

# **Final Report**

GSAS Admissions and Graduate Education Working Group

September 2023







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# I. Executive Summary

In 2022, the Harvard Kenneth C. Griffin Graduate School of Arts and Sciences launched the GSAS Admissions and Graduate Education (GAGE) working group, a committee of faculty and administrators. GAGE was tasked with considering advising, teaching, employment outcomes, institutional finances, and equity, diversity, inclusion, and belonging to develop actionable steps in how admissions slots are allocated and to outline what PhD education should look like in the 21st century. The GAGE committee began meeting in spring 2022 and finalized recommendations for the report in summer 2023. While focused on FAS-based graduate programs, the recommendations within this report have implications for GSAS PhD graduate programs offered in partnership with other Harvard Schools.

As a first step, the GAGE working group reviewed data on mental health, advising, time to degree, outcomes, teaching loads, and finances. During this review, several findings emerged.

- Mental health surveys highlighted lack of structure in advising and, in some cases, ineffective individual advising relationships as being a source of significant stress for graduate students.
- · Programs with the highest amount of teaching per student showed consistently longer times to degree.
- Unfortunate advising situations may contribute to longer time to degree for individual students.
- Postdoctoral fellowship appointments are increasing for students across the Arts & Humanities
  and Social Sciences, in many cases serving as a "waiting room" for graduates because tenure track
  positions are unavailable. In the Sciences and Engineering, close to 50 percent or more who enter
  postdoctoral positions do not enter tenure track faculty positions.
- While overall satisfaction with individual advisors is statistically high in exit surveys, taking a deeper look at the data identifies areas of significant concerns regarding the structure and nature of the advising relationship and the student's decision to pursue the PhD.
- On the topic of financial support, the FAS's unrestricted funds used for the majority of graduate student support were increasing over time at an unsustainable rate. Actions over the past three years (including reductions in cohort sizes that if continued will have stark effects) have reduced the rate of increase, but this remains a concern. Given the increasing competitiveness with peer institutions, greater investment in graduate education by the University has become critical.

The committee recognized that providing universal recommendations across the 40 different FAS graduate programs would be unfeasible due to the wide diversity of academic activities and cultural norms. Instead, the committee offered a framework for programs to follow, establishing a baseline standard in the following areas:

- A. Advising
- B. Scale and strength of the academic program
- C. Equity, diversity, inclusion, and belonging
- D. Employment outcomes
- E. Teaching
- F. Finances

Details can be found in Section V.

The GAGE committee acknowledged that some departments have already incorporated parts of what is included in Section V into their normal practice. The aim is to formalize the recommendations and provide other departments with a roadmap to help them enhance the graduate student experience.

Based on the review of the data and development of the framework noted above, it is the GAGE committee's recommendation that specific factors related to graduate education, contextualized within individual disciplines and departments, be reviewed and used for admissions purposes. These factors are:



- •Scale and strength of the academic program
- ·Strength of advising and faculty advising loads
- · Engagement with equity, diversity, inclusion, and belonging
- Student outcomes
- Institutional finances

Departmental requests for admissions slots have sometimes placed considerable emphasis on fulfilling needs for teaching support. Of note, the GAGE committee recommends that departmental teaching needs not be considered when admissions slots are determined. Slots will be determined after dialogue with departments and in consultation with Harvard Griffin GSAS, divisional deans, and the FAS dean.

A staged implementation of the GAGE recommendations will begin in fall 2023. GSAS is invested in supporting programs to create and improve structures, as necessary, in order to meet the expectations laid out in this report. GSAS, from its place within the FAS, will work closely with the divisional deans, the FAS dean, and other administrative partners as an implementation plan is developed.

A clear message arose from the GAGE process and the increasing competitiveness seen during this admissions season among peer institutions: The threat to Harvard's preeminence in graduate education is real and sustained, and it requires urgent action. Taking measures to ensure that students receive the guidance they need to successfully complete their academic programs is one important step to take. The other equally important step is money: the best education and reputation in the world is no longer enough to attract the most promising students. Harvard must increase its financial support or risk being left behind.

# II. Introduction

Harvard's reputation as one of the world's leading universities is based substantially on the strength of its research and teaching.

Graduate students are central to that reputation. They are chosen based on their potential to produce significant and original research, connect with and augment the work of outstanding faculty as they pursue their own ideas, and go on to lead in their academic fields and in the public and private sectors. Through their individual processes of discovery, they push the boundaries of their disciplines and bring new and invigorating ideas for discussion with their peers and faculty advisors as well as with the undergraduates they teach.

Since its inception as the Graduate Department in 1872, the Harvard Kenneth C. Griffin Graduate School of Arts and Sciences has continually reflected on how best to assist these students and foster their extraordinary talent—both academically and personally. From calls for a student center that would enable students to build community to advocating for financial support packages, the School has steadily worked to improve the student experience for 150 years, shaping and overseeing policies that promote students' academic success. Within decades, Harvard Griffin GSAS also began partnering with other Harvard Schools to offer the PhD, making it unique at the University—the only true One Harvard School.

Arising from the Faculty Study Group (see Appendix A for GSAS subcommittee report), the GSAS Admissions and Graduate Education (GAGE) working group undertook a considered analysis of the student experience at a time of great change in graduate education (see Section III for GAGE membership and committee charge). Harvard sustains its excellence in this area, educating students and preparing them for intellectual leadership in careers throughout the world. It cannot, however, avoid increasing local, national, and global pressures faced by higher education institutions, including the changing demand for PhDs in different sectors (as in the academy), growing financial competition with peers for the most promising applicants, rising student expectations, and more. Given these pressures, the GAGE committee reflected on what alterations should be made to ensure our students leave the University with the potential to serve as intellectual leaders for the 21st century.

Over time, Harvard Griffin GSAS has collected relevant data, an overview of which can be found in Section IV. Review of these data was a critical first step in understanding the current landscape of graduate education and highlighting areas for potential improvement. Over the course of the 2022-2023 academic year, the working group developed a series of recommendations (see Section V) that addresses these areas, which resulted in further recommendations for the admissions process (see Section VI).

Implementing these recommendations will be a collaborative process between Harvard Griffin GSAS and FAS's departments. Foremost, we acknowledge that one size doesn't fit all: each department will need to adapt the recommendations in ways that make sense for its intellectual community. Ultimately, these recommendations and the work of the GAGE committee are focused on ensuring that students who enter Harvard receive the guidance and support they need to successfully navigate their academic training, graduate in a timely manner, and enter the profession of their choosing with confidence and the best preparation possible.

Ensuring a high-quality education and setting our students up for success are at the heart of the GAGE process, but these are by no means the only aspects of the student experience that we must address. In particular, the 2023 admissions season significantly escalated concerns about Harvard's competitiveness vis-a-vis our peers in terms of matriculating the strongest graduate students.

Applications to GSAS increased by 5 percent over the prior year, marking the highest number of applications ever received at 23,370. Overall, Harvard Griffin GSAS's selectivity continues to be notable, with 6 percent of

those who applied being offered admission. The overall percentage of those who accepted the offer of admission dipped only slightly, from 65 percent to 64 percent. But while overall yields remain impressive, a deeper analysis finds that many departments experienced ever-growing challenges to recruit their top candidates, largely due to lucrative financial aid packages offered by peer institutions. Concerns have been expressed that these growing financial gaps are eroding Harvard's ability to remain competitive in the field.

We come here because the Harvard name opens certain doors, and Harvard takes advantage of this. There are definitely better funding packages and wages elsewhere.

**G4 STUDENT, HUMANITIES** 

These concerns are not new. The 1998 Report of the Faculty Committee on Graduate Student Support noted, particularly in the humanities and social sciences, that Harvard's existing financial support was insufficient to properly compete. "Students contemplating offers of admission from Harvard," the report read, "must weigh our intellectual and scholarly advantages against offers from our peer institutions that are often both higher in level and longer in duration."

Understanding that significant action was required on the part of the University, leadership responding to this 1998 report invested in student funding with the aim of ensuring Harvard's competitiveness. What we witnessed this year was that the financial support packages we offer are no longer sufficient to attract the most qualified applicants to enroll in light of the higher stipend amounts, more robust re-

search funding, and relocation support offered by peer institutions. The high cost of living in the Cambridge/ Boston area means that many students face skyrocketing rents and food insecurity, and they increasingly turn to Harvard for greater backing than has been offered in the past.

Sustaining excellence requires thoughtful management of the many elements that comprise an effective graduate program. The recommendations of the GAGE working group provide a roadmap for securing that. But if PhD students are central to Harvard's mission and stature as an institution of higher education, then sufficient resources must also be invested in the education and training of these students. Many of the challenges noted below are exacerbated by a growing gap in Harvard's funding for our programs when compared to peer schools.

At this moment, as the very nature of higher education is in flux, Harvard faces an important decision: address this changing landscape or risk losing its reputation as one of the world's premier research and teaching institutions.

 $<sup>^1</sup>$  GSAS has 57 graduate programs throughout the University. In the FAS, the term "departments" is normally used to refer to programs that educate graduate students. Throughout the report, you will see these terms used interchangeably.

# III. Working Group Work Process

# A. Membership

The GSAS Admissions and Graduate Education Committee included tenured faculty from a variety of disciplines and across the divisions of the Arts & Humanities, Social Sciences, and Sciences. These members were:

- Emma Dench, Chair, Dean of Harvard Griffin GSAS, McLean Professor of Ancient and Modern History and of the Classics
- · Allen Aloise, ex officio, Dean for Administration and Finance, Harvard Griffin GSAS
- · Noël Bisson, ex officio, Dean for Academic Programs, Harvard Griffin GSAS
- · Verena Conley, Long-Term Visiting Professor of Comparative Literature and of Romance Languages and Literatures
- Bob Coughlin, ex officio, Dean for Admissions and Financial Aid, Harvard Griffin GSAS
- Victoria D'Souza, Professor of Molecular and Cellular Biology
- · Ryan Enos, Professor of Government
- · Ann Hall, ex officio, Chief of Staff, Harvard Griffin GSAS
- Elizabeth Lunbeck, Professor of the History of Science in Residence; Chair of the Department of the History of Science
- Catherine McKenna, Margaret Brooks Robinson Professor of Celtic Languages and Literatures; Chair of the Department of Celtic Languages and Literatures
- · Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African **American Studies**
- Peter Girguis, Professor of Organismic and Evolutionary Biology
- Matthew Liebmann, Peabody Professor of American Archeology and Ethnology
- · Sheila Thomas, ex officio, Dean for Equity, Diversity, Inclusion & Belonging; Interim Dean of Students; and Special Projects Advisor, Harvard Griffin GSAS

The GAGE group received administrative support from Valerie Beilenson, senior project manager in the FAS Dean's Office, and Charlie Otero, executive assistant to the dean, Harvard Griffin GSAS.

### B. Charge

In 2020, then-FAS Dean Claudine Gay created the FAS Study Group (FSG), tasking it with considering financial sustainability, organizational flexibility, and institutional resilience. The FSG identified several areas that required a deeper look, including graduate education.

To address this call, Harvard Griffin GSAS launched the GSAS Admissions and Graduate Education (GAGE) Working Group in spring 2022, charged with "Considering advising, teaching, employment outcomes, institutional finances, and equity, diversity, inclusion, and belonging to develop actionable steps in how admissions slots are allocated and to outline what the PhD means in the 21st century."

### C. Process

From April 2022 through May 2023, the GAGE Working Group met 26 times. GAGE reviewed materials that included data on mental health, advising, time to degree, outcomes, teaching loads, and finances. As the committee turned its attention from information gathering to making recommendations, members recognized that variation across 40 different FAS graduate programs would make blanket recommendations unfeasible. The committee's recommendations instead offer a framework for programs to follow, establishing a certain baseline standard. Then, during the implementation process, each program will be asked to consider a set of questions to help guide further action.

Harvard Griffin GSAS recognizes that this is a significant undertaking for programs and plans to be a full partner in the implementation of these recommendations (see Section VII).

### D. Engagement

As the GAGE committee developed principles and recommendations, Harvard Griffin GSAS solicited feedback from several academic partners. These included:

- · Faculty Council
- · Graduate Policy Committee
- Committee on Graduate Education
- · Directors of Graduate Studies
- · GSAS Student Council



# IV. Data

# A. Summary of Findings

In our earliest meetings, the GAGE committee explored data that illuminated various aspects of the student experience. In our review of these data, several findings emerged.

- Mental health surveys highlighted lack of structure in advising and, in some cases, ineffective individual advising relationships as being a source of significant stress for graduate students.
- Programs with the highest amount of teaching per student showed consistently longer times to degree.
- · Unfortunate advising situations may contribute to longer time to degree for individual students.
- Postdoctoral fellowship appointments are increasing for students across the Arts & Humanities and Social Sciences, in many cases serving as a "waiting room" for graduates because tenure track positions are unavailable.
- While overall satisfaction with individual advisors is statistically high in exit surveys, taking a deeper look at the data identifies areas of significant concern for the structure and nature of the advising relationship and for a student's decision to pursue the PhD.
- On the topic of financial support, the FAS's unrestricted funds used for the majority of graduate student support are increasing over time at an unsustainable rate. Actions over the past three years (including reductions in cohort sizes that cannot be continued) have reduced the rate of increase, but this remains a concern. Given the increasing competitiveness with peer institutions, greater investment in graduate education by the University has become critical.

An overview of the data follows. Recommendations to address these findings are summarized in Section V.

# B. Mental Health Surveys

Surveys conducted through the Provost's Graduate Student Mental Health Initiative are yielding helpful information on how Harvard Griffin GSAS students are faring. This initiative, which was launched by former Executive Director of Harvard University Health Services Dr. Paul Barreira, encourages students and faculty to work together to identify issues and develop solutions designed to improve graduate student mental health. The genesis of the initiative was a collaborative effort in 2016 between Dr. Barreira (then director of Harvard University Health Services) and graduate students in the Department of Economics who wished to design a survey that would measure student mental health.

Graduate student mental health is an area of urgent concern across the nation's universities, and Harvard's students are no exception in this trend. The survey instrument developed through Dr. Barreira's work has now been used to collect information from graduate students in over 30 programs at Harvard and has yielded helpful data in a range of areas including depression, anxiety, imposter phenomenon, and other measures.<sup>2</sup> The initiative encourages a collaborative approach to improving departmental climate and to factors that may contribute to students' negative experiences. The study also points to tangible improvements following deliberate efforts to tackle problems identified through the survey results.

<sup>&</sup>lt;sup>2</sup> Paul Barreira & Valentin Bolotnyy (2022): A blueprint for measuring and improving graduate student mental health, Journal of American College Health, DOI: 10.1080/07448481.2022.2057804 https://doi.org/10.1080/07448481.2022.2057804

Although the survey was not designed to look closely at the academic advising relationship, an important and consistent finding highlights advising as being a source of significant stress for graduate students. Indeed, the early results of Dr. Barreira's collaborative work on the Graduate Student Mental Health Initiative were one catalyst for the creation of Dean Emma Dench's initiative, The Advising Project, in 2019.

# C. Employment Outcomes

To understand where and how students are getting jobs, in what ways the employment landscapes may be shifting, and how programs can best support students in preparation for their work after completing the PhD, Harvard Griffin GSAS initiated in 2016 a comprehensive Outcomes Data Project in partnership with colleagues in the Office of Institutional Research (OIR), based in the Provost's Office. Employment at time of graduation has been collected by the School for several years through an exit survey administered to all students as they file for their degree. This initial placement data along with 10-year-out employment data, which was collected from publicly available information on the internet, has been analyzed for students graduating between 2003 and 2009. In addition, initial and 5-year-out employment data has been collected for students graduating between 2012 and 2014. Collection of 10-year and 5-year-out data will continue so that we can look at outcomes for additional cohorts. The GAGE Committee was given a view into initial and 10-year-out employment data for three cohorts graduating from 2007 through 2009, and initial and 5-year-out data for students graduating in 2012 through 2014.

In addition to providing a snapshot of the effects of the 2008 financial crash on graduate students' prospects, the data have shown other more local ebbs and flows in the job market. Analysis of the data shows that on average and across most programs, students are happy with their initial placements and ultimately are employed in a variety of sectors, but drilling down by division shows variation in this overall result.

Upon exit, the majority of the students, regardless of division, are interested in pursuing academic positions, although the interest is greater in the Social Sciences and in the Arts & Humanities than in the Natural Sciences (data not shown). Of note, in exit data from students in the Natural Sciences graduating between November 2020 and May 2023, this number dropped below 50 percent (see Figure 1).

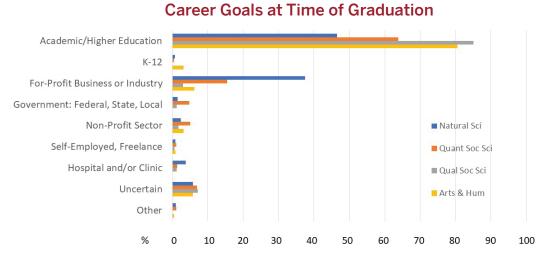


Figure 1. Career Goals of PhD Students Graduating between November 2020 and May 2023.

Data was collected from exit surveys at the time of dissertation submission. The number of respondents are 989 for Natural Sciences, 167 for Qualitative Social Sciences, 459 for Quantitative Social Sciences, and 225 for Arts & Humanities. Natural Sciences includes SEAS and sciences across the University. The Social Sciences have been split into two groups: Quantitative Social Sciences and Qualitative Social Sciences.

'07-'09 '12-'14

'07-'09 '12-'14

Consistent with this interest, a higher percentage of graduates from the Arts & Humanities and Social Sciences take academic positions (faculty, faculty other and postdoc) than graduates from the Sciences or Engineering fields, many of whom pursue employment in business and industry. But over time, the percentage of students in all areas who are initially employed as faculty is diminishing, as graduates pursue new areas of work (Figure 2)

**Initial Employment Sectors by Division:** 

#### Classes '07-'09 and '12-'14 Social Social Arts & Sciences: Sciences: **SEAS** Science Humanities Econ & Gov Other Faculty (US and Intl) Faculty (Other) 36% 42% 14% Postdor 57% 24% 16% Other Academic/Higher Ed 20% Business Industry Government: Fed, State, Local 16% 27% 18% 30% 23% 25% Non-Profit Other Nonacademic 3% 16% Unemployed 21% 20% 18% Not available

'07-'09 '12-'14 '07-'09 '12-'14

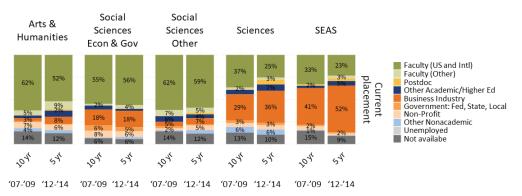
**Figure 2.** Sectors Represented by Each Color are Listed in the Legend on the Right. "Faculty (other)" represents nontenure track or adjunct faculty. Note that "Unemployed" includes students who are still deciding on offers. Across all disciplines, students are entering a number of different sectors. In the Arts & Humanities and Social Sciences, the number of students immediately entering tenure track positions has dropped (darker green) over time while entry into postdoc positions has increased (yellow) for Arts & Humanities, all Social Sciences, and SEAS.

(07-'09 '12-'14

Similarly, examination of 5-year-out and 10-year-out data indicate that in divisions other than Sciences and Engineering, alumni in tenure track positions range from 52 percent to 62 percent but in most cases, this has decreased over time (Figure 3). Nonetheless, alumni are strongly represented in numerous other sectors with the Sciences and Engineering having a greater number of alumni in non-academic sectors than academic sectors.

# Current Employment Sectors by Division:

Classes '07-'09 (10 years out) and '12-'14 (5 years out)



**Figure 3. Current Employment Sectors for Alumni who Graduated between 2007–2009 or 2012–2014.**Sectors represented by each color are listed in the legend on the right. Alumni are employed in a wide range of sectors.

The majority in the Arts & Humanities and all Social Sciences are in tenure track positions while less than 40 percent in the Sciences and Engineering are in tenure track positions.

For those whose initial employment is in the academic sector, the overall percentage entering tenure-track or other long-term faculty positions immediately is decreasing while the overall number entering postdoctoral positions is increasing (Figure 4 compares exit data for 2007–2009 with exit data for 2012–2014).

# **Employment Sectors of Initial Academic Placements:**

Classes '07-'09 (10 years out) and '12-'14 (5 years out)

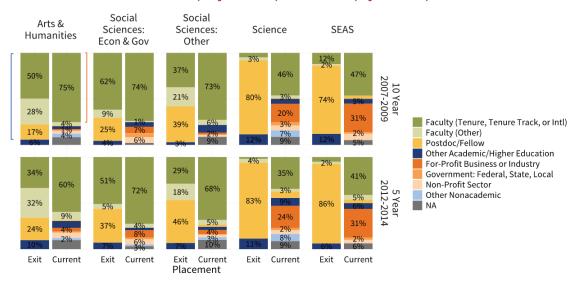


Figure 4. Data Represents Employment Sectors for Graduates Whose Initial Position Was in Academia.

Top panel is employment data for cohorts graduating from 2007–2009 at exit (left column) or 10 years out (right column). Bottom panel is employment data for cohort graduating from 2012–2014 at exit (left column) or 5 years out (right column).

Moreover, in the Sciences and Engineering, close to half or more who enter postdoctoral positions ultimately end up in sectors outside the academy. While the movement into tenure track positions is higher in the Social Sciences and Arts & Humanities, many postdocs and nontenure track faculty in these disciplines also end up in other sectors. For example, in the Arts & Humanities, as can be seen in Figure 4 for the cohort that graduated between 2007 and 2009, 95 percent initially entered an academic position, defined as a faculty or postdoctoral position, with 50 percent of them in tenure track positions. Ten years later, only 75 percent of them have secured tenure track positions, with 4 percent remaining in nontenured academic positions.

The reasons for these trends are numerous, and the study of a tightening academic job market in many fields has a far longer history than reflected in the period of time covered in this project. But the data collected for this study do give us a longitudinal view of these cohorts of students, as illuminated by two snapshots in time: initial placement and 5-year-out or 10-year-out placement.

As mentioned, the outcomes data project looks at snapshots in time for past cohorts of graduated students. To get a sense of initial job placement and aspirations among more recent graduates, Harvard Griffin GSAS's exit survey provides some good context. Figure 5 shows the initial placement for students graduating between November 2020 and May 2023.

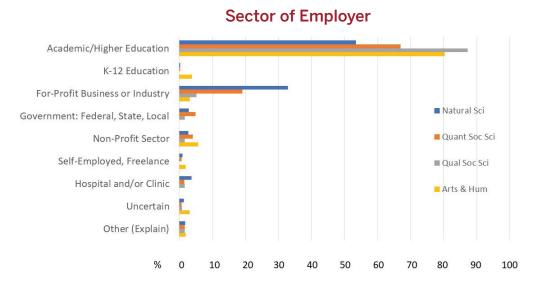


Figure 5. Initial Placement of Students Graduating between November 2020 and May 2023.

Data represent 1,003 students in the Natural Sciences, 410 in the Quantitative Social Sciences, 121 in the Qualitative Social Sciences, and 158 in the Arts & Humanities. The majority of students across all areas still pursue academic positions with the greatest percentage still being in the Qualitative Social Sciences and Arts & Humanities.

In the Natural Sciences, initially, just over 50 percent enter the academic/higher education sector while close to 70 percent or greater of students in the other areas pursue careers in this sector. With regards to the academic sector, the recent data is consistent with the trends observed in the earlier data with a smaller percentage initially entering a tenure track position and many entering postdoctoral or nontenure track positions (Figure 6).

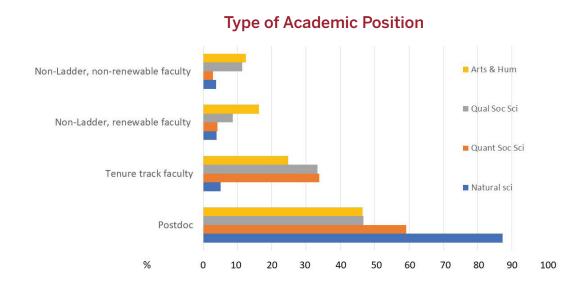


Figure 6. Type of Academic Positions for Students Graduating between November 2020 and May 2023.

Data represent 463 students for the Natural Sciences, 284 for the Quantitative Social Sciences, 109 for the Qualitative Social Sciences and 130 for the Arts & Humanities. While the postdoc is the norm for those interested in the academic track in the Natural Sciences, students entering a postdoctoral position in each of the other divisions is close to 50 percent or greater.

While the sectors they enter may be changing and different across the disciplines, 90 percent or greater find the PhD training relevant and 83 percent or greater are satisfied with the outcome of their job search (Figure 7 and data not shown).

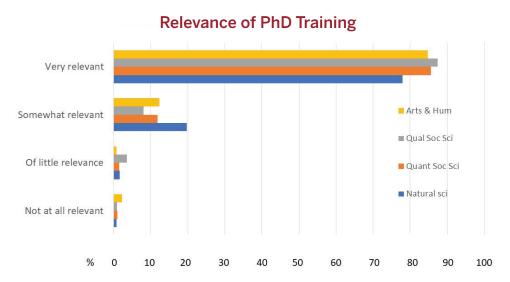


Figure 7. Relevance of PhD Training to Employment Outcome.

Data represent students graduating between November 2020 and May 2023. Seven hundred seventy-two students responded in the Natural Sciences, 391 students in the Quantitative Social Sciences, 115 in the Qualitative Social Sciences, and 139 in the Arts & Humanities. The vast majority find their PhD training relevant to the work they will pursue.

### D. Financial Support

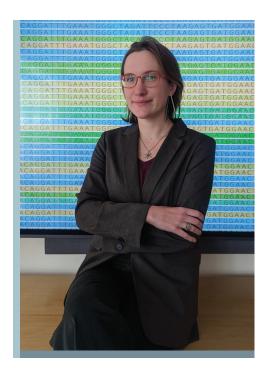
Following the recommendations of the 1998 Report on the Faculty Committee on Graduate Student Financial Support, Harvard Griffin GSAS revised its student funding structure by guaranteeing multiyear funding packages to PhD students. Today, the school typically guarantees 5.5 years of financial support for PhD students: tuition and health fees are funded for six years, while living expense funding is guaranteed for five years through a combination of stipend support, teaching fellowships, and research assistantships. Students in the Arts & Humanities and Social Sciences ordinarily are guaranteed two years of living expense stipendiary support, final year stipendiary funding, and two years of teaching fellowship commitments. In the Natural Sciences, funding after the second year is oftentimes provided in the form of a research assistantship or teaching fellowship.

When determining the financial aid budget in a given year, an analysis of the number of graduate students guaranteed funding and the costs associated with them (stipends, tuition scholarships and health insurance scholarships) is performed. Specifically, the impact of the costs on the FAS unrestricted fund budget is a key consideration. The following analysis explains how the increasing reliance upon FAS unrestricted funding has placed greater pressures on the total financial aid budget.

#### A CLOSER LOOK AT PHD FINANCIAL AID: THE CONCEPT OF A NET UNRESTRICTED INVESTMENT

The financial dimensions of determining the appropriate number of graduate students in the FAS are complicated by the fact that how a graduate student is funded (e.g., using internal unrestricted dollars or external fellowship funds) has significant financial consequences. The FAS is particularly sensitive to how much of the financial aid expenses are paid for by using unrestricted dollars, which are of exceptional value as they can be used to fund any expense across the FAS. Breaking a student's financial aid package down into component parts and taking note of which funding sources are being used for each part is important for understanding the net flow of unrestricted dollars.

- **Stipend:** This is money that leaves the FAS ecosystem and is brought home by the student, to be spent elsewhere in the world. When FAS funds are used, it is "money out the door." If an external grant or fellowship pays this cost, then FAS does not bear this cost.
- **Health insurance:** This is money that leaves the main FAS ecosystem and goes into the world of health care. When FAS funds are used, it is "money out the door" for all intents and purposes. If an external grant or fellowship pays this cost, then FAS does not bear this cost.
- **Tuition:** Tuition is received by FAS as revenue.



- >When **unrestricted FAS dollars** are used to pay for tuition, there is an equivalent amount of unrestricted dollars received as tuition revenue. This nets to zero for FAS. There is no net cost, but it does represent a lost opportunity for revenue.
- When **restricted endowments** are used to pay for tuition, this frees up the previously unrestricted dollars that were received as tuition revenue. This effectively washes away the restrictions attached to the funding. There is benefit associated with this, as these unrestricted funds can be used to address other needs, including paying for graduate stipends and health insurance.
- >When **outside fellowships or grants** are used to pay for tuition, it is fully realized as a net tuition gain by the FAS. This is revenue to the FAS and it can be used for any purpose, including paying for graduate stipends and health insurance.

An important concept is that all tuition revenue is realized as unrestricted revenue to the FAS, regardless of funding source. Thus, we can define a "net unrestricted funds" financial result by subtracting graduate financial aid expenses paid from unrestricted sources from all tuition revenue (which also has unrestricted dollars as the units).

#### Net Unrestricted = All Tuition Revenue - Grad Aid from Unrestricted

A series of case studies will help illustrate the significance of these concepts.

# Case Study #1

A G2 student in Comparative Literature is fully funded by unrestricted dollars from the Dean of FAS

#### Net Unrestricted = All Tuition Revenue - Grad Aid from Unrestricted

= (tuition rev) – (tuitions expense + stipend + health insurance)  
= 
$$(\$52,456)$$
 –  $(\$52,456 + \$40,268 + \$5,384)$   
=  $-\$45,652$ 

## Case Study #2

A G2 student in Classics is fully funded by a restricted endowment in the Department of the Classics

### Net Unrestricted = All Tuition Revenue - Grad Aid from Unrestricted

= (tuition rev) – (tuitions expense + stipend + health insurance)  
= 
$$(\$52,456)$$
 –  $(\$0 + \$0 + \$0)$   
=  $\$52,456$ 

# Case Study #3

A G2 student in Chemistry has their stipend and health insurance paid for by a research grant and their tuition paid for by unrestricted dollars from the FAS Dean

#### Net Unrestricted = All Tuition Revenue - Grad Aid from Unrestricted

= (tuition rev) – (tuitions expense + stipend + health insurance)  
= 
$$(\$52,456)$$
 –  $(\$52,456 + \$0 + \$0)$   
=  $\$0$ 

### Case Study #4

A G2 student in Chemical Biology has their tuition paid for by a corporate gift and their stipend and health insurance paid for by unrestricted dollars from the FAS Dean

#### Net Unrestricted = All Tuition Revenue - Grad Aid from Unrestricted

= (tuition rev) – (tuitions expense + stipend + health insurance)  
= 
$$(\$52,456)$$
 –  $(\$0 + \$43,482 + \$5,384)$   
=  $\$3,590$ 

The net unrestricted investment in graduate financial aid, filtered by academic division and year, is shown in the graph below. The Science Division tends to generate unrestricted revenue for the FAS, and the Arts & Humanities and Social Sciences Divisions tend to require a net investment (i.e. expense) of unrestricted funds.

# FAS Net Unrestricted Results by Divisions



Figure 8: FAS Net Unrestricted Results by Divisions

#### The Impact of Fundraising

Assuming the same number of graduate students:

- Dollar per dollar, any new restricted dollar for graduate financial aid (including from fundraising) reduces the demand on unrestricted funds.
- If FAS could fully fund all FAS PhD programs with restricted funds, then no unrestricted dollars would be needed. In fiscal year 2021–2022, \$43 million in unrestricted dollars would have been generated if this were the case (tuition revenue).

Assuming all other existing restricted funding sources remained, an endowed gift of approximately \$1.3 billion would be needed to bring the annual FAS unrestricted investment in graduate financial aid to \$0. It would take an additional \$0.5 billion to replace the faculty sponsored contribution.

Further information about financial support can be found in Appendix C.

### E. Time to Degree

Expected time to degree (TtD) varies across the disciplines, with programs in the Sciences generally requiring less time than those in the Arts & Humanities and Qualitative Social Sciences, in which several years of independent research and writing may be the norm after the student submits a dissertation prospectus. Within these qualitative disciplines there are further local variations. For instance, a field that requires the practical knowledge of multiple foreign languages will likely have a longer expected TtD. Some local variations in TtD are explained by a longer course sequence, longer exam-to-prospectus process, or when students need to teach more when fellowship support is not available.

Harvard Griffin GSAS has long respected these local variations and offers some flexibility, such as allowing students to apply for the dissertation completion fellowship beyond the stated deadline of the G7 year, when the department advocates for a slightly longer timeline. We understand, however, that striking differences in TtD may exist between several of Harvard's programs and those at peer institutions, which will require further analysis.

The GAGE committee was interested in understanding the factors contributing to longer TtD that are not explained by the norms of the discipline. The committee looked at teaching patterns across the FAS according to G-year and, not surprisingly, the programs with consistently long TtD also tended to be those with the highest amount of teaching per student. This situation no doubt reflects the fact that these programs already have longer expected TtD (due to language requirements and dissertation topics requiring archival or field research), and students thus turn to teaching for income in the outer G-years once fellowship funding and the dissertation completion fellowship are exhausted.

Longer TtD for individual students sometimes is the result of unfortunate advising situations; for instance, when the dissertation committee composition is changed due to circumstances beyond the control of the student. Likewise, in other cases, one or more members of the committee may take an exceedingly long time reading the dissertation. Advising survey responses also note the challenges that some advisors face in taking on too many advisees and sometimes attribute longer TtD to this problem.

It is equally important to note, however, that some students simply need more time to complete a strong dissertation. The question of how to evaluate when a long time is too long will always require a nuanced understanding of the factors involved. What we can say with certainty is that mentoring issues and, thus, time to degree always arise when a department does not provide consistent expectations for regular check-ins with the committee. The recommendations that follow in Section V will address this issue in more detail.

# F. Advising

Harvard Griffin GSAS collects data on advising from several sources. The student exit survey, described above in the section on Outcomes is, in addition to being the School's most consistent source of information on immediate employment on exit, a consistent source of data on advising in graduate programs. Most graduates (84 percent to 94 percent) in each of the areas since 2020 have reported the effectiveness of their primary advisor to be excellent/very good or good (Figure 9). The students who report less than good experiences, combined with the findings of the Mental Health Survey, show that a group of them attribute feelings of significant stress to their advising relationships. This tells us that we need to focus on this critical piece of graduate education.

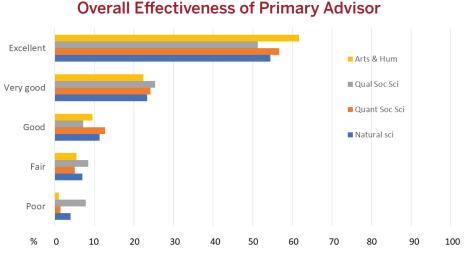


Figure 9. Overall Effectiveness of Primary Advisor.

Data represents 936 students in the Natural Sciences, 435 in the Quantitative Social Sciences, 157 in the Qualitative Social Sciences, and 202 in the Arts & Humanities. Students were asked a series of questions about their advising relationship and to rate the overall effectiveness of their advisor. The majority gave a rating of excellent and 84 percent or greater chose a rating of good, very good, or excellent.

The fact that the majority of our students report such positive experiences should be celebrated. It is a testament to the faculty advisors and department administrators who are so dedicated to Harvard's educational mission. These students receive excellent advising from people who may intuitively understand how to mentor or who develop and follow their own robust processes of support. Data collected at exit about their overall attitude toward the PhD training also suggests issues that go beyond the advisor and may reflect a range of areas. When students were asked at exit about their attitude toward PhD training, the majority in all divisions indicated that they would do the PhD over again in the same field with the same mentor and at Harvard, and 77 percent or greater would do the PhD again (Figure 10).

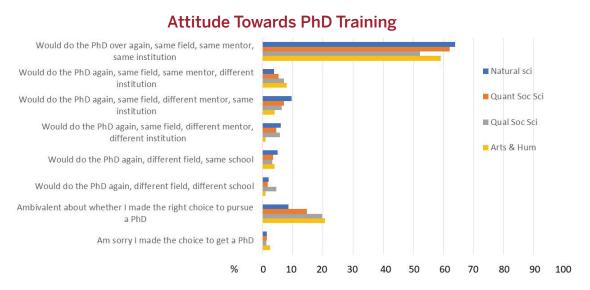


Figure 10. Attitude Toward PhD at Time of Exit for Students Graduating, November 2020 - May 2023.

Students were asked to pick the statement that best describes their attitude toward their PhD training. Nine hundred fifty-four students responded in the Natural Sciences, 439 in the Quantitative Social Sciences, 161 in the Qualitative Social Sciences, and 204 in the Arts & Humanities. Seventy-seven percent or greater would do the PhD again, and between 59 percent and 67 percent would do it with the same mentor. Ten percent to 17 percent would do the PhD but not at Harvard.

Harvard Griffin GSAS appreciates this engagement with our students and acknowledges the great work that fosters these relationships.

But students who experience less effective advising experiences cannot be dismissed. Their stories often point out larger concerns that are touched on throughout this report. In many cases, it is the lack of structures to support individual advising or the absence of departmental processes to help students progress that can lead to a breakdown in the faculty-student relationship and, in some instances, an inability on the part of the student to thrive in the program.

Data collected at exit about their overall attitude toward the PhD training also suggests issues that go beyond the advisor and may reflect a range of areas. 10 percent and 17 percent would do the PhD again but not at Harvard. In the exit survey noted above, 10 percent to 23 percent are also either ambivalent about whether they made the right choice to pursue the PhD or regret their decision (Figure 10). Understanding why such a large number of students feel this way warrants further study, especially in identifying whether the COVID-19 pandemic played a role.

The exit survey has provided a good general barometer of academic advising, but its focus is more on the student's career plans and preparation for the job market and reflects feelings on late-stage advising. To assess our students' overall advising experience and to understand how students experience their academic advising while they are enrolled, we developed a more comprehensive survey on advising, which is now administered at the start of each academic year as students in the G2 year and above register for the fall term. This survey was developed and first administered in 2021 and reflects consultation with colleagues across GSAS and Paul Barreira's mental health survey findings.3

# V. Recommendations for Graduate Education

After scrutiny of the data, multiple conversations with students, faculty, and administrators, and thoughtful conversation, the GAGE working group has outlined a series of recommendations for implementation. These recommendations are designed to enhance the experience of graduate students and ensure that training for a Harvard PhD is of the highest quality and fully prepares graduates to become intellectual leaders in the 21st century.

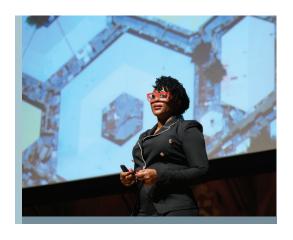
We know that some departments have already incorporated some of the following recommendations into their normal practice. Our aim is to formalize the recommendations and provide to other departments a roadmap to help them enhance the graduate student experience.

We have divided the recommendations into key areas:

- · Advising
- · Scale and Strength of the Academic Program
- · Equity, Diversity, Inclusion, and Belonging
- · Employment Outcomes
- · Teaching
- Finances

Based on these recommendations, the GAGE working group has developed additional recommendations for admissions, which follow in the next section.

Early in the GAGE process, it became clear that advising is a thread woven through nearly every aspect of the graduate experience, affecting the student's time to degree and their sense—from start to finish—of belonging in a scholarly community. Because of this, our advising recommendations are by necessity longer than those in other categories.



<sup>&</sup>lt;sup>3</sup> Although not extensively shared with the GAGE committee, GSAS has collected various demographic data on both applicants, admitted students, and matriculated students. There has been a change in demographics for some categories including groups historically underrepresented in the academy. With regards to inclusion and belonging, data from the University wide pulse survey, and climate surveys suggest that Harvard Griffin GSAS students, compared to faculty, staff and undergraduates, feel more excluded in their departments. In addition, the data from the mental health surveys, reveals that certain identities also tend to have higher levels of imposter phenomenon, stress, and anxiety and issues of inclusion and belonging may contribute to this.

## A. Advising

Prominent national studies<sup>4</sup>, along with Harvard-specific data from mental health surveys and advising surveys, show that healthy and well-structured advising relationships play a critical role in graduate students' academic success and well-being. Organizations such as the Center for the Improvement of Mentored Experiences in Research (CIMER) have developed tools designed to improve the research mentoring relationships for mentees and mentors at all career stages (see Advising Resources at gsas.harvard.edu/academics/advising/advising-resources), and the National Academies of Sciences, Engineering, and Medicine, the Modern Language Association, and other professional organizations advocate strongly for improvements in mentoring for graduate students.

Harvard Griffin GSAS joined this national movement in evaluating the existing advising system, informed by important data captured in departmental mental health surveys conducted by former Executive Director of Harvard University Health Services Dr. Paul Barreira and as well as surveys of students conducted during registration and at graduation.

#### **PRINCIPLES**

As a first step, the GAGE working group developed a set of principles designed to guide conversations about advising.

First and foremost, effective advising is the foundation upon which every successful graduate student career is built. Graduate students require and should expect support in many aspects of their graduate work—from preparation for successful navigation of the early years to assistance in managing transitions to dissertation completion and beyond. Timely interventions to help keep a student on track are crucial to their success.

Harvard Griffin GSAS recognizes that most faculty care deeply about providing effective advising, and surveys show that most students report positive advising experiences. But this isn't always the case. For

Our DGS meets with G1s and G2s. This year was weird for me to suddenly not have that meeting. I would have liked to have been a little more advised during this transition year.

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example, some advising relationships rely too much on one advisor, creating significant vulnerability for the student when that connection breaks down. For this reason and others, it is important to codify what constitutes effective advising and share recommendations with faculty looking for guidance, especially junior faculty seeking to become effective advisors.

The process of providing structured, effective advising is both a highly rewarding experience for faculty and a significant commitment in terms of time and intellectual and creative energy. As a consequence, and as identified by the Faculty Workload Committee, faculty should not be overburdened by advising loads so that they are able to spend enough time providing students with sufficient support throughout the course of their academic careers. The advisor who takes on the

<sup>&</sup>lt;sup>4</sup> Ballantine, Jeanne H. and John-Andrew Jolly-Ballantine (2015). "Mentoring Graduate Students: The Good, Bad, and Gray." Journal on Excellence in College Teaching 26 (2): 5-41.

Barnes, Benita J., Elizabeth A. Williams, and Martha L.A. Stassen (2012). "Dissecting Doctoral Advising: a Comparison of Students' Experiences Across Disciplines." Journal of Further and Higher Education 36 (3): 309-331.

Paglis, Laura L., Stephen G. Green, and Talya N. Bauer (2006). "Does Adviser Mentoring Add Value? A Longitudinal Study of Mentoring Doctoral Student Outcomes." Research in Higher Education 47 (4): 451-476.

Posselt, Julie (2018). "Normalizing Struggle: Dimensions of Faculty Support for Doctoral Students and Implications for Persistence and Well-Being." The Journal of Higher Education, 89 (6): 988-1013.

Zhao, Chun Mei, Chris M. Golde, and Alexander C. McCormick (2007). "More Than a Signature: How Advisor Choice and Advisor Behavior Affect Doctoral Student Satisfaction." Journal of Further and Higher Education 31 (3): 263-281.

lion's share of advising in the department and in so doing becomes overcommitted, or the one whose lack of responsiveness delays a student's time to degree, cannot effectively support students on their academic journey or assure the superior education critical to maintaining Harvard's standing as a premier research and educational institution.

Just like the faculty, students also invest in making the advising relationship as effective as possible, taking initiative and responsibility, and developing a network of support. In addition to the primary advisor, students at all stages of their graduate career should be supported by an "advising village" that includes multiple mentors. Faculty and staff support students in identifying additional mentors to meet their academic and professional goals. These may include secondary advisors, committee members, directors of graduate studies, or staff members.

Over time, a student or the program may discover that the PhD is not the right route for the student to achieve their career and personal goals. Programs must actively and positively engage students who fit this description to consider proudly graduating with a master's degree rather than investing time, resources, and energy in the pursuit of a PhD.

#### **RECOMMENDATIONS**

If they do not have them already, graduate programs will develop advising requirements that meet the following recommendations, adapted for disciplinary differences (examples that graduate programs can build on can be found at gsas.harvard.edu/academics/advising/advising-resources). The requirements should be the result of discussion with faculty in the graduate program and should serve to normalize conversations around effective advising.

Enhancing advising practice is included as part of faculty professional development, similar to the way pedagogy has received greater emphasis in recent decades.

GSAS strongly encourages departments to develop programs for junior faculty that foster advising capability.

GSAS will provide support and helpful feedback as needed. Graduate programs are strongly encouraged to address overall or individual shortcomings in advising by promptly working with GSAS, which will work as appropriate or necessary with the Office for Faculty Affairs, divisional deans, and department chairs (if not involved) to support interventions and monitor whether the action has been effective. Depending on the outcome of any intervention, additional measures may be taken in consultation with the department, GSAS, and FAS leadership.

Because the academic experience is different for many students in the Sciences, the FAS Director of Graduate Education in the Natural Sciences should consider ways to ensure effective advising in very large labs.

The Harvard Griffin GSAS dean, in partnership with the relevant divisional deans, will weigh the robustness of the department's advising requirements, as well as its success in upholding these requirements, when assigning cohort sizes.

## Throughout the graduate student career

#### PROGRESS TOWARD THE DEGREE

Graduate programs develop and clearly define comprehensive degree requirements, as well as a reasonable expectation for program length, and communicate these to students.<sup>5</sup> Progress toward these requirements is tracked and monitored.

Student progress expectations and consequences for lack of progress are clearly defined, communicated, and reviewed with students on a predetermined basis. Timely interventions are undertaken when progress is delayed. Formal documentation about student status should be shared with Harvard Griffin GSAS to enable support for all involved.

#### **ADVISING STRUCTURES AND RELATIONSHIPS**

Graduate programs establish clear advising structures for students at every stage of their training/education, from the outset of the program to graduation, and as appropriate for each stage, setting clear expectations for both faculty and students around advising relationships.

Departments identify and signpost mechanisms to support students with concerns; for example, by designating a neutral party with whom the student can consult or referring students to GSAS or Harvard resources.

Departments understand and clearly communicate resources available to students and undertake to support and, where appropriate, refer students to support for academic, well-being, advising, professional development, and career (academic and non-academic) issues.

Departments positively encourage and facilitate students in developing a broader group of advisors and mentors that will help students achieve their academic goals, including by supporting co-advising. Students are clearly informed about where they can go (including and beyond individual advisors and the DGS) with concerns about academic, well-being, or advising issues.

Advising makes a big difference, and if it's not up to department rules, it's up to faculty to make it work. Sometimes it can be hard to get faculty to get that going; the burden is definitely on the student.

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Recognizing that advising overload is counterproductive to the advising relationship, departments determine an upper limit on advisees and develop mechanisms to track advising loads—formal and informal, in-program and in other programs—to prevent overload for individual faculty members and ensure that advising does not fall to a small group of faculty.

Department leadership has a responsibility to monitor advising relationships and is empowered to intervene when the relationship risks becoming counterproductive and begins to impact student progress. GSAS can provide guidance on how to approach conversations designed to improve this relationship.

<sup>&</sup>lt;sup>5</sup> See https://gsas.harvard.edu/policy/degree-requirements

#### **OUTCOMES**

Departments understand the state of the field and set realistic expectations with students around outcomes.

Departments foster supportive and broad-ranging conversations about career options, ensure that each student has access to career advice including advice about pursuing careers outside academia, and leverage opportunities for students to graduate with a master's degree when continuing to pursue a PhD no longer meets the student's long-term personal and professional goals.

All this information is clearly communicated and readily available to faculty, students, and staff, utilizing the graduate student section of the department's website and through access to the tools and resources made available to faculty, departments, and students by GSAS.

#### PRE-DISSERTATION

Care is taken at the pre-dissertation stage to ensure that students are fully supported so as to foster academic progress and well-being, that they are not "locked in" to a single advisor, and that they are assigned at least two advisors (e.g., an in-field advisor plus the DGS).

If a student's career or personal goals evolve or if they demonstrate more enthusiasm for master's level work rather than doctoral level research, departments support conversations about graduating with a master's degree.

Departments identify moments in the student academic experience when additional guidance or scaffolding may be needed to move students to the next stage; for example, the transition from coursework to independent research. <sup>6</sup>

#### DISSERTATION

Departments set and document clear expectations for the advising relationship related to the dissertation including the responsibilities for both students and faculty. Expectations include an agreed-upon maximum turnaround time for returning work, an understanding of faculty availability for individual meetings, and guidance on letters of recommendation that outline sufficient lead time for a request from students and define prompt turnaround time for faculty.

Departments ensure proper composition of PhD committees in accordance with established rules.<sup>7</sup>

Expectations for the dissertation committee are clear: Meetings of the full committee with the student occur, at minimum, once per year. Meetings are documented by a self-report from the student along with a report from the committee, which is kept on file by the department.

GAGE strongly recommends that graduate programs ensure that members of a student's dissertation committee are providing input as the dissertation is developed and not waiting until the final stages.

<sup>&</sup>lt;sup>6</sup> Student progress should be monitored closely. The general exam (or an equivalent milestone, usually falling at the end of the G2 year or in the G3 year) provides a natural point in the student's journey for advising conversations that can reflect the student's experience so far in the program and help the student prepare for the next stage, which is usually marked by intense research and dissertation preparation. Departments have great leeway in designing a general exam (or the equivalent) that provides students with the best training for the discipline, but every program should establish a means for giving students this meaningful feedback and critical evaluation before the student embarks on the research and writing phase.

<sup>&</sup>lt;sup>7</sup> The GAGE committee notes that the current rules concerning dissertation committee composition were written in the 1990s and need review. The GAGE committee endorses a plan for the GSAS Graduate Policy Committee to review these rules in the coming academic year. Review of existing policy, and subsequent proposals for new language, should follow the recommendations of this report. New language should also address ambiguities in the current policy around allowances for membership of the committee and should strengthen and clarify the importance of consistent and regular advising through the dissertation committee.

#### B. SCALE AND STRENGTH OF THE ACADEMIC PROGRAM

Data from exit surveys, mental health surveys, and other sources support the finding that students thrive best in programs that support them in the ways described above, providing appropriate points for advising conversations at every stage of the student's journey. Generally, program strength—in terms of eventual job possibilities as well as of students' perceptions while pursuing the degree of likely outcomes—is also an important factor in the well-being of students. Because Harvard Griffin GSAS's oversight includes the health and well-being of students, the School has a duty to evaluate aspects of the graduate student experience, including the strength of the academic program.

As part of this evaluation, the School expects that available areas of study reflect faculty interest sufficient to support the academic growth, well-being, and professional development of students. This academic program must be strong and sustainable, drawing applicants with the greatest potential to succeed who will go on to use their training to positively impact the field in careers inside or outside academia.

When determining admissions slots, we take into account the following, as well as the other recommendations found in this section:

- An evaluation of the size and strength of PhD applicant pools and the overall state and trajectory of the field.
- The FAS dean's institutional investment in Harvard Griffin GSAS's graduate programs and (using that assessment) the academic priorities outlined by divisional deans.

#### **ADMISSIONS**

Admissions committees should not admit less qualified individuals simply to meet admissions targets.

In a year when the applicant pool is weak, admissions committees should consider alternate approaches, such as deferring slots to a year when the pool is stronger or working with the GSAS Office of Equity, Diversity, Inclusion & Belonging to admit a research scholar. Taking these approaches will not signal to GSAS that slots need to be reduced, and graduate programs will not be penalized for reducing the number of students they admit in a given year.

#### **OUTCOMES**

With reference to data gathered or reports made by national or international academic organizations, graduate programs should understand the demand for a PhD in their field, the job market situation, and the typical

It's kind of considered failing if you don't end up in academia. The mindset probably shouldn't be so heavily oriented toward tenure-track academic jobs.

There are some who don't even get a postdoc.

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path for graduates seeking employment in the field (e.g., whether initial postdoctoral positions are the norm and the general likelihood of this leading to an intellectual leadership position)—nationally and internationally, inside and outside of academia—and how their graduates advance their field in careers, using skills specific to their discipline and PhD-level training. This information is shared with Harvard Griffin GSAS and with on-course students.

Programs ideally are well-versed in the career options for students in their field who seek jobs outside of the academy. At minimum, the program knows where to send students for advice and makes efforts to bring in others (ideally alumni who are pursuing these careers) to speak to current students about such careers.

#### **VIABLE COHORT SIZES**

Faculty feedback to the GAGE committee has emphasized the problems experienced by small programs. Frequently cited struggles include the difficulty of running effective graduate seminars when only a small number of students are available to take them, the lack of esprit de corps among students, and students from minoritized groups struggling to find community. In addition, as noted above, students in some small programs experience specific problems in relation to advising because of the lack of ready access to a variety of faculty. At admissions time, selecting candidates from very small pools may also present challenges.

The GAGE committee recognizes the severity of these problems and agrees that very small cohorts can present challenges to intellectual as well as more general well-being. Expanding small cohorts to make them



viable cannot, however, take precedence over other considerations. A number of creative approaches to the challenges of small cohorts already exist, including the organization of graduate seminars focusing on themes that draw in students from a number of PhD programs, such as the Ancient Studies and Translation Studies initiatives. Graduate seminars such as these promote engagement in broader intellectual themes, which may benefit students when they are on the job market and can be imagined as one element of a curriculum that might also include tutorial teaching on more specialist subjects, and/or nano courses such as those organized in the biological sciences.

Regardless of cohort size, students should be engaged with like-minded students to build community, and programs should think creatively about enabling students in small cohorts to build community.

## C. Equity, Diversity, Inclusion, and Belonging

Harvard Griffin GSAS's mission is to identify and attract the most promising students to form a dynamic and diverse community and to shape them into visionary scholars, innovative educators, and creative leaders. Achieving this mission requires principles of equity, diversity, inclusion, and belonging (EDIB) to be fully embedded in all aspects of graduate education and admissions. Whether it is admissions practices, School or departmental policies, advising, program development, or curriculum, these principles must be considered and incorporated.

#### **DIVERSITY AND ADMISSIONS**

Excellence comes in many forms. It may be easiest to see this in the applicant who is best credentialed by traditional measures (e.g., lvy+ or Oxbridge training, extensive experience in research, with major skills that a PhD student will need already in place). But what is lost for the department and the field when students come from the same schools, trained by the same professors?

While some candidates may not have had access to opportunities to gain certain skills, they may still demonstrate a potential for excelling in the program—it is important to remember that study toward the PhD is training; it is not for individuals who are already trained. They may additionally bring voices and perspectives that could transform study in the department and the field. Ensuring diversity in multiple dimensions extends beyond simply admitting students—it must extend to attracting, enrolling, and retaining diverse cohorts, staying aware of situations that lead to exclusion and addressing them when they arise.

#### Recommendations

Based on these principles, GSAS recommends that students be selected for admission and ranked based on their potential for excelling in the program and for the varied voices and perspectives they can bring.

Admissions committees should focus on conducting a holistic review, choosing students based on a variety of measures beyond GPA and credentialling, and are prepared to share this process with GSAS.

Harvard Griffin GSAS recommends creating a system of questions that capture what the department wants to know about a candidate's potential, rather than relying on a blanket recommendation. Departments should consider adding these questions to the application.

Departments should discuss what diversity means for them, particularly as it pertains to attracting, enrolling, and retaining a diverse group of students.

Admissions committees should evaluate existing practices and biases (including whether applicants from Harvard, other lvy+ and peer institutions, and Oxbridge are favored) and determine the factors that should be considered when reviewing candidates, keeping the following questions in mind.

- · How is diversity defined for your program?
- · What makes a strong candidate?
- · What voices are needed for your field?
  - > Who is missing?
  - > Why?
  - > How can your program address this?
- · What does equity and inclusion mean for your program?
- What environment and practices are in place to support a diverse group of students?

### **EQUITY, INCLUSION, AND BELONGING**

Admitting a diverse pool of applicants is only one part of the EDIB equation. Intentional efforts to examine and address issues of equity, inclusion, and belonging are critical. Departmental climate surveys demonstrate that graduate students are the group with the highest percentage reporting that they are treated differently by others (faculty, staff, peers) based on their identity (race/ethnicity, socioeconomic background, religion, gender, nationality, sexuality).

Climate surveys are an important first step to creating an inclusive environment, but intentional conversations about the results, policies, and practices that are hampering inclusion are needed.

The system is biased toward anyone who has an Ivy background. There are artificial ways of helping outsiders like me, but it doesn't change how individuals interact with one another. In my department, it doesn't feel like I'm being deliberately excluded, but all the Ivy/Oxbridge kids teach together, hang out together, and gravitate toward faculty who are from that same background.

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#### Recommendations

When admitting diverse candidates, the program should work with the GSAS Office of Diversity, Equity, Inclusion & Belonging to develop a strategic plan for recruitment and retention. Departments should understand that graduate students come from a variety of backgrounds, experiences, and identities.

Departments should work with Harvard Griffin GSAS to participate in culturally aware mentoring programs, additionally investigating culturally aware mentoring resources.8

Departments should develop strategic plans to address climate survey findings to create an environment where all graduate students and members of the department feel valued.

Departments should evaluate policies that may unintentionally create barriers to student success in the program, whether academic, financial, or social.

Departments should ensure that graduate students have access to the resources, knowledge, and training (including via workshops, peer mentoring, and other mechanisms) that enable them to navigate their education and succeed in the program, addressing in particular the "hidden curriculum."9

All graduate students should have equal opportunity to participate in professional development, teaching, and other training opportunities. Departments should be aware of and seek to mitigate the informal relationships and patronage that may limit access to such opportunities.

# D. Employment Outcomes

There seems to be a broad consensus among faculty—even if this consensus is rarely articulated—that the PhD is primarily training for an academic or research position that directly employs the material and skill of PhD-level work. As patterns of employment continue to change, evidenced already in the Natural Sciences, many fields that had previously more or less guaranteed academic positions are now seeing reduced opportunities.

For decades, Harvard Griffin GSAS has positively endorsed PhD graduates pursuing a variety of outcomes, factoring in the availability of positions in their area that directly uses these skills. At the same time, the School has a responsibility to not admit vastly more students than can fill available positions directly using

The department is good at preparing us for academic positions. We have been asking for more support [regarding positions outside academia], but we're often just directed to OCS.

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their knowledge and skills. Programs have a responsibility to communicate a realistic sense of the job market in their field to students and the opportunities that exist for them, and to support students as they prepare for future careers.

Many programs have pivoted to encourage students to consider how their PhD can be used in careers outside academia, but students still often experience conflicting messages. Well-meaning faculty assure students that "good people are still getting academic jobs," and students rarely see faculty at talks where alumni share their experiences of nonacademic careers.

<sup>&</sup>lt;sup>8</sup> https://cimerproject.org/culturally-aware-mentoring-resources-2/

<sup>9</sup> In this context, the "hidden curriculum" refers to unspoken rules, values, and understanding that are needed to most effectively navigate graduate study at Harvard in particular.

#### Recommendations

To ensure that students remain competitive in the academic job market, we expect programs to review and update their curricula as needed.

At the same time, programs should positively encourage students to take advantage of opportunities to broaden their education and training in ways that will increase their access to a broad range of careers. 10

Harvard Griffin GSAS also recommends that programs evaluate student progress early and often, and that they identify students whose personal and professional goals would be better served by proudly graduating with a master's degree rather than investing time and energy in pursuing a PhD.

## E. Teaching

Teaching is an academic requirement of most programs and enables students to develop skills essential for their professional lives. Beyond providing direct preparation for careers that will require teaching, the experience of serving as a teaching fellow strengthens communication skills generally, which are fundamental to success in all career paths, whether inside or outside academia. Many graduate students find the experience of working as a teaching fellow to be among the most intrinsically rewarding parts of their graduate student experience and training.

Students sometimes take on so much teaching that progress to the degree is impeded. A request to take on an excessive teaching load may be a sign that the student is experiencing financial issues, particularly when the student has exceeded their funded years and is no longer eligible for GSAS funding (see Finances below). In these cases, GSAS works with the student and department to address the concerns to enable the student to make progress and finish. Some situations of excessive teaching load may, however, reflect departmental

TFs end up doing a lot more than the University is expecting us to, especially because undergraduates demand attention, more than professors are willing to give. Undergrads absolutely crave greater connection with professors. My students don't want my feedback on their papers, they want the feedback

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of Harvard faculty.

need for teaching support. In some situations, the reduction of cohort sizes has exacerbated this problem. In certain cases, teaching fellows are asked to take on responsibilities beyond what is reasonable.

Departmental requests for admissions slots have sometimes placed considerable emphasis on fulfilling needs for teaching support. A working group comprising the Office for Undergraduate Education, the Office for Faculty Affairs, and GSAS leadership has compiled FAQs to help departments meet their needs for teaching support without leaning more heavily on PhD students, emphasizing alternative solutions for finding teaching support (e.g., hiring teaching assistants, seeking teaching fellows through the Centralized Application for Teaching Sections tool). Harvard Griffin GSAS will not consider departmental teaching needs when determining admissions slots (the next section, Admissions Recommendations, expressly avoids including teaching needs as a criterion).

To ensure that GSAS PhD students benefit from the experience of teaching and that those who have met the teaching requirement and are beyond their teaching requirement are able to focus more deeply on the dissertation, GAGE makes the following recommendations.

<sup>&</sup>lt;sup>10</sup> In addition to well-trodden pathways into industry for many graduates in STEM fields, other careers include: museum curation and a range of careers adjacent to the arts fields; careers in the fine arts that draw on particular creative art practice, such as video or musical creation; careers that seek sophisticated abilities in areas of data analysis; consulting; university administration; digital, tech, and coding skills

#### **TEACHING PEDAGOGY AND TENURE**

The benefit of pedagogical training should be clearly articulated by the program, along with a requirement for the amount and kinds of teaching that students need to achieve proficiency and develop a teaching portfolio for prospective employers that has both breadth and depth.

Students may teach beyond the required number of terms, but pedagogical duties should not negatively impact their completion of other academic requirements or extend their time to degree.



#### **TRAINING**

Training is imperative. Before entering the classroom for the first time, graduate students should be required by the Office of Undergraduate Education to complete training from the Bok Center and in the department if more specific training is needed. Preparation incorporates classroom expectations for teaching at Harvard aimed at creating an inclusive classroom and language training for those not fluent in English.

Course heads are responsible for mentoring teaching fellows and ensuring that they have access to training in the practice of teaching. Teaching fellows should continue to receive training and support for the duration of the term.

#### TF VS. COURSE HEAD RESPONSIBILITIES

Course heads are responsible for following the policies outlined in Information for Faculty Offering Instruction in Arts and Sciences<sup>11</sup> and should not delegate responsibility for instruction<sup>12</sup> to graduate students.

### F. Finances

Harvard's reputation rests heavily on the research and teaching engine of the University. Graduate students are an invaluable component of that engine, for without them the whole system would break down.

PhD students are unique in the University in that they receive full financial support for a minimum of 5.5 years, a combination of stipends and grants for tuition<sup>13</sup> and fees. The FAS has invested deeply in graduate education over time. In 2021, across the FAS, a total of \$134 million was used to fund graduate student stipends/salaries, tuition, and health fees. This investment has grown by an average of 3.8 percent per year over the past 10 years. Over this 10-year span, the investment of unrestricted dollars has increased by \$24 million, an average growth of 6 percent per year. The average financial aid commitment for PhD students in the Arts & Humanities and the Social Sciences is \$415,000. This total investment per student has increased year over year as well.

Despite this tremendous investment in graduate education, only a small portion of the endowment is restricted for fellowship support and the vast majority of the School's funding comes from FAS unrestricted funds. In recent years, the FAS has partnered with Harvard Griffin GSAS to evaluate cohort sizes and balance the need for students with the need for funding.

<sup>11</sup> https://infoforfaculty.fas.harvard.edu/2022-23

<sup>12</sup> https://infoforfaculty.fas.harvard.edu/book/instruction

<sup>13</sup> Like all students at the University, tuition is charged to the student account. The tuition rate is intended to offset the costs of the student's education. While within the financial aid commitment, the University provides scholarship to cover the tuition charges from a variety of sources, including restricted gifts and endowments, external fellowships, faculty research funding, and University unrestricted funds.

As noted earlier in this report, Harvard is in danger of losing its competitive edge with peers in the financial packages offered to PhD students. This loss is reflected in two notable ways: (1) the amount of annual living expense funding provided by GSAS is significantly lower than the amount students are offered elsewhere, sometimes by as much as \$5,000 to \$15,000 annually; and (2) the composition of the award package offered by GSAS is less favorable when compared to the packages at some peer institutions where students are offered additional years of guaranteed funding, including additional years of stipendiary support in lieu of research or teaching obligations.



While the source and level of funding offered at GSAS compared to peer institutions is concerning, the perceived gap takes on greater significance when one considers the high cost of living associated with residing in the Cambridge/Boston area. Unlike some peer schools, Harvard University does not offer subsidized housing options for students. Furthermore, in many programs in the Arts & Humanities and the qualitative Social Sciences, it is the rare exception when a student graduates in 5.5 years or less. Typically, the average time to degree outpaces the level of guaranteed funding, placing a burden on students to secure funding in those "gap" years. Financial needs in these years ordinarily are met by assuming additional teaching fellowships or research assistantships. While securing employment reduces the financial pressures

facing students, the additional work obligations reduce the time students have to concentrate on their academic work, further exacerbating the time to degree.

Harvard is at an inflection point: the circumstances of the funding model cannot cause cohort sizes to be infinitely cut in an effort to fund the financial support program. At some point, Harvard must invest more in the graduate program, not least to be competitive with major investments our peer institutions are making:

- In 2022, Princeton increased stipend support for students by an astounding 25 percent, making an institutional decision to invest in graduate education. The standard Princeton stipend exceeded Harvard's amount by more than \$5,000 in academic year 2023-2024, representing a 12 percent increase compared to what Harvard offered.
- Stanford developed the Knight Hennessy Scholars, a community of graduate students who receive fellowship funding, including research support and relocation stipends.
- The University of Pennsylvania is raising their minimum stipend by \$8,000 for the upcoming academic year.
- · Dartmouth offered a midyear stipend supplement, annual childcare subsidies, and relocation assistance.
- MIT offers graduate student and family on-campus housing that far exceeds what Harvard can offer. Stipend rates for fellowship awards have increased 14.4 percent over two years.

At the same time these enhancements have been offered, Harvard has raised stipend rates, but not at the impactful level of support offered by some of our peers.

Cutting cohort sizes to fund increases in benefits will, at some point, result in negative and dramatic consequences. For example, a recent analysis 14 showed that Harvard is one of a small number of universities that contribute a majority of faculty to US institutions across fields, signaling that Harvard's reputation has

<sup>14</sup> https://www.nature.com/articles/s41586-022-05222-x This article is showing a lack of institutional diversity in academia across the United States. However, it is still important to note that Harvard alumni have an unequaled presence at the highest levels of academia.

been a draw for institutions looking to hire faculty. In addition, faculty come to Harvard because they seek the opportunity to guide and collaborate with the next generation of scholars. With the loss of many of our most promising applicants—who are increasingly choosing to enroll elsewhere—those other institutions may begin to draw faculty away from Harvard as well. If Harvard wishes to remain an intellectual academic powerhouse, the envy of other institutions across the world, now is the time to invest in graduate education.

Earlier evaluations of graduate education, going back decades, have made the case for increased fundraising around graduate fellowships. This call has finally been heard by the University and FAS Development offices; however, it is likely to take years to realize a significant return on these newly activated fundraising efforts. Thus, the sources of funding to support graduate students are expected to remain flat or grow quite modestly in the immediate to midterm future.

#### RECOMMENDATIONS

Departments must support students to graduate in a timely manner so that they can make the most of their financial support package.

Recognizing that graduate education is an increasingly competitive environment, Harvard Griffin GSAS recommends that the University be mindful of the pressures graduate programs are under to attract the most promising students to attend Harvard, some of whom are receiving more generous financial support offers. Because of previous reductions, further reductions to cohort sizes would have stark effects.

I'm looking ahead to having to pay tuition next year, so I'm teaching more now than I'd like to be.

**G5 STUDENT, HUMANITIES** 

To address the concerns about competitiveness, the University should prioritize increased funding for stipends. This is crucial not only to ensure the highest quality candidates but to attract and retain faculty, thus assuring Harvard's premier role in training future thinkers, intellectual leaders, and visionary scholars.

Because many students by necessity must pursue a degree beyond the time covered by the financial support package, their time to degree may increase as they take on teaching beyond the academic requirement or seek employment to cover their financial shortfall.

GAGE recommends that the University expand investment in students by providing funding for health insurance and fees for the duration of their program.15

Acknowledging that graduate students fuel Harvard's research engine, the University should prioritize investment in graduate education by proactively identifying further sources of funding, including making graduate fellowships the feature of a fundraising campaign.

<sup>&</sup>lt;sup>15</sup> The GAGE committee discussed whether graduate programs should think more flexibly about admissions, for example by lowering an admissions slot request to use funding to better support their existing students. While this idea has merit, further reductions in cohort sizes has the potential to damage Harvard's reputation in graduate education.

# VI. Recommendations for Admissions

PhD students are essential to Harvard's research mission, engaging with every part of the University's ecosystem and advancing innovative research that holds the potential to change the shape of a discipline. In recent years, graduate education nationally has been affected by the changing landscape of outcomes away from purely academic jobs, changing professional and personal expectations among incoming graduate students, and the rise in mental health challenges faced by graduate students. We are also seeing increasing competitiveness with our peer institutions for the most promising candidates. The changing expectations of this generation of students have also had an impact through the creation of a union and the recognition of financial inequalities and inequities from program to program, which have increased requests for support and services throughout the University.

In this time of change, it is important to reaffirm our commitment to graduate education and to the students who study here:

- Applicants should be admitted based on their extraordinary promise.
- · With the support of Harvard Griffin GSAS, graduate programs should help students thrive and achieve that promise.
- Departments should train students to become intellectual leaders within and beyond academia.
- Departments should provide reasonable support to students that sets them up for success in pursuing their chosen profession.
- Decisions on cohort size will be determined by multiple criteria and not solely by the availability of funding. Designation of slots will not be reduced to a formula.

It is the GAGE committee's recommendation that specific factors related to graduate education, contextualized within individual disciplines and departments, be reviewed and used for admissions purposes. These factors are:

- · Scale and strength of the academic program
- · Strength of advising and faculty advising loads
- · Engagement with equity, diversity, inclusion, and belonging
- · Student outcomes
- · Institutional finances

Expectations for these factors are outlined in Section V, particularly around advising.

Well in advance of admissions slot determination, Harvard Griffin GSAS will collaborate with departments to collect and evaluate data on advising, outcomes, and more, welcoming information on the state of the field nationally and internationally. The School will meet with graduate programs to engage in a dialogue about the state of graduate education and to monitor support for students. The conversation will begin with a series of questions that acknowledge and account for discipline- and field-specific differences.

These meetings will enable GSAS to articulate a few baseline requirements for programs or criteria for admissions slots and to give feedback on the state of the program. The result of the dialogue will inform consultation between Harvard Griffin GSAS, divisional deans, and the FAS dean in the determination of admissions slots.

# VII. Conclusions

In 2020, FAS leadership sent a memo to the faculty (see Appendix B) outlining a new approach to graduate education, which articulated the core principles behind Harvard's graduate education program. We saw encouraging and constructive action as a result, particularly in coming out of the difficulties imposed by the pandemic. The Faculty Study Group considered this memo in their deliberations, the results of which can be seen in their own recommendations (see Appendix A). The GAGE recommendations are a direct result of the 2020 memo and the FSG report, and their implementation will require careful consideration in consultation with graduate programs.

Advising is clearly paramount in sustaining and improving the graduate student experience and, as noted above, recommendations are more robust than for other aspects of the report. This report does not intend to signal that effective advising is nonexistent but rather seeks to codify effective advising practice in a formal and discoverable way, as a system that both supports and goes beyond individual advising relationships. The data show that, at the level of the individual advisor, many faculty already exemplify excellence in advising. But without robust structures in place to buttress individual advising relationships, there can be considerable strain on both students and individual faculty members. When the individual advising relationship goes wrong or the advisor moves on, no formalized structure guides the next steps for the student or the department. By communicating clear guidance on individual advising relationships and a structured approach to advising, we can also help junior faculty learn how to be effective advisors and offer support for more seasoned faculty to turn to when advising challenges arise.

The GAGE recommendations also encourage a system that leans less heavily on a proportion of individual faculty. Expanding the advising network so that one faculty member doesn't bear the total burden of advising and exposing students to multiple perspectives as they progress through the program can only be beneficial to both parties.

Well-structured and communicated advising must factor into cohort size decisions. Programs will be actively encouraged to demonstrate the number of students they are able to support to ensure students are thriving academically and maintaining progress to the degree.

While recommendations for other elements of the graduate student experience may be shorter, they are by no means less important. On the subject of teaching, it became evident that recommendations were needed to ensure that graduate students receive the proper training and support to effectively master this aspect of their education. Equally clear was the determination that students should not be admitted solely or primarily to solve a shortfall in teaching support. Other options are available to help departments with this admittedly difficult circumstance.

In the wake of the SCOTUS decision in June 2023, it becomes even more important to preserve the great work being done to continue enhancements of our equity, diversity, inclusion, and belonging efforts in all their dimensions. Fostering the extraordinary promise of the students that we admit remains of paramount importance, as do efforts to ensure all students, regardless of identity, are fully supported while they are here.

A review of the outcomes data confirms that the academic job market is perceptively shrinking. It is therefore important to communicate realistically to students the landscape of employment outcomes and in doing so properly prepare students for existing and emerging opportunities in intellectual leadership. Because fields and job opportunities change, it is important to regularly evaluate the strength and scale of the academic program to ensure that students receive an education that sets them up for success in the future, in whatever profession they may choose.

#### **LOOKING AHEAD**

A staged implementation of the GAGE recommendations will begin in fall 2023. Harvard Griffin GSAS is invested in supporting programs to create and improve structures, as necessary, in order to meet the expectations laid out in this report. The School, from its place within the FAS, will work closely with the divisional deans, the FAS dean, and other administrative partners as an implementation plan is developed.



The FAS Strategic Planning process, of which GAGE is a part, involved several additional workstreams tangentially connected with the work of the GAGE committee. We look forward to identifying synergies with these groups and working with our partners at the divisional level to the benefit of the FAS.

The threat to Harvard's preeminence in graduate education is real and sustained, and it requires urgent action. One important step to take is to ensure that students receive the support they need to successfully complete their academic programs. The other equally important step is money: the best education and reputation in the world is no longer enough to attract the most promising students. Harvard must increase its financial support, or risk being left behind.

# VIII. Appendices

#### **APPENDIX A**

FSG GSAS Sub Committee Report

The GSAS subcommittee undertook their review in the context of a "reset" in graduate admissions as outlined by the FAS Academic Planning Group (Appendix C.2) and a year of profound challenge for graduate students resulting from the global COVID19 pandemic. Graduate students are not only central to the teaching and research mission of the University, they are the lifeblood of our academic departments. Through graduate education, departments advance the frontiers of knowledge shaped by the questions, interests, and approaches of this next generation of scholars. Students are guaranteed at least five years of funding across all 58 doctoral programs. That financial support includes a mix of grants and fellowships from internal and external sources, traineeships, teaching fellowships, research assistantships, other academic employment opportunities, and several types of loans. Across the Divisions, graduate students cost on average \$350K of aid over 6 years covering tuition, stipend, teaching guarantee, and health insurance and fees and are funded through a mix of restricted, unrestricted funds, and outside sources. Since 2015, the cost of graduate student aid within FAS programs has risen steadily from \$113M to \$135.9M, a CAGR (Compound Annual Growth Rate) of 3.8%. While most sources of funding for graduate student aid have remained flat, the draw on unrestricted funds has grown by a CAGR of 7.3% over that time [see Appendix B, page 75). GSAS aid costs have and will continue to increase more rapidly than corresponding external funding sources, which constitutes a structural problem with the current GSAS funding model.

The subcommittee noted that current programs do not necessarily align with faculty and student research priorities and opportunities in changing and emerging fields. At the same time, a recent GSAS study of advising suggests that there is considerable room to improve the student experience across programs to ensure a climate in which graduate students can thrive academically and personally.

The GSAS subcommittee considered the following questions:

- What is the appropriate structure for graduate programs at Harvard?
- How do we determine program sizes to align with research and other institutional priorities?
- How can we improve graduate program outcomes?
- How can we improve the financial viability of GSAS?

The current landscape of GSAS programs includes many small programs that offer students a complicated admissions experience, particularly for students from less privileged backgrounds, and little flexibility to change advisors or areas as their academic interests develop. The program-based identity of graduate education also results in small cohort sizes that limit graduate student access to communities of peers. Additionally, at present, future admissions targets are not tied to the progress of current students but instead to historic targets over time. There is no immediate incentive, therefore, for programs to actively manage student progress toward the degree. Instead, there is a temptation to think of student numbers in more

transactional terms, e.g. the capacity to meet departmental teaching needs. With these considerations in mind, the subcommittee's goal was to make recommendations that would create the conditions for a student-centered approach to graduate education that offers students more flexibility, alignment with research priorities and opportunities in changing and emerging fields, an improved climate attentive to student outcomes, and efficiency resulting in greater sustainability of graduate education as a core FAS academic activity.

The subcommittee recommends that admissions for some smaller programs be merged and that graduate program structures be broadly reorganized (e.g., by creating joint committees with multiple programs), in consultation with the faculty and GSAS. This would create single points of admission across related small programs, simplifying the admissions process for applicants who today would be required to submit multiple separate applications. It would establish a larger cohort size for students and eliminate financial disparities across programs, while maintaining the individual character of those programs. These structures should undergo periodic review, using internal and external processes, and should be designed to introduce new flexibility to pursue new academic priorities. The subcommittee also recommends that the process of setting annual admissions targets be replaced with an overall program-size model that gives targets based on a time-averaged total program size. Programs would therefore have flexibility from year to year within bounds of total program size. This approach is designed to provide incentives to accelerate time to degree and to provide off-ramps where appropriate. Admission targets would be informed by student success metrics including the quality of advising, the quality of coursework and other training opportunities, the strength of admissions practices to recruit a diverse pool of candidates, and outcomes like time to degree relative to the standards of the field and job outcomes relative to training received and student goals. Conditional on these metrics, the subcommittee takes the view that departmental teaching needs should not play an independent role in graduate admissions targets. While departments need a mechanism to address teaching needs, it is important to disassociate the number of graduate students in a program from the number of teaching fellows needed to teach the curriculum. The point of our graduate program is to develop the next generation of researchers, teachers, and scholars. Graduate students are important contributors to our teaching mission and we value their teaching; however, they are not simply a unit of teaching capacity. To treat them otherwise is to turn a mentoring relationship into a transactional one, which harms the integrity of our graduate program. After applying the student success metrics outlined above, program sizes should be set with marginal student costs, or the cost of adding/cutting an additional slot from current levels, in mind. Furthermore, FAS Development should advance efforts to secure major philanthropy to support graduate aid costs.

#### **APPENDIX B**

## Memo to FAS Faculty about Graduate Student Admissions

From: GSAS Dean <gsasdean@fas.harvard.edu> Sent: Thursday, October 29, 2020 3:01 PM To: fas-faculty@mailman.fas.harvard.edu Subject: Graduate Student Admissions

Dear FAS Colleagues,

As you know, many of our peer institutions have announced pauses on graduate student admissions for fall 2021, citing the ongoing consequences of the COVID-19 pandemic and the importance of supporting their continuing students. In recent months, GSAS, SEAS, and FAS leadership have heard from many faculty members who are deeply concerned that Harvard's research mission and the intellectual life of individual departments would be compromised if a similar decision was announced for GSAS graduate programs. After careful consideration, we have resolved to take a more balanced approach to admissions than some of our peers, one that aims to preserve our research and intellectual goals as much as possible, while keeping our focus on the many ways we can all continue to support our current students.

Early on, it was clear that this would be a tough admissions season. In addition to our concerns about current students and Harvard's academic mission, we cannot ignore the toll that the pandemic and its financial ramifications have taken on the University. As a result, this year's admissions targets will be conservative and will take into account the likelihood that continuing students will need additional advising and that, in some fields, their progress will be hampered by reduced access to materials, resources, and spaces. In numerous fields, too—particularly those heavily dependent on the academic job market—employment outcomes that were already challenging before the COVID-19 crisis are now severely affected. We consider it our ethical responsibility not to exacerbate these problems by taking a full cohort of new students: In a few cases, cohorts will be heavily reduced or even paused.

GSAS continues to identify and address ways to help you and your students. Approximately \$4 million was reserved to support students through the Emergency Support Initiative (ESI), which has provided students with funding for lost time as well as tuition and fee grants for students outside the financial support package. The ESI also created visiting fellowship opportunities that allow new alumni to remain affiliated with Harvard. Working with the Office of Undergraduate Education, the School identified students who required teaching for the fall term and ensured that they received teaching appointments or equivalent positions. GSAS has also worked with many of you—and will continue to provide advice and support—as you address the issues that prevent students from progressing with their research, which includes guiding them as they re-envision their projects. We are grateful to you for helping your students to maintain forward momentum, so crucial to Harvard's reputation for academic excellence.

## A Forward-Looking Approach

Even as we determine how best to support our students, the current crisis has exacerbated several existing and fundamental concerns about PhD curricula, the well-being of students, and their employment outcomes. These issues are not specific to Harvard but pertain to graduate education as a whole. As a leader in higher education, Harvard has a responsibility to do better for our students and faculty, for our programs, and, through the impact our graduates have, for the world. Rather than table these concerns for the future, we believe that now is the time to turn a crisis into an opportunity, to step back and address graduate admissions in the spirit of a reset that will ensure that the reputation and student experience of our research degrees go from strength to strength in the 21st century.

Graduate admissions targets have often been grounded in the belief that more is better: that increasing cohort size is the goal. This has created a less than optimal environment for some of our students, increasing time to degree, decreasing advising effectiveness, and narrowing the evaluation of prospective students' excellence and potential.

Addressing these shortfalls and determining solutions will, by necessity, take time and strong partnership between GSAS, SEAS, the FAS divisional deans, and all of you. Over the course of the next year, GSAS will work with programs to further encourage best practices in admissions that will help faculty recruit the most promising students and ensure that each student will be supported in reaching their full potential in the areas of advising, diversity, and outcomes. In addition, we will begin an extended conversation about what a PhD should be in the 21st century and how curricula, training, and professional development should reflect these goals.

## Strength of Advising

In choosing Harvard, GSAS students rightly expect academic excellence. This excellence is seen in the high quality of our teaching, research, and academic advising. As you know, advising the talented graduate students we admit and setting them up for success is a privilege. Our goal as advisors is to provide them with the guidance they need to successfully navigate their academic training, graduate in a timely manner, and enter the profession of their choosing with confidence and support.

Admissions targets in the longer term will be determined in part by program advising quality: Do advisors provide timely guidance and feedback on proposals and other materials? Are all faculty in a program successfully advising students or are a small number of faculty managing the bulk of the advisees? Are expectations of advisors and advisees clearly articulated, and does the program take a structured approach to advising? Does the program include an effective mentoring committee system that augments the student-advisor relationship with additional faculty? Do the students in the program consider themselves as well supported?

#### Diversity

Excellence manifests itself in diverse ways, and we must think more expansively when we consider whom to admit: An over-credentialed candidate may not hold the same potential as an applicant with fewer accomplishments but who shows outstanding promise. Cohorts should reflect multiple, broad perspectives that augment the learning happening in the classroom or lab. In rankings, more emphasis should be placed on this potential than is currently the practice.

How departments build diverse cohorts and make their ranking decisions will also factor into admissions targets. Are departments looking broadly for students or are they choosing applicants based on familiar faculty recommenders? Are students coming from a limited number of feeder institutions? Have programs addressed their assumptions about what constitutes the ideal candidate? Have programs engaged in active outreach to broaden their applicant pool?

## Outcomes

Students come to Harvard to develop and finalize their ideas, graduate, and successfully find a job in the profession of their choosing. In some fields, this process runs smoothly. In others, students may find few opportunities to pursue their career goals. GSAS has collected employment data for new graduates and graduates 10 years out to track these career outcomes and inform the decisions made by the admissions committee.

In determining admissions targets, programs will be reviewed for several criteria: How well does the curriculum prepare students for a successful outcome in the context of the particular discipline? What is the average time to degree? How have past graduates fared in the job market? How does the job market currently look?

## Preserving Harvard's Excellence

As stated above, this is an opportunity to reset our graduate admissions process, evaluate how we are serving our graduate students, and ensure that we are setting them up for success as students and as alumni, regardless of program or stage in program. By taking these steps, we will work together to preserve Harvard's excellence and continue fostering the intellectual talent that drives it.

With all best wishes,

Claudine Gay

Edgerley Family Dean of the Faculty of Arts and Sciences

Wilbur A. Cowett Professor of Government and of African and African American Studies

Emma Dench

Dean of the Graduate School of Arts and Sciences

McLean Professor of Ancient and Modern History and of the Classics

Lawrence Bobo

Dean of Social Science

W. E. B. Du Bois Professor of the Social Sciences

Francis J. Doyle III

John A. Paulson Dean of the Harvard John A. Paulson School of Engineering and Applied Sciences John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences

Robin Kelsey

Dean of Arts and Humanities

Shirley Carter Burden Professor of Photography

Christopher Stubbs

Dean of Science

Samuel C. Moncher Professor of Physics and of Astronomy

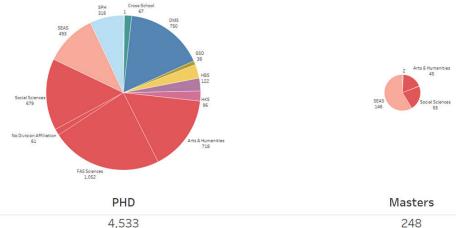
## **APPENDIX C**

Additional Information on Finances

#### STUDENT-BODY SIZE

In fiscal year 2021–2022 there were approximately 4,800 degree candidates enrolled in GSAS, with 95 percent of them enrolled in PhD programs. Approximately 55 percent of PhD students are embedded in FAS-based departments and programs, such as Chemistry, Philosophy, and Government. The remaining 45 percent of GSAS PhD students are embedded in non-FAS-based departments and programs such as Business Administration, Education, Landscape Architecture—programs offered in partnership with the professional schools across the University. For the purposes of this exercise, we are focused on the FAS-based GSAS PhD population.

# FY2022 Counts by Division: All PhD & Masters Programs



#### Figure A1

The total FAS-based PhD headcount over the past 15 years has remained relatively unchanged. However, within the FAS there has been an increase in the number of students in the Sciences and decreases in the number of Arts & Humanities and Social Sciences students.

## FAS-Based PhD Headcount with G-Year

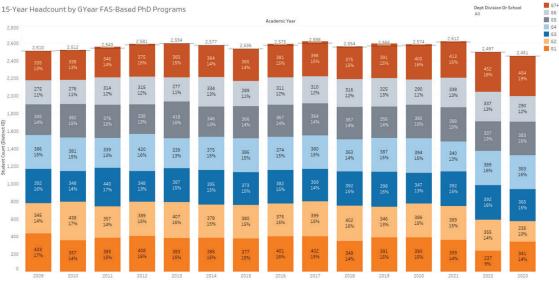
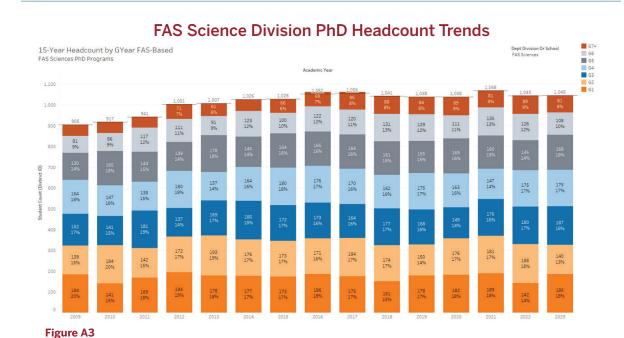
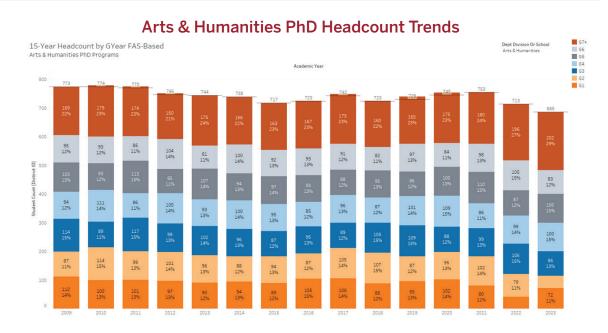
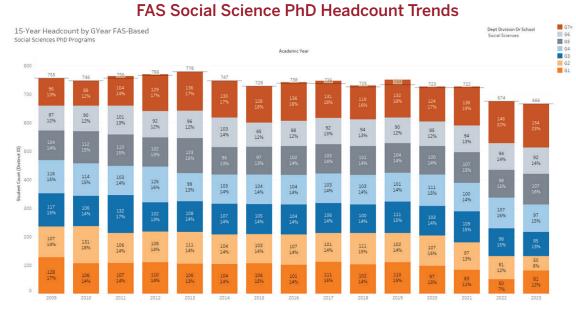


Figure A2



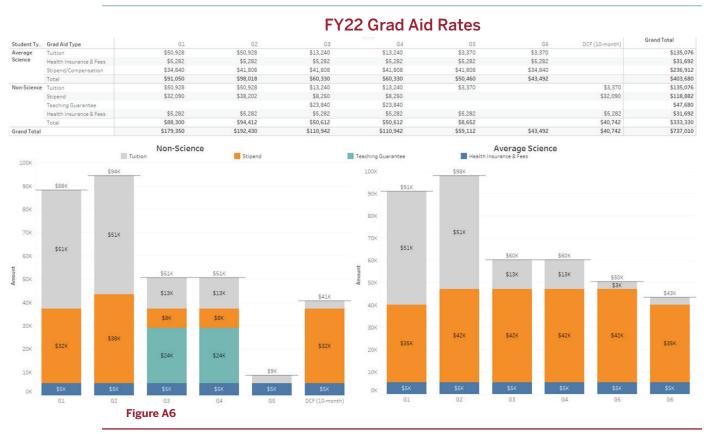




## Figure A5

#### **FINANCIAL AID COSTS**

A graduate student's financial aid package includes a tuition scholarship, subsidized health insurance and, depending upon the year and program, a stipend or teaching fellowship or research assistantship. Note that in general, stipends are fellowships that provide income to students to support living expenses and allow them the time to focus on academic endeavors. There is no expectation of service or work in exchange for these funds. Teaching fellowships and research assistantships are income provided to students in exchange for services.



#### STIPEND SUPPORT

Historically, there have been different stipend levels set for students in each of the three disciplinary categories. In order of ascending stipend levels: (1) Arts & Humanities and Social Sciences, (2) Physical Sciences and Engineering, and (3) Life Sciences. These stipend levels were set based on the market for highly talented graduate students and the availability of external grant funding, especially in the Life Sciences. We are approaching the final year of a three-year phasing-in period that brings Arts & Humanities and Social Sciences stipends up to the Physical Sciences and Engineering level. The average science and non-science stipend levels for fiscal year 2021–2022 are shown in the table above. Note, the G1 stipend levels are for a 10-month period, with subsequent G-year levels shown for 12-month periods.

#### **TUITION**

There is a tuition cost associated with every GSAS student every year, regardless of G-year. Tuition is never waived or cancelled—it must be paid by internal or external funds. The tuition schedule is graduated, with the highest tuition in the first two G-years, less tuition in G3 and G4, and the lowest tuition levels in G5 and beyond.

There is a difference in whether internal or external funds are used to fund tuition, a topic which is addressed in the "Net Unrestricted" section below.

#### **HEATH INSURANCE**

A single student health insurance plan<sup>16</sup> exists for all students across the University. This plan is available to all students based on their status as students.

Standard Financial Aid Commitments

Arts & Humanities and Social Sciences

As mentioned above, the standard financial aid commitment to students in the Arts & Humanities and Social Science PhD programs includes:

- five years of stipend and teaching fellowship support
- six years of tuition support
- · six years of health fees.

This comes to approximately \$367,000 per student, assuming a six-year matriculation period. If a student takes longer than six years, they will not receive financial support in the additional years.

#### **SCIENCES**

For Science PhD programs, the standard financial aid commitment to students includes:

- five years of stipend, research assistantship, and teaching fellowship support
- · six years of tuition support
- · six years of health fees.

This come to approximately \$425,000 per student, assuming a six-year matriculation period. There are rarely gaps in science student funding, due in large part to the presence of grant funding across science disciplines.

<sup>&</sup>lt;sup>16</sup> https://hushp.harvard.edu/how-hushp-works/student-health-insurance-plan

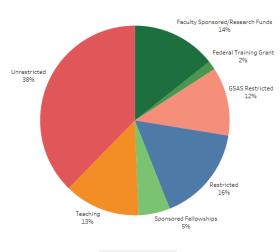
## THE ROLE OF TEACHING AND 'TOP-UPS' IN FINANCIAL AID

In the Arts & Humanities and Social Sciences programs, some of the financial aid packages are comprised of guaranteed teaching assignments across four terms. Students provide service to the University via these teaching assignments. In return, they receive compensation and professional development training in teaching and communication skills.

Ordinarily, students engage in two "standard recitation sections" of teaching in each of the four terms they teach. The income from these two sections of teaching is less than the standard 12-month stipend. Thus, financial aid is provided to cover the difference—this is the so-called "top-up" payment.

## THE COST OF FUNDING FAS PHD PROGRAMS





\$133.7M Figure A7

The total financial aid cost for funding FAS PhD tuition, stipends, and health insurance subsidies in fiscal year 2021–2022 was approximately \$134 million. This funding came from a number of sources internal and external to Harvard. This is illustrated graphically in the chart above and the definition of funding sources is provided below.

## **SOURCES OF FUNDING**

- · Unrestricted: Funding that can be used toward any initiative or program within the school.
- Faculty Sponsored/Research Funds: Almost exclusively in the Sciences and primarily from faculty-sponsored research.
- Federal Training Grant: Funding from the federal government (NIH) to support training in specific Life Science fields.
- Sponsored Fellowships: Externally funded fellowships awarded directly to students (e.g., NSF and NIH).
- GSAS Restricted: Endowments and gifts for graduate aid.
- Restricted: Endowments and gifts held outside GSAS with terms that allow for graduate aid.
- Teaching: Pay to PhD students for performing teaching and instructional support roles. Primarily funded via the Office of Undergraduate Education.

## **CHANGE OVER TIME IN FUNDING LEVELS AND SOURCES**

The pie chart above provides a snapshot in time of graduate financial aid costs in FAS. The bar chart and line graphs below show how this investment has changed over time. Both present the same data in two different graphical formats.

From fiscal year 2015 to fiscal year 2021, there was an increase in total investment each year.

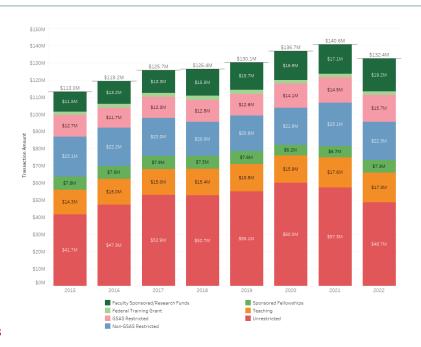
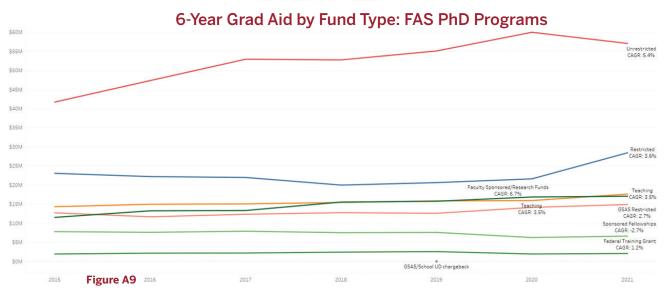


Figure A8

## **Total Grad Aid Expense: FAS PhD Programs**





#### THE INCREASE IN UNRESTRICTED DOLLARS INVESTED IN GRADUATE FINANCIAL AID

Between fiscal year 2015 and fiscal year 2020, the overall cost of graduate financial aid increased by approximately \$23 million, constituting a compound annual growth rate (CAGR) of 3.8 percent. It is instructive to look at how the components of this funding have changed over time. Growth in funding from federal training grants, sponsored fellowships, endowments, and sponsored research funds was modest during this period. Specifically, restricted funding toward graduate aid expenses grew by approximately \$5 million (CAGR: 1.4 percent). That leaves the remaining \$18 million in increased graduate aid expenses to fall to unrestricted dollars (CAGR: 7.5 percent). Note that during this time, tuition revenue grew by \$8 million (CAGR: 3.6 percent). This upward trajectory of unrestricted spending was deemed unsustainable by FAS leadership.

Why did the unrestricted spending trend reverse in fiscal year 2021? There was a large, short-term bump in restricted fund use, in part from departments tapping unspent restricted fund balances. There was also a significant reduction in graduate admissions for the academic year 2021–2022.

#### AVERAGE COST OF A GRADUATE STUDENT VS. MARGINAL COST

Further complexity arises from the fact that for the FAS, the average cost of a graduate student in a PhD program is not necessarily the same as the marginal cost of an incremental graduate student. This has consequences when the FAS is looking to either reduce or increase the number of graduate students. To understand why this is the case, consider the following example:

• Let us assume that the average annual cost of a graduate student is \$60,000 and that the Classics department has a restricted endowment that generates \$600,000 per year. The Classics department can fully fund 10 students in a given year with their endowment. The FAS expense for supporting these students is zero, and in fact the FAS is receiving tuition revenue from all of these students—paid by the restricted endowment in Classics. If an 11th student were to be admitted into Classics, there would be no more money from the endowment to fund the student, thus the cost to the FAS would be \$60,000. So, the average cost to the FAS for the first 10 students is zero and the marginal cost of any additional students is \$60,000.

If two students were cut from the FAS-based program so that there were only eight funded students, the net result is that the FAS would LOSE tuition revenue. If the FAS added two more students bringing the total to 12, there would be a net INCREASE in cost to the FAS. Technically, it would be an incremental cost of (2 x annual stipend) + (2 x annual healthcare expense). The tuition would net to zero for the two new students (i.e., FAS would pay the tuition and FAS would receive it back as revenue).

#### **APPENDIX D**

## Science PhD Program Restructuring

In 2021, the FAS Division of Science piloted a new approach to addressing mentoring and support of graduate students, funding, and PhD program sizes. In addition, the pilot aimed to align with the Harvard Griffin GSAS subcommittee recommendations of the Faculty Study Group (see Appendix A).

Before beginning, the Division and Harvard Griffin GSAS developed grounding principles to guide the project, noting that:

- Graduate education lies at the core of what we do and is a top priority for the division.
- PhD programs shall be student-centric, with structured advising, mentoring, and training.
- Each student shall have access to a desk or workspace during the time they're enrolled.
- Programs shall implement one-to-many advising, with (minimum of) annual face-to-face meetings with committee, and structured electronic record-keeping as advising notebook.
- Graduate student teaching is part of their training, not a labor force to support undergraduate offerings.
- Graduate student research participation is part of their education, not a labor force for faculty publications.

#### STUDENT SUPPORT

One aspect of the science pilot is investigating how to enhance the mentoring and support that graduate students receive by insisting that all programs adopt best practices for mentoring. Two ideas being considered are the creation of an advising notebook with structured input fields that are aligned with processes. The other is to develop cohort-level mentoring at the departmental and divisional levels.

## **FINANCIAL SUPPORT**

The financial support for FAS-based PhD programs are heavily funded by FAS unrestricted funds, and this investment was rising at an unsustainable rate. The science pilot proposed to curb growth of the unrestricted allocation to science PhD programs by providing a baseline investment in graduate programs in the Science Division. Note that the funding provided by this metric does not spread across the faculty evenly. The total amount is provided to the program and funding is allocated based on where students land and other funding resources available to programs.

Programs may augment the baseline investment with faculty funding, securing external grants, utilizing additional departmental funds, or encouraging students to apply for external and internal fellowships.

By setting a baseline investment for graduate programs, the Science Division is able to curb (and better predict) the reliance on FAS unrestricted funding and ensure baseline equity among the programs. However, to ensure a student-centric training, Harvard Griffin GSAS imposes a cap or ceiling on the total number of graduate students in their program.

#### PHD PROGRAM SIZES

Rather than limit the number of admissions offers programs are allowed to make every year, the Harvard Griffin GSAS works with the Science Division to assign an upper limit, or cap, on the total number of students that can be enrolled in a program at one time. This cap is determined based on a review of faculty bandwidth, advising practices, and student satisfaction. This allows Harvard Griffin GSAS to incentivize programs to deliver high-caliber education, training, advising, and mentoring to PhD students.

Final Report of the GSAS Admissions and Graduate Education Working Group Because admissions yields vary from year to year, with overyielding in some years and under yielding in others, programs are expected to balance cohort sizes and their financials over a three-year period.



