640**	**$1,820,874**	**$2,039,941**	**$2,273,620**
A. Semester-Based Revenue (by year)	**$390,000**	**$716,560**	**$815,526**	**$921,264**	**$1,034,155**
Subtotal: Semester-based, Students	20	42	46	50	54
1a. Semester-based: Student Enrollment, 1st Year	20	22	24	26	28
1b. Semester-based: Student Enrollment, 2nd Year		20	22	24	26
Subtotal: Semester-based, Courses	6	10	10	10	10
1a. Semester-based: Courses, 1st Year	6	6	6	6	6
1b. Semester-based: Courses, 2nd Year		4	4	4	4
B. Term-Based Revenue (by year)	**$650,000**	**$899,080**	**$1,005,347**	**$1,118,677**	**$1,239,465**
Subtotal: Term-based, Students	25	52	56	60	64
2a. Term-based: Student Enrollment 1st Year	25	27	29	31	33
2b. Term-based: Student Enrollment 2nd Year		25	27	29	31
Subtotal: Term-based, Courses	8	10	10	10	10
2a. Term-based: Courses, 1st Year	8	8	8	8	8
2b. Term-based: Courses, 2nd Year		2	2	2	2
C. Tuition Per Course Rate; Assumes 4% increase	**$3,250**	**$3,380**	**$3,515**	**$3,656**	**$3,802**
II. Other Support	$0	$0	$0	$0	$0
A. Dean Support					
B. Department Support					
C. Other program support (grant/vendor)					
Total Estimated Program Revenue & Support	**$1,040,000**	**$1,615,640**	**$1,820,874**	**$2,039,941**	**$2,273,620**
Estimated Program Expenses	Year 1	Year 2	Year 3	Year 4	Year 5
I. Total Instructional & Academic Administration	**$407,015**	**$438,299**	**$451,448**	**$464,991**	**$478,941**
A. Instructional Totals	**$111,106**	**$133,512**	**$137,518**	**$141,643**	**$145,893**
1. Instructor salary (assumes a 3% annual increase)	8,573	8,830	9,095	9,368	9,649
2. Total instructors per year	12	14	14	14	14
Subtotal: Semester-based, Instructors	5	9	9	9	9
1a. Semester-based: Instructors, 1st Year	5	5	5	5	5
1b. Semester-based: Instructors, 2nd Year		4	4	4	4
Subtotal: Term-based, Instructors	7	9	9	9	9
2a. Term-based: Instructors, 1st Year	7	7	7	7	7
2b. Term-based: Instructors, 2nd Year		2	2	2	2
3. Instructional Benefits: Total FICA (8%)	8,230	9,890	10,187	10,492	10,807

B. Academic Administration Totals	**$295,909**	**$304,786**	**$313,930**	**$323,348**	**$333,048**
1. Administrative Salaries (assumes 3% increase): Totals	223,007	229,697	236,588	243,686	250,996
a. Academic Director (responsible for teaching 2 courses)	129,007	132,877	136,864	140,969	145,199
b1.Semester-based: Academic Coordinator	26,000	26,780	27,583	28,411	29,263
b2.Semester-based: Graduate Assistant	21,000	21,630	22,279	22,947	23,636
c1.Term-based: Academic Coordinator	26,000	26,780	27,583	28,411	29,263
c2.Term-based: Graduate Assistant	21,000	21,630	22,279	22,947	23,636
2. Administrative Benefits (30%): Totals	66,902	68,909	70,976	73,106	75,299
3. Other Labor: Totals	6,000	6,180	6,365	6,556	6,753
a. Semester-based: Graders	3,000	3,090	3,183	3,278	3,377
b. Term-based: Graders	3,000	3,090	3,183	3,278	3,377
II. Materials & Supplies	**$9,000**	**$18,800**	**$20,400**	**$22,000**	**$23,600**
A. Cost per course (estimated)	$10	$10	$10	$10	$10
B. Total number of courses (semester- & term-based)	20	20	20	20	20
C. Total number of students (semester- & term-based)	45	94	102	110	118
III. Marketing	**$15,000**	**$15,000**	**$15,000**	**$15,000**	**$15,000**
A. Marketing ($15,000 per year minimum)	15,000	15,000	15,000	15,000	15,000
IV. Equipment	**$2,800**	**$2,800**	**$2,800**	**$2,800**	**$2,800**
A. Computer-related (laptops, tablets)	2,000	2,000	2,000	2,000	2,000
B. Other Devices (printer, scanner, projectors, etc.)	800	800	800	800	800
V. Space Rental	**$138,960**	**$143,129**	**$147,423**	**$151,845**	**$156,401**
A. 1400 16th Street, NW, WDC (per year for term-based)	138,960	143,129	147,423	151,845	156,401
VI. Other Operational Expenses (2% annual increase)	**$6,450**	**$153**	**$156**	**$159**	**$162**
A. Travel (for recruitment)	150	153	156	159	162
B. Business Meals	1,800	1,836	1,873	1,910	1,948
C. Phone & Internet	3,500	3,570	3,641	3,714	3,789
D. Other	1,000	1,020	1,040	1,061	1,082
Total Estimated Program Expenses	**$579,225**	**$618,181**	**$637,227**	**$656,796**	**$676,904**
Total Estimated Program Revenue & Support	**$1,040,000**	**$1,615,640**	**$1,820,874**	**$2,039,941**	**$2,273,620**
Total Estimated Program Expenses	**$579,225**	**$618,181**	**$637,227**	**$656,796**	**$676,904**
Net Revenue	**$460,775**	**$997,459**	**$1,183,647**	**$1,383,145**	**$1,596,716**

PREFACE: Conversion of the MPS iteration to a Standalone Degree Program

The Master of Professional Studies (MPS) program was approved in 2005 by the University System of Maryland (USM) Board of Regents (BOR) and Maryland Higher Education Commission (MHEC) to allow for the expedited approval of curricula that respond to changing market needs of working professionals. New iterations within the MPS only need approval by the USM Chancellor after they have been approved through campus review. Technically, students receive their master's degree (or graduate certificate) in Professional Studies. The actual program focus (for example, Applied Economics) also appears on the transcript and diploma, but as a concentration rather than the actual degree program. Because of this structure, though, all Master of Professional Studies iterations carry the same Department of Education's Classification of Instructional Program (CIP) taxonomy code of 30.9999, "Multi-/Interdisciplinary Studies, Other". The CIP code is linked to the top-level credential.

While tracks within the MPS have the benefit of an expedited approval process, the common CIP code presents some disadvantages. Searches that use CIP code to find program offerings will not find the discipline-specific iteration, which reduces market visibility. Moreover, some CIP codes are designated as "STEM" eligible by the Department of Homeland Security, and international students with F1 visas who graduate from STEM designated programs may continue to work in the United States for two years longer than students in non-STEM designated programs. The generic CIP code for Professional Studies programs does not qualify as STEM-designated, even if the academic content of the Professional Studies program would qualify.

For MPS iterations that have demonstrated stable market interest and that have appropriate "STEM"-identified content, it is of interest to pull them out from underneath the MPS umbrella and create a standalone version. Creation of a standalone degree program requires approval by the USM Board of Regents and by MHEC.