

Final Report of the Ad Hoc Duke Interdisciplinary Priorities Committee: Overarching Analysis and Recommendations for Academic Council

May 2021

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Note: This document provides an overview of the overarching findings and recommendations of the 2020-21 Ad Hoc Interdisciplinary Priorities Committee. The full report, drawing on a confidential process of fact-finding, includes analysis and recommendations for individual UICs.

Introduction

Over the last fifty years, interdisciplinarity has become a hallmark of Duke – a compelling aspiration and call to action, and increasingly a crucial comparative advantage. The scale and scope of strategic investment in interdisciplinary endeavors has grown enormously, especially in the last quarter-century, linked to the development of cross-school mechanisms of support and coordination, overseen by the Provost’s office. One ambitious manifestation of this process rest with our portfolio of university-wide institutes, initiatives, and centers, or UICs.

As we have advanced our interdisciplinary capacities, the university’s leaders have repeatedly expressed a commitment to an experimental mindset. Duke has sought to identify the most promising areas in which its faculty have pursued interdisciplinary scholarship, teaching, and public/policy engagement, and then to amplify those efforts. The university has also consistently stressed the imperative to evaluate the contributions of interdisciplinary units on a regular basis, and to adjust budgetary allocations in accordance with evolving circumstances. This report seeks to live up to the enduring challenges presented by Duke’s commitment to interdisciplinarity: to keep abreast of where our current institutional structures and commitments most powerfully and effectively infuse our campus with interdisciplinary collaborations unlikely to occur without university-wide investment and coordination; and to remain alert to realignments or adjustments that might better position the university to support current interdisciplinary engagements, emerging interdisciplinary strengths, and the most pressing interdisciplinary imperatives.

Committee Charge and Process

In October 2020, Provost Sally Kornbluth launched an ad hoc faculty Interdisciplinary Priorities Committee (IPC) to undertake a focused review of Duke’s university-wide institutes, initiatives and centers known as “the UICs.” There are currently 11 UICs:

- Duke Institute for Brain Sciences (DIBS)
- John Hope Franklin Humanities Institute (FHI)
- Duke Global Health Institute (DGHI)
- Kenan Institute for Ethics (KIE)
- Nicholas Institute for Environmental Policy Solutions (NI)
- Social Science Research Institute (SSRI)
- Duke University Energy Initiative (EI)
- Duke Innovation & Entrepreneurship Initiative (I&E)
- Rhodes Information Initiative at Duke (iiD)
- Duke Initiative for Science & Society (S&S)
- Duke Margolis Center for Health Policy (Margolis)¹

Comprised of senior faculty from across Duke, the committee mixed thirteen members whose prior service on major university committees ensured extensive knowledge of the university as a whole, with three relatively new Duke faculty who brought fresh perspective and knowledge of practices at their prior universities.

¹ The review exempted the Margolis Center, launched in 2015.

Committee membership:

Lisa Gennetian, Sanford School (*chair*)
 Anne Allison, Cultural Anthropology
 Steffen Bass, Physics
 Lori Bennear, Nicholas School
 Deb Brandon, School of Nursing
 Edgardo Colón-Emeric, Divinity
 Keisha Cutright, Fuqua
 John de Figueiredo, Law & Fuqua
 R. Darren Gobert, Theater Studies
 Claudia Gunsch, Civil & Environmental Engineering
 Trina Jones, Law
 Steve Lisberger, Neurobiology
 Megan Mullin, Nicholas School
 Debu Purohit, Fuqua (*UPC chair*)
 Heather Whitson, Medicine
 Erik Wibbels, Political Science
 Ed Balleisen, Vice Provost for Interdisciplinary Studies, *ex officio*

Provost Kornbluth charged the IPC with examining the UICs individually and collectively, evaluating their partnerships among one another and with schools, as well as their most significant contributions to Duke's intellectual life, research enterprise, educational mission, and civic engagement. The Provost further asked for recommendations concerning:

- principles that should guide assessment of UICs over the next decade;
- ongoing mechanisms of UIC review;
- cuts in spending on individual UICs to achieve a necessary overall reduction for the UICs as a group, while optimizing the significant opportunities that these interdisciplinary units bring to Duke's faculty and students;
- any advisable reconfigurations in the organization of these units, including potential mergers, realignments with specific schools, redefinition or reprioritization of missions, sunseting of component parts or entire UICs, and rebalancing of administrative functions between UICs and the Office of Interdisciplinary Program Management; and
- issues or questions requiring further consideration or study.

The committee's work built on a financial review of the UICs undertaken by the University Priorities Committee (UPC) in 2017-18, which had already generated a significant reduction in provostial spending, centralization of some administrative functions, and revision of some UIC faculty governance structures.

To meet the challenge of evaluating and making recommendations for both individual units and the portfolio as a whole, the committee formed five subcommittees, each focusing on a pair of UICs:

- Duke Institute Brain Sciences *with* Duke Global Health Institute
- Energy Initiative *with* Nicholas Institute for Environmental Policy Solutions
- John Hope Franklin Humanities Institute *with* Kenan Institute for Ethics

- Innovation & Entrepreneurship *with* Science & Society
- Rhodes Information Initiative *with* Social Science Research Institute

An additional “Strategic Landscape” subcommittee engaged in consideration of how peer universities organize, fund, and evaluate university-wide interdisciplinary units.

After a meeting of the full committee with the Provost in October to discuss the charge, IPC members began their work by reviewing extensive written material pertaining to individual UICs, including the most recent annual report and budget report; a faculty and staff profile; a snapshot of major undertakings and another of anti-racism activities; an external review report (institutes only); and responses from each director to a series of questions framed around Vision & Impact, and Resources & Trade-offs.² In addition, the committee received a timeline of interdisciplinary activities from 1988 to the present, an overview of interdisciplinary philanthropy, a briefing on actions taken in response to the 2018 UPC Report on the UICs along with the report itself, an evaluation of the potential for shared communications functions across the UICs, and assessments of the potential for the sharing of other administrative roles across the UICs.

IPC also sought to place Duke’s interdisciplinary undertaking in both comparative and historical context. In December, the Strategic Landscape Subcommittee met with representatives of the Educational Advisory Board (EAB), a higher education research firm. Those consultants shared EAB’s research on the organization of interdisciplinary units across North American universities, which demonstrated that the great majority of our peers have structures of investment and assessment that focus on STEM-based research, rather than Duke’s more wide-ranging topical and methodological areas, and our UIC’s blending of research, education, and engagement.³ Toward the end of the process, *ex officio* committee member Ed Balleisen researched and wrote a document placing the committee’s work within Duke’s wider history. (See “The Evolution of Interdisciplinarity at Duke,” appended.)

The subcommittees, individually, in pairs, or as a full subcommittee, interviewed more than 100 stakeholders across the university, including the 11 UIC directors. The committee chair and the Vice Provost conducted over a dozen interviews, including nine school deans and several external board chairs. The committee as a whole met with senior leadership from Development and from University Communications. Figure 1 offers an overview of this dimension of the committee’s work.

² Even though the Margolis Center for Health Policy was exempted from the charge, the Committee received two documents from Margolis: answers to the questions posed to Directors, and a separate document detailing the Center’s efforts to track its impact on proposals for external funding submitted by affiliated faculty.

³ In light of the information provided by EAB, this subgroup of the committee judged that we did not have the time or resources to conduct the sort of research that would be necessary to identify and examine the more scattered sorts of interdisciplinary units that do exist at many of our peer institutions. EAB did provide some useful documents from other universities that lay out metrics for assessing the impact of STEM-based research centers.

Stakeholders	DIBS	DGHI	EI/NI	FHI	KIE	I&E	S&S	R-iiD	SSRI
School/Dept/Center Leadership	4	4	5	3	3	8	2	2	2
Faculty collaborators/members	5	6	5	4	3	3	3	3	8
UIC Leadership (includes director)	3	4	4	2	1	2	2	2	1
UIC Senior Staff		1		1		2	1	1	
External to Duke (includes Boards)	1	1		1		2			
UIC Totals	13	16	14	11	7	17	8	8	11

Sum UIC Totals	105
Plus Deans	9
Plus Other University Leadership	10
Less Duplicates	-4 (some stakeholders were interviewed by multiple subcommittees)
120	

Figure 1: Stakeholders Interviewed by Interdisciplinary Priorities Committee Nov 2020-Mar 2021

In addition to these focused conversations, IPC members developed two instruments to capture broad input from the entire Duke community: an “open call” for comments on the UICs from faculty, students, alumni, and staff, which also attracted a few comments from members of the Durham community; and an extensive survey of the faculty.

Through the **open call**, IPC invited comments from the university community writ large about how respondents would define Duke’s interdisciplinary aspirations and how they valued one or more of Duke’s university-wide institutes, initiatives, and centers. OVPIS posted an [announcement](#) on the Interdisciplinary Studies website on December 4, 2020 and a corresponding headline appeared in [DukeToday](#). Several UICs engaged in their own outreach efforts through their respective listservs. The portal remained open for a month through January 4, 2021.

This invitation generated a total of 552 free text responses from faculty, alumni students, and staff across campus. As Figure 2 demonstrates, commentary was widely dispersed across stakeholder groups.

Summary of Respondents	
Role	Count
Full-time Faculty	174
Alum	82
Undergraduate student	62
Other *	52
Doctoral student	43
Administrative staff	43
Masters or Prof student	38
Research staff	25
Library staff	14
Part-time Faculty	12
Anonymous	7
Total	552

* OTHER Role	Count
Visiting Faculty/Fellow	12
Emeriti	9
Non-Duke Fac collaborator	8
Community Member	5
Healthcare staff	4
DUP leadership	3
Affiliate	3
Teaching staff	2
Independent Scholar	2
Prospective Grad Student	1
Unclear	1
Other Staff	1
Industry	1
Grand Total	52

Figure 2: Respondents to the Interdisciplinary Priority Committee’s Open Call for Comments, by Duke Role

The distribution of responses that addressed a specific UIC(s) appears to reflect UIC outreach. (The committee reviewed the breakdowns of respondents, by school, department, and role at Duke, as well as number of responses focused on specific UICs, and an assessment of broader commentary as Validating, Aspirational, Critical, or Neutral). A large majority of comments viewed interdisciplinarity positively and voiced specific support for at least one UIC.

Duke’s Office of Institutional Research administered the more expansive **Faculty Survey** in parallel with the open call. The survey opened on December 4, communicated by email to 901 randomly selected faculty across all nine schools. One out of every three faculty in the Divinity, Fuqua, Law, Nicholas, Nursing, Pratt and Sanford schools, as well as in each Arts & Sciences division, received the survey. Given the size of the School of Medicine faculty, 15% of faculty were randomly chosen to receive the survey, with a slightly larger representation (20%) in departments with known engagement with at least one UIC (e.g., Medicine/Infectious Disease, Neurology, Neurobiology). Institutional Research sent three reminder emails to non-respondents through the month of December. The survey garnered 364 responses, for an overall response rate of 41%, with reasonable representation by school, consistent gender representation, and slight over-representation of white faculty and faculty of full professor ranks. Just over half of the respondents arrived at Duke within the past five years.

Compared to the open call, survey responses had a much higher proportion of comments that voiced critical views of UICs, though expressions of support for UICs predominated, and expressions of support for interdisciplinarity were even more common. The committee received feedback suggesting that some faculty who received the faculty survey *and* who received an outreach message from a UIC about the open call conflated the two instruments, which may have impacted the response rate of the survey.

After the October kickoff meeting with the Provost, the committee met eight times as a full group over the next four months, including three all-afternoon “retreats.” IPC members held the majority of stakeholder interviews in November and December (with a few continuing as late as early March). During that period, subcommittees focused on UIC-specific fact-finding, before turning in earnest to the assessment and issues of the broader interdisciplinary environment. All meetings and interviews took place remotely.

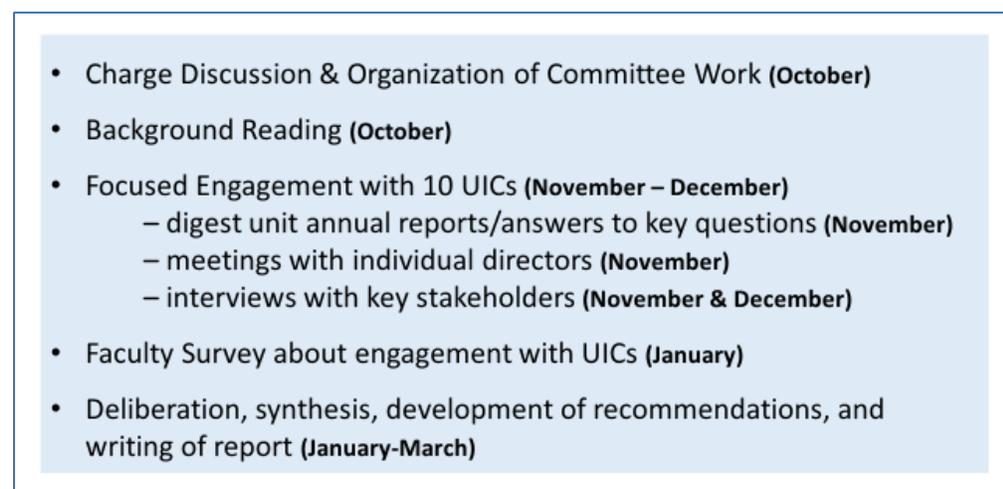


Figure 3: A Timeline of the Committee’s Work

The Value of Duke's UICs: A Patchwork of Realized and Unmet Potential

There is widespread recognition that Duke does interdisciplinarity very well, and indeed that interdisciplinarity has become a fundamental component of the university's DNA. Many faculty members conduct interdisciplinary research and incorporate interdisciplinary frameworks into their teaching. Undergraduate and graduate students likewise have many opportunities to pursue interdisciplinary pathways and experiences.

As the number and reach of interdisciplinary faculty and programs have expanded in recent decades, Duke's embrace of research, teaching, and outreach that crosses boundaries has suffused the campus. Duke has more **interdisciplinary capacity (for research and teaching) within departments and schools now than ever before**. Much of this capacity resides mostly within schools, such as SoM's Children's Health and Discovery Initiative; some of it reflects a school-school partnership, such as the joint research and educational endeavors between A&S and Pratt in material sciences. As a result, we must keep in mind that UICs encompass or catalyze only a fraction of interdisciplinary activity at Duke. UICs work best when affording opportunities that schools or departments do not offer.

Our inquiry indicates that every UIC provides benefits to Duke stakeholders along these lines. Some UICs have established especially strong reputations as generators of added value to the Duke community. But others either offer such value to narrower constituencies, have missed opportunities to extend their impact, or have struggled to deliver on their potential across one or more dimensions of teaching, research, and public engagement.

An Inventory of Interdisciplinary Public Goods. IPC has identified a number of arenas in which the UICs provide resources not readily available in departments or schools. They:

- serve as **vital intellectual homes for large numbers of faculty and students** who wish to pursue shared questions and issues with peers from other departments/schools;
- facilitate **recruitment of faculty and graduate students** (especially in some programs) drawn to interdisciplinary inquiry and action, in the case of many faculty through strategic deployment of funds for start-up packages or retention arrangements;⁴
- generate **new intellectual currents and questions**, hatching inter- and multi-disciplinary research innovation through seed grants (See Figure 4);
- spark **innovative pedagogical experimentation, manifested in curricular and co-curricular programs during the academic year and summer**⁵ (See Figure 5);

⁴ See the end of "The Evolution of Interdisciplinarity at Duke," for a list of faculty recruited to Duke through crucial participation of UICs.

⁵ In addition to the degree programs, majors, minors, and certificates noted in Figure 5, these undertakings include clusters in the Focus program, year-long Bass Connections teams, interdisciplinary labs in FHI and KIE, and a number of co-curricular summer programs (Data+, Story+, Huang Fellows, Margolis, NI, and DUEI interns, the DGH Student Research Training Program, and the DIBS Summer Neuroscience Program).

- provide **administrative supports** for a broad portfolio of centers, and development of distinctive competencies for faculty and students (such as DGHI’s ability to support complex research in international settings; the Energy Initiative’s career-related networks); and
- furnish significant mechanisms for **public engagement and impact** (such as the Margolis Center’s COVID-19-related policy work; the Nicholas Institute’s shaping of climate mitigation plans).

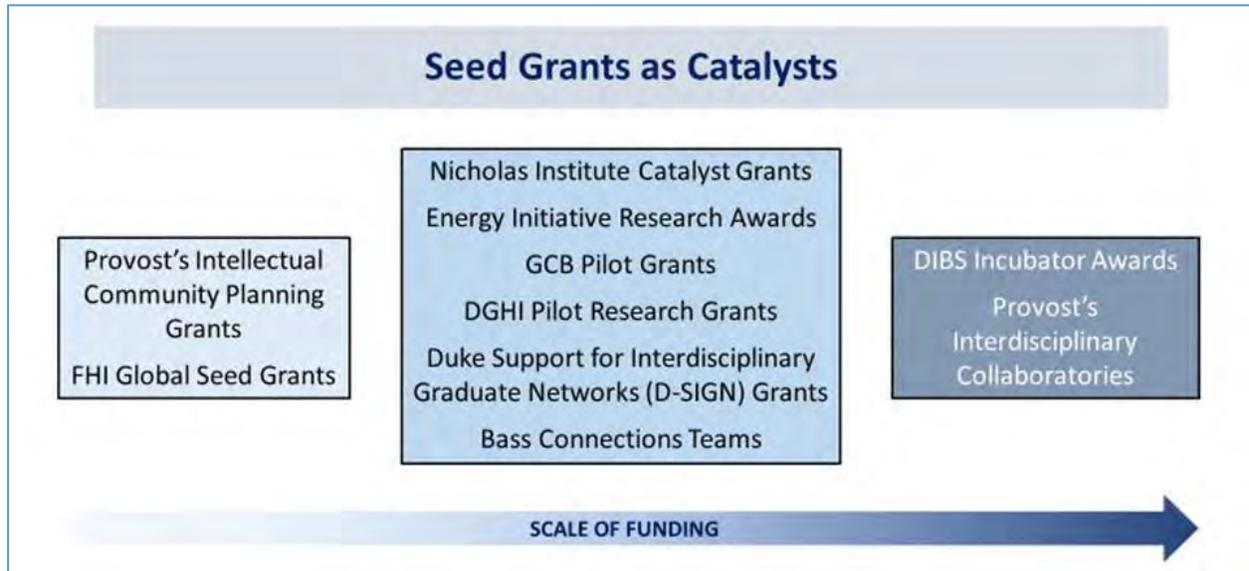


Figure 4: An Overview of Interdisciplinary Seed Grants in the Provost’s Office



Figure 5: Interdisciplinary Curricular Programs at Different Levels (degrees and certificates)

An Exemplary UIC. Stakeholders across Duke identify DGHI as a particularly effective UIC, whether considered in terms of reach, impact, or integration of its various activities. Launched in 2008, DGHI consistently links faculty from diverse disciplinary backgrounds across schools; successfully recruits excellent faculty and students; and integrates research, education (both graduate and undergraduate), and community engagement in locations across the world. DGHI has maintained a robust record of external funding, and has developed admirable expertise in international grants management. These accomplishments have underpinned the development of its reputation as a global leader in global health. For all these strengths, DGHI still confronts important challenges, including a rapidly evolving funding environment, the essential work of diversity, equity, and inclusion, and the complex and ever-present leadership imperative to sustain its partnerships across each of Duke's schools. As the institute approaches a search for a new director, however, it is well-positioned to meet those challenges.

Unmet potential. Not all UICs have realized their potential or have been as nimble or responsive to their initial mission and creation. A UIC may be doing a fine job with many constituencies around campus, but have far less robust engagement with some schools that would benefit from such interaction. It may engage in so many projects and programs as to diffuse its impact, or struggle to articulate the broader intellectual case for a smaller number of valuable though disparate activities. It may focus so resolutely on public engagement as to miss out on opportunities to amplify faculty research or enrich student experience. It may lose touch with the viewpoints and priorities of key stakeholders, put off the development of its own processes of internal review, and/or shy away from sunseting projects or centers that have lost momentum. No UIC will ever be able to engage with more than a subset of faculty and students at Duke; the university is too big, encompassing too many interests. But the committee believes that we can reduce the patchiness of interdisciplinary undertakings, while achieving operational efficiencies and more collaboration across the UICs and between them and the schools.

Additional Concerns

In addition to abundant evidence about the contributions that the UICs make to Duke, IPC's fact-finding identified several concerns about the current role of the UICs, expressed by senior leaders and faculty, through both interviews and the faculty survey, or revealed through close attention to UIC documents:

- 1) The pace of UIC activity has generated a **proliferation of administrative support** that often greatly exceeds comparable resources in departments and schools. Stakeholders have raised questions about the possibilities for:
 - better aligning activity with priorities;
 - relying more heavily on remote engagement with scholars elsewhere, and fewer in-person visits;
 - coordinating more effectively with schools and other UICs around larger events; and
 - exploring shared services in areas like communications, information technology, and human resources, not only to find economic efficiencies but also to improve quality.
- 2) At other research universities, university-wide interdisciplinary units tend to have a clear focus on research, sometimes linked to public engagement. At Duke, and in line with strategic choices set by the President and Provost in the 2000s, UICs have developed a significant suite of curricular and co-curricular programs, detailed above. Stakeholder reflections revealed **ambivalence over UIC involvement in curricular efforts**. Many faculty and senior leaders appreciate the capacity

of UICs to seize opportunities and create rich pathways for students, as well as the instances in which UICs have spun off successful programs to schools (such as DIBS handing off the Neuroscience major to the Psychology and Neuroscience Department). There is also awareness that far-reaching curricular innovation faces hurdles in moving through channels of school governance. At the same time, some interviewees and survey respondents voiced concern about the emergence of degree programs unmoored from tenure-track faculty, and worried that UIC leaders and staff may see curricular programs as a way to justify their existence.

- 3) Some tension will always exist between the impulse to deepen investments in existing interdisciplinary collaborations and the imperative of identifying faculty members working at evolving frontiers of knowledge. A number of stakeholders, however, expressed a sense that UICs can sometimes become vehicles for **funneling resources to faculty insiders**, rather than adopting more inclusive strategies of community-building and transparent resource allocation.
- 4) Committee members encountered **financial opacity** in a few units, with accounting structures that make it difficult to track financial flows or the relationship between sources of funding and expenditures.
- 5) Stakeholders characterized some UICs as at times focused more on **competing with other units for influence over specific areas** than on identifying avenues for partnerships, offering connective tissue across schools, and creating distinctive and complementary opportunities for faculty and students.
- 6) Committee members identified challenges in balancing **robust UIC capacity for philanthropic fundraising** with the maintenance of university-wide fundraising priorities, which may become sharper with UIC budget cuts and calls to replace provostial support with philanthropy.

In light of these concerns, alongside the current budgetary pressures resulting from pandemic-related costs and a steady increase in the demands of undergraduate financial aid, many Duke stakeholders see a strong case for modestly **pruning the number and scope of UICs**, so as to ensure that the remaining cluster of units:

- develop a **sharper mission, a reduced number of focal areas, and clearer priorities**;
- operate more efficiently, with less **administrative overhead**;
- seek to **concentrate impact** on faculty and students;
- provide resources through **transparent processes**; and
- demonstrate the capacity to **sunset** existing activities.

This approach would create room to make investments in emerging interdisciplinary or convergent arenas. In finalizing budgetary reallocations, however, IPC advises that the Provost apply differential cuts, with smaller cuts to those units doing a particularly strong job of attaining their key missions. The subcommittee reports place each UIC into one of four categories, recommending either no or small reductions, modest reductions, more substantial reductions, or in one case, a modest increase. IPC as a

whole does not see itself as having sufficient appreciation for all of the relevant variables to suggest specific percentages, other than strongly to advise against an across-the-board strategy.⁶

Findings about Interdisciplinarity at Duke in General

Although this review focused on the UICs, individually and as a group, the committee encountered extensive commentary about wider issues related to interdisciplinarity. Especially in the faculty survey, but also in the open call, some faculty voices conveyed a clear preference for investment in disciplinary structures and deeper, if narrower, expertise. Amid the much more common embrace of interdisciplinarity in the open call, survey, and stakeholder interviews, we also encountered considerable frustration about ongoing barriers and stumbling blocks to cross-school research collaborations and teaching.

Organizing interdisciplinary research that involves faculty from multiple schools and that occurs outside the ambit of UICs continues to face obstacles at Duke. With each new effort, faculty must engage in dialogue about a host of issues, including cost sharing, division of indirect cost recovery associated with grants, and the homing of any new positions associated with the research undertaking. Some committee members have experienced these frustrations themselves, and see a case for developing a master agreement across Duke's schools to govern such matters, so as to facilitate the extensive interdisciplinary research that occurs across schools, but without any interaction with one or another UIC.

Two areas in which research-related concerns appeared with particular frequency and intensity were **quantitative social science and computational science**. In interviews, the open call comments, and the faculty survey, IPC heard broad discontent with the services that Duke is providing in these areas, ranging from data storage to data sharing/access to data carpentry. We heard concerns about weak integration of computational social sciences with computational approaches elsewhere, growing demand among students, and increasing need for computation across all schools. In addition, stakeholders expressed the need for better access to training and greater opportunities for the development of intellectual community around the quickly evolving techniques of quantitative social science.⁷

Fifty-three years after the Krueger Report⁸ that led to the establishment of Program II and ushered in five decades of growth in interdisciplinary education, cross-unit courses also remain difficult to organize, since departments often focus on what they see as the priority of furthering their own core teaching missions. This situation both fosters pedagogical duplication and limits new educational connections. Duke has as yet struggled to find the right set of incentive mechanisms to address these problems.

As "The Evolution of Interdisciplinarity at Duke" illustrates, these problems have a long pedigree, and reflect the structural challenges associated with encouraging interdisciplinary research, teaching, and

⁶ The committee also wishes to underscore that any budget reductions resulting from its work involve only allocations from the Provost (likely to be matched by similar reductions from contributing schools, in the case of those UICs who receive funding from a school). Those cuts will not affect other revenue sources.

⁷ One imperative here is improved provision of key services around data and computation, which should be a priority for the Office of the Vice President for Research and Innovation.

⁸ Robert Krueger, "The New Curriculum," *Duke Alumni Register* (November 1968): 1-9, available at: <https://archive.org/details/dukealumniregist541968/page/n173/mode/2up> (accessed Feb. 27, 2021).

public-facing scholarly engagement, particularly when those activities involve partnerships that extend across departmental and school lines. Throughout the past half-century, Duke has consistently revisited its mechanisms for mediating the structural tensions between departmental and school-based culture, on the one hand, and interdisciplinary culture, on the other. IPC sees a case for a broader reconsideration of whether, and if so, how, we might update university-wide incentive structures concerning cross-school research and education.

Principles for Success over the next Decade

Taken as a whole, IPC's fact-finding reinforces our longstanding aspirations for interdisciplinary undertakings, encapsulated in "The Evolution of Interdisciplinarity at Duke" document. It also underscores the importance of UICs keeping their eye on the truly public goods that are unlikely to emerge from departments and schools. Several principles emerged as guideposts for the Provost's Office and UICs as they strive to maintain focus on that evolving set of public goods.

- 1) The importance of **community-oriented leadership**. UIC directors must build collaborations that complement the undertakings of schools. Achieving that fundamental objective depends on a director having the credibility that comes with a record of scholarly excellence; but it also requires close attention to forging and then nurturing relationships across schools. The degree of attention of course will vary with the circumstances confronted by a given UIC at a given point in time. All directors, though, will need to consider carefully how much time they can devote to their individual research portfolio, and ensure that institutional stewardship remains their top priority.
- 2) The imperative of **appropriate engagement across multiple schools**. Each of our UICs has a set of core faculty and student constituencies, which vary in terms of their breadth across campus. The degree of cross-school interaction fostered by UICs will vary accordingly. But a university-wide institute should:
 - have representation from across campus in its faculty advisory group;
 - be able to articulate both its current cross-school footprint and the most important emerging opportunities for new cross-school activity; and
 - show how it deploys its resources to foster collaborations and intellectual activity across schools.
- 3) The expectation of **strategic engagement with cutting-edge research and educational experience**, at least some **public engagement**, and a resulting **external reputation for innovation and intellectual vitality**. UICs appropriately vary in the way that they prioritize facilitation of interdisciplinary research, intellectual community-building, education, and public engagement. But every successful UIC should articulate its approach to fostering advanced research and making a difference in the trajectories of Duke students and for communities beyond Duke, show how that approach amplifies and complements opportunities provided by schools, and demonstrate its impact in these areas.
- 4) The centrality of demonstrated commitment to **diversity, racial equity, and inclusion**. UICs should have clear plans to incorporate these values in hiring, support of research and

development of educational initiatives, and interaction with partners outside Duke or with the broader public, and document progress in attaining their goals.

- 5) The significance of knowing when to declare victory as a means of refreshing focal areas and approach to resource allocation. Working with the Provost's Office, each UIC should develop parameters for time-limited investments and determining **sunsetting projects/centers/areas of focus**, as well as exploring **spin-off of successful undertakings** to schools.
- 6) The need for a strong framework for cross-school faculty input. As UICs balance their priorities and adjust to **areas and opportunities where schools continue to lack resources and capacity**, their decision-making should reflect regular input from their faculty advisory structures, with the goal of clarifying mission, avoiding duplication and unproductive competition, and balancing current commitments and potential new avenues.
- 7) The presumption of **operational excellence**. With several decades of UIC history to create guideposts of best practices, UIC directors and staff should meet clearly defined goals in areas such as budgetary transparency, concerted effort toward cost efficiency in shared services, and responsiveness to fiscal challenges (i.e., engaging in cost cutting and redirecting resources when necessary).
- 8) The demonstration of ongoing **creativity and perseverance in seeking external funding**. No single financial model will work for all UICs: some have access to robust external funding pipelines; others do not. All UICs should pursue sensible avenues of external funding, whether through grants, contracts, or donors. At the same time, UICs should avoid chasing after funding for its own sake and must retain independence from external funders in setting strategic direction.

Framework for Oversight/Evaluation Going Forward

The history of interdisciplinarity at Duke demonstrates that it is much easier to proclaim the importance of regular reviews as a way to facilitate flexible redeployment of internal resources than it is to implement such assessments on a regular basis. A searching review like this one requires a significant investment of faculty time and effort, which we can only expect to tap periodically. IPC therefore recommends the following for regular oversight of UICs and engagement with wider issues about interdisciplinarity at Duke, punctuated by a full-scale review of all UICs every five years. These recommendations build on the findings of the 2018 UPC Report and subsequent efforts to implement the guidance provided by that report.

Regular Oversight and Coordination

- 1) Each UIC should specify in its annual report not only its overall mission and major programs, but also its key **goals**, the **metrics by which it measures achievement** of those goals, and its **progress toward those goals** in the previous year. As part of this documentation, UICs should include an overview of research outputs, even if only to provide one modest piece of information.

- 2) Within the next year, each UIC should **revisit its bylaws and faculty governance structures** to ensure regular and ongoing dialogue with key stakeholders, representation from multiple schools, and rotation in membership, while also maintaining a workable size.
- 3) UIC directors should work with OIPM and the VPIS to assess the trade-offs associated with **more far-reaching administrative centralization and/or shared services in areas** like business management, communications, HR, and IT, following on the centralization of grants management. The premise of any centralization should extend beyond cost savings, aiming as well for improvement of services, adoption of best practices, and provision of clearer paths for staff advancement.
- 4) UICs should continue their **collective work on diversity, equity, and inclusion**, using the current joint-UIC working group to establish targets, implement plans to meet those objectives, and monitor ongoing progress as part of the university's broader efforts in this crucial area.
- 5) All UICs should maintain financial **accounting frameworks that facilitate analysis of expenditures** by the Provost's Office.
- 6) The Provost and Executive Vice Provost, in consultation with the VPIS, should set **an overall annual expenditure amount for the UICs**, which should then create a budget constraint for individual UIC allocations.

As part of this process, the Provost and Executive Vice Provost, in consultation with the VPIS, **should set an overall annual amount for research seed grants**, which should then create a budget constraint for individual UIC allocations.

Periodic Deep Dive

- 7) The Provost should convene **an ad hoc committee to review the UICs every five years**. This committee should assess the evolving contributions and value of existing UICs, consider the potential for reconfiguration of these units, and adjust the principles guiding UIC activities, following a similar model to the 2020-21 IPC: assessment of materials from UICs that document their activities; engagement with peer units elsewhere; call for comments from the university community; survey of faculty; and interviews of stakeholders.

Standing Committee

- 8) The Provost should convene a **standing IPC committee**, which would provide advice to the VPIS on issues such as:
 - whether, when, and how to consider the **establishment of a new UIC**;⁹
 - mechanisms for facilitating **cross-school research collaborations**, in general;

⁹ Some committee members have advocated that any major new unit should have a "financial constitution," which lays out long-term expectations for sustainability, sources of revenue, and expectations for success and review. On the latter point, some committee members have argued for a default that new UICs would sunset after a given period, unless a review provides a strong case for renewal.

- mechanisms for facilitating **recruitment of excellent tenure-track interdisciplinary faculty**;¹⁰
- allocation of strategic funds to **launch any new interdisciplinary projects**;
- adoption of **new focal areas** for any provostial research competitions, like the current Collaboratories;
- processes for **UIC review of their own projects and centers**;
- mechanisms for facilitating **cross-school teaching and advising**;
- discussion of wider principles that should guide **UIC activity in curricular development**, as well as whether and when Duke should move an existing curricular program from a UIC to embed it within a school, or to the office of the Vice Provost for Undergraduate Education; and
- the creation of any new **UIC-administered certificates or degree programs**.

In constituting this committee, the Provost should consider whether or not to expand the charge of the current Bass Connections Faculty Advisory Council to include this wider remit.

Ideas and Issues Requiring Additional Analysis and Deliberation

IPC considered a number of additional ideas that have merit, but that did not attract a clear consensus for action in the committee, and so warrant additional discussion. These include:

- 1) Implementation of annual **zero-based budgeting**, especially with regard to operational budgets, informed by:
 - Metrics, identified by the unit, that show its progress toward its stipulated goals
 - Evidence of contribution to grant-seeking
 - Recognition of external funding landscape for a given unit
 - Assessment of adherence to operational best practices
- 2) Creation of a process that provides **deans with the opportunity to provide regular input** into budgetary allocations to UICs; and/or devote an annual discussion at Dean's Cabinet of the UICs as a whole.
- 3) Creation of any formal mechanism to **return some small fraction of indirect cost recovery to UICs** in instances where they can show a major contribution to Duke's receiving a grant. (An alternative would be explicit incorporation of such assessment in ongoing budgetary allocations, taking account of the degree to which external funding channels exist for particular units.)
- 4) Creation of an annual fund for PhD summer funding opportunities in the UICs or their constitutive centers/projects that would expose recipients to collaborative, interdisciplinary

¹⁰ The record of faculty whose recruitments were directly connected to UIC financial resources has been extraordinarily strong. Forty-three faculty members in that group have gone through the tenure and promotion process at least once (either when hired at a tenured rank, or after coming up for tenure or promotion to full professor). Of that group, thirteen have been awarded the Langford Lecture Award by that year's APT committee, a rate five to six times that for faculty in general. In addition, four individuals from this group have received admission to Duke's Bass Society of Fellows on the basis of their excellence in research and teaching, and three have received prestigious awards for outstanding undergraduate teaching.

research. Such a fund would recognize the **sharpened imperative for UICs to engage with PhD training** amid the current reduction in disciplinary cohorts and heightened awareness of need for attention to complementary training that targets communications skills, and exposure to interdisciplinary, collaborative projects.

- 5) Consideration of whether successful Master's programs birthed in UICs should eventually transition to a school.
- 6) Identification of especially promising avenues for connecting faculty and students (especially PhD students) to industry research contexts.
- 7) Attention to how we might **forestall unwelcome consequences** that may ensue from the current round of budget cuts and reconfigurations, such as:
 - the possibility that UICs might chase after Master's degree programs primarily as a source of revenue;
 - the increased incentive for UICs to pursue philanthropy leading to exploration of gifts at odds with university priorities; and
 - increased incentives for UICs to pursue foundation support leading to grants that conflict with university priorities.