

The FAS Study Group Final Report

Submitted October 13, 2021

In November 2020, Dean Claudine Gay convened a group of faculty members from each of the academic divisions within the FAS and SEAS to examine the current financial and operating model of the Faculty of Arts and Sciences. Chaired by Professors Karen Thornber and Jeremy Stein, the FAS Study Group (FSG) was formed with the goal of “providing informed guidance to the FAS Dean on how to leverage our financial resources to support our academic mission and position the FAS for broad-based excellence, innovation, and sustainability.” The following report highlights the key findings and recommendations from each of eight subcommittees of the FSG that were formed to address specific issues, as well as broad principles and observations to help guide academic, financial, and organizational strategy at the FAS for decades to come.

Membership of the study group included faculty representation from each FAS division and SEAS.

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The FAS Study Group received administrative support from Nina Collins, Chief of Staff to the FAS Dean, Jen Dilts, Assistant Vice President for Finance and Director of the Office of Financial Strategy and Planning, and Jay Herlihy, FAS Associate Dean for Finance. The study also benefited from the contributions of a range of administrative partners (see Appendix B).

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I. Executive Summary

Dean Gay provided an initial charge to the FSG that encouraged a bold examination of the status quo:

“The Faculty of Arts and Sciences has, for hundreds of years, pursued a mission of excellence in teaching and research through a model of intergenerational learning that places a residential liberal arts college at the heart of the world’s leading research university. In a context of broad excellence, the pandemic has forced us to identify our highest priorities and the activities that define the Faculty’s singular contributions to society.”

“We seek to chart a course for a financially sustainable future, recognizing that our mission is held in trust for future generations. Moreover, the pandemic has revealed the critical importance of financial and organizational flexibility for our long-term resilience.”

“To find new opportunities for increasing flexibility and resilience, we must first understand our current budget reality and bring the expertise of the faculty to bear on this challenge.”

(Please see Appendix A for the full text of Dean Gay’s charge to the Study Group)

As a starting place, the work of the FSG builds upon the earlier efforts of the Spring 2020 FAS Scenario Planning Group, chaired by Professor John Campbell. With the goal of estimating the short-term costs of campus re-opening plans, the Scenario Planning Group developed a new framework for assessing the FAS financial position. This economic budgeting framework was refined further as part of the FSG, and it will become an additional tool for the FAS to examine its financial position going forward.

One goal of the economic budgeting framework was to assess the overall structural financial position of the FAS – that is, does the FAS have sufficient operating revenues and assets (e.g., endowment) to support the size of its operations and physical space? While the outcome of this analysis is sensitive to assumptions, the base case model shows a sizeable gap – equal to roughly \$90M a year or 6% of operations. This gap has its origins in a combination of significant, strategic growth in the years leading up to the financial crisis (faculty, staff, new buildings, and an investment in financial aid) with the sudden loss of endowment wealth in 2008-2009. (For a full review of the work of Economic Budgeting group, please see Section II.)

Over the past decade, the FAS has managed this gap primarily through its year-to-year budgeting process: managing expenses, limiting salary growth, and slowing the pace of the capital plan (e.g., house renewal). While this approach has prevented the gap from worsening, it takes a “peanut butter” approach to FAS’s financial challenges, spreading the gap across the entirety of the FAS rather than acting strategically to realign financial resources with costs. **We can no longer respond to financial challenges with the status quo management approach of**

constant across-the-board belt-tightening and constrained aspirations within individual units. When financial challenges need to be addressed, and difficult choices need to be made, this should be done with a clear sense of strategic priorities, informed by our overarching mission of staying on the cutting edge of research and teaching.

In this way, the charge of the FSG required a fresh look at solutions to this persistent challenge, in the spirit of supporting both financial sustainability as well as the broad based academic and research mission of the FAS. To address this charge, the FSG organized its work across eight distinct subcommittees, each with a faculty chair: Economic Budgeting, Restricted Funds, Ladder Faculty, Departments and Administrative Structures, Centers and Administrative Structures, GSAS, Space, and Division of Continuing Education.

Subcommittee members partnered with administrative leaders within the FAS and across the University in a rigorous examination that looked beyond cost-cutting measures to identify strategic opportunities to strengthen both the financial stability *and* the academic excellence of the FAS. More specifically, the FSG subcommittee members had the following goals:

- *Perform analysis* to develop a deep understanding of the FAS financial position and operational model, examining how resources are allocated to support current academic activities and structures.
- *Define principles and best practices* to evaluate current practices and guide future recommendations.
- *Report* updates on the work of the subcommittees to the FSG, and to the broader faculty.
- *Make recommendations and suggest areas for additional work* on how to best position the FAS for broad-based excellence, innovation, and sustainability.

While each subcommittee developed its own set of findings and recommendations, several cross-cutting themes and recommendations for the future emerged from this work. (For a summary of each subcommittee's findings, please see Section III.)

Broad-based academic excellence is core to the FAS identity, but that excellence is not automatic and requires the ability to evolve and change over time. Commitment to centering the academic enterprise, remaining at the forefront of research and teaching, leveraging our breadth and diversity, and having the flexibility to readily embrace new directions and fields must guide our responses to current and future challenges. At the same time, striving to be “all things to all people,” or attempting to cover everything and maintain everything (i.e., aiming to be the world’s “university of record”), is not a sustainable strategy nor one that leads to academic excellence.

As we look to the future, we should not be beholden to structures and practices of the past if in so doing we compromise our ability to remain at the forefront of research and teaching, particularly in emerging fields. **Instead, we need to focus on developing more sustainable**

strategies. We must be bold, creating space to engage in fresh thinking and lead with academic vision and purpose.

To balance these priorities – excellence that is both broad based and sustainable -- we must look carefully at opportunities to evolve how we are structured to support the current and future pursuit of our academic mission and to develop new sources of revenue. FSG recommendations include launching a process of academic strategic planning across the Academic Divisions and SEAS on the future of FAS academic structures, revisiting graduate student admissions and the cohort model, prioritizing fundraising that is budget relieving (e.g., for graduate fellowships), exploring incremental revenue opportunities at the Division of Continuing Education (DCE), and reducing the cost to the FAS of space (e.g., through increasing flexible work and developing a transparent pricing system).

The FAS and Harvard are extremely decentralized, much more so than our peers, which manifests in the “Every Tub on its Own Bottom” (ETOB) system of financial management. At the institutional level, each of the ten Harvard Schools is a “tub,” which prepares its own budgets, raises its own funds, and keeps itself solvent. This ETOB model extends, in large degree, to the department or unit level within FAS. Over time, some academic units have built up significant resources, often restricted funds, that they manage locally. There are few mechanisms to apply local resources to advance broader FAS strategy or needs. But the barriers asserted by ETOB are as much cultural as financial. The ETOB structure encourages us to define ourselves and our priorities in a hyperlocal manner. We identify strongly with the unit(s) with which we are affiliated, and do not think of ourselves as engaged in the broader FAS ecosystem, or as accountable to FAS or Harvard for advancing a shared vision of our teaching and research mission. There are few incentives for units to think of their activities in the broader context of FAS’s and Harvard’s academic priorities or goals. The ETOB culture also makes interdisciplinary cross-collaboration difficult both within the FAS and across Harvard.

The FSG recommendations include several proposals to help break down these barriers, in turn promoting academic innovation and increasing financial flexibility, particularly the ability to direct resources to the areas of highest strategic importance. For example, the FAS should appoint a Director of Endowment Funds to increase the flexibility of restricted funds, create cross-functional space where faculty, staff, and students from different departments can interact, and create mechanisms for centers to more fully and directly support faculty members and students in fulfilling the teaching and research missions of the Academic Divisions/SEAS, the FAS, and Harvard.

There are many ways in which the current make-up and structure of the FAS no longer reflects society or addresses societal needs. We recognize this discord both in the existing department structure, which is in large part organized around 20th century priorities and intellectual frameworks, as well as the demographic make-up of the faculty. We need to remove barriers to recruiting the world’s best and most diverse talent, who often do not “fit”

into current Harvard academic units and subfields but who are vital to our success as a university and to our ability to lead the advancement of knowledge across disciplines.

In addition to a thorough review of academic structures, including centers as well as departments/areas, the FSG recommends the development of policies that encourage retirements as a key means for creating opportunities for faculty hiring, enabling the pursuit of new areas of scholarship and enhanced faculty diversity.

The FSG recognizes that there are significant parts of the FAS or topics for which there was no distinct subcommittee conducting review as part of this study. Aspects of some of these topics, including Harvard College, were incorporated into the work of the eight FSG subcommittees, but some gaps likely remain. Please see Section IV for recommendations for future areas of exploration.

The FSG believes that now is the time for FAS faculty members, working together with administrative partners, staff, and students, to embrace change and innovation and to build and support our academic community in new ways. As described in the following pages, the eight subcommittees of the FSG have mapped out a variety of proposals that we believe can help set us on this path. Because of our financial challenges and some of our engrained practices, much of our energy currently is devoted to maintaining practices and entities that were not designed to support the Harvard of today and tomorrow. We need to change that mentality.

The specific recommendations below aim to position the FAS for sustainable broad-based excellence and innovation. Change can be very difficult, and even small change often feels high stakes in our community. Our proposals are intended to be an invitation to the Harvard community to work together to help reconceive how the FAS is structured and operates so that we can remain an academic leader for decades to come.

II. Economic Budgeting Analysis and Context

The goal of the economic budgeting subcommittee has been to develop a framework for thinking analytically about the long-run financial sustainability of the FAS. One way to motivate the need for such a framework is by contrasting it to traditional FAS budgeting practice. The norm—which many colleagues have been exposed to over the years in faculty meetings—has been to focus on accounting-based budget deficits that look at either the current fiscal year, or that go out at most several years into the future. Moreover, these traditional budgets have been presented in a way that often makes the underlying economics of the FAS difficult to grasp. For example, they are dependent on accounting choices such as assumed depreciation rates, and they combine operating flows, such as tuition revenues, salaries, and the like, with financial flows, such as endowment payouts and debt interest payments. Finally, the focus on a relatively short-term planning horizon can create a temptation to “solve” apparent deficits with measures that push problems further out into the future. This has the effect of removing the cost from a short-run budget view, but it does not deal with the operating obligation that the spending would have addressed. A leading example here would be delaying needed spending on physical facilities, which often involves greater ultimate costs as these facilities deteriorate.

In an effort to take a longer-term, more “structural” view, the economic budgeting subcommittee has developed an alternative framework that closely resembles the methodology that financial analysts use to value private businesses. This approach has three main pillars.

First, it focuses exclusively on actual cashflows—money either received or paid out by the FAS—rather than accounting concepts. The analysis is independent of any accounting choices, such as the assumed depreciation rate on our facilities. Moreover, care is taken to isolate those cashflows that come directly from the operating side of the FAS, and which are driven by mission priorities rather than financial management. This enables someone using the framework to think directly about how changes in operating policy affect the economic picture. And all cashflows are forecast into the indefinite future, rather than just a few years, thereby ensuring that the long-run consequences of any decisions made today are fully captured.

Second, the framework compares cashflows occurring at different dates by means of standard net-present-value discounting methodology, which recognizes that a dollar received one year from now is worth less than a dollar today, because a dollar today can be invested in the endowment and can in expectation earn a non-zero rate of return. In our baseline analysis, we assume a nominal-dollar discount rate—or equivalently, an expected return on the endowment—of 7%. This corresponds to assuming that the endowment will earn an expected return of 5% in real terms, and that there will be 2% inflation. The 5% real-return assumption is a traditional one at Harvard (and similarly at many of our peers) and is the basis for endowment payout ratios that have hovered around 5% in recent years. However, as we discuss below, in

the current environment of very low interest rates and elevated asset values, this assumption may be too optimistic.

Taking the net present value of all of the FAS' operating revenues and expenses leads to a large negative number. Simply put, we spend much more to run the FAS than we take in via tuition, sponsored research grants and other sources of revenue. Of course, this is to be expected, and is the reason we have an endowment. So the final step of the analysis is to compare the present value of our real side operating "liability" (e.g. the net cost of running the FAS) with the current value of our assets. The largest asset here is simply the current market value of the endowment, net of debt owed by the FAS. But we also have a significant additional asset, namely expected future philanthropy. To be precise, we focus on expected future budget-relieving gifts, i.e. those gifts that do not come with the sorts of strings that create additional future spending requirements.

Putting it all together, it turns out that in our base-case analysis (the details of which are laid out in the appendix slides)—and even after taking account of the extremely high endowment returns in the fiscal year ending in July of 2021—the present value of our operating obligations still exceeds the value of all of our assets, with the net shortfall being approximately \$470 million. In other words, the FAS appears to be, in a long-run structural sense, facing a modest solvency hole. One interpretation is that, if the FAS portion of the endowment were suddenly made \$470 million larger, the FAS would be in structural balance. Thus even though the endowment is currently very large, it is inadequate to handle the very substantial commitments that the FAS has taken on.

It should be emphasized that—in stark contrast to the more traditional budgeting methodology—the results we obtain are totally independent of financial decisions such as the near-term payout rate on the endowment, or various debt management strategies. This is because such policies can only affect the timing of financial cashflows, but not their present value. For example, we can always have a better budget picture this year by drawing a larger payout from the endowment. And this may well be exactly the right thing to do when facing a temporary negative shock, such as that created by the COVID pandemic. But such a strategy cannot improve our long-run structural picture because it simply frees up resources today at the expense of leaving fewer resources for later years.

The \$470 million shortfall mentioned above is effectively in units of wealth, and as such can be compared directly to the value of the endowment. An alternative representation of the problem can be obtained by multiplying this shortfall by the real return on the endowment of 5%. The resulting figure of \$24 million can be thought of as the annualized structural deficit facing the FAS. The interpretation in this case is that for the FAS to be in financial balance, it would need to have either higher revenues or lower operating costs (in real terms) of \$24 million each year into the indefinite future.

Although it is useful to have a base case to center the discussion, we caution strongly against being too focused on the specific numbers above. There are a few specific caveats. First, any forecasting exercise that attempts to project into the distant future is necessarily subject to significant uncertainty; at best, these are only imprecise estimates. The analytical framework is perhaps more useful as a way of exploring the sensitivity of the FAS's economic picture to various external shocks, as well as to key internal policy choices. Especially in the latter case, the hope is to focus attention on the long-run implication of policies, rather than their short-term budgetary impact.

Second, while we have used a 7% discount rate in the base case—following the traditional Harvard practice of assuming a 5% real rate of return on the endowment—there are reasons to think that this assumption may be too optimistic. In particular, given that interest rates are near historically low values, and that the stock market has run up dramatically in recent years, the members of the economic budgeting subcommittee believe that expected returns on the endowment may be meaningfully lower over the coming years. And one of the most noteworthy conclusions emerging from the analysis is how extremely sensitive the FAS's financial condition is to relatively small changes in endowment returns. For example, if one lowers the expected return on the endowment modestly, to 6%—a figure that members of the economic budgeting subcommittee think may be more realistic—the present value shortfall grows dramatically, from \$470 million to \$5.8 billion. And the associated annualized structural deficit goes from \$24 million per year to \$232 million per year.

Finally, this new economic budgeting framework paints an overly optimistic picture in one other crucial sense. For the purposes of the analysis, all of the FAS' endowment is treated as unrestricted, implicitly assuming that it is available to meet any type of expenditure required. In reality, a large fraction of the endowment is restricted, meaning that not all of the endowment income can be used to defray the actual costs that the FAS is incurring. While it is not possible to fold all the myriad constraints on individual endowment funds into a simple valuation framework of the sort described here, these constraints motivate the important work of the restricted funds subcommittee, which is summarized below.

One fundamental question that arises from all of this is: how did we get here? How did an institution with as much wealth as the FAS find itself facing what amounts to a potentially worrisome structural deficit? A very brief answer is that much of the problem has its roots in the heady first decade of the 2000s, and in particular in policy choices made in the several years preceding the global financial crisis of 2008-09. Three such choices stand out. First, in this inaugural decade of the new century, the FAS constructed or acquired an additional 1.2 million square feet of space, representing an almost 15% increase in its existing footprint. Second, over the same period, the FAS headcount grew significantly: the ladder faculty grew by 130 members or 21%, and the FAS staff increased by 15%. While ladder faculty growth has effectively been flat since the financial crisis, there has been continued modest growth in staff, bringing the cumulative growth of the FAS staff over the longer interval from 2003-2020 to

21%. Thus over this longer time period, the growth of faculty and staff have run closely in parallel with one another. By contrast, from 2003-2020, non-ladder and visiting faculty grew by 87 FTEs, a larger percentage increase of 33%; this somewhat disproportionate growth in non-ladder faculty is explained in part by the need to compensate for reduced teaching loads and more generous sabbatical policies for ladder faculty that were also introduced during this period. And finally, the third choice that has had a significant influence on our current financial challenges are the extremely generous enhancements that were made to the undergraduate financial aid program in the years leading up to the financial crisis.

These three policy choices, along with the high costs of undergraduate house renewal—which would almost certainly have been lower had the FAS addressed the declining state of the houses earlier—more than explain the current structural deficits that we face. This is not to say that these choices were not well-aligned with our academic and teaching mission. Indeed, the enhanced financial-aid program represents one of the bedrock commitments of the FAS, and one of the most eloquent statements of our values as a community. But these choices have left us with a set of obligations that, absent change on other fronts, threaten to outstrip our current resources. And the hope is that with an improved and more far-sighted decision-making framework, we will be better able to manage the tension between our intellectual aspirations and our financial resources.

III. Subcommittee Summaries

Restricted Funds

As mentioned above, the financial analysis performed by the Economic Budgeting subcommittee understates the challenge faced by the Faculty of Arts and Sciences in one important way; it assumes that all funds can be applied toward all purposes, i.e. that they are “unrestricted.” In fact, 65% of the FAS endowment, or approximately \$12.5 billion, is restricted to particular uses, such as spending on a particular activity or a particular program. These restrictions in how funds can be applied are codified in gift terms and the local units that manage the use of these funds often use them in ways that are even more narrow than the restrictions allow. As a result, a significant fraction of the endowment is not currently available to support shared needs, to offset inequities among Departments, or to advance FAS-level initiatives or priorities.

The restricted funds subcommittee examined Harvard’s restricted funds to identify new opportunities to increase the financial nimbleness, adaptability and resilience of the FAS, thereby strengthening the FAS’s academic core.

There are a number of challenges to creating opportunities for more flexible use of FAS restricted funds. There are more than 6,200 restricted endowment funds and each has its own terms. The knowledge and expertise in navigating these terms is dispersed across the units that oversee them. Currently, units have little incentive to spend restricted funds if unrestricted funds are available or to make restricted funds available to underwrite uses outside of how they have traditionally been spent.

While the spend rate for undergraduate and graduate financial aid endowments is nearly 100%, and the average spend rate for the 660 large endowments of \$2.5M or more is over 94%, there are more than 2,700 smaller endowments with an average spend rate just over 80%. The unspent balances of restricted funds across the FAS is \$280 million, or 2.2% of the total value of the endowment. This balance is estimated to grow by \$25-30 million per year. The unspent balance in the 2,700 small, restricted funds alone is \$72 million. The implicit message in the FAS budgeting guidance for the past decade has been to “preserve” funds; thus low spending and increasing balances may be viewed locally as prudent.

With the basic premise that financial structure should not be the primary driver of FAS core priorities, the restricted funds subcommittee makes the following recommendations:

The FAS should appoint an FAS Director of Endowment Funds. The mandate of this financial officer would be to increase the flexibility of restricted funds and to free up restricted funds. The Director would review units’ restricted funds portfolios and would discuss opportunities with them as part of a multi-year planning process. They would have a broad mandate to carry out analysis across the FAS to identify opportunities for flexibility and to work with appropriate

University offices in implementing opportunities. This role would report regularly to the FAS Dean.

The role of Director of Endowment Funds is a critical one, but the person in this position cannot be successful alone. All academic leaders and senior staff need to understand that proactive and collaborative engagement in this effort is a central part of their responsibilities. To make that engagement as transparent and easy to navigate as possible, **the FAS should develop and publish principles and guidance for Primary Managing Organizations (PMOS), i.e. units like Departments and Centers that manage restricted funds on behalf of the President and Fellows of Harvard College.** These should include FAS-wide expectations and principles for restricted funds usage, metrics for fund analysis and data screens to identify opportunities, and an approach for reviewing restricted funds terms. **FAS should also establish a regular mechanism to support PMOs in reporting to the Director of Endowment Funds.**

Ladder Faculty

There has been intentional and rapid growth in the sciences and SEAS since the year 2000. However, the ladder faculty size has remained stable over the last ten years at around 730 members and the overall faculty-to-student ratios are small compared to our peer institutions. Over this same period, tenure-track promotions have occurred at a faster pace than tenure-track hiring and the tenure-track ranks have shrunk somewhat as a result. Over the last decade, 314 ladder faculty have departed. Tenure-track faculty made up 39% of those departures. Thirty-seven percent of departures represent senior ladder faculty retirements, while the remaining 25% represent senior faculty who departed for other reasons, such as to join other universities. Importantly, unlike some other universities, Harvard does not have a well-developed “retirement culture” with well-understood norms and expectations regarding retirement. Strikingly, in all Divisions except SEAS, the most heavily populated age category (using ten-year buckets) is 60-69. The average retirement age ranges across divisions from 72.5 to 76.6.

The ladder faculty subcommittee considered the following questions:

- Is there an appropriate steady state size for the ladder faculty?
- To maintain a certain size in the ladder faculty, are better incentives for retirement needed, and, if so, what should these be?
- How do we optimize the composition of the faculty (ladder/non-ladder) and enhance diversity?
- How do we create a flexible and nimble ladder faculty that is best positioned to engage in the most dynamic areas of scholarship and address the most pressing societal issues?

With the financial context provided by the Economic Budgeting Subcommittee, it is our assumption that we are not entering an era of growth. **We therefore recommend that the FAS**

resist the inclination to reduce the size of the ladder faculty and maintain the current faculty size.

As financial constraints limit the FAS's ability to expand the ladder faculty, **retirements emerge as the single most important way to open opportunities for faculty hiring, enabling the pursuit of new areas of scholarship and enhanced faculty diversity.** Additionally, we recognize that currently there are not mechanisms in place to re-balance faculty workload over time, e.g. to increase individual teaching responsibilities if a faculty member's research activity slows down. Similarly, there are no existing mechanisms in place for surfacing and addressing situations in which faculty are overburdened by student support, citizenship responsibilities, and teaching, in addition to supporting highly productive research. **We recommend that FAS create new mechanisms for initiating conversations about: (i) equitable distribution of workload across faculty; and (ii) retirement. We recommend that the FAS develop new mechanisms for more intensive review of the faculty activity reports to identify high and low performers and flag these for conversations with department chairs and Divisional Deans as well as with faculty themselves. Additionally, we recommend the exploration of programs to create and support academic community for emeriti.**

The FAS continues to pay close attention to recruitment practices to ensure that we are selecting faculty from the broadest possible talent pools. In 2019, the representation of women and minorities in the FAS ladder faculty increased for the seventh year in a row. However, in some areas like SEAS the fraction of women faculty remains low at 19% of the overall faculty for 2020-21. **To further strengthen hiring practices, we recommend further expansion of mechanisms for attracting and retaining female ladder faculty,** i.e. childcare options, attractive spousal positions on a research track, and flexibility for faculty with major care-giving responsibilities. Additionally, women and URM faculty often bear a disproportionate burden with respect to mentoring and service responsibilities. **We recommend that FAS develop mechanisms to make those burdens visible and to address them.** The process of hiring ladder faculty is slow and, both when expanding into new academic areas and/or when building a more diverse community, creating critical mass is important to long-term success. Therefore, **we recommend creating opportunities for cluster hiring, creating community for new hires by allowing flexible affiliations to more than one School or Department, and using lectureships and visitorships to quickly ramp up strength in a particular area and to attract candidates for ladder positions.** To create opportunities to recruit faculty in areas of emerging academic priority that cross departmental boundaries, we recommend expanding the practice of naming "areas of excellence" that can serve as a focus for research and teaching (see more on Appendix B, page 39.) Additionally, we see a need for more spaces where faculty from across disciplines can interact in serendipitous and informal ways and recommend investment in interstitial academic spaces, particularly as flexible work and "hoteling" become more common.

Centers

The Faculty of Arts and Sciences hosts nearly 60 different centers, institutes, and academic societies. These Centers take many forms including those dedicated to particular geographic areas or research topics and shared-use core facilities. The 41 FAS-based research centers vary greatly in the programs they offer to advance faculty research and student learning and in the types of spending associated with those activities. For example, the percentage of research center budgets spent on student scholarships and awards varies from 0% to 50%, with the average being 8%. For faculty, some research centers offer research grants, funding of faculty research materials, research travel, and research assistantships; the percentage of Center budgets spent on faculty research also varies. Research centers likewise vary in the percentage of spending devoted to staff compensation, from 9% - 48%. Research centers spend \$35.5M annually on staff salaries. Of this total, \$5.3M is supported by FAS subvention. These Centers are each affiliated, entirely or in part, with an Academic Division or SEAS, but they often operate largely independently from the Divisions/SEAS, from academic Departments, and even from one another, in terms of their priority setting, program development, and planning. To fund their activities, research centers deploy both restricted and unrestricted funds. The ratios of restricted to unrestricted funds vary across Centers, as do how flexibly they use their available funds. Total research center spending in FY19 equaled \$161 million. Of that amount, \$12.6M was direct FAS subvention to Centers. Some research centers contribute some amount toward underwriting their space costs but no FAS research centers currently cover the full costs of their space (unlike Centers at HKS, for example).

The Centers and Academic Structures subcommittee considered the following questions:

- What is the unique role that these centers play in advancing the teaching and research missions of Harvard?
- To what extent do research centers deploy their resources in direct support of Harvard's core mission activities of teaching & research?
- How can research centers best support Harvard faculty members in their creation of new knowledge; how can Centers best support undergraduate and graduate student learning and research?
- Are research centers financially sustainable for the long term?

The subcommittee sees both an opportunity and a need for achieving deeper integration of these Centers into core academic activities and priorities of the FAS. Centers bring pride and benefit to Harvard, particularly in faculty recruitment, but they often are underutilized in FAS interdisciplinary program building and in supporting faculty and student research needs. They often are not tightly integrated with departments/areas and therefore often incompletely support – both financially and programmatically – intellectual communities within and across Departments. Thus, they often respond only partially to departmental, faculty, and student needs and interests and to the FAS's top academic priorities. Their lack of integration runs

counter to both the spirit and letter of the *Provostial Principles for the Establishment of New Centers* (Nov. 2002).

Our recommendations seek to ensure that research centers more directly advance the core research and teaching missions of Harvard by using their restricted funds more flexibly, maximizing their direct support of faculty and students (e.g. financial aid, faculty research grants, student research grants, etc.), attaining greater administrative efficiency, and reducing operational overhead. **We recommend as immediate actions that the Academic Divisions and SEAS create robust, transparent mechanisms to engage faculty leaders of research centers directly in:**

- The Divisional/SEAS strategic planning process on the future of FAS academic structures outlined by the Departments subcommittee (page 17).
- Interdisciplinary program building and faculty hiring to complement the disciplinary programs of Departments. Approaches will vary by Division/SEAS.
- FAS, Divisional, and Departmental academic planning to identify and support shared academic priorities and needs. Examples include graduate and undergraduate financial aid, faculty compensation (such as named Chairs; research funds), faculty and student research/travel grants, and, where needed, department speaker series.
- More formal coordination with GSAS and Harvard College in funding student programs and support.
- Reviewing terms to identify opportunities for restricted funds to be used more broadly to support shared academic priorities, in partnership with the Director of Endowment Funds.
- Attaining greater administrative efficiency and reducing overhead in part by identifying opportunities to achieve economies of scale across Centers through shared service units offering specialized support for common needs.
- Engaging Centers in becoming financially sustainable, to include fully covering their total space costs with local funds. This process would draw on work by the Space study group, which has made recommendations for how to create a consistent “shadow price” system for space.
- Identifying opportunities to better support faculty directors, given their many other time-consuming responsibilities on campus and in the profession.

Once these mechanisms are in place, **we recommend that the Divisional, SEAS, and FAS leadership work in partnership with Center faculty leaders to formalize the above by developing and publishing in a handbook a set of clear and explicit guidelines, principles, and expectations, based on the expectations and responsibilities outlined in *Provostial Principles* and as described above.** Going forward, **one of the criteria of (re)appointment for center faculty directors and executive directors must be the understanding that collaboration and partnership on the above with the Academic Divisions and with FAS leadership is a core responsibility of their role.**

Departments

Currently there are two academic unit models in place in the FAS; “academic departments” in the three FAS Academic Divisions and “areas” in the School of Engineering and Applied Sciences (which became a School in 2007). Most current FAS departments have been in place for decades, with the creation of new units happening most frequently in the sciences and SEAS. The current structure of academic departments and centers reflects academic priorities rooted in the middle decades of the 20th century; our structures are sometimes at odds with contemporary disciplinary priorities and areas of faculty and student interest, particularly in more interdisciplinary fields, and generally do not reflect the “big questions” of society today and almost certainly in the years and decades to come. While we seek to update our academic structures, and particularly to better pursue and support interdisciplinary research and teaching, we must also respond to the career and promotion processes that continue to be tied to excellence in core subfields.

While there are commonalities across departments, there is no agreement on a department’s core functions. In addition, departments vary considerably in size and activities, from very small departments with a sole administrator supporting fewer than 10 faculty to departments with more than a hundred staff performing quite specialized roles. Ladder faculty to staff ratios vary within and across Divisions, with the highest ratios in the Arts & Humanities (median is 2.48).

Locally-controlled funding is similarly variable, with some departments enjoying substantial endowments and others completely dependent on the FAS.

The departments and administrative structures subcommittee considered the following questions:

- As we look ahead to the next 20 years, how can we structure departments to successfully advance the current, emerging, and anticipated academic ambitions of the faculty and to respond to changes in student interest? Particularly as academic fields inevitably shift and new areas of inquiry emerge, are our academic structures able to support Harvard to embrace and lead those shifts?
- How could departments be optimized to meet present and future needs more effectively?
- How can the activities and functions of departments be made more financially sustainable, as well as more effective in supporting our teaching and research mission?

Comprehensive academic strategic planning with the faculty could open the possibility of changes to our current academic structures that introduce more flexibility and coherence to sustain and support core excellence and emerging areas of interest, and to do so in a more financially sustainable manner. Ultimately, our academic structures should help, not hinder, our ability both to hire the most exciting talent on the academic market and to provide opportunities for current faculty members to embrace changing and new fields and engage in transformative scholarship and teaching, with appropriate variation across academic divisions

and SEAS. Change is difficult and disruptive and should not be entered into lightly; any change to structures should hold the promise of enabling our community to do its best work for the next 20 years.

Durable and meaningful change that removes barriers and enhances our teaching and research today and for the future can happen only through thoughtful engagement with the faculty. To that end, **the subcommittee recommends that each Division and SEAS launch a Divisional/SEAS strategic planning process on the future of FAS academic structures that looks at departments/areas and centers.** While each process will be different in important ways, the following are the central questions and issues that should be addressed:

- *What academic structures will enable the faculty to do its best work and to attract the most exciting faculty talent for the next 20 years? What are the barriers we confront today and are likely to confront in the coming years in our pursuit of excellence in teaching and research?*
- *Revisit the structure of academic departments/areas that are smaller than 10 faculty FTEs and those with low enrollments.*
- *Revisit the structure of academic units with substantially overlapping faculty membership and student interest.*

While departments/areas are entities that should generally be lasting, there are opportunities for new structures that are more organic and shorter-lived. Where intellectually appropriate, **we recommend that the FAS consider establishing mechanisms for bringing focus to particular academic priorities that bridge departmental boundaries and create new collaborations across disciplines and areas.** These priorities would change over time and would be supported through shared academic infrastructures—for example, the iLab provides a core of infrastructure (staff, meeting spaces, seminar rooms, etc.) that hosts many distinct initiatives. This recommendation is not intended to create more layers in the organization, or proliferate needless structures, but instead to make the practice of bringing together students and faculty around a topic of academic opportunity and interest more routine and to lower barriers to supporting their work.

Building on earlier reviews of administrative services, **we recommend that the Divisions and SEAS seek further opportunities to elevate administrative functions from departments (especially smaller ones where economies of scale are lacking) to shared service organizations to improve service, increase professional management of staff, and contribute to departmental financial sustainability.** Additionally, **we recommend a review of departmental budgets to identify opportunities to apply restricted funds to a broader set of departmental costs and to purchase services from shared service organization, in partnership with the Director of Endowment Funds.**

GSAS

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.**

Space

Space is one of the FAS's biggest costs, with operating and capital costs representing nearly 30% of the FAS expense budget. Space is also one of the FAS's most valuable resources. The FAS owns 268 buildings valued at \$8 billion, comprising 10.1 million gross square feet. Of that total, 5.3 million is academic space, 3.5 million is residential, 0.8 million is athletic facilities, and 0.6 million support the performing arts, student activities, and administration. Additionally, the FAS rents another 714 thousand net square feet, of which 420 thousand is non-residential and 294 thousand is residential. The School of Engineering and Applied Sciences rents an additional 370 thousand net square feet, comprising the new SEC building in Allston.

The transition to fully remote work during the pandemic has revealed a new opportunity to rethink the way we use space to advance Harvard's mission. The University's "Future of Work" effort is now exploring new possibilities, particularly for staff. While there is an opportunity to seek greater efficiencies in space use and to introduce financial sustainability into space planning, the subcommittee recognizes the disparate impacts on different constituencies of the FAS of moving to more flexible space use.

The space subcommittee considered the following questions:

- Where are the largest untapped opportunities to reduce the cost to the FAS of space?
 - Can we better communicate the cost of space to end-users?
 - Can incentives be introduced to promote the better use of space?
- As we recover from the global pandemic, are there particular opportunities to reboot our space use?
 - How can we best leverage the work done by the University Committee "Workforce of the Future"?
- What constraints and challenges does the FAS face regarding our use of space? How can we organize our space, best govern our space?

The subcommittee identified two problems as barriers to strategic space planning. First, there is a lack of transparency in regard to the cost of space. Second, there is a lack of incentives to make considered decisions around space use. **To address these problems, the subcommittee recommends the development of a standard system for representing the costs of space, or a "shadow price"** (a draft model is included on Appendix B, page 93). The shadow price should reflect differences in building type (e.g. science vs non-science) and should be based on replacement and operating costs for an owned building, or actual lease costs paid. It should not reflect whether a given building was primarily financed with debt or with endowment funds. **Shadow pricing would provide a means to communicate and make transparent the cost of space and to drive new incentives (e.g., less space in return for more of other kinds of resources).** Shadow pricing enables local actors who know best what their needs are to make considered decisions around space with informed tradeoffs. This pricing information need not entail new charges for space. As the nature of work changes, the FAS will be presented with

opportunities to make more efficient use of space. **The subcommittee recommends that FAS immediately conduct surveys to understand preferences in the post-pandemic workplace and to understand the needs for all parts of the FAS community, remaining sensitive to differing needs. With the benefit of this information, the subcommittee recommends that FAS move with urgency to develop multiple pilot experiments around flexible work. Through flexible work, cost transparency, and incentive structures, the subcommittee recommends that the FAS develop multi-year targets around improvements in space efficiency and pursue strategies to reduce space costs.**

DCE

The Division of Continuing Education (DCE) is a unit within the Faculty of Arts and Sciences that offers a range of degree and non-degree programs for working professionals, high school students, and those seeking higher learning in retirement. These programs are offered through the Harvard Extension School, Harvard Summer School, Harvard Professional Development Programs, and the Harvard Institute for Learning in Retirement. Forty-seven percent of DCE instructors are Harvard affiliates. DCE programs generate net revenue for the FAS, transferring approximately \$17 million of net revenue to FAS in FY20. Significant opportunities exist to further bolster the DCE's educational programs and generate additional revenue for the FAS, while also strengthening connections with FAS faculty through increased faculty governance and participation in the DCE's educational programs.

The DCE subcommittee considered the following questions:

- Where are the largest untapped opportunities to bolster DCE's programs, and generate revenue for the FAS?
- What constraints and challenges does the Division face, including governance challenges?
- How can the academic connection between the FAS and the Division be strengthened (e.g., faculty engagement, pedagogy, synergy with FAS strengths)?

The demand for Harvard's continuing education programs is strong. Looking ahead, the question is not whether the DCE can grow, but *how* to grow, and *how fast* to grow DCE programs while managing any reputational concerns and not making inappropriate demands on FAS faculty effort. **The subcommittee is strongly supportive of efforts currently underway to understand the revenue opportunities for expanding the DCE's programs where there is low to no reputational risk, and in ways that do not create undesired burdens on the FAS faculty.** The possibility of further expanding online only offerings as well as professional development programs are also worth exploring. **Beyond expanding its revenue, increased FAS faculty engagement in governance and the DCE curriculum could bring great value to DCE and FAS by, for example, strengthening the quality and academic rigor of DCE offerings, sharing best**

practices for faculty hiring, and bringing FAS liberal arts strength into DCE degrees, even those that are professionally focused. In addition to teaching, faculty curricular contributions could include academic program oversight (perhaps in the form of multi-year, compensated appointments), course design, and the sharing of syllabi and course materials with DCE instructors. Expansion of faculty engagement would consume faculty time, and thus the subcommittee recommends further review to understand the possible tradeoffs. Lastly, the subcommittee **recommends a review of the DCE faculty compensation model.**

There are also barriers to future growth that the subcommittee sees as worthy of review and further consideration. The residency requirement is a significant limitation for a student population of working professionals that is not engaged in full-time study. Residency requirements present particular barriers for international students as well as to developing programs with an international reach. Additionally, students and alumni have raised concerns regarding the name of Harvard Extension School and its associated degree names (“in Extension Studies”), suggesting that “extension” does not describe the school or degrees in a self-evident manner and disadvantages students when they seek employment and/or promotion. And finally, the ability to expand campus-based DCE summer programs is significantly constrained by limitations on available space.

The DCE presents a rare and promising opportunity to expand FAS educational activities in a manner that can directly and substantially contribute to the financial sustainability of the FAS. **The subcommittee recommends that the FAS and DCE leadership raise awareness of the DCE among the FAS faculty and seek to meaningfully engage FAS faculty in charting the future of the DCE and investing their time and insights into DCE programs.**

IV. Areas for Future Exploration

While the FAS Study undertook analysis on a wide range of topics through its eight subcommittees, there are additional areas that the FSG would recommend for further study.

Staff: As noted in the economic budgeting overview, staff headcounts have grown along with the growth of the faculty over the last 15 years and the cost of that growth is considerable; the compensation for faculty and staff together accounts for approximately 50% of the FAS expense budget. While a number of FSG recommendations would impact staffing (e.g., as an aspect of strategic planning for the future of academic structures, in the exploration of opportunities for further expanding administrative shared service models, and in efforts to move to more flexible space use), the FSG did not step back to ask the kind of fundamental questions about our staffing model and human resources practices that would enable transformative change instead of tinkering around the edges of the status quo. Further review could explore a range of issues, such as how staff growth at Harvard compares to peers, the impact of increasing compliance expectations on staff growth, the effectiveness of human resources practices to attracting and retaining talent and moving out non-performers, and barriers to building a more diverse workforce. Additionally, it could document what tasks are being done today to enable tradeoffs as we evolve our academic structures, i.e. what tasks do we want staff to stop doing in order to take on the new tasks of our new structures? Bringing to bear expertise and analysis on questions like these could strengthen the further development and implementation of many of the FSG's recommendations.

Harvard College: The FSG talked at length about opportunities to think boldly about evolving our academic structures and practices to enable broad-based teaching and research excellence for the 21st century. Similarly, after a year of disruption and experimentation in response to a pandemic that laid bare many of the challenges our students face, now is an opportune time to ask similar questions about how we should be structured to support the needs of and the academic experience we seek to provide to 21st century Harvard College students. The Harvard College student body has changed radically since the founding of the House system in the 1930s, as has the society around us. How might the residential model evolve to meet the needs of today's students and to create the inclusive, transformative academic community that should be a distinguishing part of the Harvard experience today? Is our advising structure meeting our students' needs today and is it ready for the future needs we anticipate? Is the extracurricular experience we offer our students (e.g., Athletics) aligned with our academic vision and priorities? These and other questions could be usefully pursued in the context of both academic excellence and financial sustainability.

Cross-School Collaboration: The FSG was, by definition, focused on the FAS. However, just as we recommend increased cross-FAS collaboration and integration, so too do we recommend a

fresh look at university-wide collaboration and integration, and how we might create additional opportunities for undergraduates, graduate students, and faculty alike.

Non-ladder Faculty: Over the past decade or so, several committees have been constituted to review aspects of the FAS non-ladder system. Topics have included, among others, the roles and responsibilities of non-ladder faculty, job satisfaction, mechanisms for academic oversight, reappointments and term limits, maternity and other benefits, and the evolving criteria for Professor of the Practice appointments. After reviewing these reports, the FAS should consider whether further review is needed to understand and evaluate the growth in non-ladder appointments over the past 20 years, which has grown by 33% from 2003 to 2021. N.B. the College Fellows program started shortly after the recession and includes roughly 25-35 College Fellows per year. Removing the College Fellows, the current number of non-ladder faculty is 331, compared to 292 prior to the recession.