

Comprehensive Program Review (2020)
Risk Management and Insurance
Georgia State University
July 2020

The following programs are critical to the institutional mission and thus MEET the institution's criteria for retention

Bachelor of Business Administration with a major in Risk Management and Insurance (52170105)

This undergraduate program teaches students about key issues in risk management and insurance, and prepares them for employment within the risk management and insurance sectors. Program enrollment (including pre-BBA students) is up nearly 50 percent from five years ago (from 103 to 149), and we attribute this growth and viability to strong advising and instruction which prepares these students for and connects them to the insurance industry's strong labor market. Relates to Action Item B.ii (attract faculty to teach courses on role of new technology in insurance markets). See appendix.

Bachelor of Business Administration with a major in Actuarial Science (52130400)

Actuaries employ mathematics and statistics in modeling the financial impacts of risk and uncertainty in various sectors of the economy, and in design solutions to manage risk. This undergraduate program educates students in the fundamentals of theory and practice in actuarial science, and aims to prepare them to pass exams needed to enter the actuarial profession. While the program remains viable, program enrollment (including pre-BBA students) is down slightly from five years ago (from 225 to 186). Planned measures to improve student success and enrollment in this program are the focus of Action Item E. See appendix.

Master of Actuarial Science (52120400)

Actuaries employ mathematics and statistics in modeling the financial impacts of risk and uncertainty in various sectors of the economy, and in design solutions to manage risk. This graduate program educates students in the advanced theory and practice of actuarial science. Enrollment has fallen by more than a third from five years ago (from 74 to 46), but remains viable given synergies with our MQRAM program. The department aims to capitalize on its number one ranking among North American business schools in actuarial science research to increase enrollment. Additional planned measures to modernize the curriculum and to increase enrollment are the focus of Action Item D. See appendix.

Master of Science with a major in Mathematical Risk Management (27030501)

(now Master of Quantitative Analysis and Management). This program provides students with a solid understanding of the application of mathematics in economics and finance to address contemporary risk management issues. Emphasis is placed on the diagnosis, analysis, pricing and customization of solutions to risk management problems, broadly defined to include both financial and operational risk exposures. The program is designed to prepare students for analytical and technical positions within financial institutions, risk management advisory organizations, and the treasury departments of non-financial corporations. Enrollment has fallen by half from five years ago (from 47 to 23), but remains viable given synergies with our MAS program. Measures to modernize the curriculum and to increase enrollment are the focus of Action Item D. See appendix.


Doctor of Philosophy with a major in Risk Management and Insurance (52170105)

Our doctoral program aims to prepare students to conduct cutting-edge research and become faculty with research in risk management. Program enrollment has stayed constant at approximately one dozen students in recent years (2-3 entering per year) the program has continued to enjoy success in placing its students as faculty at high-quality universities. The program benefits from the high level of research productivity of the faculty (Action Item 1), from the Huebner Foundation for Insurance Education and EAR Scholar PhD Support (Action Item 2). See appendix.

Provost/VPAA Signature and Date _____

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Provost/VPAA's Designee Signature and Date

 7/30/20

Appendix: Risk Management & Insurance: 2019 APR Action Plan

Section 1: Status of Action Plan from Prior Review

There is no action plan available for the 2010 – 2011 APR efforts.

Section 2: Major Findings in Current Review

Based on the Departmental self-study, external reviewer report, APRC report, and feedback from the Dean, the major findings, which will serve as the areas of focus for the coming years, are as follows:

1. **Research quality:** Since the last APR, the Department of Risk Management and Insurance (RMI) has remained the highest nationally ranked department in the Robinson College of Business (ranked #3 in Undergraduate Insurance Education by US News & World Reports and ranked #1 in actuarial science research productivity among North American business schools by the University of Nebraska – Lincoln). Its faculty have remained steadily involved in research and publications, and RMI's various sub-disciplines are each individually strong. For almost all of the metrics on the Academic Analytics Productivity Radar, RMI was substantially above the median of its peer group.
2. **Faculty departures.** The department has had a substantial reduction in the number of tenure-track faculty in recent years (from 16 in Fall 2015 to 8 in Fall 2019), particularly in actuarial science and insurance economics.
3. **Enrollment.**
 - a. The undergraduate actuarial science program has seen modestly declining enrollments over the past five years.
 - b. Masters programs in actuarial science (MAS) and quantitative risk analysis and management (MQRAM) have seen falling enrollments over the past five years.
 - c. The department has had relatively constant Ph.D. student enrollment (approximately 2 entering students per year) but does not have post-doctoral students. The external committee finds this program would benefit from improved computing/data resources.
 - d. RMI has seen increasing enrollment in its undergraduate insurance track, and is adding a legal studies minor.
4. **Market changes.** The departmental self-study report and external review report note that technological changes in insurance and related industries are leading to changes in the skills demanded by employers of RMI graduates (e.g., more quantitative and technical skills).
5. **Affiliated Units and Programs.** The department benefits or could benefit from the existence of several affiliated units. The following affiliated units each contribute to the reputation and effectiveness of the Department's work:
 - a. The Center for the Economic Analysis of Risk (CEAR). CEAR is housed within the Department and supports graduate students and hosts conferences;
 - b. Institute for Insight. Since the last APR, the Robinson College of Business has introduced the Institute for Insight, a new unit devoted to data analysis. This new unit has many potential complementarities with RMI.
6. **Financial Position.** The department has an approximately \$15,000,000 endowment, including funds supporting the department's ten endowed chairs or professorships, five of which are currently unfilled. These resources have come from long-standing engagement with industry and provide support for departmental operations. The department also benefits from

- a. the Huebner Foundation, housed within the department, supporting doctoral education; and,
- b. the GSU Risk Management Foundation (RMF), which supports ongoing fund-raising from the insurance industry.

Section 3: Action Steps for the Coming Cycle

In the coming cycle, RMI will work with the college and university to achieve a number of action steps that follow the major findings enumerated above.

A) (Connects to Findings #2 and #4) Conduct a strategic planning process to identify changes to the risk and Insurance industries and position the department to provide important relevant scholarship and teaching that will attract and retain students, prepare them for employment, appeal to donors, and align with college priorities when this makes sense from a scholarly perspective. This process will identify and clarify the areas related to risk and insurance in which the department wants to focus its hiring, research, and teaching.

- i. Conduct planning process to develop long-term strategic plan. Fall 2019.
- ii. Implement plan recommendations. 2020-2025
- iii. Evaluate and adjust the plan given changes in the marketplace, University initiatives, as well as the scholarly and educational environment. Ongoing

B) (Connects to Findings #1 and #2) RMI will take action to rebuild the TT faculty, following multiple departures since 2015, to maintain the strong research reputation of the department. We will hire faculty who tackle important questions pertaining to insurance markets, reduce entropy within a disciplinarily diverse department by hiring faculty with knowledge of insurance markets at the heart of the department's work, and fill key strategic needs as identified by the external APR committee and the forthcoming departmental strategic planning process. Hiring goals will take into account trends in the insurance industry and research priorities including a move toward empirical work.

(Connects to Finding #6) The department has unfilled endowed positions that can provide financial support for hiring. We aim to add one to two faculty per year over two to three years, including:

- i. Conduct two authorized TT faculty searches in AY 2020, one in actuarial science and one to fill the endowed Distinguished WSIA chair.
- ii. Conduct hiring in subsequent years to fill teaching and research needs identified in the strategic planning process. Funding would come from departmental and college resources. These hires are likely to be in the following areas: the role of new technology and analytic techniques in changing insurance markets; and the use of empirical, analytic techniques in actuarial science and insurance economics.

In filling the positions in (i) and (ii), we aim to create synergies and exploit complementarities with the Institute for Insight, where this makes sense from a scholarly, research perspective. This includes hiring faculty who work on empirical problems related to insurance markets, for whom collaboration with Institute faculty using machine learning methods might be useful.

D) (Connects to Finding #3) RMI will increase student enrollment, particularly graduate enrollment, with curricular changes that attract students and donors by training students for the jobs of the future within insurance and related industries (e.g., the role of new technology in insurance markets, data analytics in actuarial science, management and analysis of risk and insurance data).

- i. Develop a 4+1 program to allow our undergraduate students to stay at GSU for an additional year to seamlessly obtain a master's degree in AY 2020.
 - ii. Continue to work with RCB Marketing and Communications to more effectively bring awareness of RMI's graduate programs strengths to a wider audience.
 - iii. (Connects to Findings #4 and #5.b) Add courses on the role of technology in changing insurance markets and on novel analytic tools in actuarial science and risk management in AY 2020. We will seek synergies with and utilize existing courses and programs within the Institute of Insight to enhance the MAS and MQRAM graduate programs.
- E) (Connect to Finding #3.a) RMI will build programs and make curricular changes that foster undergraduate student success. Program and curricular changes will include leveraging existing courses and student experiential learning curriculum within the RCB Fintech programs. In addition, RMI will focus on improving exam pass rates and employment outcomes for actuarial science students. We expect programmatic changes starting in AY 2020, which aim to improve student experiences and outcomes over the next three years and beyond.
 - i. Update actuarial science curriculum to front-load courses that prepare students for Society of Actuaries exams, so most students have passed at least two exams by graduation.
 - ii. Develop "cram" programs to help students prepare for actuarial exams.
 - iii. Improve actuarial student advising to better coach students toward exam success and skills needed to obtain jobs in actuarial science.
- F) (Connects to Findings #3.c, #5.b and #6.a) RMI will provide more attention and support to graduate programs, in part by leveraging the Huebner Foundation to enhance our PhD program.
 - i. Seek external funding to support a post-doctoral program to improve the technical skills of young insurance scholars or bring knowledge of insurance institutions and research problems to well-trained students from other disciplines. RMI will work with RMF to start ongoing fundraising for post-doctoral program Spring 2020.
 - ii. Provide computing and data resources for graduate students. This investment started in AY 2020 and is ongoing.
- G) (Connects to Finding #6.b) Leverage the Risk Management Foundation (RMF) to raise funds for faculty, program and student support.
 - i. Redesign the role of the RMF director to focus on fundraising in AY 2020.
 - ii. Reach out to RMF supporters to seek funding for the programs identified above over the coming five years.

SECTION 4 – SIGNATURES

Stephen Shore Date: 8/29/19
Stephen Shore, Interim Chair, Department of Risk Management & Insurance

[Signature] Date: 8/29/19.
Richard Phillips, Dean, Robinson College of Business

[Signature] Date: 9/19/19
Wendy Hensel, Provost, Georgia State University