

State of Doctoral Program: Five-Year Review

Committee Members:

Bruce Kogut (Management); Wei Jiang (Finance); Shiva Rajgopal (Accounting); Oded Netzer (Marketing); Mark Broadie (DRO); Paolo Siconolfi (Economics); Malia Mason (Vice Dean for Research)

The 2017 Doctoral Program Review:

The Report submitted by the 2017 Doctoral Program Review Committee can be found [here](#).

The 2022 Process:

The committee was formed and met in the Fall of 2021 and Spring of 2022. It reviewed the charge, had a long conversation about the purpose of the PhD program, and then divided into six sub-committees to address different aspects of the committee charge.

- Student Placement and Progress Issues: Jiang, Rajgopal
- Doctoral Funding: Rajgopal, Siconolfi
- Curriculum, Course Planning, and Qualifying Exams: Jiang, Broadie
- Diversity, Inclusion and Belonging: Siconolfi, Netzer
- The Administration of the Doctoral Program: Kogut, Netzer

The subcommittees held focus group discussions with groups of PhD students. They also met with the divisional faculty PhD coordinators and had a separate meeting with the Director (Elizabeth Elam) and Assistant Director of the PhD Program (Dan Spacher).

In addition, the committee gathered the following data to facilitate their assessment (see Appendix):

- Student Placement and Progress Issues: to assess student progress and to benchmark our student placement against our peers, the committee obtained data from the MS/PhD Office and from our peers' websites
- Doctoral Funding: to the extent possible, via public sites and without violating anti-trust laws, we gathered data from peer schools regarding the packages they offer to students.
- Curriculum, Course Planning, and Qualifying Exams: we collected data for courses offered by the divisions, and as service courses; what courses are offered in peer institutions; evaluated the course portfolios that students take in various divisions.
- Diversity, Inclusion and Belonging: the data used for these analyses were obtained from the MS/PhD Office

In the Fall of 2022, the subcommittees wrote short reports that they presented to the larger committee (see Appendix). The committee met again in February-March to agree on a set of observations and again in May of 2022 to agree on a set of proposals for the doctoral program.

Lastly, the committee also reviewed the [progress of the PhD program against the recommendations made by its predecessor](#) (i.e., the 2017 committee). We discussed which of the missed goals the School should recommit to and how to ensure greater follow through on these goals/recommendations. Setting target dates by which each recommendation should be implemented and identifying persons who are accountable for these changes may increase the likelihood that the School implements these recommendations. We take those steps here. We also suggest a senior-level, career administrator be tasked with helping the Vice Dean for Research implement these goals.

Executive Summary of Recommendations:

Student Placement and Progress

- 1) Annual Reviews
 - Annually by June 1, each student should complete a brief progress report.
 - Annually by July 15, the division should provide written feedback to the students with copy to the Vice Dean for Research and Doctoral office
 - Students who are not “on track” should be counseled explicitly about options
- 2) Progress Tracking
 - Director of the MS/PhD Office should file all student deliverables on a shared drive and log key metrics on a shared spreadsheet by January 15, May 15 and September 15 each year for each student.
- 3) Identifying and Supporting Candidates for Industry Jobs
 - Annual reviews should flag candidates who might be a good fit for industry opportunities and counsel and support them to seek such roles
 - Provide more robust job search support for students seeking those opportunities
- 4) Annual Stipends
 - Raises will be set according to the collective bargaining agreement into the future
- 5) Sixth-Year Funding and support for students in Years 7 and higher
 - The School has ratified a new policy that will provide funding to select high-performing students
 - Students in their seventh year and beyond should apply to have healthcare costs and fees covered by the School.

Curriculum, Course Planning, and Exams

- 6) Students should be informed that they have the option to enroll in the Independent Study course up to four times (totaling 12 credits). This course is an opportunity to get credit for research.
 - This option should be clearly included in program bulletins/handbooks and on the website
- 7) Provide More Student Guidance on Course Sequences and Selection

- Divisions should add a section to their handbook that identifies a sensible course sequence. This list should include CBS courses and relevant courses taught by other schools
 - Where appropriate, they should also suggest tracks for the different sub areas.
- 8) Provide more clarity about Degree Requirements, policies, and courses sequences on the ‘Resources’ section of the PhD sites. The faculty and the doctoral students are unclear on these.
- Each year, the Director of the PhD program should also email all faculty links to these resources and remind them where they can find more information about the PhD program.
- 9) The School should conduct a comprehensive audit of PhD curriculum
- 10) The School should use CourseDog to store more granular data about doctoral courses, capturing items such as; frequency of offering (annually, every 2 years etc.); add comp vs credit for teaching; FT or Adjunct Faculty Preferred, etc.
- 11) Critical courses offerings in the PhD program should have back-up instructors identified in order to make sure that students can meet degree requirements
- 12) Expand the number of “school-wide” Ph.D. course offerings on common subjects such as econometrics, machine learning, and empirical methods.
- Encourage each division to include these new courses on the recommended course sequences
- 13) Maintain Qualifying Exam Integrity
- All faculty should be advised to avoid re-using past exam questions verbatim
 - All qualifying exams that feature close-ended, solution-driven questions should be administered on site (vs. take-home) or should be synchronized and timed (vs. be given a flexible range of time). We also recommend such exams should allow for a minimum of reference material to be consulted (a crib sheet is acceptable, but not unlimited Google search)
 - Divisions should be discouraged from sharing old exams with students. If this is deemed critical, then only one example exam should be used into the future, so that the number of questions available for review is minimized

Diversity in the PhD Program

- 14) Use Pipeline CUBS and Summer Intern Programs to recruit URM Doctoral Students
- Continue to recruit URM candidates for these programs
 - Annually evaluate the programs to improve social programming and pedagogical training
 - Take concrete steps to recruit candidates from these programs to the Doctoral Program
- 15) CBS should host the IDDEAS Conference, built off of the Wharton Program to recruit a diverse group of promising undergraduate students and introduce them to business research at the doctoral level
- Dean’s Office should fund and allocate space
 - DEI Office should plan and execute conference

- 16) Applicants that indicate URM status should be flagged during the Admissions Review Process
- To make sure they receive sufficient consideration, divisions could retain them until the final stage or make sure they receive more than one initial screening

- 17) CBS should coordinate efforts to increase the rate at which URM students matriculate at Columbia

- Raise money to fund a fellowship award for URM students
- Coordinate recruiting efforts for URM students

- 18) CBS should provide appropriate support for doctoral students from underrepresented groups. This might include a subset of the following:

- additional financial support to students who lack a safety net (see previous suggestion);
- creating “camps” (e.g., math camp) for all incoming doctoral students who lack the skills/knowledge necessary to have a successful experience in challenging courses
- providing mentors from upper-year students to help all PhDs who may be struggling with coursework
- Suggesting courses all incoming students might take in their final semester to best prepare them for graduate school
- avoid burdening URM students with requests to be on committees that need representation.

- 19) The School should improve its tracking of URM applicants, admits and matriculated students, and time to graduation

- The School should develop metrics against which it can benchmark performance
- An analysis of past data and qualitative interviews might inform the development of these metrics
- Data should be maintained in a way that ensures privacy and shared with appropriate audiences

Difficulties Navigating the PhD Program

- 20) PhD Office should prepare and maintain a Welcome Manual for new and continuing Students

- The Welcome Manual should be annually updated by July 15 and should incorporate feedback from PhD Coordinators and other implicated staff.
- The Welcome Manual should be distributed at Orientation and uploaded to the ‘Resources’ section of the PhD sites (behind firewall).

- 21) PhD Office should plan and execute a robust orientation to welcome our new community members and help ease the transition to life as a graduate student.

- Should cover basic administrative and academic processes and expectations and should include a social event for both new and current doctoral students.

- 22) Divisional PhD Coordinators should update Divisional Handbooks by August 1 annually for distribution at Orientation. Each student should receive both the Welcome Manual and the relevant Divisional Handbook.

- 23) Consolidate research resource information for PhD Students and make sure it is accessible to PhD students via the website.

24) CBS should review the large (and expanded) set of responsibilities of the MS/PhD Office Staff and assess what is feasible for them to accomplish effectively. Moving forward, it might do the following:

- expand the office staff by one person
- reduce the responsibilities of the office staff by moving key functions (e.g., aspects of admissions) to the Program Office or the MS Programs to the Programs Office.
- allocate staff responsibilities (e.g., expense reports, web maintenance, event planning) to people who have the relevant knowledge.
- better partner with the (MBA) Program Office to do a few tasks jointly (e.g., a single welcoming tent to pick up student IDs) rather than have the MS/PhD staff recreate a less compelling experience for MS and PhDs.

Observations and Recommendations

Student Placement and Progress Issues

Observation #1: Since 2000, 32 students have left the program without a Ph.D. (see Appendix). Approximately 15% of the attrition happens before the end of the second year and another 40% before the end of the third year. More than 10% of the separation occurs during year five or later, which inevitably causes stresses on both the candidates and the program. In most cases, these late-stage drop-outs have early warning signs.

Recommendation: The previous report recommended a student annual report and feedback process. We reaffirm such a recommendation. Each year, students should complete a progress report form which could vary between pre-thesis and thesis stages. This form should be completed no later than June 1st. Each division's PhD Coordinator should convene the relevant faculty to review the students' progress and draft written feedback for each doctoral student -- this could be short, but should capture the summarized comments and progress assessment, and recommendations for the next year(s). These written reports should be shared with the Vice Dean for Research and PhD office, and should be communicated to the students no later than mid-July. When a student is clearly off the track, such a review could also serve as the guideline for the student to revert back to the track, or to leave the program. Note the divisions set the criteria for dismissing students. Those criteria must be in the handbook and be consistently applied. Divisions can revisit and modify the criteria but PhD students are grandfathered into the policies that were in place when they were admitted. It is therefore important for divisions to update their handbook annually. When a decision decides to dismiss a student, they must provide the MS/PhD office with the necessary documentation (annual reviews, grades, performance on key milestones). Rollout Date: Spring 2023; Owner: PhD Coordinators & Vice Dean for Research

Observation #2: We do not have a system for maintaining and sharing data on student progress. Having one is important for a variety of reasons, including that we need to quickly spot when students are falling behind and get them back on track, or intervene if there is a personal or medical issue that requires accommodation.

Recommendation: The School is looking into building a robust database to house all its data; in the meantime, we suggest the Director of the MS/PhD Office be responsible for placing key deliverables (e.g., dissertation proposals) into a directory that they share with the Divisional PhD coordinators and the Vice Dean for Research. They should also update a shared spreadsheet with the relevant information after each of the three terms. The Director of the MS/PhD Office is responsible for sending a link to this spreadsheet to the PhD Coordinators and the Vice Dean for Research. This should happen annually, but no later than the following dates: January 15th (for the Fall term), by May 15th (for the Spring term), and by September 15th (for the Summer term). A system to do this already exists and should be utilized by the School (see here [Example PhD Progress Tracking Spreadsheet / Directions](#)). Rollout Date: June 2022; Owner: Director of the MS/PhD Office

Observation #3: Students who are unlikely to secure a faculty or postdoc position are staying at the school for 6 years or longer. This situation is costly for the institution because the school covers students' healthcare costs (\$5K to \$20K annually, depending on how many dependents a student is supporting) and University fees (\$2K) until they graduate from the program. The situation is also costly for the doctoral candidates themselves as they incur significant opportunity costs when they take more than five years to graduate.

Recommendation: We recommend that the divisions add a statement to their annual reviews that addresses whether or not the student should explore industry options. Students who would be better off looking for a job in industry should be encouraged to pursue that option and they should receive this feedback sooner than they currently are.

We also suggest the School revisit its current policy of paying fees and healthcare costs for students in years 7 and beyond. Students should be explicitly told that these are not guaranteed and subject to the approval of the division and the Vice Dean for research. The list of acceptable reasons for extending these benefits might include the birth of a child, a medical setback, the departure of a student's advisor, and other special circumstances. Rollout Date: Spring 2023; Owner: PhD Coordinators & Vice Dean for Research.

Observation #4: Based on interviews with select Ph.D. students, there is a uniform acknowledgment that academic job market candidates receive strong and well-coordinated support from the divisions their supervisors. We commend faculty effort and inputs in placing the job market candidates. The support for industry career services is currently very limited, in part, because the University drastically reduced the career-related support it offers to PhD students who decide to go into industry.

Recommendation: The School should provide career-services support to students for whom an industry position is more probable and/or a greater fit. When an annual review results in a recommendation that the student should consider industry, the PhD Coordinator will ask the PhD Office to alert a designated staff person in the CMC who will offer resource support to the student. This support may include feedback on resumes, interview coaching, access to job postings, and other resources. Rollout Date: Spring 2023; Owner: Vice Dean for Research.

Student Funding

Observation #1: The 2022-2023 student stipend amount will be \$44,431. It is difficult to perfectly benchmark this figure against what our peers offer because our stipends do not have a teaching or

research requirement while most of our peers condition funding on these services. In addition, schools are reluctant to share this information due to anti-trust regulations. The imperfect data collected suggests that our stipend is competitive but the confidence interval around this is wide.

Resolution: In the Spring of 2022, the University reached an agreement with the graduate student union. The contract terms stipulate that graduate students are guaranteed an annual increase of 3%. Moving forward, stipend increases will be guided by the University's collective bargaining agreement.

Observation #2: Most students now take 6 years to graduate from our doctoral program. Through FY 2022, the School covered healthcare costs, registration fees, and benefits but did not provide guaranteed stipend support to 6th-year students. Through benchmarking, the committee determined that most of our peers still offer only five years of stipend support; except for the University of Chicago, which offers six years. Several committee members believe our peers offer informal financial support to sixth-year students in the form of awards and TAs but the committee was not able to confirm this impression with hard data.

Recommendation: The School should offer additional financial support in the form of an award to select high-performing students who can strengthen their candidacy with additional time before entering the academic job market. The divisions should be permitted to use any savings accrued from admitting smaller PhD cohorts or other divisional funds to support such fellowships.

Resolution: Following this committee's deliberation, informed by input from the Faculty PhD Directors and the Division Chairs, the Faculty Executive Committee ratified a new policy: [PhD Program - 6th year Fellowships](#) that accomplished this goal in the Spring of 2022. Owner: Vice Dean for Research and Director of PhD Program.

Curriculum, Course Planning, and Exams

Observation #1: The 60-credit GSAS requirement is an outlier among our peers. The 2017 Committee recommended that PhD students be permitted to take the Independent Studies course up to four times (for a total of 12 credits), and that students with MS credits be permitted to take the course twice (for a total of 6 credits). It does not appear that the students are following this guidance as an audit of all graduating or research-stage (i.e., beyond course-taking) Ph.D. students from the past five years, reveals the unconditional average of credits is 53.6. There were 28.4% of students who earned 60 or more credits, with an average of 69.9 in this group. There were 71.6% of students who took less than 60 credits, with an average of 47.2. Overall, our students are taking a lot of courses. The effective course load is higher than most of our peer schools except Booth.

The take-up of “non-standard” courses (e.g., independent studies) for credit is still slow in progress. Indeed, virtually 100% of Ph.D. students are enrolled in some “non-standard” courses, but less than half (46%) of the students took credit for those courses. For the “takers,” the average credit per student is 6.4 and the average number of courses is 2.3. The unconditional average among all students is that on average they take 2.9 credit from non-standard courses and the average number of course is 1.0. These numbers are far below the limit specified by the 2017 report. Moreover, the standards for the deliveries of these courses have not been well-defined and vary a lot across divisions.

Recommendation: Part of the issue is that the School has done a poor job communicating this policy to our doctoral students and encouraging them to take advantage of the opportunity. Divisions should add the information about the independent study to their Divisional Handbook. Divisions might also consider matching more junior students with faculty for an independent study experience. Rollout Date: Fall of 2022; Owner: PhD Coordinators and the Director of the PhD Program.

Observation #2: In the focus groups conducted with doctoral students, many expressed confusion about which courses to take. Students generally learn about courses via informal communication with more senior students. Such information, in the public domain, is more scant than peer schools including Wharton, Sloan, Stanford, and Booth. Not only are the students uninformed, the faculty do not know where to go to find this information which makes it difficult for them to advise students on coursework.

Recommendation: Divisions should add a section to their handbook that goes into detail about a sensible course sequence. This was recommended by the previous committee and has been implemented in some divisions but there is a clear need for additional work on this front. Where appropriate, the handbooks might also suggest tracks for the different sub areas. Divisions might solicit input from their current students as many of the courses our students find valuable are offered outside the business school. Rollout Date: August 2022; Owner: PhD Faculty Coordinators.

Recommendation: We recommend more clarity of information on our website about specific degree requirements and course sequences so that students, especially new students, are set with correct expectations. We suggest the course information and the handbooks, which provide more details about policies be posted [here](#), behind the firewall so that “internal” audiences can access it.

Recommendation: Each year, the Director of the PhD program should email all faculty links to these resources and remind them where they can find more information about the PhD program, including information about the courses Rollout Date: August of 2022; Owner: Assistant Director and Director of the PhD Program.

Observation #3: There appears to be no clear process for adding PhD courses and, consequently, there is considerable variance in both the number of doctoral courses a division is permitted to teach and the number of relevant courses available to students in a given PhD program. There is some concern that the curriculum is inadequate and that there are inequities across the school.

Recommendation: We encourage the School to do a formal audit of the course offerings and to generate a coherent strategy for future changes to course offerings that is efficient and fair. Each program should have sufficient course offerings so that all students in the program can complete their degree requirements, but not so many that most courses have fewer than 5 students enrolled. Rollout Date: by Spring 2023; Owner: Vice Dean for Research with the Senior Vice Dean for Programs.

Observation #4: More thought needs to go into how course data for the MS and PhD courses are stored. Currently, the course data lack the details the School needs to conduct a thorough audit or make data-driven decisions about the course offerings and teaching schedule. The only person who can make sense of these data is the Director of the PhD program because she has the relevant institutional knowledge in her head. Absent an organized system that retains information about who is allowed to teach what and under what conditions, leadership wastes time tracking down the history of decisions and revisiting issues that have already been adjudicated. This situation is compounded by the rotating approach we take to the

leadership team. It would help if key details about courses were stored and access was given to the people who need these details to make strategic decisions.

Recommendation: The new course system—Course Dog—permits tagging courses with various data fields, and we strongly encourage the School to start using these features. A given course should be tagged with information about: (i) whether the course should be taught by an adjunct or tenure-track faculty member; (ii) how frequently the course is offered (e.g., every year versus every other year); (iii) if the course has a rotating focus as is the case with “special seminar” type courses; and (iv) if the course is taught for ad comp versus course credit. This list is illustrative and not exhaustive. Rollout Date: by Spring 2023; Owner: Vice Dean for Research with the Senior Vice Dean for Programs.

Observation #5: Based on feedback from both faculty and students, we also observe a lack of consistency in course offerings across the years—mostly due to faculty turnover (including sabbatical and leaves). There is usually no bench-depth of instructors for Ph.D. courses. Moreover, some changes occur very close to the beginning of a semester such that students may not have adequate time to adjust or find substitutes. For some courses that are already offered once other year, such incidences could cause a gap in students’ education.

Recommendation: For all Ph.D. courses that are deemed fundamental, we recommend that each division have a primary and secondary instructor lined up Rollout Date: Spring 2023; Owner: Division Chairs and Director of MS/PhD Program.

Observation #6: We offer too many courses that have fewer than 4 students enrolled.

Recommendation: We recommend solidifying and expanding the supply of “school-wide” Ph.D. course offerings on common subjects such as econometrics, machine learning, and empirical methods. This was something suggested by the previous review committee; we made only modest progress on this goal. Encourage each division to include these new courses on the recommended course sequences in early years of the program. This will also serve to build a cross-disciplinary student community which should benefit all programs. Rollout Date: Fall 2023; Owner: Vice Dean for Research.

Observation #7: In the digital age, many students have past exams (and solutions) from prior years. In fact, some divisions provide students with copies of past qualifying exams so that students know what to expect. Unless managed with care and caution, these practices compromise the integrity and fairness of the exams. We checked all exam questions in all divisions from the past five years, and found only two occasions where some or all questions were recycled.

Recommendation: We have a threefold recommendation: First, that faculty be discouraged from reusing exam questions and should at least make minimal changes such that it takes a genuine understanding of the topic even for a student to follow a solution to a past exam which they have access to. Second, that exams based on standard problem solving—that feature close-ended, solution-driven questions—should be administered on-site (vs. take-home) or should be synchronized and timed (vs. be given a flexible range of time). We also recommend such exams to allow for limited reference material to be consulted. A crib sheet is acceptable, but not unlimited Google search. Students should be asked to submit the reference material used when they submit their exam. This minimizes the burden on faculty to come up with completely novel questions each year. Third, and finally, we discourage divisions from sharing old

exams with students. If divisions feel this is important to do, they should consider sharing the same exam every single year versus sharing the exam from the previous year. Rollout Date: Spring 2023; Owner: Vice Dean for Research.

Diversity in the PhD Program

Note: The University defines URM as U.S. citizens and permanent residents who have self-identified as at least one of the following: Hispanic or Latino, American Indian or Alaska Native, Black or African American, or Native Hawaiian or Pacific Islander.

Observation #1: In our Ph.D. program, approximately 43% of PhD students are female. Thirty percent of current Ph.D. students are American (N=37); the rest are from abroad (N=73). Of the 37 Americans at the School, five are from an underrepresented group. The School successfully recruited two URMs in 2021, one in Finance and another in Management. While we have made progress toward the goal of increasing the diversity of the PhD pipeline, the School needs to invest in creating a pipeline of diverse applicants.

Suggestion: We have two programs that seek to attract and prepare URMs for careers in business research: the Columbia Undergraduate Business Scholarship (CUBS) Program; and the Summer Research Internship (we put effort into recruiting interns from underrepresented groups). We should review these programs annually to determine how to improve the social programming and pedagogical experience of participants and to strategize ways to recruit them to Columbia Business School's Doctoral Program. Concrete strategies could include: Host an informal lunch for students in the programs with the PhD coordinators from all divisions. Offer an application preparation workshop (run by Doctoral Program Office staff and Divisional Faculty to provide best practices, tips, and application review for program participants. Work with supervising faculty to send e-mails to program participants encouraging applications. Waive application fees for program participants. Include program participants in select DEI and PPIL programming at the School. Rollout Date: Spring 2023; Owner: Director of Research, Vice Dean for Research and Vice Dean for DEI.

Observation #2: In 2013, Wharton founded the IDDEAS program, which recruits a diverse group of promising undergraduate students from all over the country and introduce them to business research at the doctoral level. Over two days, students attend a mini-masters class, meet doctoral students and faculty, learn about research, and prepare a short presentation on research. They also learn about applying to doctoral programs and details about an academic career. Class sizes are typically 12 to 16. In 2018, several of our peer schools started hosting satellite events with support from Wharton (e.g., Stanford, Kellogg, Haas, Booth). These schools take turns hosting an IDDEAS event. At this point, we are one of the only schools among our peers who has not hosted the IDDEAS conference.

Suggestion: The Dean's Office should set aside funds (\$13K) and space to host the event and the DEI Office should be responsible for planning and hosting it. Rollout Date: Fall 2024; Owner: Director of Research, Vice Dean for Research and Vice Dean for DEI.

Observation #3. The School has no formal process for ensuring that URM applicants are given a fair evaluation in the admission process.

Suggestion: Divisions might consider flagging URM applicants in the application files for thorough consideration. They might also decide that all URM applicants should remain in the consideration set after the initial screening, or to make sure all UMR receive an additional person reviewing their applications. Some divisions have already implemented one or more of these practices. Rollout Date: Spring 2023; Owner: the PhD Coordinators.

Observation #4. We should make a concerted effort to maximize conversion rates among URM candidates.

Suggestion: The committee identified two ways to accomplish this goal. First, it would be immensely helpful if the School could find an alumnus who would be willing to endow an award specifically for students from underrepresented backgrounds. We can use the Robert Smith Fellowship to meet some of the demand but having a second fellowship would go a long way toward helping us compete with other schools for talent. Second, there should be a faculty point person for the recruitment effort of each admitted UMR – this responsibility could be given to one person or to a different person for each candidate and split between PhD Coordinators, Vice Deans for DEI and Research. Responsibility will be to coordinate outreach and curate a return visit for the candidate to make sure that they understand the School’s Commitment to their candidacy. The point person should make sure key faculty from the division follow up with the prospective student to talk about research opportunities. The committee believes that our situation will improve if we can recruit a critical mass of students; prospective students from underrepresented backgrounds want to join programs that already have a population of underrepresented students. Rollout Date: Spring 2023; Owner: Vice Dean for Research, Vice Dean for DEI and the DEI office.

Observation #5. The school needs to give greater consideration to how to retain and best support our URM students who may have a different experience in the program.

Suggestion: The committee identified several ways that we might accomplish this aim. We suggest the incoming Vice Dean for Research and Vice Dean for DEI be tasked with assessing and implementing a subset of these ideas. Initial possibilities include: (i) additional financial support to students who lack a safety net (see previous suggestion); (ii) creating “camps” (e.g., math camp) for incoming doctoral students (not only URMs) who lack the skills/knowledge necessary to have a successful experience in challenging courses; (iii) providing mentors from upper-year students to help all PhDs who may be struggling with coursework; (iv) suggesting courses incoming students (not only URMs) can take in their final semester to best prepare them for graduate-level work; and (v) avoid burdening URM students with requests to be on committees that need representation. Rollout Date: Spring 2023; Owner: Vice Dean for Research, Vice Dean for DEI and the DEI office.

Observation #6: The School should develop metrics to assess progress toward the goals of increasing representation in the PhD program and fostering a sense of inclusion and belonging. For example, we should track the proportion of URM applicants over time and define success metrics for improvements to this figure. Similarly, we should measure the conversation rates of URMs from applications to offer and from offers to accepted offers and devise goals to improve these conversation rates.

Suggestion: The Vice Dean for Research should work with the Vice Dean for DEI and the DEI office to generate metrics and a system for maintaining, organizing and reporting on these data. Rollout Date: Spring 2023; Owner: Vice Dean for Research, Admissions, Vice Dean for DEI and the DEI office.

Difficulties Navigating the PhD Program

Observation #1: One recurring theme that surfaced in the meetings we had with PhD students is how difficult it is to figure out how basic things work at the institution.

Recommendation: The MS/PhD Office needs to compile a Welcome Manual for PhD students that they distribute during orientation. It should be updated by July of each year and the Director should solicit feedback on the Welcome Manual from the Faculty PhD Coordinators. We suggest they be posted [here](#), behind the firewall so that access is restricted to “internal” audiences. Topics covered should include but not be limited to:

- Link to Columbia Orientation Resources
 - i. Mission: <https://www.columbia.edu/content/about-columbia>
 - ii. Essential Policies: <https://fas.columbia.edu/home/essential-policies-columbia-community>
 - iii. Quick summary of how CBS fits into CU
- Degree Requirements by Division
- Thesis Sponsors – how when should you find one?
- Normal Timeline for Degree Completion
- Stipends: How much, for how long, how to sign up for direct deposit, when distributed, what to do if you don't receive what you expect , 6th year fellowship award
- Health Insurance (What do you get, how to sign up, costs etc.)
- Other Benefits (if any)
- Housing: Who is eligible, how to access, other resources (if appropriate)
- Visas and EOAA Processes (what you need to do, what the School supports)
- Technology: What you get, how you get it, how you get it set up
- Working as a TA or and RA (How to find opportunities, don't start work until you have an HR letter)
- Course registration; grades;
- Grants and Fellowships (Benefits and responsibilities, how to etc.)
- Library Resources (What is available, how to access)
- Research Resources (What is available, how to access): Grid; NDA Process; IRB process; hiring research assistants; sources of funding
- Database Resources (What is available, how to access)
Post PhD Careers. Outline 2 tracks (academic and Industry and resources available for each. Link to HERC jobs and discuss the more detailed support provided
- Covid / Public Health Policies
- Plagiarism and Cheating: Policies & What happens if you are suspected of plagiarism/fraud
- Dismissal and Withdrawal Policy

- Other Policies pertinent to PhD students
- Manhattanville Handbook
- Space Assignments (Cube is assigned by the divisional staff. You stay in your cube for 5 years, after that you only get a cube if there is one available.)
- Meeting Room and Conference Space: How to book (self booking and reservations that require approval (see Manhattanville Handbook)
- Research Funds (who gets them and how, spending policies)
- Travel Funds (PhD office gives them 750? How often, how to apply)
- EOAA- Harassment Policies, Processes and Resources
- Confidential Resources
- Conflict of Interest Policies
- Work Life Office (link to resources)
- Key personnel, their job responsibilities and contact list if you need help: Doctoral Office Staff; Division Staff and Chairs; PhD Coordinators; VDR; others?

Rollout Date: August 2022; Owner: Director of the MS/PhD Program and PhD Coordinators.

Recommendation: The MS/PhD Office needs to organize a more robust orientation and the incoming students should be required to attend that orientation. The orientation should include some of the information provided in the Welcome Manual, additional academic advising, and should culminate in a social event to which the greater PhD community is invited. Rollout Date: August 2022; Owner: Director of the MS/PhD Program.

The Divisions need to do their part in supporting these efforts by scheduling pre-program bootcamps as early as possible and relaying the dates of those events to the MS/PhD Office so they have adequate time to prepare. Furthermore, incoming students who are supposed to TA (e.g., for LEAD) should be at the orientation event; last year, many of them skipped it because they were told they needed to be in class. Rollout Date: August 2022; Owner: the PhD Coordinators and the Director of the MS/PhD Program.

Recommendation: The Divisional PhD Coordinators need to get the MS/PhD Office updated Divisional Handbooks by August 1 so that these can be distributed at Orientation with the Welcome Manual. Divisions should send a faculty representative to the Orientation who can meet with incoming students to make specific course recommendations. Rollout Date: August 2022; Owner: the PhD Coordinators and the Director of the MS/PhD Program.

Observation #2: The students have a difficult time finding information related to research resources. For instance, they have a difficult time learning which datasets the school has subscriptions for and how to get the data. Likewise, they don't know anything about the NDA process, the IRB process, hiring RAs, etc. Part of the issue is that information about the research resources is spread across too many places (e.g., ITG site, the faculty governance site). The other issue: some of the information gets posted to areas of the site that PhD students cannot access. And then some of it just lives in various individuals' heads.

Recommendation: As the School revamps the website, they should consolidate and better organize information regarding research resources. The Director of Research (Khaled Hamdy) should be responsible for making sure the information exists in a place that is accessible to students (behind the firewall but reachable by them) and that it is kept up to date. Each September, the Director of Research

should send incoming doctoral students a welcome email with a link to the resource and it should be clear to everyone –students, faculty, and staff–where to go if they need to do something research-related.

Rollout Date: Fall 2022; Owner: Director of Research and Vice Dean for Research.

MS and PhD Office Staff

Observation #1: The scope of activities for which the staff are responsible is wide and expanding. At the current time, a staff of two are responsible for 6 doctoral programs and 3 MS programs. They also help SEAS with aspects of the administration of the MS programs we jointly run (i.e., MSBA, MSE). There are good reasons for this coupling of Ph.D. and master's programs, as there are synergies in curriculum¹. At the same time, the addition of the master's programs added complexity and substantially increased the workload on the staff that consists of only two people, Elizabeth Elam (Director) and Dan Spacher (Assistant Director). This situation leads to the simple conclusion that additional workload due to both quantitative change (more students) and qualitative change (complexity of managing two distinct types of programs) invites new thinking about how to realistically achieve the quality outcomes that the School seeks from these two types of educational programs.

Recommendation: We strongly encourage the school to consider one of three changes:

- Add a staff member to the Ph.D. office. The individual could be responsible for: event planning; data management; the manual registration of students in courses (e.g., independent studies); answer basic questions from current students and prospective applicants; organize and sign various forms (e.g., CPT forms, internship forms, degree conferral forms, etc.).
- Separate the MS program from the Ph.D. office to allow the Ph.D. office to focus on Ph.D. students as it did prior to the MS programs.
- Attempt to reallocate some of the responsibilities of the Ph.D. office to other groups in the school. Many resources (mainly staff time) can be supported by School entities who already have assets and people in place to provide support and can benefit from the economy of scale. Moreover, while the Director and Assistant Director have extensive experience with activities like advising students who have a mental health issue, they have no formal training in these activities and an argument could be made that students are best served by groups who have the relevant specialized skills and knowledge (in this case, OSA).

Observation #2: The office is incredibly lean. At the same time, the office staff are occasionally asked to do tasks that should arguably be supported by divisional staff or by staff from other offices.

The school should also reconsider how responsibilities are currently being divided between the MS/PhD Office and the divisional administrators, and consider reallocating some of the work that lives with the MS/PhD Office to other offices. For instance, given the scope of their responsibilities, it may not make sense to have the staff in the MS/PhD Office process the expense reports of 125 doctoral students. Those should arguably be handled by the Divisions. Likewise, we might consider ways for the PhD program to

¹ The curriculum has evolved such that students need to take several MBA courses to graduate; these are no longer “zero cost” programs. This is less true of MSFE and more true of MSM and MSAFA.

better partner with the MBA program, which has far greater resources. For instance, the School might consider having a single welcoming tent for all new Columbia students versus ask the MS/PhD staff to recreate a far less compelling experience for MS and PhDs. The differences are stark and students notice the differential treatment. Finally, the staff in the office should also feel empowered to push back when they are asked to perform duties that are technically not their responsibility. This would be easier to do if there was a clear—and thoughtful—division of labor known by all.