Cornell University Self-Study Report

http://accreditation.cornell.edu/

for re-accreditation through the Middle States Commission on Higher Education

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About Cornell University

There is no university in the world quite like Cornell. Both a private Ivy League university and the land grant university for the State of New York, Cornell is distinguished by its mix of eminent scholarship and democratic ideals.

From the beginning, Cornell's founders sought to make an elite education available to people from all walks of life. The University welcomed students of color and immigrants and embraced the radical notion that even the poorest men and women had a right to the very best education in the world. The founders insisted, too, on a dedication to all fields of knowledge—from classics to agriculture. Ezra Cornell captured these ideals in 1865 with a statement that has since become Cornell's oft-recited motto: "I would found an institution where any person can find instruction in any study."

One hundred and fifty-five years later, Cornell maintains its commitment to inclusion, with 25,000 students representing every state and 120 countries. Within the Ivy League, it is one of the most socioeconomically and educationally diverse, while enrolling the largest number of undergraduates. The University also continues its dedication to breadth. Every year Cornell offers more than 4,000 courses in fifteen colleges and schools including eight undergraduate units and four graduate and professional units in Ithaca, two medical graduate and professional units in New York City, and one in Doha, Qatar.

Cornell's broad and diverse strengths are being brought to bear in the current pandemic. Interdisciplinary research groups on SARS-CoV-2/COVID-19 are engaged in critical questions in virology, vaccines, therapeutics, immunology, and diagnostics. Mathematical and statistical modeling done at Cornell has been use to make data-informed decisions around in-person instruction on our

¹ https://researchservices.cornell.edu/process/sars-cov-2covid-19-rapid-research-response

campuses and elsewhere.² And, Weill Cornell Medicine alumnus Anthony Fauci (M.D. '66), the head of the National Institute of Allergy and Infectious Diseases, has become the nation's most trusted disease expert.

Colleges and Schools

The Cornell experience is shaped by its colleges and schools that are distinct and exercise considerable autonomy. Each defines its own academic programs, and establishes the requirements for its own degrees.³

Undergraduate students affiliate with a particular college and must meet the degree requirements of that unit, but students are encouraged—and often required—to take classes outside of their home college.

Four of Cornell's colleges—Agriculture and Life Sciences, Human Ecology, Industrial and Labor Relations, and the College of Veterinary Medicine—receive significant funding from the state of New York to support their teaching, research, and service missions. These colleges operate under statutes, appropriations, and contracts with the State, and are referred to as the "contract colleges" or the "statutory colleges." Residents of New York enrolled in the contract colleges pay reduced tuition, as they would at a public state university. The remaining colleges and schools are referred to as the "endowed colleges."

² https://www.insidehighered.com/news/2020/07/01/cornell-researchers-say-person-semester-university-safer-online-one and https://www.insidehighered.com/news/2020/04/14/sociologists-say-their-findings-student-interconnectedness-suggest-caution-needed

³ As the University bylaws stipulate: "It shall be the duty of each separate college or school faculty to determine the entrance requirements for its own students; to prescribe and define courses of study for them; to determine the requirements for such degrees as are offered to students under its jurisdiction; to recommend to the President such candidates for degrees as may have fulfilled the requirements therefor; to enact and enforce rules for the guidance and supervision of its students in their academic work; and in general to exercise jurisdiction over the academic interests of students and all other educational matters in the particular college or school."

Table 1. Cornell University Enrollment, Fall 2019

Undergraduates (Ithaca)	headcount
Contract colleges:	
Agriculture and Life Sciences	3,045
Human Ecology	1,146
Industrial and Labor Relations	970
Endowed colleges:	
Architecture, Art and Planning	513
Arts and Sciences	4,579
Engineering	3 , 196
SC Johnson College of Business	1, 594
Total	15,043
Graduate and Professional Students (Ithaca)	
Doctoral, Research (PhD)	3,166
Masters, Research (MS, MA)	2246
Doctoral, Professional (DVM, JD)	970
Master's Professional	5 1 3
Total	8,566
Graduate and Professional Students (Cornell Tech	ı, NYC)
Doctoral, Research	63
Masters, Research	204
Master's Professional	161
Total	418
Weill Cornell Medicine (NYC and Qatar)	
MD (NYC)	376
PhD (NYC)	454
MD-PhD (NYC)	100
MS (NYC)	298
Programs in Qatar	297
Total	1525
Grand Total	25,812

On its Ithaca campus, Cornell enrolls just over 15,000 undergraduates. The following seven colleges award bachelor's degrees:

- The College of Arts and Sciences (A&S)⁴ is the oldest and largest of the university's colleges, providing a broad and deep undergraduate education, with latitude for each student to shape an individualized course of study. A&S is home to 14 humanities departments, 7 departments in the physical and natural sciences, and 6 social sciences departments. It has 43 majors, 34 minors, and offers more than 40 foreign languages. Each year the college offers approximately 2,000 undergraduate courses—nearly half of all the undergraduate courses taught at Cornell.
- The College of Agriculture and Life Sciences (CALS)⁵ is the third largest college of agriculture in the United States. It offers 24 majors and 26 minors, and its land grant mission infuses its academic priorities, from the applied social sciences and life sciences to studies of the environment. Twenty-two academic departments offer teaching, research, and extension programs focused on serving the public good and making a positive difference in the lives of people in New York State and beyond.
- The College of Engineering⁶ offers 13 majors and 18 minors at the undergraduate level. Faculty are distinguished by cutting-edge research in areas such as nanoscience, biomedical engineering, chemical and biomolecular engineering, advanced materials, and information science.
- SC Johnson College of Business⁷ is Cornell's newest college and was created in 2016 to unite Cornell's School of Hotel Administration,⁸ the Dyson School of Applied Economics and Management (an undergraduate program within CALS), and the Johnson Graduate School of Management. The College of Business is Cornell's fourth largest undergraduate college, with 1,600 undergraduates in addition to 1000 graduate and professional students.
- The College of Human Ecology⁹ brings together natural sciences, social sciences, and design to advance and improve the human condition. Along with the multidisciplinary units that comprise the Division of Nutritional

⁴ http://as.cornell.edu/information/index.cfm

⁵ http://www.cals.cornell.edu/cals/about/index.cfm

⁶ http://www.engineering.cornell.edu/explore/facts-figures/index.cfm

⁷ https://business.cornell.edu/

⁸ http://www.hotelschool.cornell.edu/about/

⁹ http://www.human.cornell.edu/che/About-Our-College/More_About_Us/Facts.cfm

- Sciences (shared with CALS), the College includes departments of Human Development, Fiber Science and Apparel Design, Design and Environmental Analysis, and Policy Analysis and Management.
- The School of Industrial and Labor Relations (ILR)¹⁰ is the nation's leading college of applied social sciences relating to workplace, employment, and labor policy. Although all undergraduates in this college major in Industrial and Labor Relations, ILR's six academic departments offer a curriculum fitted to specific interests in the social or management sciences. As part of the land grant mission, ILR creates and disseminates knowledge to solve human problems, manage and resolve conflict, establish best practices, and inform government policy.
- The College of Architecture, Art, and Planning (AAP)¹¹ grants bachelor's degrees in three departments: Architecture, Art, and City and Regional Planning. In addition to study at the Ithaca campus, AAP offers off-campus study opportunities in New York City and in Rome, Italy. AAP's Bachelor of Architecture program consistently ranks first in the nation.

The Graduate School and four professional colleges award Cornell's graduate and professional degrees:

• The Graduate School¹² oversees and awards thirteen research and professional degrees including the PhD, MA, MS, MFA and several professional master's degrees.¹³ Graduate study at Cornell is organized through a "graduate field" structure in which "fields" are composed of faculty members from one or more departments or colleges who come together around a shared intellectual interest. Of 83 degree-offering fields, 74 offer a PhD. While many graduate fields correspond roughly to academic departments, others represent areas of faculty research that are not directly associated with a specific department. For example, the graduate field of Neurobiology and Behavior includes close to 50 members, about half of whom come from the Department of Neurobiology and Behavior, while the

¹⁰ http://www.ilr.cornell.edu/explore/admissions/

¹¹ http://www.aap.cornell.edu/aap/explore/collegefacts.cfm

¹² http://www.gradschool.cornell.edu/

¹³ The Graduate School oversees and awards all degrees that are not the first degree offered by a college or school, except for degrees offered through Weill Cornell Medicine and its Graduate School of Medical Sciences. Professional degree oversight may be delegated by the Graduate School to the appropriate college if certain criteria are met.

other half come from thirteen other departments and five colleges. Each graduate field is administered by a director of graduate studies who serves as the primary point for admissions, students' financial support, and the monitoring of student progress. On average, each faculty member belongs to two graduate fields.

- The Law School¹⁴ is among the smallest of the elite law schools nationwide. It offers a three-year JD program and a one-year LLM program within a close-knit and collegial intellectual community. The Law School encourages collaboration and interdisciplinary study and has a global emphasis that is reflected in its educational partnerships around the world.
- The College of Veterinary Medicine¹⁵ is consistently ranked as the top program in veterinary medicine, advancing animal and human health through education, research, and public service. Five academic departments span basic biomedical research, translational biology, and clinical and diagnostic medicine. The college operates a state-of-the-art teaching hospital and the Animal Health Diagnostic Center.
- Weill Cornell Medicine (WCM)¹⁶ in New York City was founded in 1898. It is among the top-ranked clinical and medical research centers in the country. WCMC offers both degrees in medicine and PhD programs in biomedical research and education. It enrolls nearly 1,000 students on its New York City campus and is divided into 24 basic science and patient care departments that focus on the sciences underlying clinical medicine and the study, treatment, and prevention of human diseases. WCMC also operates a campus in Doha, Qatar, making it the first U.S. medical school to offer its MD degree overseas.
- Cornell Tech was established in 2012 in New York City with a focus on technology, business, law, and design. The campus on Roosevelt Island now enrolls more than 400 graduate and professional students. Most Cornell Tech faculty consider the New York City campus their academic home, but Tech faculty appointments to tenure are through the academic departments in Ithaca. Both faculty and students travel between Ithaca and Roosevelt Island campuses frequently, enabled by a Campus-to-Campus bus that runs forty trips a week between locations. Cornell Tech houses the Jacobs Technion-Cornell Institute, a joint academic venture between Cornell University and the Technion Israel Institute of Technology.

¹⁴ http://www.lawschool.cornell.edu/about/index.cfm

¹⁵ http://www.vet.cornell.edu/about/fastfacts.cfm

¹⁶ http://www.med.cornell.edu/about-us/index.html

Study at Cornell is also facilitated through the Faculty of Computing & Information Science and is soon to be shaped by a new cross-college entity: a School of Public Policy.

- The Faculty of Computing and Information Science (CIS)¹⁷ was founded in 1999 to recognize the broad impact of computing. CIS is home to the three academic departments that power the information economy: Computer Science (the fastest growing major at Cornell), Information Science and Statistics & Data Science. CIS students come to these disciplines from their academic homes in the colleges. The largest numbers of majors in CIS come from Engineering and from Arts & Sciences.
- The creation of the Cornell School of Public Policy was announced on February 27, 2020 as one outcome of a recent Social Science Review. The School will be launched as soon as the spring or fall of 2021, and will initially include faculty from both the Department of Policy Analysis & Management in the College of Human Ecology and the Department of Government in the College of Arts & Sciences.¹⁸

Finally, two units support Cornell's efforts to extend its "Any person... any study" mission to "any time" and "at any place":

- The School of Continuing Education and Summer Sessions (CESS)¹⁹ offers credit and noncredit courses on Cornell campuses in Ithaca (primarily during summer and winter terms), Washington, and Qatar, in other sites around the world, and via distance learning. CESS offerings enroll some 7,500 students of all ages and all interests in more than 900 classes and programs, as well as thousands more who use CyberTower, a website featuring video-streamed mini-courses and interviews with leading Cornell faculty.
- eCornell is Cornell's online learning platform. eCornell offerings focus on
 professional and executive development with more than 85 award-winning
 professional certificate programs offered to students around the world.
 eCornell courses are all developed by Cornell faculty and are derived from
 top-rated programs with proven curricula.

¹⁷ http://www.cis.cornell.edu/about.html

 $^{{}^{18}\,\}underline{https://news.cornell.edu/stories/2020/02/provost-announces-school-public-policy-superdepartments}$

¹⁹ http://www.sce.cornell.edu/

Cornell's Leadership²⁰

Martha E. Pollack is the fourteenth president of Cornell University and professor of computer science, information science, and linguistics. She took office on April 17, 2017. Pollack was previously provost and executive vice president for academic affairs at the University of Michigan, where she was also professor of computer science and information. An expert in artificial intelligence with a research focus on natural-language processing, automated planning, and the design of assistive technology for people with cognitive impairment, Pollack is a fellow of the American Association for the Advancement of Science, the Association for Computing Machinery, and the Association for the Advancement of Artificial Intelligence. Pollack is currently a member of the board of directors of IBM.

The president's senior staff members include Provost Michael Kotlikoff,²¹ Provost for Medical Affairs Augustine M.K. Choi,²² and the vice presidents.²³ The deans of the colleges and schools on the Ithaca campus report directly to Provost Kotlikoff. The dean of the Weill Cornell Graduate School of Medical Sciences reports to Provost Choi.

Cornell University in Unprecedented Times

Cornell's leadership is continually engaged in planning for the future. Before the COVID-19 pandemic fundamentally altered the Cornell campus experience in March of 2020, many across campus were engaged in significant new initiatives, including:

North Campus Residential Expansion (NCRE). Unlike its Ivy university
peers, a large share of the Cornell student body lives off-campus in
privately-owned houses and apartments. While students recognize some
advantages to off-campus living, studies of housing preferences among
undergraduates have documented unmet demand for on-campus
housing. The NCRE is designed to meet that demand and to permit

²⁰ University organizational charts can be found at http://dpb.cornell.edu/F Univ Org.htm.

²¹ https://provost.cornell.edu/about/

²² http://medprovost.cornell.edu/about-the-provost/

²³ https://www.leadership.cornell.edu/senior-leadership/

- Cornell to grow the freshman class slightly. It will add 2000 new beds to the North Campus area and feature a "sophomore village." ²⁴
- Reforming Greek Life. Greek life can play a valuable role on campus, providing students with communities that can make a large university feel smaller and more welcoming. However, there has been a persistent culture of misconduct in the Greek-letter system. To address these issues at Cornell, President Pollack instituted new policies in the fall of 2019, relating to Greek-letter gatherings and recruitment activities.²⁵
- Belonging at Cornell (BaC). Belonging at Cornell is a blueprint for transformational change on issues of diversity and inclusion. It features clearly stated institution-wide objectives and metrics. As part of "phase one," the Belonging at Cornell survey was administered to all employees early in February of 2020.²⁶

While these initiatives will continue to move forward, they have been differentially impacted by the events of 2020. Construction on North Campus has continued largely unabated, even during the New York State on PAUSE order. Issues relating to Greek Life, on the other hand, receded in importance as students were asked to leave the Cornell campus in March of 2020. Finally, the attention of the nation has been refocused on issues of systemic racism since the killing of George Floyd by Minneapolis police officers. Even while our campus was largely emptied of people, President Pollack reminded us that "we have a collective responsibility to engage in difficult but critical conversations – to listen genuinely to, and learn from, one another." Among other activities, President Pollack invited all campus constituencies to a Community Book Read of *How to Be an Antiracist* by Ibram X. Kendi.²⁷ The Faculty Senate passed a resolution committing the faculty to combat racism within the curriculum.²⁸

There is little doubt that the events of 2020 have transformed us individually—and Cornell as an institution—in ways that we can only begin to comprehend.

²⁵ https://news.cornell.edu/stories/2019/12/president-pollack-announces-reforms-greek-life-cornell

²⁴ https://ncre.cornell.edu/

²⁶ https://diversity.cornell.edu/belonging

²⁷ https://news.cornell.edu/stories/2020/06/president-pollack-announces-immediate-actions-supportand-strengthen-our-community

²⁸ https://theuniversityfaculty.cornell.edu/faculty-senate/archives-and-actions/archived-agenda-and-minutes/online-senate-meeting-june-17/on-bias/on-combatting-racism2/

This document does not attempt to capture this new and rapidly unfolding reality.

That said, we are struck by the observation that the structures, systems, people, and processes described in this report—crafted largely in 2019—have proven robust, even through a pandemic coupled with widespread civic unrest. In managing a sudden shift to all-remote instruction, planning for an uncertain financial landscape, and making the decision to resume in-person instructional activities in the fall, Cornell has responded deliberately and coherently, engaging structures of shared governance and community dialogue. At the forefront of planning and decision-making have been "Cornell's Guiding Principles" ²⁹: Caring for our students; safeguarding our future as a world-class academic institution; maintaining our staffing; and seeking new knowledge.

Below, we briefly highlight some of ways in which Cornell has acted within the context of the COVID-19 pandemic that demonstrate the Middle States Standards for Accreditation:

- Communication to all Cornell constituencies. The first email message regarding the novel coronavirus was sent January 23, 2020, followed by updates through early March. On Tuesday, March 10, President Pollack announced that all instruction after Spring Break would be virtual; after the situation deteriorated that week, she announced on Friday, March 13, that all in-person teaching would be suspended at the end of that day. Between January 23, 2020 and July 31, 2020, the University issued almost 70 bulletins³⁰ addressing issues ranging from overall principles to details of housing refunds.
- Shared governance and academic integrity. Before virtual instruction began on April 6, a new statement on academic integrity focused specifically on online instruction was endorsed by the Faculty Senate, Graduate and Professional Student Assembly, and the (undergraduate) Student Assembly.³¹
- Statement of Principles. President Pollack communicated the "guiding principles" for the COVID-19 responses on April 7, 2020, in advance of

²⁹ https://covid.cornell.edu/reactivation/principles/

³⁰ https://covid.cornell.edu/updates

³¹ https://blogs.cornell.edu/deanoffaculty/files/2020/04/HonorFinal.pdf

decision-making regarding the re-activation of in-person instruction.³² These principles are:

- Caring for our students
- o Safeguarding our future as a world-class academic institution
- o Maintaining our staffing
- Seeking new knowledge
- Constituent participation in planning. The University's COVID-19 response has been guided by three campus-wide committees, each with faculty, staff and student members appointed by the President and the Provost: Research and Operations Reactivation, Teaching Reactivation Options, and Preparation for Online Teaching. Each committee provided written reports in June 2020 that were shared on the COVID webpage; campus constituents were invited to engage with and respond to those reports, which occurred in June, July, and August 2020 through town halls, Faculty Senate meetings, and an active web-based comment system. These committees have now been superseded by implementation committees, including: Communications and Community Relations; Facilities and Supply Chain; Faculty and Staff Guidance; Health Considerations; International; Research; Student Life and Teaching/Advising.
- Evidence-based planning. The University's decision-making has relied on scientific considerations and was informed by models³³ specifically designed for the Ithaca campus context by Operations Research and Information Engineering associate professor Peter Frazier. That work has been widely communicated, discussed, and shared with the public, including in a Wall Street Journal op-ed by President Pollack and Provost Kotlikoff.³⁴ Cornell's plan includes surveillance testing of all students as well as many faculty and staff, using resources of the College of Veterinary Medicine's Animal Health Diagnostic Center, which has been certified by New York State and recent Federal guidelines for surveillance testing.
- **Financial planning**. Financial planning was informed by the Statement of Principles, including caring for students through continuing to meet

³² https://covid.cornell.edu/updates/20200407-guiding-principles.cfm

³³ https://datasciencecenter.cornell.edu/research/covid-19-mathematical-modeling-for-cornells-fall-semester/

³⁴ https://www.wsj.com/articles/why-cornell-will-reopen-in-the-fall-11593535516?mod=e2two&tesla=y

financial aid obligations on a need-blind basis, even as we anticipate that those obligations will increase with an increase in the unemployment rate. The President and Provost provided reports to the Faculty Senate, ³⁵ other Assemblies, and Cornell employees broadly ³⁶ and through town halls regarding financial projections and possible ways to address anticipated financial deficits. The final plan ultimately presented to and endorsed by the Board of Trustees was shaped by those public discussions, including the formal shared governance action of a Faculty Senate resolution endorsing the goal of preserving jobs. ³⁷ The plan involves reducing retirement contribution for some employees, voluntary retirement incentives, hiring freezes, and pay freezes and/or reductions. These measures are supplemented by a draw on the endowment.

Summer is traditionally a time of relative calm on our campus, when many students leave town, faculty focus on research, and committees take a break in their meeting schedules. In this way, too, this year is exceptional. Despite having sent students home in March, the university has continued to plan, strategize, react, and respond. The President's Cabinet, the Provost's Council, the Academic Deans, and the Faculty Senate have all continued meeting throughout the summer. The *Cornell Daily Sun*, the student newspaper, has continued to push out editorials. Cornell administrators are engaged in regular town hall events with university constituencies and with the community more broadly, participating in more than 41 town hall and forum events since June 23 and August 21.

Moreover, the context in which the university is operating is continually changing. There were periods in June, for example, where there was only *one* active case of COVID-19 in Tompkins County. After the July 4th holiday, however, our sense of stability rapidly shifted; by July 15th, we had twenty-four active cases of COVID-19 in Tompkins County and students had not yet begun their return to Ithaca.

³⁵ https://theuniversityfaculty.cornell.edu/faculty-senate/archives-and-actions/archived-agenda-and-minutes/online-senate-meeting-june-3/

³⁶ https://covid.cornell.edu/updates/20200330-financial-impact.cfm

³⁷ https://theuniversityfaculty.cornell.edu/faculty-senate/archives-and-actions/current2-draft/resolution-in-support-of-continued-employment-for-cornell-staff-during-the-covid-19-crisis/

Perhaps even more significant than the shift in our local context has been the increase in COVID-19 cases across the nation throughout July, and the consequent response of Governor Cuomo imposing a 14-day quarantine requirement for arrivals from a designated list of states that affected the arrival plans of perhaps a third of Cornell's students.

Although the university continues to respond to this rapidly changing reality, the essence of who we are as described in the self-study—the values, priorities, structures, and process that characterize Cornell University—endures.

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Mission and Goals

Mission and Vision

Cornell has a clear mission and vision statement, easily found on a link from the University's homepage. The mission statement reads:

Cornell is a private, Ivy League university and the land-grant university for New York state. Cornell's mission is to discover, preserve and disseminate knowledge, to educate the next generation of global citizens, and to promote a culture of broad inquiry throughout and beyond the Cornell community. Cornell also aims, through public service, to enhance the lives and livelihoods of students, the people of New York and others around the world.

The vision statement is as follows:

Cornell aspires to be the exemplary comprehensive research university for the 21st century. Faculty, staff and students thrive at Cornell because of its unparalleled combination of quality and breadth, its open, collaborative and innovative culture, its founding commitment to diversity and inclusion; its vibrant rural and urban campuses; and its land-grant legacy of public engagement.

This current mission statement is derived from Cornell's 2010 Strategic Plan, its language updated in 2017.² Clear and concise, it brings together research, teaching, and public service, and describes the scale of Cornell's impact: not only on our students but the people of New York State and beyond—"the world."

The mission statement is used to reflect and foster a sense of common purpose among stakeholders. In one example, our leadership and professional development programs ask participants whether they recognize Cornell in the vision and mission, and the answer they routinely give is "yes."

¹ https:/www.cornell.edu/about/mission.cfm.

² Led by the Strategic Planning Advisory Council, a committee of faculty members, the development of the 2010 plan included student and staff input and was endorsed by the Board of Trustees in May 2010. In the fall of 2017, the Provost consulted with the President's Cabinet to slightly revise the language of the statement.

And yet, there is another, quite different articulation of Cornell's core mission that is more widely known to students, faculty, and staff on our campuses—the Founder's Statement. In 1868, Ezra Cornell said: "I would found an institution where any person can find instruction in any study." This principle appears on the website immediately after the Mission and Vision statements.³ It presents a vision of an egalitarian university that offers an elite education to those who have been historically excluded from top institutions. It is a "central, enduring, and distinctive" articulation of our collective sense of purpose.4

"I would found an institution where any person can find instruction in any study"

-Ezra Cornell, 1868

The Founder's Statement appears across the University, in admission materials, websites for colleges and departments, programs for diversity and inclusion, fundraising for scholarships, and on plaques and signs. Students, staff, and faculty alike cite the Founder's Statement as a cherished mission, and one that is unique to Cornell. ⁵ The *Cornell Chronicle* reports: that "Cornell University's motto is the best according to Motto magazine."6

In 2018, in response to racist incidents on and off campus and a survey of the climate on campus, the Presidential Task Force on Campus Climate⁷ and the

³ See https:/www.cornell.edu/about/mission.cfm

⁴Stewart Albert and David Whetten use these terms to define mission in "Organizational Identity," Research in Organizational Behavior 7 (1985).

⁵President Pollack reaffirmed the importance of this mission in her welcome back to the community in the fall of 2019: "Cornell is a uniquely American university built on uniquely American ideals of opportunity, diversity, and free speech. 'Any person... any study' is a reflection of that legacy — of our founding principle that an institution that is open, to people and to ideas, will create a better environment for discovery and learning than one that is narrow in whom it will admit or what it will teach. This belief, at the heart of Cornell's identity for 154 years, is now our responsibility: to strive always for excellence and purpose, to be open to the ideas and people we encounter here, and to take an active role in building a community of scholarship and engagement where every member has the chance to thrive." Email to Cornell community from President Pollack, August 28, 2019: "Cornell Community Welcome."

⁶ See http://news.cornell.edu/stories/2007/08/cornells-any-person-any-study-named-best-college- motto.

⁷ http://president.cornell.edu/initiatives/presidential-task-force-on-campus-climate/

Provost's Task Force to Enhance Faculty Diversity⁸ recommended "the creation of a campus-wide statement reaffirming our core values." President Pollack and Mary Opperman, Vice President and Chief Human Resources Officer, met with stakeholder groups, including all of the University assemblies, and asked them to share their views on "core values" for Cornell.⁹ Gathering responses from these meetings, the statement that emerged affirms six core values:

• Purposeful Discovery

We value the process of discovery through learning, teaching, scholarship, and innovation to advance the University's mission, in all cases striving with integrity for excellence and purpose. The search for and the dissemination of knowledge are tightly linked: as A. D. White noted, "The power of discovering truth and the power of imparting it are almost invariably found together."

• Free and Open Inquiry and Expression

We are a community whose very purpose is the pursuit of knowledge. We value free and open inquiry and expression—tenets that underlie academic freedom—even of ideas some may consider wrong or offensive. Inherent in this commitment is the corollary freedom to engage in reasoned opposition to messages to which one objects.

• A Community of Belonging

As a university founded to be a place where "...any person can find instruction...," we value diversity and inclusion, and we strive to be a welcoming, caring, and equitable community where students, faculty, and staff with different backgrounds, perspectives, abilities, and experiences can learn, innovate, and work in an environment of respect, and feel empowered to engage in any community conversation.

• Exploration across Boundaries

Ezra Cornell embraced a vision that we would be a place to "...find instruction in any study." To that end, we value the importance of all academic disciplines and celebrate the power of connections among them.

• Changing Lives through Public Engagement

As the land-grant institution of New York, with our main campus within the ancestral homelands of the Cayuga Nation and a long history of national and

https://news.cornell.edu/stories/2018/07/task-force-looks-move-needle-faculty-diversity

⁹This set of meetings follows the Presidential Task Force on Campus Climate, composed of faculty, staff and students on the Ithaca campus, who were charged with making specific recommendations about how Cornell can implement meaningful institutional change that leads to a campus climate that is more diverse and inclusive, and that expresses greater respect and understanding: https://president.cornell.edu/initiatives/presidential-task-force-on-campus-climate/

international connections, we value engagement in our community, our state, and the broader world, learning about their needs and strengths, and applying the knowledge we create for the benefit of society.

Respect for the Natural Environment

We value our role in advancing solutions for a sustainable future and we recognize the close relationship between people and the Earth, acting in ways to live and work sustainably.

While the Mission and Vision Statements, the Founder's Statement, and the articulation of core values emerge out of various contexts and historical moments, they do complement one another, and guide the university's decisions and aspirations. In fact, across these various articulations of values and purposes, four fundamental values consistently emerge as "central, enduring, and distinctive" aspects of Cornell's sense of purpose and identity. Those values are *inclusion*, *breadth*, *engagement*, and *collaboration*. All of these powerfully shape and inform the work we do here, including our approach to educating students and the key priorities of the President and Provost.

Inclusion

Throughout the United States in recent years, academic institutions have been asking whether they are creating inclusive communities for increasingly diverse student populations. Cornell has embraced this value from the beginning. "Any person" marks Cornell's enduring commitment to inclusion, deliberately opening its doors from the start to poor people, people of color, international students, and women. The current vision statement reinforces this value, confirming a "commitment to diversity and inclusion."

When Cornell University began, Ezra Cornell and his co-founder A. D White aimed to put Cornell at the leading edge of an effort to make elite higher education available to groups that had historically been excluded from it. They set out to establish a university where "the most highly prized instruction may be afforded to *all*—regardless of sex or color." (Bishop, 1962)

Ezra Cornell himself took the "any person" language quite literally, insisting that it was the University's mission to educate not the elites but "the poor young men and the poor young women." (*Photographic Senatorial Album*, 1865) In the service

of inclusivity, he repeatedly urged faculty to give the most disadvantaged applicants a chance at a high quality education. 10

Cornell's vision of racial and gender nondiscrimination was even more radical at a time when discrimination against women and people of color was the norm, enshrined in law and pervasive in higher education. Throughout the South, Black students were prohibited from pursuing advanced degrees, and many colleges in the North also refused students of color. A man from Ohio wrote to Ezra Cornell to ask if a young Black man he knew could attend the University. Cornell answered, "Send him." (*Ezra Cornell Bicentennial*, 2007) The first graduating class of Cornell Law School included a man who had escaped from slavery in Virginia. (Clermont, 2013) When segregation and the laws of Jim Crow were taking hold across the nation, President A. D. White insisted that Cornell University would admit an African-American student "even if all our five hundred students were to ask for dismissal on that account." (Bishop, 1962)

Although several other colleges at the time admitted students of color, what was unique to Cornell from the beginning was its commitment to joining elite academic quality—"the most highly prized instruction," as A.D. White put it—with a dedication to inclusive openness. It was the only Ivy League university to combine the highest academic standards with a radical democratizing mission.

As Cornell administrations came and went, some proved more dedicated to the founders' mission of openness and inclusion than others. When classrooms filled to bursting, the University began to turn away many applicants, and found itself educating richer rather than poorer populations. Even as late as 1959, a dean of admissions was privately urging Cornell's president to keep down the number of women admitted, despite their academic qualifications and success, because men would furnish a wealthier and more powerful alumni base. (Altschuler and

¹⁰ When several students complained that they had not passed the admissions exam, for example, Cornell took their side:

Mr. Cornell: These young fellows tell me you won't pass them, Professor.

Professor: No, Mr. Cornell, I have found it impossible to pass them.

Mr. Cornell: I should like to know why.

Professor: They don't know enough.

Mr. Cornell: If they don't know enough, then why don't you teach them? (Bishop, 1962)

Kramnick, 2014) And yet, all the while, Cornell's leaders also struggled to stay committed to the ideal of a "People's University." ¹¹

This deeply rooted philosophy guides key decisions, as we will see further below. Both the University as a whole and the individual colleges make frequent reference to the founding goals of "any person" and "any study" in discussing the ongoing importance of student-body diversity. The new statement of core values reaffirms Cornell's commitment to "a community of belonging." Thus the founders' vision of a radical inclusivity remains Cornell's lifeblood.

Breadth

From the start, Ezra Cornell and A D White envisioned serving both rich and poor by teaching a range of practical subjects along with a liberal arts education. They imagined a curriculum so broad that it would include "any study" a student might want. Agriculture and engineering, for example, were not part of the curriculum at other elite universities in the nineteenth century. Since then, Cornell has been distinctive for the wide diversity of its offerings. In the late nineteenth century, students could take applied mechanics and horticulture alongside philosophy and ancient languages. The University established the first four-year program in hotel administration in 1922 and in industrial and labor relations in 1945. The first US university to teach modern East Asian languages, Cornell now offers 19 classical and modern Asian languages.

The occupation of Willard Straight Hall by the Afro-American Society in 1968 helped to sharpen and redefine Cornell's commitment to "any study" in ways that remain important today. By the late 1960s, students were charging that "any study" was proving in practice to be a hollow motto, since classrooms rarely invited the study of marginalized people, treating only majority culture as a subject worthy of sustained academic attention at Cornell. One of the first

¹¹ Jacob Gould Schurman, University President from 1892 to 1920, urged the building of dormitories for all students as the best way to address stark inequalities in background and income. (Bishop, 1962) In 1962, the University began assigning students to dormitory rooms on a random basis to resist patterns of discrimination against Jews and African Americans. (Altschuler and Kramnick, 2014) Similar arguments emerged again in the 1990s when Cornell decided to build housing for all first-year students, urging the importance of students living and learning together across differences of class, religion, and race. (Altschuler and Kramnick, 2014).

universities to bring together a focus on Africa with people of African ancestry around the world, Cornell is "the birthplace of the field" of Africana studies (Aching, 2014-15). Over the succeeding years, students and faculty have urged Cornell to turn its research and teaching attention to other understudied traditions and communities. In 1991, the University opened Akwe:kon, the first college residence hall in the United States intended to celebrate Native cultures. Latino/a Studies and Asian American Studies started in 1987, and a new Latino Living Center opened in 1994.

"Any study" also gestures to the special emphasis we place at Cornell on emerging fields of study that emerge from interdisciplinary collaborations. The mission and vision statements underscore these values, stressing "a culture of broad inquiry," with an "unparalleled combination of quality and breadth."

Today, Cornell offers 4000 courses, 80 undergraduate majors, 90 minors, and 108 graduate fields, possibly the largest number of different graduate fields of inquiry at any university. The diverse colleges at Cornell ensure breadth for a wide range of populations: undergraduates, graduate students, aspiring professionals, and those seeking continuing education.

Collaboration

One of the implications of a culture that supports a broad variety of disciplines is an excitement about learning from others and collaborating across departments and colleges. Cornell is exemplary for a culture that looks outward for inspiration, which, in turn, foments interdisciplinary creativity and discovery for the greater good. President Pollack's core values include "exploration across boundaries." Examples abound of Cornell faculty pushing beyond traditional disciplines to conduct research and teaching with colleagues, leading to new pedagogies and ways of understanding. It is not unusual to find faculty from Classics collaborating with a horticulturist, a soil scientist working with an artist, a hotel professor working with a food scientist and economist. The breadth of expertise of our 1,675 faculty is remarkable. We offer ten interdisciplinary majors that cross colleges, and more than 20 that are interdepartmental.

The Provost's "Radical Collaborations" initiative, launched in 2016, is a prominent example of the ways that Cornell University aligns its resources with this key aspect of our mission. "Radical Collaborations" identifies eight

interdisciplinary areas that point the way toward the discoveries and solutions of tomorrow: nanoscale science and molecular engineering; genome biology; data science; sustainability; the social sciences; infection biology; and the humanities and arts. One example is the Cornell Initiative for Digital Agriculture, which connects a group of innovative, interdisciplinary faculty teams with practitioners to develop and apply digital innovations in agriculture to improve the sustainability, profitability, resiliency and efficiency of the world's food systems. Each Radical Collaboration must involve a research focus that draws the interest of at least eight separate academic departments from a minimum of four colleges, creating new interactions across the Ithaca campus and between the Ithaca and the New York City campuses. A dedicated task force of faculty members leads each project, and Cornell has aligned its strategic fundraising initiatives around these collaborations. Alongside funding from the Provost, for example, a \$2.5 million gift from Trustee Emeritus Stephen Ashley has helped to establish a research innovation fund for the digital agriculture project.

Cornell Tech, now in operation on Roosevelt Island in Manhattan, is another example of collaborative research and education. Setting the standard for graduate education in the digital realm and forging connections and engagement with industry as a model for its scholarship and education, Cornell Tech was established through the successful international competition. One of the major reasons Cornell stood out from its competitors was the high level of collaboration across disciplines that had already existed on the Ithaca campus.

Engagement

Not only do faculty and students look outside of their departments and colleges for fruitful collaborations, but they reach outside the Ithaca campus as well to conduct exciting projects in public and community engagement.

As New York's land-grant institution, Cornell's work has revolved around community engagement from the beginning. The Morrill Act charged the University with "advancing the lives and livelihoods of the state's citizens through teaching, research and public service." The 2019 statement of core values reaffirms Cornell's dedication to "changing lives through public

¹² https://landgrant.cornell.edu/

engagement." Through the land-grant system and Cooperative Extension, Cornell has formal relationships with every county in New York State and facilitates active programming with residents from all walks of life—from urban youth to new mothers to rural farmers.

In 2014, a gift enabled the launch of Engaged Cornell, an initiative that actively encourages faculty, staff and students to develop partnerships with community members to address local and global issues. These collaborative relationships create opportunities to research, teach and learn at home and around the world. We describe Engaged Cornell in greater detail in chapter 3.

Cornell also has a long history of genuinely global engagement. It was one of the first universities to work against starvation in South and Southeast Asia. Cornell scientists are leaders in international agriculture. Cornell offers instruction in 40 languages and instructs more than 4,000 students each year. We have a medical school in Qatar and an increasing presence in China. Our international alums occupy many leadership roles in their respective countries. Cornell has even played a major role beyond our planet, helping to land two rovers on Mars and to design the Pioneer spacecraft, currently on its way to the eye of the bull in the constellation Taurus.

Cornell University, located in the small town of Ithaca, has had an outsized impact on the world due, in large part, to a culture that recognizes that the university is not the center of all knowledge, nor is it an ivory tower on a hill, but rather a catalyst for knowledge, inspiration, creativity, discovery, engagement and service that welcomes all who wish to make the world a better place to live.

Goals

Our four enduring values—inclusion, breadth, collaboration, and engagement—support each other. And together they guide the work we do every day at Cornell University. We can see these values embedded in the goals that shape decisions and the allocation of resources at all levels.

Cornell articulates its goals in a variety of dispersed places: we find them in statements by the President and the Provost and in specific initiatives across the University. But when we gather them together, we can see that our current administration's goals are well aligned with the University's core mission and values.

President Pollack's Priorities

Martha Pollack, the 14th President of Cornell University, began her work here in 2017 by identifying four key priorities that grow out of Cornell's distinctive history. In her inaugural address, now found on the website of the Office of the President, she singled out

- academic distinction
- educational verve
- civic responsibility
- One Cornell

Academic distinction includes a commitment to recruiting and retaining a distinguished faculty, as well as continuing Cornell's distinctive role as both an Ivy League and a land-grant university with a long tradition of collaboration across disciplinary boundaries. Educational verve entails investment in new, evidence-based approaches to teaching and learning and the exploration of technologies that encourage students to develop critical thinking, creativity, problem-solving and teamwork skills that prepare them to be educated global citizens. President Pollack understands civic responsibility as defending knowledge and protecting freedom of speech, while also creating a diverse, inclusive and egalitarian community in which all groups are included and all members communicate effectively across differences. "One Cornell" points to the university's remarkable ability to create synergy between the liberal arts and applied fields of study, between its aspiration to be an exemplary research university and its public engagement mission, and between the university's vibrant rural and urban campuses.

These four priorities echo and reaffirm the fundamental values expressed in the mission, vision and Founder's Statement, putting an emphasis on top-quality research and education in a context of inclusion, breadth of study, collaboration across disciplines and colleges, and public engagement.

President Pollack's key initiatives have been thoughtfully aligned with the University's core values. For example, she has supported a range of programs that serve the University's commitment to inclusion, including the Presidential Task Force on Campus Climate, new awards for faculty, staff, and students who contribute to improving campus climate, new funding for the Intergroup Dialogue Project, and a revised campus code of conduct.

Aligning with the focus on "One Cornell"—and our long tradition of nurturing collaborations across disciplines—President Pollack has instituted a "Visioning Committee" to explore connections between the Ithaca and New York City campuses, including a call for proposals for collaborative projects and a web portal to facilitate cross-campus interactions.

Goals articulated in the 2010 Strategic Plan

President Pollack's priorities have built on a long history of reflection on our goals and values by the Cornell community. Before her time, and after a process of widespread consultation, the 2010 Strategic Plan identified the following "Umbrella University Goals":

- Goal 1: Enroll, educate, and graduate the most deserving, promising, and diverse student body possible. Provide all students (undergraduate, graduate, professional) with an education that is innovative, distinctive, and of the highest quality, and that inspires in them a zest for learning.
- Goal 2: Maintain and enhance world leadership in research, scholarship, and creativity.
- Goal 3: Maintain and enhance efforts to recruit, nurture, and retain a diverse faculty who are outstanding scholars and teachers and an excellent, diverse staff who provide outstanding support to faculty and students.
- Goal 4: Strengthen the public engagement of the university's education, research, and clinical programs with local, national, and international communities, consonant with its stature as an academically distinguished private university with a public mission.
- Goal 5: Establish and maintain organizational structures and processes that promote and support academic excellence.

Although the Strategic Plan officially sunset in 2015, it rightly identifies these overarching goals as "timeless and enduring." All of President Pollack's priorities echo, reinforce and flow from the five umbrella goals articulated here. Thus the current leadership of Cornell has drawn on its articulation of enduring goals while lending them a new specificity and focus. Each of the umbrella goals articulated in the previous strategic plan have evolved into updated strategies for success.

For example, President Pollack's "educational verve" continues Cornell's dedication to the first of the goals articulated in the 2010 strategic plan. Her administration has shown a renewed a focus on pedagogy with the creation of

the Vice Provost for Academic Innovation and the 2017 launch of the Center for Teaching Innovation, which combines instructional technology with a focus on pedagogical skills. This combination helps instructors to be innovative in their teaching by bringing evidence-based improvements to the classroom.¹³

Educational verve also continues the strategic plan's goal to inspire a diverse student body with "a zest for learning." Support for this goal comes through the Provost's Living-Learning Initiative, which includes North and West Campus housing. North Campus housing allows all first-year students live together in a community that fosters academic and intellectual learning, personal development, holistic well-being, and a sense of belonging and connectedness. Faculty-in-Residence and Faculty Fellows on North Campus encourage students to make meaningful connections with faculty members, inspiring learning outside the classroom, making the residence halls a space for learning as well as living, and deepening students' intellectual experiences. West Campus housing provides similarly supportive accommodation to sophomores, juniors and seniors. However, in recent years Cornell has not had enough housing to guarantee that all sophomores can have access to these living-learning environments. This has caused great stress for first-year students as they know that they must enter a lottery system for access to these highly desirable spaces. Not being assured of space some begin to look for off-campus housing for their sophomore year just weeks after they arrive on campus. Under the leadership of the President, Provost, and Vice President for Campus Life, Cornell is now investing hundreds of millions of dollars to rectify this situation through expansion of campus housing. Adding space to communities that nurture both learning and living, Cornell seeks to make the campus as supportive and welcoming as possible to students who come from all backgrounds. We describe this initiative in more detail in chapter 6.

The goal of attracting the most "deserving, promising and diverse" students continues to shape Cornell, which can afford to be highly selective, accepting only 10.6% of its undergraduate applicants in 2019. The commitment to diversity remains strong: 45% of the incoming class are Asian, Black, Hispanic, American Indian and multi-racial U.S. citizens, and 11% come from outside the U.S.

¹³ Joe Wilensky, "New unit merges teaching excellence center with academic technology," Cornell Chronicle, September 19, 2017.

Recently, there have been efforts to increase the number of veterans at Cornell.¹⁴ And modifications to the financial aid packages have allowed middle-income families to continue to afford a Cornell education.¹⁵

President Pollack is deeply committed to "academic distinction," a continuation of the strategic plan's second goal. For example, the President and Provost consulted with faculty about how best to increase Cornell's academic reputation in the social sciences, ¹⁶ and now plan to establish a new center to support grants and two further options to investigate in collaboration with faculty—one focused on enhancing departments around the key social science disciplines and the other focused on a new center for public policy.

The current administration has developed a number of new strategies to meet the Strategic Plan's third goal: the recruitment and retention of a diverse faculty and staff. The Provost has tripled central support for hiring faculty from underrepresented groups by providing 75% of their salary for a five-year period—up from 25% before.¹⁷

Goal 4, to strengthen the public engagement, has renewed support from the Provost, who has established a campus-wide Public Engagement Council charged with the "articulation and assessment of a contemporary vision for public engagement that builds on Cornell's strengths and on knowledge with a public purpose," to enhance "relationships that support university-wide collaboration on publicly engaged research, teaching, and service, and to promote "public engagement at Cornell in ways that fulfill our land grant mission to New York State."

The fifth goal, to "establish and maintain organizational structures and processes that promote and support academic excellence," has been an ongoing focus of the Cornell administration. The Milstein Program, established to integrate the New York City and Ithaca campuses, the Radical Collaborations initiative, and

¹⁴See article at: https://hechingerreport.org/opinion-far-too-few-veterans-are-enrolled-in-our-elite-undergraduate-institutions/

¹⁵ See https://news.cornell.edu/stories/2017/05/financial-aid-policy-change-will-benefit-more-undergraduates

¹⁶ See http://provost.cornell.edu/academic-initiatives/provosts-review-social-sciences/

¹⁷ See http://news.cornell.edu/stories/2018/09/provost-ramps-support-diversifying-faculty

the Center for Teaching Excellence are all powerful examples of organizational structures established or reshaped to support academic excellence.

Periodic Assessment of Mission, Vision, and Values

The Cornell campus has been engaged in a continuous process of reflection on our core mission, vision and goals, a process that has sought broad input and invited dialogue. The Founder's Statement does not change, and it consistently anchors our mission and vision. Many specific goals, however, have emerged from these core principles, and as the campus changes, the ways we articulate our enduring values do too. The strategic planning process marked one stage of this ongoing discussion and reconsideration, which called for input from students, faculty, staff, trustees, and alumni. Since 2010, the campus has revisited its conclusions, resulting in the current mission and vision statement.¹⁸

After her own inauguration, President Pollack made the deliberate decision not to launch a new round of strategic planning. When she arrived, the many leadership changes of the previous few years had led to a pervasive uncertainty and a real hunger to move forward. Although the campus had not developed an official strategic plan since 2010, it had been developing forward-looking programs, such as the Radical Collaborations and Active Learning initiatives. It seemed clear where the campus wanted to go. Articulating the strategic priorities implicit in these projects in her inaugural address, the President decided to move forward directly. Since then, she has led a series of strategic planning exercises with specific targets. One example is the Presidential Task Force on priorities for diversity and inclusion, which adopted a strategic planning process. Another is the broad, campus-wide outreach effort that shaped plans for the restructuring of the social sciences at Cornell.

A strategic planning approach also shaped the President's work to articulate Cornell's core values in 2018-19. The process was designed to touch the entire

¹⁸ The community has been intentional about changing some of its stated priorities. In 2010 the aspiration for the University was as follows: "Cornell University will be widely recognized as a top-ten research university in the world, and a model university for the interweaving of liberal education and fundamental knowledge with practical education and impact on societal and world problems." Revisiting this aspiration generated a new statement less focused on numerical ranking.

campus, as the leadership team engaged in discussions with the Faculty Senate, the Student Assembly, the Employee Assembly, the Graduate and Professional Student Assembly, the University Assembly, and a number of other groups of students, staff, and faculty. The President circulated a draft to all members of the Cornell community by email in the spring of 2019, urging all of us to "set aside some time to read and consider the draft statement" and to share comments online or in one of several listening sessions. This administration places a high value on including a variety of stakeholders in developing a shared sense of purpose and mission.

The resulting document, concluded in August 2019, reaffirms many values in place since the nineteenth century, and adds an explicit commitment to the natural environment, which has been implicit in Cornell's stewardship of its beautiful setting, the ongoing work of the College of Agriculture and Life Sciences, and the formation of the Atkinson Center for Sustainability, but is important to articulate now, at a moment when anthropogenic climate change poses a major threat to our other core values, including the commitment to serving the public good worldwide.

The decision not to engage in a new strategic plan makes good sense, but it may have one disadvantage worth addressing, which is that the campus values and priorities are currently found in a dispersed array of sites, including the mission statement, the Founder's Statement, the Provost's and President's priorities, and the core values statement. In order to ensure that a common set of values and goals successfully guide campus decision-making at all levels, Cornell should gather the most important statements in a single, highly visible place and periodically invite all employees and students to revisit the fundamental principles that have guided the institution for more than a century and the specific goals for each moment that emerge from those values.

Summary

Given the ever-changing landscape of higher education, it is not surprising that Cornell has repeatedly taken the time to reevaluate our mission and vision. At the same time, we find ourselves returning, again and again, to the enduring principles that have guided Cornell from the beginning, and we continue to find inspiration and guidance in them. A vast range of specific initiatives, from campus housing to the medical college in Qatar, support these goals, and show

how Cornell fulfills its overall mission. Together, then, the mission and vision statements, the Founder's Statement, and the new articulation of core values define Cornell's distinctive sense of purpose in the context of higher education.

Recommendation

Since Cornell does not have a new strategic plan and since there have been several changes in leadership since the last strategic plan, we recommend a renewed emphasis on the task of communicating our mission and goals broadly, to make sure that these continue to guide decision-making at all levels. Right now, these are dispersed across different sites, including the Provost's and President's priorities, the official mission statement, the Founder's Statement, and the core values statement, and the relationship among them is often implicit. It will be helpful to bring together the most important statements and to disseminate them on multiple platforms, from university websites and presidential speeches to welcome sessions for new students and employees.

Ethics and Integrity

Cornell University expects the highest level of ethical conduct from its faculty, staff, and students. Our mission includes the aspiration to "be the exemplary comprehensive research university for the 21st century." We cannot realize that goal without trust in our research—a trust built both on the research itself and on the institutional policies that support it. Nor can we act as an exemplary institution if we do not foster respectful and inclusive classrooms and workplaces. Although individuals at Cornell may stray from our ethical ideals, we have policies to ensure that the University as a whole does not, while still providing the freedom necessary to advance new horizons of research.

Academic Freedom

A commitment to academic freedom has been fundamental to the culture and character of Cornell University for over 150 years. Cornell's current President Martha Pollack reaffirmed this crucial value in her inaugural address, where she said, "Tightly linked to our commitment to truth is our ... responsibility to protect freedom of speech. Without an ability to hear all ideas, we cannot come to know what is true."

Higher education today is in the midst of a debate over the limits of freedom of speech. United States law does impose some restrictions on speech. As the President explained in her inaugural address, "threats and conduct that incites imminent violence are not protected under the Constitution, nor would we tolerate such actions on our campus." At Cornell, we strive to be careful to guarantee free speech while protecting our students' safety. "The lines are messy," as Pollack put it, but "it is our duty to use those rights to identify and confront evil, to educate, and to vigorously support, empower, and defend the dignity of those who are targeted by abhorrent speech."

The statement of core values that President Pollack developed in conversation with the Cornell community links freedom of speech to our fundamental academic mission: "as a community whose very purpose is the discovery of truth, we have an essential dependence on free and open inquiry and expression.

We value and protect free expression, even of ideas that some may consider wrong or offensive."

All members of the Cornell University community are responsible for scrupulously supporting and maintaining academic freedom, including respecting the academic and intellectual freedom of others, tolerating the free expression of ideas, and respecting the intellectual property and work product of all members of the community. And yet, the burden of protecting academic freedom falls primarily to two bodies: first, the faculty, the group most responsible for the ongoing tasks of teaching and research; and second, the procedures and policies that govern academic integrity.

1. The role of the faculty

The University Bylaws ensure the substantial participation of the faculty in University governance. Several provisions are designed to enable open communication of concerns among the faculty, administration, students, and Board of Trustees. For example, the University President and Provosts are members of the faculty; Ithaca faculty and students elect representative members of the Board of Trustees; and Weill Medical College faculty and students are elected to the Board of Overseers by the Board of Trustees. The University Faculty as a whole considers questions of educational policy which concern more than one college, or are general in nature, and has the right to present its views directly to the Board of Trustees.

To facilitate communication between a large and diverse faculty and the administration and to ensure a full consideration of multiple faculty views, the University Faculty has delegated many of its powers to the Faculty Senate. The Dean of the University Faculty, elected triennially by the Faculty through a process facilitated by the Faculty Senate, is the Faculty's chief administrative officer and its liaison on all matters between the Faculty and the President, the Trustees, and other segments of the University community.

The website of the Office of the Dean of Faculty provides links to a wide variety of policies and guidelines designed to help faculty understand their responsibilities with respect to intellectual property rights and academic freedom. Among these are the Code of Academic Integrity, the Faculty Handbook, and various guides for maintaining a healthy and non-threatening environment.

2. Procedures governing academic integrity

Dishonesty poses a grave threat to intellectual endeavors. At Cornell we take academic integrity very seriously, both for our faculty and our students. Violations need to be treated carefully, but seriously.

To review student cases, each college maintains an academic integrity hearing board. Cornell also strives to prevent students from making uninformed mistakes. In a cut-and-paste digital culture, students often need to be taught about the boundaries between their ideas and prior scholarship. In order to show them how to build new ideas atop older ones, Cornell has developed an online plagiarism tutorial for faculty to use in their classes, which explains the principles of plagiarism, as well as offering exercises to test student knowledge. ²

Faculty violations of academic integrity, while fewer, disturb the very foundations of our work at Cornell. Unattributed or unsubstantiated claims betray the community's trust in our research. The well-documented controversy over former professor Brian Wansink has reaffirmed the necessity for vigilance in academic norms. After a thorough review, in keeping with our Academic Misconduct policy, ³ a committee found that he was guilty of "misreporting of research data, problematic statistical techniques, failure to properly document and preserve research results, and inappropriate authorship." Wansink's removal from the faculty, despite his strong academic reputation, shows the efficacy of Cornell's review processes.

Cornell University has strong policies designed to limit behavior that would interfere with any member of the community's right to peaceful pursuit of study, research, and innovation. Chief among these are the Academic Misconduct Policy 1.2, the Weill Cornell Research Misconduct Policy 1.0, the Standards of Ethical Conduct Policy 4.6, and the Inventions and Related Property Rights Policy, 1.5. These policies define standards and provide procedures for rectifying problems when they occur.

¹ Academic Hearing Board 2018-20-19

² https://plagiarism.arts.cornell.edu/tutorial/index.cfm

³ https://www.dfa.cornell.edu/policy/policies/academic-misconduct

A Culture of Respect and Inclusion

Inclusion is one of our core values at Cornell, a central and enduring part of our mission, as described in fuller detail in the first chapter. It is also an ethical obligation, and one that is not always easy to achieve in an academic context. Academic freedom is even sometimes said to work against efforts at inclusion, as certain voices claim that it is their right to diminish others. But slurs are not academic speech, and for us at Cornell, freedom and diversity are not mutually exclusive; they are mutually constitutive. We strive to create a welcoming, caring, and equitable community where students, faculty, and staff from different backgrounds, perspectives and experiences can learn, innovate, and work in an environment of respect, empowered to use their voices to engage in any community conversation.

In this section, we showcase specific initiatives that strive to advance a culture of respect for all members of the Cornell community. The Presidential Task Force on Campus Climate and the Provost's Task Force to Enhance Faculty Diversity released reports online, with recommendations that fall into the following categories:

- 1. Build a culture that values transparency, accountability, and communication around issues of diversity and inclusion.
- 2. Develop visible institutional statements and symbols of our priorities, and policies that are well-aligned with them.
- 3. Provide diversity education to all stakeholders.
- 4. Increase faculty diversity and foster faculty commitment to diversity.
- 5. Enhance the student experience to support social belonging and wellness.
- 6. Create more opportunities for intergroup interaction.
- 7. Recruit and retain a diverse staff workforce.
- 8. Partner with the surrounding community on issues of diversity and inclusion.

In response to these recommendations, Cornell has been moving as quickly as possible to support our community members from a range of diverse backgrounds, ideas, and perspectives with programs across its campuses. Here are a number of prominent recent examples:

 Beginning with the Class of 2022, all incoming first-year students participated in a three-hour Intergroup Dialogue Project (IDP) session during New Student Orientation.⁴ Peer-led, interactive sessions guide students to communicate and collaborate across difference and to learn from each other's lived experiences. *We describe IDP in fuller detail in chapter 3.*

- For all Cornell instructors, the Center for Teaching Innovation offered a new, four-week, self-paced online course during the fall 2018, spring 2019 and spring 2020 semesters.⁵ Modules explored strategies for inclusive course design, social identity and self-reflection, and pedagogical practices to support student engagement and belonging. There are also plans to develop an online course for new Teaching Assistants in fall 2020.
- The First-Generation Low-Income (FGLI) unit has launched a new program, called the Kessler Scholars, which will provide resources and eliminate barriers for first-generation students from all seven undergraduate colleges at Cornell.⁶ The program will provide comprehensive support to 20 incoming first-generation students each year who have demonstrated a record of academic excellence and are motivated to improve the world through community engaged service. This program is expected to grow to approximately 80 students a year over the next four years.
- The Office of the Dean of Students has created the Office of Undocumented/DACA Student Support to strengthen campus connections for undocumented/DACA students; to lead campus awareness workshops for faculty, staff and students; and to offer resources, programming, and initiatives to undocumented/DACA students and students from mixed-status families.⁷
- The "Equity & Engagement Living Learning Community" opened in fall 2018. Its goal is to offer a variety of programs, discussions and training opportunities on topics such as race, gender identity, sexual orientation, socioeconomic status, ability status and religion to engage its residents and the campus community in dialogue grounded in social justice principles.
- The LGBTQ+ Living Learning Unit, also known as Loving House, opened in 2019, housed in Mews Hall on North Campus, to help foster a safe and supportive environment for students of all identities. Applications for the 33

⁴ https://www.idp.cornell.edu/

⁵ https://teaching.cornell.edu/teaching-learning-diverse-classroom-online-course

⁶ https://giving.cornell.edu/story/kessler-scholars-program-innovates-on-the-first-generation-student-experience/

⁷ https://dos.cornell.edu/undocumented-daca-support

⁸ http://rnsp.dos.cornell.edu/org/mews/AboutLovingHouse

- spots exceeded capacity, but Loving House will include programming for the LGBTQ+ community both in the house and in the broader university community.
- The Department of Inclusion and Workforce Diversity revamped its Inclusive Excellence Network (IEN), programs for staff across campus designed to develop an inclusive educational environment and workplace.⁹ These include action-oriented discussions, self-reflection, and productive dialogue on workplace issues. For veterans employed at Cornell, there is a colleague network.¹⁰
- In 2018, when the Provost dramatically increased central support for the hiring of faculty from diverse backgrounds, with funding for recruitment, retention, and postdoctoral positions, he required all faculty search committees that seek this support to undergo bias training. The Office of Faculty Development & Diversity (OFDD) ¹¹ has also provided resources to assist in the recruitment of faculty from underrepresented groups. ¹² The OFDD sponsors multiple mentoring programs for underrepresented faculty on campus, including networking lunches and peer mentoring grants. ¹³
- Weill Cornell Medicine hosted its inaugural Diversity Week in 2018, which
 featured a keynote address, diversity grand rounds, workshops and awards. It
 has also established a Mentoring Academy to reimagine the training of
 physician-scientists, including a focus on diversity and inclusion.
- Over the past few years, Cornell has been implementing its Institutional Disability Access Management Strategic Plan to increase access for constituents with disabilities. ¹⁴ All new construction at Cornell has been ADA-compliant. Importantly, too, since access is more than just physical, Cornell has overhauled its websites and its educational programming in order to create a more accessible culture. Student disability services (SDS) supports more than 1500 Cornellians, offering resources and support for students and the faculty who instruct them, and keeping Cornell in compliance with both pertinent laws and our values. We offer more detail on Cornell's support for

⁹ https://diversity.cornell.edu/learning/inclusive-excellence-network

https://hr.cornell.edu/our-culture-diversity/diversity-inclusion/diversity-resources/veterans-and-military-personnel

¹¹ https://facultydevelopment.cornell.edu/

¹² https://myemail.constantcontact.com/Best-Practices-in-Faculty-Recruitment-and-Hiring

¹³ http://facultydevelopment.cornell.edu/faculty-resources/mentoring/

¹⁴ https:blogs.cornell.edu/dist/8/7035/files/2017/09/Strategic-Access-Plan-2016-19-2.pdf

students with disabilities in chapter 4. For faculty and staff, University Policy 6.13 outlines the disability accommodation process, and Cornell has an extensive website devoted to supporting its employees with disabilities. ¹⁵ An annual disclosure allows self-identification by employees with disabilities, and accommodations are evaluated through an application and interview process. ¹⁶

In short, units across Cornell have been working hard to realize the taskforce recommendations. Some initiatives are now firmly in place. Others will take time to accomplish, and some are aspirational. Cornell will continue to keep track of progress on all of these initiatives, and to commit ourselves to the ongoing work of building and maintaining a culture of respect.

Fair Employee Practices and Grievances

Cornell is committed to employment procedures that are fair, consistent, and in compliance with applicable laws. Data dashboards make annual reports of hiring and retention public to ensure transparency. ¹⁷

Discriminatory and unfair conduct threatens Cornell's efforts to provide a safe, inclusive, and respectful learning and working environment. The University addresses grievances with robust policies and procedures that are well documented and disseminated to the campus community through webpages for faculty, staff, and students. Cornell's grievance policies also provide for prompt, equitable, fair, and impartial resolutions of reports of prohibited conduct.

¹⁵ https://hr.cornell.edu/our-culture-diversity/diversity-inclusion/diversity-resources/disability-accommodation-fags

¹⁶ https://hr.cornell.edu/benefits-pay/leaves-disability/disability-accommodations

¹⁷ http://irp.dpb.cornell.edu/university-factbook/employees. Employee turnover is 8.7% each year, lower than the national average for employers with over 2500 workers.

Table 2 Grievance procedures available to faculty, staff, and students

Nature of Grievance	Applicable Policies and Procedures
Bias, Discrimination, Harassment, Sexual and Related Misconduct	University Policy 6.4; Procedures for the Resolution of Reports against students under policy 6.4; Procedures for the Resolution of Reports against faculty under policy 6.4; Procedures for the Resolution of Reports against staff under policy 6.4; Procedures for the Resolution of Reports under Policy 6.4 at Weill Medical College
Standards of Ethical Conduct	<u>University Policy 4.6</u>
Campus Code of Conduct	The Campus Code of Conduct
Academic Integrity	The Code of Academic Integrity
Academic Employee Grievance Procedures	University Policy 6.2.10
Non-Academic Staff Grievance Procedures	Staff Complaint and Grievance Procedure
Grievance Procedures for Student Employees	https://studentemployment.cornell.edu/policies/grievance-procedures

Beyond formal grievance procedures, the university has created multiple pathways for complaints. We have improved the bias reporting form to include new protocols for handling reports and expectations in student-student and

student-staff/faculty incidents. ¹⁸ A new Alternative Dispute Resolution (ADR) process is in development and has already been used successfully. So far, nearly 500 student leaders have participated in ADR training workshops, which offer coaching in conflict mediation and restorative justice, specifically around bias.

Each college and school is responsible for providing a system to address grievances over matters of compensation, work assignment, working conditions, and adherence to all procedures except those governing appointment, promotion, harassment, or other legally protected grounds. ¹⁹

Cornell's Office of Institutional Equity and Title IX seeks to prevent harassment and assault, and to enforce policies that keep Cornell in compliance with Title IX of the federal Higher Education Amendment of 1972. The office provides a clear mechanism to file complaints and have them adjudicated. It receives hundreds of complaints a year, which speaks to the need for a continued focus on gender discrimination at Cornell. ²⁰

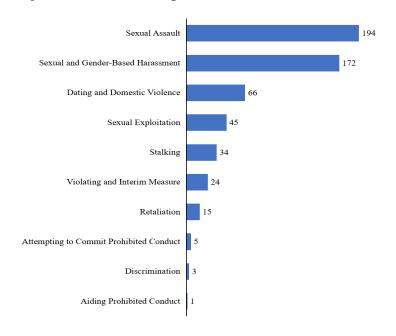


Figure 1. Title IX Complaints, 2017-2018

¹⁸ https://cm.maxient.com/reportingform.php

¹⁹ https://www.dfa.cornell.edu/sites/default/files/vol6 2 10.pdf

²⁰ https://titleix.cornell.edu/statistics/2017-2018/

In a similar vein, the Cornell faculty recently passed a new policy on Consensual Relationships, which forbids all consensual relationships between faculty and undergraduates, and allows faculty and graduate students to engage in consensual relationships as long as the faculty member exercises no academic or professional authority over the student. This policy is intended to "protect the integrity of students' and postgraduates' university experience" and to support "an overall educational environment that is free from conflicts of interest."

Conflicts of Interest

Integrity is the foundation of the university, and conflicts of interest can quickly undermine the public's trust in our teaching and research. Cornell University policy on conflict of interest is contained in two primary policy documents:

- University Policy 4.14, Conflicts of Interest and Commitment
- University Policy 1.7, Financial Conflict of Interest Related to Research

These policies seek to ensure that faculty and staff make their primary commitments to the University and that external commitments and financial interests, either real or apparent, do not affect their professional responsibilities. As Policy 4.14 states, "All members of the Cornell University community are expected to promote the best interests of the institution in the conduct of their Cornell responsibilities."

Cornell has a vigorous program in place to limit potential conflicts, while permitting participation in extramural activities that are important to maintaining the quality of teaching, research, and other services.

The Office of Research Integrity and Assurance (ORIA) offers training on conflicts of interest and support for the Ithaca campus and Cornell Tech. The Conflicts Management Office (CMO) does this work for Weill Cornell. ORIA and CMO also monitor financial and other commitments and manage situations where conflict may occur. All faculty and staff are required to complete an annual disclosure of relevant external commitments and financial interests.

To educate the community about conflicts of interest and promote compliance, Cornell conducts information sessions and provides individual counseling to inquiring members. The CMO and ORIA interface with other regulatory offices, including the IRB, IACUC, the Grants & Contracts office, and the Office of Sponsored Programs. They also work with collaborating institutions to manage

conflicts of interest related to federal- and state-funded research and with the Center for Technology Licensing to identify and manage conflicts of interest related to intellectual property and faculty start-up corporations.

Relationships with external entities that often draw scrutiny from the CMO and ORIA are equity and stock holdings, executive positions, and private consulting agreements. The University stipulates occasions when Cornell personnel can accept travel, meals, and gifts from external entities and sets forward rules governing the disclosure of conflicts in academic writings and presentations. The university prohibits participation in speaker's bureaus and the practice of "ghostwriting" or "honorary authorship."

All members of the Boast of Trustees must complete annual conflict of interest statements. In addition, Board members are subject to the University's overall Ethical Conduct policy. An independent Ethics hotline is available for anonymous concerns, with all charges thoroughly investigated by University Counsel and other offices as necessary.

When cases arise, the administrative authority on each campus determines whether a faculty or staff member needs to be placed on an individual conflict management plan to reduce or eliminate real or apparent conflicts of interest. At Weill Cornell, the CMO works with the Conflicts Advisory Panel (CAP), and on the Ithaca and Cornell Tech campus, ORIA works with the appropriate college or other administrative unit. The administrative authority approves and monitors compliance with the management plan, and investigates cases of potential non-compliance and reports findings to University leadership. Sanctions for faculty and staff who are not compliant can vary from censure to dismissal, depending on the severity of the infraction.

Cornell discloses pertinent conflicts of interest to all federal, state and local agencies funding research at the time of application and complies with public accessibility requirements for conflict information in federally-funded research.

Honesty

Cornell has no specific policy regarding honesty and truthfulness in public relations and advertising, but such activities fall under the broader policies of the University. Policy 4.6 requires executive officers, trustees, faculty, staff, and student employees to "communicate judgments, opinions, and other

information—both positive and negative—fairly and objectively." The Campus Code of Conduct contains several relevant principles, including:

- Title III, Article 2, Section A(2)(d)(1): it is "an offense against the University to forge, fraudulently alter, willfully falsify, or otherwise misuse University or non-University documents"
- Under Title III, Article 2, Section A(2)(e): it is an offense "to furnish false information to the University with intent to deceive." Subsection (2)(f) makes it a violation "to claim falsely to represent the University or a University-registered organization."
- Title III, Article 2, Section A(3) makes it a violation "to defraud."

These principles and general ethical principles guide communicators on campus to work with the utmost in integrity and honesty, but Cornell may want to develop a more explicit "truth in advertising" policy.

Stewardship of Confidential Information

Cornell University places a high priority on the ethical and responsible stewardship of confidential information. Policies governing the use and management of student academic, judicial, and health records protect student privacy. The Cornell Information Technology office²¹ plays a crucial role in safeguarding electronic student information²².

Cornell University Policy 4.5, Access to Student Information,²³ states that "It is the policy of Cornell University to comply with the Family Educational Rights and Privacy Act, 20 U.S.C 1232g ("FERPA"). The University offers several resources that provide FERPA information and guidance:

• The "Student Record Privacy Statement: Annual Notification Under FERPA" appears in the Courses of Study.²⁴ The statement outlines students' rights under FERPA, defines the student information published in the directory, and identifies the situations in which the University will release information without student consent. Just prior to the start of each semester the University

²¹ https://it.cornell.edu

²² https://it.cornell.edu/security-and-policy

²³ https://www.dfa.cornell.edu/policy/policies/access-student-information

²⁴ http://courses.cornell.edu/

Registrar sends an email to all current students requesting that they review the "Student Record Privacy Statement," and the statement is updated by the Office of the University Registrar annually in June.

- The FERPA page on the Office of the University Registrar website²⁵ provides a definition of records that are education records, and those that are not, and the situations in which the University might disclose student information. The page also explains how students may suppress information about them in the directory and the implications of suppression, and provides information for parents.
- Just prior to the start of each semester, the Dean of the Faculty sends an email about courses to all faculty²⁶ with a link to a webpage that gives access to the FERPA site on the Office of the University Registrar website²⁷ and the "Student Record Privacy Statement: Annual Notification Under FERPA" page on the Courses of Study site. The Office of the University Registrar provides guidance on the appropriate ways to handle student data on its "Use of Student Data" webpage. ²⁸

For records coming under the purview of the Cornell University Judicial Administrator's office²⁹ FERPA procedures guide the secure maintenance and release of information. Disciplinary records of proceedings adjudicated under the Cornell University Campus Code of Conduct and the Procedures for the Resolution of Reports Against Students Under Cornell University Policy 6.4 are retained by the Office of the Judicial Administrator (OJA) in accordance with Cornell University Policy 4.7 on Retention of University Records. The OJA discloses student information and records in accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA).

The OJA and Office of the Title IX Coordinator use, maintain, and store certain physical records. Electronic versions of disciplinary records are stored on two private, secure servers: one server for Code cases and a separate server for cases under Policy 6.4. vetted by Cornell Information Technology. All electronic

²⁵ https://registrar.cornell.edu/service-resources/ferpa

²⁶ http://theuniversityfaculty.cornell.edu/dean/you-and-your-class/

²⁷ https://registrar.cornell.edu/service-resources/ferpa

²⁸ https://registrar.cornell.edu/service-resources/use-student-data

²⁹ https://judicialadministrator.cornell.edu

records are backed up nightly. University's centralized database (Maxient) stores some information relating to disciplinary actions. In accordance with FERPA rules, only school officials with a legitimate education interest in each Maxient record—that is, with a need to review the record to fulfill their professional responsibilities to the university—are permitted to access the record in the system.

Cornell University Policy 4.12, Data Stewardship and Custodianship,³⁰ states that all stewards and custodians of University data must manage, access, and use this data in a manner that is legal and consistent with the need for security and confidentiality. In 2018, the university shifted the stewardship of student data from an individual custodian to a Student Data Committee, comprising faculty and senior administrators, to ensure that data access and usage fully comply with federal and state laws as well as Cornell policies.

Cornell has developed an IT Governance Framework³¹ to enable effective stewardship of Cornell IT resources and reduce duplication; to provide the university a means of review and approval necessary to ensure appropriate use of institutional data; to reveal the impacts of IT systems on other systems and processes; to ensure coordination with pertinent stakeholders; and to provide a streamlined and logical experience for the use of Cornell applications.

The Central IT has developed a 9-Point Policy for Information Security.³² It outlines the requirements to protect confidential data, and includes an annual attestation. The IT Security Office also educates students about phishing. Central IT, in partnership with the Office of the Vice Provost for Enrollment, is also implementing steps to comply with the Standards for Safeguarding Customer Information, as mandated by section 501(b) of the Gramm-Leach-Bliley Act (GLBA) (see 16 CFR Part 314).

The Cornell University Library follows relevant University Policies and has explicit privacy and confidentiality statements³³ as well as explicit practices on

³⁰ https://www.dfa.cornell.edu/sites/default/files/policy/vol4_12.pdf

³¹ https://it.cornell.edu/itgovernance-project-management/1-it-governance-framework

³² https://it.cornell.edu/cit-operational-procedures-information-security-9-points

³³ https://www.library.cornell.edu/privacy

the use, disclosure, maintenance, and protection of personally identifiable information³⁴.

Affordability

In keeping with Ezra Cornell's democratic founding vision to provide a high-quality education to "any student," we understand it to be one of our core ethical obligations to educate students from all walks of life. While the sticker price of a Cornell education is high, financial aid makes attendance possible for students regardless of financial circumstance. Slightly more than half of the incoming class, 52%, received financial aid.

Cornell promotes affordability and accessibility to the best of its ability. In 2017, the University offered more than \$239 million in grants. That year, the median U.S. household earned \$60,336. Cornell offered loan-free tuition for applicants whose families made under \$60,000 annually, meaning that nearly half of Americans would qualify for a Cornell degree without any loans. Even families earning more than \$120,000 a year had loan amounts below \$7,500 each year, or less than \$30,000 over four years.³⁵

After graduation, Cornell alums generally find well-paying jobs that allow them to pay back their college debt. The mean starting salary for Cornell graduates was \$62,980 in 2015, "nearly \$10,000 higher than the U.S. median income in 2014." An education that delivers higher than median incomes on graduation coupled with a "low debt burden" is an excellent value proposition.

From application to graduation, Cornell is committed to explaining the financial aid process to students and families. The Office of Financial Aid posts videos in English and Spanish, from a general overview to more detailed explanations, including one called "Understanding Your Award Letter." Another video shows how to appeal an initial financial aid decision. Cornell makes clear on its website that aid decisions are based only on financial need. On graduation, students receiving financial aid must have an exit interview to be informed of their "rights"

^{34 &}lt;a href="https://www.library.cornell.edu/practices">https://www.library.cornell.edu/practices

³⁵ According to the College Board, the average cumulative debt incurred by borrowers for private non-profit colleges and universities was \$32,600 in 2016-2017 (the most recent year that data was available).

³⁶ http://finaid.cornell.edu/

and responsibilities." At any point, students can meet with a financial aid counselor if they need additional guidance to make an informed decision about borrowing. We offer more detail on financial aid in chapter 4.

Compliance and Transparency

Cornell is actively engaged with ensuring our compliance with all federal, state, and Commission reporting policies, regulations, and requirements. As with all large institutions, maintaining compliance is a sizable and distributed effort. In February of 2019, the Department of Education found some irregularities relating to the distribution of Title IV funding and notified Cornell that its program participation certification status would be "provisional" for a period of three years.³⁷ In response, the university undertook a comprehensive review of aid processes, systems and protocols. New policies on enrollment and financial aid were widely disseminated throughout the university. ³⁸ Cornell subsequently set up a new Office of Compliance for Student Aid Programs and appointed a Chief Compliance Officer to oversee then office University Risk and Compliance Services.³⁹

Cornell makes publicly accessible all graduation and retention rates on its website. 40 These rates are broken out by types of degrees, college, demography, nationality, sex, and transfer status. While Cornell posts clear information about enrollment and graduation rates, its data on licensing for graduates is harder to find. Cornell Engineering, for instance, has a webpage on the Fundamentals of Engineering Exam, but no statistics on pass rates for undergraduates who have taken the exam. Similarly, the Architecture program and Weill Medical do not post pass rates for graduates taking the licensing exams. Cornell should strive to be transparent about licensing outcomes for its programs.

When the University makes a substantial change to its policies, programs, operations, or site, it has multiple channels to communicate the news. For matters of major importance, the University issues statements on statements.cornell.edu. Other substantive communications are generally

³⁷ https://statements.cornell.edu/2019/20190225-provisional-status-designation.cfm

³⁸ https://www.dfa.cornell.edu/sites/default/files/policy/vol7 3.pdf

³⁹ https://news.cornell.edu/stories/2019/10/new-compliance-office-will-help-units-regulations

⁴⁰ http://irp.dpb.cornell.edu/university-factbook/graduation-and-degrees-conferred

disseminated through campus email lists. The *Cornell Chronicle* publicizes substantive pieces on virtually all campus activities⁴¹, and it is searchable by campus community⁴² and also by topic area. Journalists often use the *Chronicle* to keep abreast of Cornell's activities.

Policy Reassessment

Cornell reviews and revises its policies, including its ethics and integrity policies, every five years. Some policies must change when legal requirements evolve while others will be modified in response to specific events or conditions, such as technological developments.

The University's Policy Office coordinates the editing, review, issuing, and archiving of all official university policies: standardized policies that have been through the official development process, and "legacy" policies that, in time, will be standardized.

Two standing committees must review and advise on new or revised policies that affect the entire Cornell community. The Executive Policy Review Group (EPRG), which is composed of vice presidents and academic deans, meets quarterly to review proposed or significantly revised policies. ⁴³ Once the EPRG has approved the Impact Statement, ⁴⁴ a process of drafting of the full policy begins, including input from stakeholder groups. The Policy Advisory Group (PAG), ⁴⁵ the second standing committee, which is made up of senior university administrators, meets monthly and tests completed drafts of new policies. Once PAG accepts a policy, it returns to the EPRG for final review and comments.

Whistleblower protections are a good example of the University policy reassessment process. We know that an employee who observes an ethical violation may not want to report it for fear of retaliation or harassment. The creation of a whistleblower policy in 2017 reflected the need for a standard procedure with clear ethical standards and definitions. The policy applies the same expectations to financial, research, and academic situations. Every member

⁴¹ https://news.cornell.edu/

⁴² https://news.cornell.edu/categories/news-events

⁴³ https://www.dfa.cornell.edu/policy/development/reviewgroups#EPRG

⁴⁴ https://www.dfa.cornell.edu/policy/development#impact

⁴⁵ https://www.dfa.cornell.edu/policy/development/reviewgroups#PAG

of the Cornell community receives annual reminders and requests to report violations and can now report through a campus hotline.

Recognizing the continuing need for oversight of ethical and procedural issues associated with donations, the Board of Trustees in December 2018 adopted a formal Resolution regarding donor reputational review, acceptance, naming rights, honors, revocation and required the university administration to establish formal policy to implement the Board's direction. That policy was incorporated into the full policy on fundraising in June 2019."⁴⁶

Cornell, like other major universities, is also part of an ongoing debate about the ethical obligations of investing our multibillion-dollar endowment. Activists have pushed Cornell several times to divest from what they see as unethical companies. The most pressing question right now revolves around fossil fuel companies and their contributions to climate change. In 2016, the Board of Trustees, which has the authority over the university's investment portfolio, said they would consider divestment only when the company in question is "morally reprehensible." Their examples of reprehensible activities include "apartheid, genocide, human trafficking, slavery, and systemic cruelty to children, including violations of child labor laws." The debate over the ethics of investment is necessarily part of a continuing campus conversation.

Summary

A foundation of trust and open communication is necessary for academic inquiry. As in any large organization, members of Cornell's community occasionally engage in unethical behavior. We strive for policies that can curb that behavior, educating the community to prevent misconduct and disciplining wrongful acts. And we are committed to reassessing our policies and practices to make sure that we continue to realize the promise of this great university.

⁴⁶ https://www.dfa.cornell.edu/sites/default/files/policy/vol3 1.pdf

⁴⁷ https://blogs.cornell.edu/dist/3/6798/files/2016/06/FF2216-1kvnvuj.pdf

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Design and Delivery of the Student Learning Experience

Cornell University enrolls over 20,000 students. Across our campuses, we offer more than 4,000 courses, 80 undergraduate majors, nearly 100 graduate fields of study, undergraduate and advanced degrees, and continuing education and outreach programs. Each of the fourteen colleges and schools defines its own academic programs, admits its own students, employs a faculty, and offers advising and support to its students.

Undergraduate Learning

At Cornell, we work hard to foster initiative, integrity, and excellence in an environment of collegiality, civility, and responsible stewardship. Our community fosters personal discovery and growth, nurtures scholarship and creativity across a broad array of disciplines, and engages people from every segment of society in a shared academic endeavor.

Cornell offers 70 departmental majors to its 15,182 undergraduate students, as well as several dual-degree programs and a dozen interdisciplinary majors. Exemplifying a distinctive commitment to its land-grant designation, Cornell deliberately interweaves liberal and practical education in its curricular programs. Many courses not only meet in classrooms, laboratories, studios, and residence halls, but also in off-campus settings around the world with a wide variety of communities, nonprofits, government agencies, and businesses.

While Cornell is a large and complex institution, common themes across the various colleges and programs shape the undergraduate experience. These themes emerge not through a set list of courses but through shared institutional learning goals that cross a wide array of programs, courses, and experiences. ¹

https://provost.cornell.edu/assessment/learning-outcomes/; see also http://learninggoals.cornell.edu/

The goals can be found on the Provost's "learning outcomes" webpage. It affirms that graduates of Cornell will:

- Demonstrate disciplinary knowledge and its uses.
- Apply analytical and critical thought to a body of knowledge.
- Express ideas clearly.
- Demonstrate scientific and quantitative reasoning.
- Direct their own learning.
- Use information from a variety of sources strategically, appropriately, and responsibly.
- Engage in the process of discovery or creation.
- Demonstrate knowledge and awareness of different cultural practices, values, beliefs, and worldviews.
- Embrace moral and ethical values in conducting their lives.
- Take responsibility for their own behavior and well-being.
- Engage in their communities, demonstrating responsibility to a larger community or public.

Each college has also articulated learning goals specific to its mission. For example, the College of Arts and Sciences has organized learning goals for liberal education into broad categories, each of which reflects an implied consensus around student learning outcomes. ²

Navigating Academic Offerings

Cornell seeks to provide students with clear and accurate information about all academic offerings through websites, checklists, and college advising programs.

A "Courses of Study" link on Cornell's website gives students online access to clear and up-to-date information about graduation requirements for all degrees and programs of study. The Office of the University Registrar updates the information at this link yearly. Students can quickly find the information they need for their program of study by clicking links at this site. For example, a link to the College of Agriculture and Life Sciences (CALS) provides comprehensive

² <u>https://as.cornell.edu/liberal-education-goals</u>

³ http://courses.cornell.edu/index.php?catoid=33

⁴ <u>https://registrar.cornell.edu/</u>

Chapter 3: Design and Delivery of the Student Learning Experience

information for all requirements and procedures for a Bachelor of Science degree in one scrollable page.⁵

Many degree programs also provide detailed handbooks online or in printed form. For example, the College of Engineering publishes an annual Engineering Undergraduate Handbook.⁶ Most programs also provide students with checklists of requirements that are easy to follow, such as a website that lists the requirements for all Biological Sciences concentrations.⁷

The Class Roster publishes the schedule of classes for each term. ⁸ It displays course details, including class enrollment, descriptions, prerequisites, and breadth and distribution codes. The Roster also features Scheduler, a tool for course planning and scheduling. In response to a Student Assembly resolution that called for class syllabi to be made available to students online, Cornell launched a "Central Syllabus Initiative" in 2017. Beginning in the fall of that year, faculty members could begin to attach syllabi to classes appearing in the schedule. Each school and college urges faculty to upload their syllabi.

Several colleges allow students to accrue credits from Cornell Advanced Standing Exams (CASE), departmentally administered exams for specific courses. Many of the language departments offer these credit-bearing exams. A few colleges offer conditional credit for internship experiences. Departments and colleges have varying policies for accepting credit for Advanced Placement Examinations from the College Entrance Examination Board.⁹

Cornell offers an extensive system of advising for all students in all colleges. Rigorously designed to support and advance students' academic progress, advising is tailored to meet the specific needs of each college and program of study.

For example, the College of Human Ecology offers a comprehensive network of counselors and advisors to help students plan a path that suits their academic

⁵ http://courses.cornell.edu/content.php?catoid=33&navoid=8389

 $^{^{6}\ \}underline{http://cornellengineeringhandbook.freeflowdp.com/cornellengineeringhandbook/Store.action}$

⁷ https://biology.cornell.edu/advising/biological-sciences-concentration-checklists/

⁸ https://classes.cornell.edu/browse/roster/FA19

⁹ http://courses.cornell.edu/content.php?catoid=31&navoid=7931#CEEB_AP_Exams

and personal goals. ¹⁰ Faculty advisors associated with each major in the College provide guidance for students who are looking to focus their intellectual interests, identify research opportunities, and network in their academic fields. Each major also has a Director of Undergraduate Studies (DUS) who directs the advising activities of the associated department. College counselors help students from all majors to navigate curriculum requirements, address personal needs and goals, plan academic schedules, and pursue postgraduate opportunities. Incoming students are able to meet with college counselors and Directors of Undergraduate Study during orientation week, and with faculty advisors throughout the semester as needed. The roles of advisors and counselors often overlap, and students can use both resources to best serve their needs. *We offer more detail on advising in chapter 4*.

Distribution Requirements

Cornell encourages students not only to pursue a specific program of study, but also to explore the vast array of academic opportunities offered here. While the University does not have a general education program, each college has distribution requirements that guide students to courses that teach values, ethics, and diverse perspectives, as well as written communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy.¹¹

For example, the distribution requirements in the College of Arts and Sciences are designed to acquaint students with a broad range of topics and methods among disciplines, and to explore areas that may be entirely new to them. The requirements require students to develop cultural breadth (both geographical and temporal), effective writing and quantitative skills, facility in a foreign language beyond the introductory level, and imaginative and critical thinking. The breadth and depth of an Arts and Sciences education is intended to prepare students for informed citizenship and engagement with the world.

Distribution requirements in the College of Industrial and Labor Relations include electives in cultural perspectives, science and technology, and the

¹⁰ https://www.human.cornell.edu/studentlife/studentdevelopment/advising-counseling

¹¹ http://courses.cornell.edu/content.php?catoid=33&navoid=8524

Western intellectual tradition.¹² And in the College of Agricultural and Life Sciences, students must take credits in the physical and life sciences, quantitative literacy, the social sciences and humanities, and written and oral expression.¹³

Diversity in the Curriculum

Over the past decade Cornell has established three major platforms for student learning related to cultural and global awareness, cultural sensitivity, values, ethics, and diverse perspectives: the Intergroup Dialogue Project, the Office of Global Learning, and Engaged Cornell.

Intergroup Dialogue Project

Launched during the fall 2012 with two student sections, the Intergroup Dialogue Project¹⁴ (IDP) has grown to include offerings for faculty, staff, graduate students, postdoctoral scholars and alumni. It now serves all incoming first-year students with a three-hour session held during orientation. These peerled courses blend theory with experiential learning. Focusing on social identities such as race, socio-economic status, sexual orientation, ability/disability, and gender, the IDP aims to promote the development of consciousness about social identity, oppression, and privilege; to explore the effects of social inequality at personal, interpersonal, and structural levels; to build relationships across differences and conflicts; and to strengthen individual and collective capacities to promote social justice and equity. IDP uses a structured process that operates on the premise that empathy can be learned and that students can practice creating a community in which people feel they can bring their full selves, without fear that they must change to belong.

Office of Global Learning

A new Office of Global Learning¹⁵ (OGL), established in 2018, brings together two groups that support international education: Cornell Abroad, which

https://www.ilr.cornell.edu/student-experience/curriculum-requirements/undergraduate-requirements

¹³ https://cals.cornell.edu/undergraduate-students/student-services/degree-requirements/graduation-requirements/distribution-requirements

¹⁴ https://idp.cornell.edu/

¹⁵ https://globallearning.cornell.edu/

supports more than 450 global learning opportunities in 80 countries, ¹⁶ and the International Students and Scholars Office. ¹⁷ The mission of OGL is to develop and support the next generation of global citizens by fostering mobility, exploration, and international and cultural exchange. OGL staff coordinate international study and research experiences for Cornell students, support international students and researchers at Cornell, advise on federal immigration and labor regulations, provide cultural and academic resources, and promote cross-cultural connections on campus and beyond.

Engaged Cornell

The Engaged Cornell initiative builds on Cornell's founding commitment to "knowledge with a public purpose." Supporting faculty in integrating community engagement into the curriculum, its primary objective is to ensure that all undergraduates will have the opportunity to take high-quality, community engaged courses during their time at Cornell. We describe learning outcomes and assessment of these courses in more detail in chapter 5. Since 2015, Engaged Cornell has invested over \$9 million across 1,200 grants in community-engaged curricula, research, travel, and innovation across all 13 colleges and schools. A new Engaged Scholar Prize recognizes faculty accomplishments in community-engaged teaching and scholarship. A community engagement hub space was established to co-locate seven existing programs in Kennedy Hall.

Pedagogical Development

Cornell is committed to providing the highest quality instruction. The faculty-student ratio is 9:1, and all faculty and instructional staff have numerous opportunities to develop their teaching skills and strategies in their colleges. The Provost's office is currently reviewing the instruments used for student evaluations to recommend changes that will improve the usefulness of student feedback to faculty efforts to improve pedagogy. Three units on campus also share the mission of supporting pedagogical development for all instructors: the Center for Teaching Innovation, the Center for the Integration of Research, Teaching, and Learning, and the Gateway Course and Active Learning Initiatives.

¹⁶ https://abroad.globallearning.cornell.edu/

¹⁷ https://isso.cornell.edu/

Individual colleges

When faculty and instructional staff are reviewed for promotion, the process includes assessments of their teaching through course evaluations, letters from students, peer class visits, and curriculum or extension work-plan reviews. All of the colleges also provide focused support for faculty teaching development. In the College of Engineering, for example, the James McCormick Family Teaching Excellence Institute¹⁸ collaborates with faculty in developing innovative and effective teaching methods and improving course design. It supports faculty efforts in engineering education research and assists faculty with the education and outreach components of grant proposals. The College of Agriculture and Life Sciences hosts a two-day workshop, CALS Teaching Experience,¹⁹ that helps faculty create and sustain student-centered classrooms. CALS also has a faculty Committee for Support of Teaching and Learning.

Center for Teaching Innovation (CTI)

The Center for Teaching Innovation partners with the Cornell teaching community to explore and foster inclusive, evidence-based teaching practices via the development of vibrant, challenging, and reflective student-centered learning experiences. The CTI advances a vision of a Cornell teaching community that embraces the research on learning, catalyzes innovative instructional and assessment practices, and creates learning environments where every student can thrive. This work is accomplished by individual consultations, small group programs, and campus-wide initiatives, including full-day institutes on course design, diversity, and engaged and online learning.

The Mid-Semester Feedback Program helps instructors gather students' informal feedback about their experiences, affording an opportunity for mid-course adjustments. Teaching and Learning in the Diverse Classroom offers Cornell instructors across the career span an asynchronous online course focused on inclusive teaching and learning. Additionally, the CTI offers a range of programs specifically for new faculty.²⁰

¹⁸ https://www.engineering.cornell.edu/MTEI

¹⁹ https://cals.cornell.edu/about/leadership/oap/teaching/cals-teaching-experience/

²⁰ https://teaching.cornell.edu/

The CTI supports hybrid and online course design across the disciplines, as well as the use of innovative technologies, such as Canvas, iClickers, Panopto, Kaltura, Turnitin, Digication and other tools to deliver content and assess student learning. Additionally, CTI instructional designers support the creation of Massive Open Online Courses on the edX platform including most recently, a MOOC version of Teaching and Learning in the Diverse Classroom, which has reached a global audience.

CTI has designed resources to help Cornell faculty to embrace current research on effective learning, catalyze innovative instructional practices and the use of learning technologies, and create learning environments where every student can thrive. Among these are annual grants for innovation in teaching, support for the university-wide Active Learning Initiative, and the Provost's Seminar, facilitated by CTI, which creates a forum for building community around teaching and for sharing progress on various initiatives and innovations in teaching across the university. ²¹ In addition to highlighting assessment as an integral part of teaching and learning process, we work to model such practices by regularly gathering and integrating feedback from all program participants.

The Cornell Teaching Partnership Program is another key CTI initiative, ²² a mentoring program that fosters conversations about teaching and learning by pairing a new faculty member with a tenured professor who is widely respected for both teaching and scholarship. Partners meet periodically throughout the year to engage in conversations about teaching, participate in classroom observations, and foster a stimulating and satisfying teaching experience.

Center for the Integration of Research, Teaching, and Learning

As a member of the national Center for the Integration of Research, Teaching, and Learning Network (CIRTL),²³ Cornell University is one of 40 research universities collaborating to provide high-quality professional development to graduate students and postdoctoral scholars. CIRTL at Cornell prepares a national faculty capable of integrating superb research with excellence in teaching.²⁴ Its offerings include support for:

²¹ https://news.cornell.edu/stories/2019/05/provosts-seminar-celebrates-innovation-teaching

²² https://teaching.cornell.edu/cornell-teaching-partnership-program

²³ https://cirtl.cornell.edu/about/network-institutions/

²⁴ https://cirtl.cornell.edu/

- Evidence-based practice of teaching (teaching as research), including assessing student learning;
- Inclusive classrooms and lab groups (learning through diversity);
- Effective mentoring of undergraduate researchers, graduate students, and postdoctoral scholars;
- Learning communities of graduate students, postdocs, faculty, and staff who meet to share best practices in teaching, research mentoring, career development, and broadening participation in higher education.

Gateway Course Initiative

In 2018, Cornell created a new Vice Provost position with responsibilities for oversight of the Gateway Course and Active Learning Initiatives. The Gateway Course Initiative is designed to improve largest introductory courses that serve students from across the university. It invests central resources in courses with more than 200 students that are required for a major, concentration, or curricular pathway and have up to 75% enrollment from a single college. Enrollments in each of these courses is typically at least 75% first-year students and sophomores.

In order to address the limitations and possibilities of these courses, the Vice Provost of Undergraduate Education and Vice Provost for Academic Innovation launched a working group, which includes ten Cornell instructors who teach gateway courses in ecology, evolution, economics, statistics, computer science, and molecular biology to over 2,500 students. During the 2018-2019 academic year, the faculty focused on the transition from high school to college STEM courses at Cornell. The instructors met monthly and examined data from classroom observations, student surveys, and student course performance disaggregated by demographic variables, such as sex, first-generation status, and underrepresented minority group. The working group has now launched a predictive analytics project involving 6 years of historical data aimed at understanding the predictors and outcomes of students' experiences in gateway courses. This project also considers the impact of a wide range of universityfunded support services—such as cohort-based advising programs, supplemental academic support and tutoring, research programs, and offsemester learning opportunities—on students' academic and post-graduate outcomes.

To connect the faculty instructors with additional stakeholders, the group met with local high school instructors, administrators at Cornell, and representatives from student and instructor support initiatives, such as the Learning Strategies Center and the Faculty Living-Learning Programs. At the end of the academic year, each faculty participant presented data-driven changes that they plan to make to their class next fall to help with the student transition from high school. The group plans to continue meeting with this cohort next year and also to recruit a new set of faculty to participate in the program.

This initiative works closely with the university-wide Active Learning Initiative,²⁵ which helps departments to redesign their courses to implement active learning strategies—interactive pedagogical approaches that replace traditional lectures. *We describe this initiative in greater detail in chapter 5*.

Graduate Education

Cornell is one of the first institutions of higher education in the United States to offer advanced degrees, and one of the very first to admit women and African American students to graduate programs.

With \$802 million in research funding, one of the 10 largest research libraries in North America, and 150 centers, institutes, laboratories, and programs, Cornell provides superb support for graduate students' research and scholarship, offering a range of opportunities from research travel grants to professional development programs. Cornell currently funds 96% of its on-campus doctoral students and 78% of its research-oriented master's degree students.

Cornell's Graduate School²⁶ offers research and professional degrees²⁷ in nearly 100 fields of study, with additional tracks in 18 minor, non-degree granting, fields. The Graduate Schools awards the following degrees: MS (Master of Science), MA (Master of Arts), MA/PhD or MS/PhD (joint Master's/Doctor of Philosophy), PhD (Doctor of Philosophy), and MFA (Master of Fine Arts). There has been a 16% increase overall in enrollment in Cornell's graduate programs over the past 10 years, with a 47% growth in professional master's degree programs.

²⁵ https://provost.cornell.edu/leadership/vp-academic-innovation/active-learning-initiative/

²⁶ https://gradschool.cornell.edu/

²⁷ https://test-graduate-school.pantheonsite.io/degrees-fields/graduate-degrees/

Cornell's unique system of cross-disciplinary and integrative graduate study is deliberately independent of traditional departments, colleges or campuses. Graduate students are admitted to fields of study. Each graduate field is composed of faculty members who share an intellectual interest, topic, or method; these often draw from multiple departments and some cross campuses and colleges. It is possible for a student in the field of economics, for example, to choose a special committee that includes faculty from industrial labor and economics, civil and environmental engineering, and sociology, along with economics and management. Within each field, graduate students may select major and minor subjects, which are research interests or concentrations.

Cornell's Graduate School has built an infrastructure to encourage the development of a diverse community, optimize professional development opportunities, prepare students for a multiplicity of career paths, foster skills for lifelong health and wellness, and help students to experience flexibility, freedom, and independence in their academic programs. Annually, the Graduate School holds over 300 programs, workshops, and events on topics ranging from overcoming imposter syndrome to writing effective fellowship applications. A weekly newsletter, recognition ceremonies, and other events showcase student success stories. We describe these programs more fully in chapter 4.

Graduate student funding and time to degree

Many Cornell graduate students receive National Science Foundation Graduate Research Fellowships, Fulbright Awards, and other prestigious fellowships, as well as research training grants and national training grants administered by faculty. Cornell's time-to-degree is one of the shortest in its peer group, and far shorter than the national average.

Summary

This chapter highlights many of the central university resources available to support colleges in the design and delivery of the learning experience for both undergraduate and graduate students. These include unified presentation of course offerings through courses of study, a single class roster of classes that are offered each semester, and the Central Syllabus Initiative. Many programs and resources rest within the Center for Teaching Innovation or the Center for the Integration of Research, Teaching and Learning. These centers (and other offices) offer specific programs such as the Intergroup Dialogue Program, the Gateway Course and Active Learning program, and on-line coursework to support teaching in diverse classrooms. All of Cornell's programs related to student learning experiences are designed to support the diverse set of curricula offered by the undergraduate colleges, the professional schools, and the fields of the graduate school. Extensive on-going mechanisms foster communication about the availability of these resources across campus.

Recommendation

We recommend that Cornell better utilize the assessment of college level student service practices to adopt, when possible, a best practice approach to student service programming. This will require building on the recent efforts of the Vice Provost of Undergraduate Education to strengthen cross-college collaborations, specifically by investing in the assessment of practices and interventions that lead to higher levels of student engagement, satisfaction, and success. Examination of whether these successes are transferable across units should be an important focus of future student services programming.

Support of the Student Experience

Consistent with Cornell's founding mission to serve "any person," the University is deeply committed to admitting and supporting students from a wide variety of backgrounds. This support includes a generous financial aid package for undergraduates, a rich campus residential environment, support for learning and academic achievement, extracurricular activities, and the institutionalization of practices that support student well-being. As a relatively large, decentralized institution with a substantial number of students living off campus, Cornell faces the ongoing challenge of building community and a sense of belonging among undergraduates and graduate/professional students. The past few years have seen an effort to strengthen and expand student services, in some cases to respond to specific events, in others to meet changing student demands or to address new cultural and social norms.

Admissions

Cornell continues its historic commitment to admitting and enrolling students from diverse backgrounds. From 2006 to the present, the number of undergraduate applicants increased from 28,098 to 51,324, with the admission rate dropping from 24.7% to 10.6% over the same period. In fall 2018, 3,325 first-year students enrolled. Of these, 53.9% were women, 13.7% were first-generation college students, and 26.6% identified themselves as underrepresented minorities (URM), that is, American Indian, Black (U.S), Hawaiian/Pacific Isle (U.S.) or a combination. Nearly half (47.8%) identified themselves as students of color, which includes URM, Asian (U.S.) and Multi Race non-URM (U.S.).

All of the campus admissions offices work to provide applicants with clear admissions requirements, to follow procedures that reflect the highest standards of professional ethics, and to make extensive support available in person or electronically to applicants across the globe.² Cornell is one of a small handful of schools that are:

¹ http://irp.dpb.cornell.edu/key-metrics

² Links to all of Cornell's colleges and schools—and in most cases, the relevant admissions offices—are available on a single page: http://www.cornell.edu/academics/colleges.cfm

- 1) need-blind in admissions
- 2) need-based only for financial aid (we award no merit-based scholarships without evidence of financial need), and
- 3) meet full demonstrated need (at least for US applicants).3

Cornell has agreed to abide by a set of Ivy League regulations that influence policies for early decision, early action, and regular decision admission timelines and practices as well as athletic recruitment practices, including need-based financial aid policies for athletes. These regulations are clearly posted online⁴ for students, parents, and counselors to review before or during the admissions process. The Undergraduate Admissions Office also adheres to the Code of Ethics and Professional Practices of the National Association of College Admissions Counseling (NACAC)⁵, an organization of more than 15,000 professionals dedicated to fostering ethical and social responsibility among those who help students to make choices about postsecondary education.

Degree-seeking undergraduates apply to one of Cornell's undergraduate colleges or schools, rather than to the University as a whole. They may apply as first-year early decision, regular decision, January admission, or transfers. The University and all of the colleges provide a range of resources to support applicants throughout the admissions process. Along with extensive online information, the University and all of the colleges circulate information and resources on social media, and all applicants have access to expert admissions representatives who can answer questions and provide guidance by email or phone.⁶ Cornell offers additional resources and trained staff for international students⁷ and US veterans⁸.

³ https://en.wikipedia.org/wiki/Need-blind admission

 $^{^4\,\}underline{\text{https://admissions.cornell.edu/apply/candidates-common-ivy-league-admission-procedure}$

⁵ To maintain high standards of integrity and practice among its membership and to better serve students, NACAC updates their Code of Ethics and Professional Practices annually. See the 2018 version here: https://www.nacacnet.org/globalassets/documents/advocacy-and-ethics/statement-of-principles-of-good-practice/nacacs-code-of-ethics--professional-practices.pdf

⁶ University contacts: https://admissions.cornell.edu/contact/contact-admissions-representative College/school contacts: https://admissions.cornell.edu/contact/college-and-school-contact-information

⁷ https://admissions.cornell.edu/apply/international-students

⁸ https://admissions.cornell.edu/learn/veterans-cornell

Cornell provides great transparency to prospective applicants: not only demographics but also financial aid information and standardized test score profiles for applicants, admits, and entering students. Applicants can find data about entering first-year cohorts⁹ and transfers¹⁰ on the undergraduate admissions website and through Institutional Research & Planning¹¹.

Transfer student admissions

In keeping with its land grant mission, Cornell is eager to create pathways to success at Cornell for students who transfer from community colleges, and attracts students who have been successful in both two-year and four-year colleges elsewhere. The university works closely with community colleges to prepare prospective transfers—often through articulation agreements. ¹² Cornell also offers a transfer option to selected first-year applicants who are not accepted in the first round but are offered admission to Cornell if they successfully complete specified courses elsewhere. Information for prospective transfer students is available on the central Cornell admissions website, ¹³ and on the admissions pages of individual colleges.

In Fall 2017 Cornell welcomed 644 transfer students, 106 of whom were from 2-year institutions, 223 from New York State, 73 from abroad, and 219 from underrepresented minority groups: African American, Asian American, Latino/a, or Native American.¹⁴

Each college at Cornell evaluates transfer credits on a case-by-case basis, and college policies vary. Most will accept 60 credits from semester-long courses at accredited not-for-profit institutions as long as the student has earned grades

https://www.human.cornell.edu/admissions/transfer/articulationagreements; https://cals.cornell.edu/education/admissions/undergraduate-admissions/transfer-applicants/transfer-agreements

⁹ First-year students: http://irp.dpb.cornell.edu/university-factbook/undergraduate-admissions

¹⁰ https://admissions.cornell.edu/transfers-cornell

¹¹ http://irp.dpb.cornell.edu/university-factbook/freshman-profile-archives

¹² These are listed on college websites. For example:

¹³ https://admissions.cornell.edu/transfer-students

¹⁴ A guide for Transfer Students (2018): https://admissions.cornell.edu/sites/admissions.cornell.edu/files/2018%20Transfer%20Guide%20FI NAL.pdf

equivalent to a C or higher. The College of Engineering will accept up to 72 transfer credits. In most cases, transfer credits will meet distribution requirements or electives, not classes required for the completion of a major.¹⁵

Graduate Admissions

Over the past 5 years, overall admission rates to Cornell's graduate programs have remained consistent at 15%, and a consistent yield rate of those applying of around 43% ¹⁶. Most applicants to graduate programs on the Ithaca campus apply directly to the Graduate School. Offering sixteen different degrees, the Graduate School is independent of departments and colleges, although it works closely with them. A single webpage identifies all of the degrees offered through the Graduate School, ¹⁷ while another helps applicants explore the fields that best fit their academic and professional goals. The website supports those preparing applications, listing required materials, and shows prospective students how to apply using the CollegeNet ApplyWeb online system. Applicants can then check the status of their application throughout the process. ¹⁸ Additional links allow applicants to gain ready access to the information they need, with special guidance for international applicants.

Since 2012, the Graduate School has promoted transparency in the admissions process by releasing graduate field metrics, including numbers of applications and yield, enrollment, attrition and completion, median time to degree, and PhD career outcomes.¹⁹ Postdoctoral data has recently been added as well. Taken together, these metrics provide prospective students with a wealth of information before they apply to support informed decision-making.

¹⁵ A guide for Transfer Students (2018): <u>https://admissions.cornell.edu/sites/admissions.cornell.edu/files/2018%20Transfer%20Guide%20FINAL.pdf</u>

¹6https://tableau.cornell.edu/views/CornellUniversityGraduateSchoolDoctoralProgramStatistics/TheOneDashboard?iframeSizedToWindow=true&:embed=y&:showAppBanner=false&:display_count=now:showVizHome=no

¹⁷ https://gradschool.cornell.edu/degrees-fields/graduate-degrees/

¹⁸ https://gradschool.cornell.edu/admissions/

¹⁹ https://gradschool.cornell.edu/degrees-fields/program-metrics-assessments-and-outcomes/facts-figures/

Not all graduate programs conduct admissions through the Graduate School. The College of Veterinary Medicine, the Law School, Samuel Curtis Johnson Graduate School of Management, Cornell Tech, and the medical schools in NYC and Doha administer their own admissions processes. Each maintains a robust website and outreach for recruitment.

Financial Aid

As noted above, Cornell is committed to meeting full-financial need. That is, every student who is admitted can afford to attend Cornell.

The estimated cost of attendance for Cornell undergraduate²⁰ and graduate²¹ students for the current academic school year is publicly available on Cornell's Office of Financial Aid and Student Employment website²². The cost of attendance includes estimated tuition and fees for the different colleges; housing, dining, and health related expenses; and books, supplies and miscellaneous expenses. The website makes clear that the tuition at the contract colleges is different for New York State residents and those who come from outside of New York State.

Comprehensive information about Cornell's financial aid policies, application procedures, types of aid, and special circumstances appear on the financial aid website.²³ The University also regularly communicates about financial aid to prospective and enrolled students using the following methods:

- Electronic messages to all undergraduate prospective students about financial aid whether or not they have indicated that they will be applying for financial aid;
- A portal for enrolled students, called Student Essentials;²⁴
- Annual electronic notices and reminders;
- Walk-in hours and appointments, and responses to questions by telephone and email;

²⁰ https://finaid.cornell.edu/cost-attend

²¹ https://finaid.cornell.edu/apply-aid/graduate-students

²² see also Cornell Tech: https://tech.cornell.edu/admissions/tuition-fees/

²³ https://finaid.cornell.edu/

²⁴ https://www.studentessentials.cornell.edu/

- Video tutorials;²⁵ and
- Online "Case Studies" ²⁶ that illustrate financial aid options for different family income levels and circumstances.

The Office of Financial Aid and Student Employment recently hired a digital communication and social media expert to maximize communication channels.

Graduate and Professional School Financial Aid

Through Assistantships (associated teaching and/or research requirements) or Fellowships (without associated teaching or research responsibilities), the Graduate School supports 97% of on-campus students in research PhD programs through funding packages that include tuition, fees, health insurance, and a living allowance or stipend. Research master's programs provide limited financial assistance which varies greatly by program. Cornell's professional schools—the Law School,²⁷ the SC Johnson Graduate School of Management,²⁸ the College of Veterinary Medicine,²⁹ and the Weill Cornell Graduate School of Medical Sciences³⁰—maintain their own financial aid offices and websites. The Office of Financial Aid and Student Employment maintains a dotted-line reporting relationship with the professional schools for the purposes of compliance and support for Title IV Financial Aid programs.

New Financial Aid Initiatives

Over the past 20 years, Cornell has tripled its annual spending on grant aid. As a result, for most undergraduate students receiving financial aid, Cornell is more affordable today than it was in 1997.³¹ To keep financial aid levels appropriate, the University periodically examines its financial aid policies to measure the

²⁵ <u>https://finaid.cornell.edu/videos</u>

²⁶ https://finaid.cornell.edu/types-aid/in-state-family

²⁷ https://www.lawschool.cornell.edu/admissions/tuition/financial_faq.cfm

²⁸ https://www.johnson.cornell.edu/Programs/Full-Time-MBA/Admissions/Financial-Planning

²⁹ https://www.vet.cornell.edu/education/doctor-veterinary-medicine/financing-your-veterinary-education

³⁰ https://studentservices.weill.cornell.edu/financial-aid

³¹ https://finaid.cornell.edu/cost-attend/cornell%E2%80%99s-commitment-access-and-affordability

success of its policies, to develop new initiatives, and to further refine existing policies.

Since 2008, the University has introduced a number of new financial aid initiatives. ³² For example, the Admissions and Financial Aid Working Group (AFAWG), comprised of faculty, students, and administrators, implemented Need-Aware admissions for international students in 2016, and in 2017, began including undergraduates with DACA status in undergraduate admissions and financial aid policies for U.S. citizens and permanent residents. ³³ Recently, Cornell has introduced a policy for undergraduates who have been long-term Green Card applicants but have not yet achieved Legal Permanent Resident status: they will now be eligible for need-blind admissions and need-based financial aid like U.S. citizens and permanent residents. These changes are intended to allow the university to meet the financial need of every admitted undergraduate and to recognize the unique status of DACA students.

For some families, Cornell has altogether eliminated parents' contributions and loans. AFAWG recommended a change to annual loan levels, with the following criteria implemented for undergraduates enrolling in fall 2018:

- Family income less than \$60,000: no loans
- Family income \$60,001-\$85,000: annual loan cap of \$2,500
- Family income \$85,001-\$135,000: annual loan cap of \$5,000
- Family income above \$135,000: annual loan cap of \$7,500

The average loan amount for all undergraduates at Cornell University is \$5,345 per year, not including private loans. The loan default rate is less than 1%, well below the national average.³⁴ Information regarding loans and loan repayment terms³⁵ are available online through the Office of the Bursar. The Bursar also maintains a comprehensive website to assist students who are entitled to refunds from awards, grants, or scholarships.³⁶

³² https://finaid.cornell.edu/cost-attend/financial-aid-initiatives

³³ http://news.cornell.edu/stories/2017/02/report-progress-admissions-financial-aid-policy-options

³⁴ https://www.collegefactual.com/colleges/cornell-university/paying-for-college/student-loan-debt/#secFreshman

³⁵ https://www.dfa.cornell.edu/bursar/former-students/loan-repayment

³⁶ https://www.dfa.cornell.edu/bursar/students-parents/deposit-refunds

Important New York State initiatives have contributed to making a Cornell education affordable. Beginning in Fall 2017, Cornell began participating in the New York State Excelsior³⁷ and New York State Enhanced Tuition Awards³⁸ programs, which help make college more affordable for state residents.

Academic Support for Incoming Students

All students are admitted to Cornell with the conviction that they can succeed, and we offer a number of support programs to ensure that success. Two programs were founded in 1968-9 to help provide academic support and financial assistance for any New York State undergraduate student who meets academic standards and whose household income falls significantly below the poverty level: the Education Opportunity Program (EOP) for the contract colleges and the Higher Education Opportunity Program (HEOP) for the endowed colleges.

Once admitted to Cornell, EOP and HEOP students, along with other first-years identified by college admissions, participate in the Prefreshman Summer Program (PSP). PSP offers academic preparation, an opportunity to get to know the Cornell campus, and the chance to develop a community prior to matriculation in the fall semester. The student's college determines a course schedule for each student, enrolling participants in regular summer-session courses and enrichment courses in areas such as writing, chemistry, or mathematics. Some take a college-achievement seminar. HEOP and EOP participants meet with advisors every other week in their first year, once a month as sophomores, and twice a semester in their junior and senior years. Advisors provide academic, personal, and financial guidance, and assist with post-graduation planning.

Cornell also offers a Veterans Summer Bridge Program,⁴⁰ designed to encourage and support those who have served in the military as they pursue a world-class education at Cornell. The Bridge Program enables veterans to engage in a

³⁷ https://www.hesc.ny.gov/pay-for-college/financial-aid/types-of-financial-aid/nys-grants-scholarships-awards/the-excelsior-scholarship.html

³⁸ https://www.hesc.ny.gov/pay-for-college/financial-aid/types-of-financial-aid/nys-grants-scholarships-awards/enhanced-tuition-awards.html

³⁹ https://www.sce.cornell.edu/ss/courses/on/psp.php

⁴⁰ https://admissions.cornell.edu/veterans-summer-bridge-program

focused summer program prior to their first fall semester: it includes two summer courses, determined in collaboration with their college advisor, social and community-building experiences, an orientation to life at Cornell and Ithaca, and an introduction to support services and offices. Cornell recently staffed a full-time Veteran Advisor position that serves as the primary point of contact for veteran students, providing advice, advocacy, programming, referral, and access to information and campus resources.

Orientation

Once students arrive on campus, Cornell seeks to provide welcoming and informative programs to orient new undergraduate, graduate, and professional students. Some students are required or invited to attend the Pre-freshman Summer Program, mentioned above. Undergraduates who do not participate in PSP are expected to attend the New Student Programs orientation. During these days, a range of programs help students and family members get to know Cornell.⁴¹

Graduate and professional students have an orientation of their own where they learn about Cornell's interdisciplinary community,⁴² rather than about specific programs of study, which often host their own orientations. Cornell Tech has a required orientation program for all incoming Masters students that includes a team building exercise.⁴³

Advising

Each college has its own distinctive advising system. ILR relies primarily on professional staff as advisors⁴⁴, while in AAP and CALS⁴⁵, where students are accepted directly into a major, faculty act as the primary academic advisors. Some colleges blend faculty and staff advising. For example, CALS students who enter without a declared major have access to staff, faculty and peer advisers.⁴⁶

⁴¹ https://ccengagement.cornell.edu/new-student-programs/orientation/august-orientation

⁴² https://gradschool.cornell.edu/admissions/admitted-students/

⁴³ https://www2.eventsxd.com/event/6386/cornelltech2018mastersorientation/sessions

⁴⁴ https://www.ilr.cornell.edu/student-experience/office-student-services

⁴⁵ https://cals.cornell.edu/academics/advising/academic/

⁴⁶ http://as.cornell.edu/academics/advising/index.cfm

The Hotel School offers faculty advising and both academic and career advising through the Office of Student Services.⁴⁷ Cornell Tech makes degree requirements available online,⁴⁸ and relies on Program Directors to advise students about program requirements and professional goals.⁴⁹

At Weill Cornell, a Longitudinal Career Advising Program provides continuous advising from the start through the completion of the degree. Early Career Advisors meet with first- and second-year students, offering milestone-specific support to students as they develop their professional, academic and career identities as physicians-in-training. Specialty-Specific Career Advisors meet with students in Years 3 and 4, providing expertise and guidance in the choice of medical specialty, the residency program application, and the selection process.⁵⁰

The Arts & Sciences faculty recently voted to implement a Pre-Major First Semester Advising Seminar for all incoming students except those advised by the Office of Undergraduate Biology. The first time the entire class enrolled was fall of 2019, following a successful two-year pilot that involved 650 students and 62 faculty from 23 departments, spanning the humanities, social sciences and natural sciences.

Since students can major in biology through either CALS or A&S, the Biology Advising Center (BAC), part of the Office of Undergraduate Biology, advises undergraduates across colleges. BAC staff guide them from their initial application to the classes they take for the major to planning for postgraduate study.

Survey data suggest that student satisfaction with undergraduate advising leaves room for improvement, especially in pre-major advising. Data from the 2017 Cornell survey of Perceptions of Undergraduate Life and Student Experiences, or PULSE, found that 72.8% of respondents were either "very satisfied" or "generally satisfied" with academic advising⁵¹. The 2018 Senior Survey found that 70.5% of respondents were either "very satisfied" or "generally satisfied"

⁴⁷ https://sha.cornell.edu/admissions-programs/undergraduate/academics/advising/

⁴⁸ http://studentservices.tech.cornell.edu/academic-information/curriculum/

⁴⁹ http://studentservices.tech.cornell.edu/academic-information/faculty-advising/

⁵⁰https://medicaleducation.weill.cornell.edu/sites/default/files/student_handbook_current.pdf. see pp. 72-73 for the Longitudinal Career Advising Program (LCAP)

⁵¹ http://irptesting2.wpengine.com/wp-content/uploads/2018/02/2017-Cornell-PULSE-tables-1.pdf

with academic advising,⁵² although there was quite a bit of variation by college and demographic group. According to the 2017 PULSE survey, two thirds of Cornell undergraduates had not sought the assistance of tutoring services, but this varied widely by class, college, and demographics. These percentages are on par with peer institutions.⁵³

In order to provide students, faculty, and staff with accurate and up-to-date information about courses, requirements, and students' progress toward their degrees, CALS and A&S introduced the Distributed Undergraduate Student Tracking (DUST). With additional enhancement of Degree Audit function within PeopleSoft, these technologies address the "bean counting" aspects of advising to create space for more substantive intellectual and individual engagement that typifies the successful advising relationship

In a similar spirit, the Cornell Student Experience Initiative (CSEI), launched in 2017, has aimed to streamline and coordinate student services business practices to better serve students and to improve students' access to information about the wealth of academic and co-curricular opportunities available to them. At the core is a university-wide implementation of Salesforce, a customer relationship management (CRM) tool that was already established in several colleges.

The focus of the CSEI is to develop digital applications that support students on their academic and professional journeys by enabling all graduate, professional, and undergraduate students to discover Cornell resources and opportunities more easily. This platform has also helped Cornell staff more effectively support, advise, and mentor students. The aspiration behind the CSEI has been to create a seamless student experience using customizable and scalable technology.

CSEI is a provost-funded project and involves in-depth collaboration across the Office of the Provost, the colleges and schools, and the Division of Student and Campus Life, and Cornell Information Technologies. A steering committee and working group have been convened to represent the interests of the university as a whole and individual colleges, schools, and programs. In addition to many improvements to supporting students at the college level, a significant outcome

⁵² http://irptesting2.wpengine.com/wp-content/uploads/2018/08/2018-Senior-Survey-tables-for-web-1.pdf

⁵³ For example, please see the 2015 PULSE survey: http://irptesting2.wpengine.com/wp-content/uploads/2018/02/2015-Cornell-PULSE-tables.pdf

from the CSEI is Experience Cornell,⁵⁴ a website that brings together opportunities for research, engagement in and off campus for undergraduate, graduate, and professional students.

University offers three centralized resources for undergraduate and graduate students:

1. Learning Strategies Center (LSC)

The LSC⁵⁵ is the central academic support unit for undergraduates at Cornell University, with a focus on supporting students in large introductory courses. LSC tutoring is offered in more than 30 introductory courses, with about over 3200 unique students utilizing any of the supports offered by the LSC in 2017-18. It also offers 16 different supplemental and stand-alone prep courses taught by content experts, many with terminal degrees in their fields. In 2017-2018, 980 students regularly used the LSC supplemental courses (attending more than 50% of the classes in the courses), and an additional 1300 students were casual users of these courses. To support students as they transition to Cornell, the LSC also offers workshops and courses on study skills and strategies that foster academic success.

2. Knight Writing Institute

The Knight Writing Institute⁵⁶ offers writing workshops across campus. It also hosts drop-in hours, where a trained tutor will with work with an individual student on a paper or writing problem, providing feedback and suggestions for improvement. We describe Knight programming in more detail in chapter 5.

3. Library

The Cornell University Library⁵⁷ offers a substantial collection of books and journals, information literacy workshops, research support, study space, computer and other technology loaner programs, and a disabilities services

⁵⁴ https://experience.cornell.edu

⁵⁵ http://lsc.cornell.edu/

⁵⁶ https://knight.as.cornell.edu/wc

⁵⁷ https://www.library.cornell.edu/

liaison.⁵⁸ The new Cornell University Library strategic plan⁵⁹ identifies two of its key pillars as diversity/inclusion and the student experience. The Library is currently addressing the problem of student access to expensive textbooks and has recently started a program to allow students to ask the Library to purchase copies of textbooks that are not readily available on reserve.⁶⁰

In addition, each college and school has an office dedicated to providing support for diverse populations.

Graduate Programs

All graduate and professional schools at Cornell offer academic programming to prepare and support admitted graduate students for their work here. Initiatives include preparatory help, including courses and workshops to improve English language proficiency. Preparatory course work may also be assigned or offered to students with low test scores. In some graduate fields, such as Chemistry, proficiency tests are required of all entering PhD students a few days prior to fall term registration. Graduate students who are working on their English language skills are encouraged to take courses and workshops offered by the English language Support Office in the John S. Knight Center for Writing in the Disciplines. Due to the short duration and structured nature of most professional master's curricula (two to three semesters), students are expected to be fully prepared at the time of matriculation.

The Graduate School also offers an array of programs to promote social connectivity, health and wellness, and graduate student community. In 2016 the Council of Graduate Schools and the Educational Testing Service presented Cornell University with the ETS/CGS Award for Innovation in Promoting Success in Graduate Education: From Admission through Completion. The award recognizes promising, innovative proposals to enhance student success and degree completion at the master's or doctoral levels while promoting inclusion. Surveys of current graduate students and alumni/ae indicate that 90% rate their overall Cornell experience as good or excellent, and 95% of doctoral

⁵⁸ https://www.library.cornell.edu/services/disability

⁵⁹ https://www.library.cornell.edu/about/inside/strategic-priorities

⁶⁰ https://www.library.cornell.edu/about/news/archive/new-program-lets-students-request-textbooks-reserve

alumni/ae report working in a field closely related to their PhD.⁶¹ Among the successful programs the Graduate School offers to support students are:

- Careers Beyond Academia, a key program that has recently expanded to help all doctoral students and postdocs to explore professional opportunities outside of academia through flexible, experiential, and empowering opportunities. ⁶² In total, it has served 3301 unique participants in 6923 meetings and events since the start of the program in 2013. Currently 44% of participants come from the life sciences, 41% from the physical sciences, and 15% from the social sciences and humanities. PhD and postdoc participants who have participated in the program have reported heightened confidence in their career decisions, improved skills for career success, connections with professionals, increased awareness of career options, and better preparation for their chosen career pathways.
- Pathways to Success (P2S) is the Graduate School's framework for helping graduate and professional students and postdoctoral scholars to succeed in academic careers. It offers a variety of symposia, workshops, and events to help students navigate academia, build skills, and create plans. ⁶³
- The Summer Success Symposium,⁶⁴ a one-day event for new and continuing MS/PhD and PhD students from across all graduate fields who identify as belonging to groups historically underrepresented in graduate education. The symposium offers participants the opportunity to form connections and establish community.
- NextGen Professors,⁶⁵ a career-development program focused on preparing Cornell doctoral students and postdocs for faculty careers across different types of institution. The primary audience for this program are doctoral students in the third year or beyond and postdocs from backgrounds historically underrepresented in the professoriate, and those with a demonstrated commitment to advancing diversity, inclusion, access and

 $^{^{61}}$ For survey results, go to $\underline{\text{https://gradschool.cornell.edu/wp-content/uploads/2018/07/Doctoral-Experience-Survey-Report-March-2018_0.pdf}$.

⁶² https://gradcareers.cornell.edu/about/

⁶³ https://gradschool.cornell.edu/academic-progress/pathways-to-success/

⁶⁴ https://gradschool.cornell.edu/diversity-inclusion/signature-initiatives/summer-success-symposium/

⁶⁵ https://gradschool.cornell.edu/diversity-inclusion/signature-initiatives/nextgen-professorsprogram/

- equity in the academy. Participants are members of a cohort who together engage in series of professional and career development activities including monthly cohort meetings, Power Mentoring Sessions with faculty, and the Future Professors Institute.⁶⁶
- Dean's Scholars, ⁶⁷ a prestigious fellowship intended to develop a diverse community of scholars who establish and maintain connections across all graduate fields. Dean's Scholars are invited to participate in a variety of professional and community development events sponsored or cosponsored by the Office of Inclusion & Student Engagement.

Mentoring for Underrepresented Undergraduates

This report has described a number of Cornell's programs to foster diversity and inclusion, including a history of diversity at Cornell in chapter 1, a list of initiatives to build a culture of respect across our campuses in chapter 2, and academic programming and support for underrepresented graduate and professional students in chapter 3. Here we turn to programs designed to support underrepresented minority, low-income, and first-generation undergraduates who are interested in academic and professional careers. There are a wide range of programs designed to address the opportunity gap and create a facilitate a sense of belonging among students who come from backgrounds that are under-represented in higher education. Many of these are overseen by the Office of Academic Diversity Initiatives⁶⁸ (OADI), which reports to the Vice Provost for Undergraduate Education; others are housed in specific colleges or managed by other units. Examples include:

- The McNair Scholars Program⁶⁹ selects students from first-generation, low income, and underrepresented groups who demonstrate strong academic potential and are suitable for doctoral study and engages them in research and other scholarly activities to prepare them for an academic career path.
- The OADI Research Scholars Program⁷⁰ (ORSP) provides underrepresented students in their first and sophomore years with research-oriented academic

⁶⁶ https://gradschool.cornell.edu/diversity-inclusion/signature-initiatives/future-professors-institute/

⁶⁷ https://gradschool.cornell.edu/diversity-inclusion/signature-initiatives/graduate-school-deansscholars/

⁶⁸ http://oadi.cornell.edu/

⁶⁹ https://oadi.cornell.edu/programs/student-success-programs/mcnair.html

⁷⁰ https://oadi.cornell.edu/programs/student-success-programs/oadi-research-scholars.html

- preparation in the interpretive social sciences, arts, and humanities through coursework, mentoring, and events.
- Two Pre-Professional Programs,⁷¹ the Collegiate Science and Technology Entry Program (CSTEP) and Cornell Professional Opportunity Program (CPOP), recruit and prepare underrepresented and/or economically disadvantaged students for work in Science, Technology, Engineering, and Math (STEM) and professional fields.
- The Biology Scholars Program (BSP), run by the Office of Undergraduate Biology, is designed to support academic excellence, career preparation and personal growth for students from historically underrepresented and disadvantaged backgrounds who identify the biological sciences as their major of interest. The Program is organized around cohorts of approximately 35 students per year.
- The Mellon-Mays Undergraduate Fellowships, in the College of Arts and Sciences, encourage and prepare Native Americans, Latinos/as, African Americans, and other U.S. citizens and permanent residents to pursue doctoral degrees in the humanities and social sciences.
- The Leadership Alliance, which is overseen by the Vice Provost of Academic Innovation, is a consortium of over 30 institutions. It offers summer research opportunities to underrepresented students in all disciplines, and hosts programs both in Ithaca and in New York City. Eleven of the 88 students who have spent a summer here have returned to matriculate in a Cornell graduate program.
- In the College of Engineering, the Diversity Programs in Engineering, DPE, offers undergraduate research opportunities for engineers as well as for those in STEM fields. During the summer, students can participate in the Louis Stokes Alliance for Minority Participation Research Experience for Undergraduates (LSAMP REU). Cornell also has a unique summer program, the Engineering Summer Math Institute (ESMI), that offers select Cornell Engineers, who are enrolled in a summer session math course, a research opportunity.

Over the past six years, 3000 students visited OADI, using resources over 50,000 times. In the 2018-19 academic year, there are 300 EOP/HEOP students, 45 students in the McNair Scholars Program, 104 CSTEP students and 107 CPOP students.

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⁷¹ https://oadi.cornell.edu/programs/student-success-programs/pre-professional-programs.html

Disabilities, Mental Health, and Wellbeing

In additional to academic advising, Cornell also offers support for students with disabilities and programs to promote mental health and wellbeing across its many units. Cornell's office of Student Disability Services⁷² is committed to providing reasonable accommodations and has well-established procedures to ensure that students with disabilities have the same exceptional opportunities as their peers. The University has established a campus wide Disability Access Management Strategic Plan⁷³, which is regularly updated and outlines key strategic areas for continued progress, consciousness-raising, and compliance.⁷⁴ The plan includes educational programs, awareness campaigns, emergency preparedness, information and web accessibility, and physical access. Each college and unit is encouraged to include disability access in their initiatives. Cornell continuously strives to make information about access easily available and to identify resources for disability access in courses, programs, workshops, services, meetings, and events.⁷⁵

Addressing student mental health adequately continues to be a challenge at Cornell. According to the 2017 PULSE survey, over 70% of undergraduates felt overwhelmed by everything they had to do "often" or "very often," with four-in-ten Cornell undergraduates reporting that they were unable to function academically for at least a week in the past year due to depression, stress, or anxiety. During the past ten years, the university has expanded its support network and developed multiple strategies for informing faculty, staff, students, and parents about signs of distress and campus resources. According to the 2017 PULSE survey, 56% of all undergraduates characterize the climate at Cornell for students with disabilities or chronic mental health or medical conditions as either "very" or "moderately" respectful. 8

⁷² https://sds.cornell.edu

⁷³ https://accessibility.cornell.edu/strategic-plan/

⁷⁴ https://sds.cornell.edu

⁷⁵ https://sds.cornell.edu

⁷⁶ http://irptesting2.wpengine.com/wp-content/uploads/2018/02/2017-Cornell-PULSE-tables-1.pdf

⁷⁷ "A Comprehensive Framework for Student Mental Health" Kent Bullis, Gregory Eells, Timothy Marchell, February 6, 2018 [See evidence on MSCHE portal.]

⁷⁸ http://irptesting2.wpengine.com/wp-content/uploads/2018/02/2017-Cornell-PULSE-tables-1.pdf

The administration of a comprehensive and integrated public health approach to identifying and supporting students who experience academic or personal difficulties depends on three units: the Campus Health executive committee, including senior administrators who provide oversight of health policy and strategies, the Coalition on Mental Health, which consists of faculty, staff, and students who offer feedback on university mental health strategies, and the Coalition on Sexual Violence Prevention, made up of staff, faculty, and students who examine the campus environment, policies on prevention, and procedures and services related to sexual and interpersonal violence. Sample initiatives include:

- The Caring Community website, which supports health and well-being across Cornell.⁷⁹
- Counseling & Psychological Services (CAPS), where professional counseling and psychiatry staff provide on-campus services for students, including individual and group counseling, same day triage and emergency care, and referral to community providers for off-campus and specialty care.
- The "Let's Talk" program, which provides walk-in consultations with Cornell Health counselors at ten campus locations. This program broadens access to services, particularly for students unlikely to come in for traditional counseling, and has increased services to students of color and international students, groups that report disproportionately high levels of emotional distress.
- EARS (Empathy, Assistance, and Referral Services), which trains student volunteers to provide anonymous telephone and walk-in peer counseling for undergraduates. Volunteers undergo a three-semester training program and a rigorous selection process.
- "Thrive (Don't Just Survive)," a program designed to assist graduate students in handling the multiple demands placed on them.
- The Office of the Title IX Coordinator, 80 which provides in-person trainings to students, staff and faculty around issues of sexual misconduct.
- Coordinated crisis management, including:
 - Cornell Health phone consultations, 24/7 access to a health care provider;

⁷⁹ http://caringcommunity.cornell.edu/

⁸⁰ https://titleix.cornell.edu

- 24/7 emergency response from Cornell University Police and local law enforcement agencies;
- Crisis Managers, staff members on-call at all times to coordinate the university's response to crisis situations and serve as liaisons with the colleges;
- Community Support Team, staff who provide support for individuals and groups in the aftermath of tragedies or other crises;
- Local Crisisline, which offers 24/7 support to the Ithaca community through the Suicide Prevention and Crisis Services: 800-273-TALK;
- Cayuga Medical Center, which provides inpatient mental health care for individuals in crisis.

Despite considerable attention to student mental health over the last decade, the community remains concerned about suicide. Cornell has not only increased access to mental health counseling but has also constructed permanent suicide barriers along seven of the campus bridges, secured laboratory chemicals and equipment, and restricted firearms on campus. Cornell also participates in the "Triple Aim" program, designed to improve the experience of students who return from a medical leave of absence so that they feel supported and can succeed through graduation.

Support for Medical and Veterinary Students

The Vet College has a Wellbeing Director that serves veterinary students, interns and residents through proactive programming, education, and evidence-based initiatives. Weill Cornell Medicine has developed the Well at Weill program⁸¹ for all students. It aims to mold the best future providers and scientists, not only by training them to become leaders in their field but also by developing the compassion, care, and dedication that are crucial to the practice of medicine. The program teaches self-care and wellness as skills that will carry students through their studies and into their professional lives. The program is also intended to support feelings of community, belonging, and inclusion at Weill, and to build resilience and well-being.⁸²

⁸¹ https://studentservices.weill.cornell.edu/student-life/well-weill

⁸² https://gradschool.weill.cornell.edu/student-experience/accessing-student-support-services.

Weill Cornell uses a "case management" approach for students experiencing mental health difficulties. The Student Mental Health Program ensures that students receive appropriate assistance and access to a full range of resources, including access to counselors, formal psychiatric care, and faith-based counseling.

To promote diversity, the Office of Student Diversity at Weill⁸³ coordinates many of the college's long-running pipeline programs (Travelers, ACCESS, Gateways), community building events (coffee hours and mixers), faculty speakers, seminars, and outreach events. In 2019, the Office of Student Diversity became home to the new Weill Cornell Initiative to Maximize Student Development (IMSD), a coveted NIH/NIGMS-funded program that will help to increase the number of PhD students from underrepresented backgrounds and enhance their success. Other new initiatives include the Healthcare Disparity Research Awards, which provide funding to investigators whose work seeks to improve the health of women and underrepresented minorities and to achieve health equity locally and globally. The Dean's Diversity Scholarships award full-tuition scholarships annually to two medical students from groups underrepresented in medicine with demonstrated financial need.

Extracurriculars

In addition to academic support, Cornell has approximately 1000 registered student organizations, ⁸⁴ from athletic teams to a capella groups to academic societies. The Campus Activities Office coordinates student organizations, ⁸⁵ which must adhere to the standards spelled out in the Student Organization Handbook to remain in good standing on campus. ¹¹

Athletics

The University is committed to the academic success and graduation of all students participating in athletics, and provides education support services for athletes. 86 The Student-Athlete Handbook 87 lays out student athletes' rights and

⁸³ https://diversity.weill.cornell.edu/student-diversity

⁸⁴ http://orgsync.rso.cornell.edu

⁸⁵ https://ccengagement.cornell.edu/campus-activities

⁸⁶ https://cornellbigred.com/sports/2007/7/11/SAServices.aspx

⁸⁷ https://cornellbigred.com/sports/2018/3/22/student-athlete-handbook.aspx

responsibilities as well as information on Athletic Department responsibilities and resources on advising, nutrition, and sports medicine.

Greek Life

More than 4,500 students—nearly one-third of Cornell's undergraduate population—belong to one of 63 Greek chapters on campus.88 They are governed by the Interfraternity Council, 89 Panhellenic Association 90, the Office of Sorority and Fraternity Life, and the Multicultural Greek and Fraternal Council, which is comprised of sororities and fraternities that identify as historically Black, Latinx, African-Social Justice, and Asian Interest. 91 In recent years, fraternities at Cornell have seen a number of troubling incidents. In 2017, Psi Upsilon's alumni board closed the fraternity indefinitely following a racially charged attack by one of its members. In 2018, hazing incidents prompted the University revoke the recognition of the Kappa Alpha Psi and Sigma Nu Fraternities for at least two years. At the end of 2019, President Pollack announced a set of reforms to be phased in through 2021, 22 including the removal of hard alcohol from all residential chapter houses, a required full time, live-in adviser in all residential houses, and an online scorecard that will be updated annually with a chapter's judicial proceedings⁹³. Cornell also instituted a formal policy for reporting hazing on campus. 94 Other changes include a comprehensive review of event management guidelines and an assessment of the Chapter Review Board process that governs recognition for fraternities and sororities. An additional incident in Fall 2019 led to the University administration taking further measures, including independent monitoring for off-campus Greek events and a ban on all substances at recruitment events.

⁸⁸ https://cornellsun.com/2018/05/04/online-scorecard-no-hard-alcohol-among-greek-life-reforms-introduced-by-pollack/

⁸⁹ https://www.cornellifc.org/

⁹⁰ https://www.cornellphc.com/

⁹¹ https://ccengagement.cornell.edu/sorority-fraternity-life

⁹² https://statements.cornell.edu/2018/20180504-greek-letter-org-reforms.cfm"https://statements.cornell.edu/2018/20180504-greek-letter-org-reforms.cfm

⁹³ https://hazing.cornell.edu/violations

⁹⁴ https://hazing.cornell.edu/reporting

Graduation Rates

The breadth and depth of student support at Cornell has contributed to relatively consistent graduation rates over the last 20 years, with over 90% of first-time first-year undergraduates at Cornell completing their degree in 6 years or less. These rates vary by gender, race and college. Year to year retention rates have been consistently over 90%; three years after matriculation, over 95% of the class of 2015 undergraduates were still enrolled 95.

Each college has a web-based system on Student Center in PeopleSoft that allows all students to track their progress toward graduation in real time. Every College is responsible for monitoring their students' progress toward graduation. Websites with Courses of Study requirements for all undergraduate colleges include the application to graduate. All colleges also have procedures in place for students not making adequate progress toward graduation. If students do not meet a requirement by the designated time, they may come up for academic review at the end of a semester. Depending on the situation, they may be nominated to receive a Learning Strategies Center Scholarship to fund intersession courses on campus, be put on Warning or Final Warning status, or they may be asked to take a Leave of Absence if the situation is severe enough. In critical circumstances a student may be permanently withdrawn from the college.

Ongoing Assessment of Student Support

Individual colleges and units gauge student engagement and interaction with University services, and centrally, the Institutional Research and Planning office provides official and accurate information about campus planning, decision-making,

⁹⁵ http://irp.dpb.cornell.edu/university-factbook/graduation-and-degrees-conferred

[%] Some examples include: from Art, Architecture and Planning

 $[\]label{lem:courses} $$ \frac{\text{(http://courses.cornell.edu/preview_program.php?catoid=33\&poid=16018\#undergraduatestudyinurbanandregionalstudies)} ($$$

<u>http://courses.cornell.edu/preview_program.php?catoid=33&poid=15977#bfadegreerequirements</u>) College of Human Ecology (

https://www.human.cornell.edu/academics/policies/degreeprogress/home); Engineering (http://courses.cornell.edu/content.php?catoid=33&navoid=8409)

⁹⁷ http://courses.cornell.edu/content.php?catoid=33&navoid=8392

and reporting obligations. 98 It shares this data through summary reports and interactive dashboards. Cornell also uses the following assessment tools:

- The Cornell PULSE Survey (Perceptions of Undergraduate Life and Student Experiences) asks current undergraduates about their involvement in academic and extracurricular activities, their interactions with faculty and fellow students, and their overall perceptions of their undergraduate experience.
- A Senior Survey has been administered to seniors every other spring since 2010, asking them about their educational and employment plans, involvement in campus activities, satisfaction with the undergraduate experience, and gains in knowledge and abilities.⁹⁹
- A Doctoral Experience Survey, administered by the Graduate School on a biennial basis, surveys all doctoral students enrolled in the Graduate School for two years or more on issues such as teaching opportunities, experience with advising, professional development, available resources, and campus climate¹⁰⁰.
- OADI works with Institutional Research and Planning to monitor campus
 progress on diversity. It reports regularly to the Provost, college deans, and
 University Diversity Council. Periodically, it evaluates outcomes, such as grades
 and graduation rates, and uses survey data to examine the perceptions of
 program participants as compared to other students. Sometimes completed as
 part of a larger program review, these assessments have been quite
 comprehensive, but the program of reporting and analysis has been inconsistent.
- Cornell's approach to mental health has been subject to rigorous review, including an external consultation with Yale, Columbia, and the University of Rochester in 2010, and reviews by the University Audit Office in 2014, the Association for Ambulatory Health Care (AAAHC) re-accreditation in 2012, 2015, and 2018, the Active Minds Award in 2015, and the Jed Foundation in 2017. Cornell initiated another review of its mental health services during fall 2019. The proposed process came under extensive scrutiny which resulted in a robust and inclusive review over the course of nearly an entire academic year. The final report was issued in May and an operational plan for implementation is being developed to begin this coming academic year.

⁹⁸ http://irp.dpb.cornell.edu

⁹⁹ Cornell has administered the survey to the Classes of 1994, 1998, 2002, 2006, 2010, 2012, 2014, 2016 and 2018.

¹⁰⁰ https://gradschool.cornell.edu/about/survey-results/doctoral-experience-survey/

- Cornell's crisis management operation is evaluated on an ongoing basis. The
 team looks at a range of metrics, including the number of crises, number of
 managers, the severity of crises, and chronological patterns of incidents. This
 information informs training for crisis managers, staffing models, the timing of
 on-call shifts, and the system of back-up crisis management.
- Athletics administers post-season surveys to all varsity athletes annually. The Director of Athletics and select staff review results. Cornell fitness centers and intramural sports¹⁰¹ participate in a 10-institution Employability Research Study, which asks students to evaluate the career skills they have developed in their time as collegiate recreation employees and the importance of those skills to post-graduation employment. Physical Education students complete satisfaction surveys following the end of their courses.
- The Cornell Hazing Website introduced a social norms campaign in 2018¹⁰² intended to reach new Greek members and student leaders. Cornell also redesigned a survey to capture the nuances of hazing behaviors. The 2018 MASCOT ("Membership Activities in Student Clubs, Organizations, and Teams") project surveyed a random sample of 5,000 undergraduate students (N = 2,057). A social norms question revealed that 90% of students did not believe that it was acceptable to humiliate and intimidate new members, an improvement from the year before.
- Using new software (MethCheck), the pharmacy decreased the waiting time for students purchasing Pseudophederine products by 85%. The pharmacy also decreased the waiting time for chest binders for transgender students by 55% and implemented a card system which added extra layers of privacy for students who might not wish to discuss sensitive topics in the pharmacy. Students have responded positively to these changes.
- CAPS and the Physical Therapy Departments collaborated to assess students for
 the connection between physical pain and mental health, seeking to provide
 students with educational materials and referral information. First they identify
 those who could benefit from a referral to CAPS, Physical Therapy and/or
 Primary Care; then they offer a handout and an electronic link to on-campus
 referral sources and resources to students in need. A new triage system has
 reduced the time patients stay on the waiting list.
- Cornell currently participates in the ACUHO-I Campus Housing Index. This comprehensive study is designed to identify trends in campus housing and

¹⁰¹ https://recreation.athletics.cornell.edu/fitness

¹⁰² https://hazing.cornell.edu/

residence life operations, and provide comparative information that can be used in crucial business decisions. Residential Life will conduct a Council for the Advancement of Standards (CAS) Self-Assessment and reintroduce the ACUHO-I annual survey. This data should assist in assessing the impact of the residential experience on students.

• The Assessment and Planning Department of the Cornell Library¹⁰³ instituted a 3 to 5-year survey series to focus on how faculty, graduate students and undergraduates use the Library. In March 2016, the library conducted its first outreach to graduate students¹⁰⁴ to gauge how well it supports graduate students' research, learning and teaching needs. In fall of 2017, it followed with an undergraduate survey¹⁰⁵ with the same focus. This cycle will start again in 2021. This assessment has prompted the library to revisit and update spaces¹⁰⁶ and to provide support in key areas, such as Systematic Reviews¹⁰⁷ and Digital Humanities programming¹⁰⁸.

Summary

Consistent with its legacy of a commitment to access, Cornell is one of a small set of elite institutions that has need-blind admissions and also meets students full financial need. The university offers a rich and diverse campus residential environment, appropriate support for learning and academic achievement, and plethora of extracurricular activities. As a relatively large, decentralized institution with multiple colleges offering diverse curricula and a substantial number of students living off campus, Cornell faces special challenges in effectively and efficiently supporting student well-being.

¹⁰³ https://ac.library.cornell.edu/data

¹⁰⁴

 $[\]frac{https://public.tableau.com/profile/vandana.shah\#!/vizhome/CornellUniversityLibraryGraduateStu}{\underline{d}}$ $\underline{entSurvey2016/Story1}$

¹⁰⁵https://tableau.cornell.edu/views/CUL_Undergraduate_Survey_2017/Introduction?:embed=y&:showAppBanner=false&:display_count=no&:showVizHome=no#1

¹⁰⁶ https://blogs.cornell.edu/olinanduris/feasibility-study-faqs/

¹⁰⁷ https://www.library.cornell.edu/services/systematic-review

¹⁰⁸ https://www.library.cornell.edu/about/news/archive/olins-digital-colab-applies-tech-humanities

Recommendations

Cornell should examine its college-based academic policies to identify those that can be better aligned across the university to reduce unnecessary complexity that can confuse and strain students.

The university should prioritize updating and improving the central university website with a keen eye on the student perspective to make it easier for them to navigate the student experience.

Regarding student mental health: the comprehensive review of mental health will conclude at the end of this semester, and the university should take seriously any recommendations that emerge from that report about how to alleviate the academic sources of mental health strain. We further recommend that the university continue to assess the impact of the recent changes to address the availability and delivery of counseling services.

Educational Effectiveness Assessment

The University learning goals that were endorsed by the Faculty Senate in 2010 have served as the overarching framework for assessment activities at Cornell. Over the last decade, each college, department, and program has linked its learning goals closely to the University's.

Cornell has multilayered processes for evaluating the effectiveness of these goals for all levels of the student body. Our assessment activities are intended to respect the complexity and uniqueness of the individual units while taking advantage of initiatives generated and supported by the central administration. In 2009, the University put in place systems, parameters, and protocols that spur reflection, discussion, and innovation. In the last decade, a cycle of annual assessments, resources from the central administration, and collaborations between the different units of the university have created a mutually reinforcing infrastructure for assessment activity. When assessments have revealed gaps in learning, the university has committed significant resources, backed by strong leadership support. In this chapter, we outline a range of assessment activities, several key organizational changes, and the review processes we employ to close any gaps between learning goals and student success.

We begin by highlighting the Active Learning Initiative (ALI), which is a recent and major university-wide program that is focused on improving student learning outcomes in large lecture courses. We then turn to academic programs that address the co-curricular needs of students across the university; in particular, we focus on the Knight Institute for Writing in the Disciplines, Engaged Cornell, Global Cornell, and the Inter-group Dialogue Project. In closing, we highlight Cornell's infrastructure of assessment, focusing on the activities of the Core Assessment Committee (CAC) and our process of external review. This range of activities show that assessments are occurring at the college and department levels through a variety of assessment activities. This summary shows that a culture of assessment is deeply embedded across the curriculum.

Active Learning Initiative

Among the major innovations Cornell has developed is the Active Learning Initiative (ALI), a program launched by the College of Arts and Sciences in 2013-

2014 and now funded university-wide.¹ Motivated and informed by a large and growing body of research from cognitive psychology and evidence from college classrooms, active learning involves a variety of interactive approaches that are significantly more effective for student learning than traditional lectures, including frequent small-group discussion, peer instruction, "flipped" classrooms, facilitated group work, and classroom polling. The ALI model encourages faculty to divide class time into segments that engage students' attention and to communicate clear expectations for student learning outcomes.

Crucial to the core work of ALI is ongoing assessment: faculty incorporate multiple small assessments throughout the course which provide real-time feedback for students. This allows both students and instructors to understand what students are learning and missing and to make mid-course corrections. Student performance is assessed on concept inventories and exams, through surveys of affective measures such as confidence and self-efficacy, and through mid-semester feedback. Class observations using COPUS (classroom observation protocol for undergraduate students) techniques, and student focus groups also contribute to the continuous improvement of these courses.

The overarching goals of this program are to:

- Support Cornell departments in transforming courses by implementing active learning pedagogies and other evidence-based teaching practices;
- Improve overall student learning outcomes;
- Foster positive and inclusive learning experiences;
- Share best practices in teaching across campus to increase the effective use of active learning strategies and enhance faculty teaching experiences; and
- Collect data on the impact of active learning strategies at Cornell and communicate the results.

To encourage the adoption of innovative teaching approaches, the ALI offers grants to departments. Over three phases of expansion, the program has nearly doubled, now with more than 100 faculty in 16 departments and three undergraduate colleges across the university. By the end of phase III, the number of faculty involved will increase to 135, putting Cornell at the cutting edge of innovation in undergraduate education.² Shifts toward active learning have been

¹ https://provost.cornell.edu/leadership/vp-academic-innovation/active-learning-initiative/

² https://news.cornell.edu/stories/2019/02/active-learning-initiative-funds-nine-projects

taking hold across the curriculum. Through the ALI, courses that historically relied almost exclusively on lecture are being transformed--with guidance and support from the Center for Teaching Innovation and Discipline-Based Education Researchers (DBER) and postdoctoral fellows.

The ALI's first grant competition in 2012 was open to STEM departments in the College of Arts and Sciences. From 2014 to 2016, the Physics Department transformed the 3-course introductory physics sequence taken by all engineering students at Cornell. This collaboration across the colleges of Arts and Sciences and Engineering impacted a significant number of students. Currently, about 800 students a semester are enrolled in the new active sequence. The redesigned courses shifted the entire distribution of student scores upward, from the weakest to the strongest students, by about half a letter grade, as shown on carefully matched final exams. The number of students receiving low or marginal grades was reduced by half or more. Student evaluations from these courses were also significantly higher: overall ratings increased from 3.85 (out of 5) to 4.50 and from 3.67 to 4.07.

In 2015-16, two biology departments transformed 4 of the 5 introductory biology courses taken by both biology majors and pre-meds. Each semester, approximately 650 students on average take one of these classes. The new course designs in Biology showed similar improvements to those in Physics. Assessment data from BioEE 1780, the introductory evolution course, demonstrated that a learning gap of almost a letter grade between underrepresented groups and others was eliminated after introducing active learning techniques, and that the number of marginal and failing grades was again drastically reduced. This research, now published, showed that active learning increases students' sense of self-efficacy and confidence, and that this increase is correlated with increased performance among students from underrepresented groups.³

Students' learning gains in BioEE 1610, the introductory ecology course, also doubled with the introduction of active learning, and there was a four-fold increase in students' confidence in their ability to deal with science in their daily lives. In introductory neurobiology, BioNB 2220, students enrolled in a 4-credit

³ Ballen, C.J., C. Wieman, S. Salehi, J. Searle, K.R. Zamudio. 2017. Enhancing diversity in undergraduate science: Self-efficacy drives performance gains with active learning. <u>CBE-Life</u> Sciences Education. 16:ar56.

version of the course that demanded an extra recitation section each week earned almost a whole letter grade higher than students enrolled historically in the 3-credit version of the course without the recitation section. The 3-credit course, now also transformed to incorporate active learning, has now also reduced the gap by a factor of three.

In 2016-2017, Mathematics, Economics, Sociology, Classics, Anthropology, Music, and Physics won grants in the active learning initiative. Twenty-five courses will now incorporate active learning strategies. Most of these are large, introductory courses and will have an impact on thousands of students from across the university. Currently, two thirds of the courses in the initiative have been fully transformed, while changes to the last third are planned through spring 2022. In spring 2019, there were 1,400 students enrolled in an active learning course.

In January 2019, nine new projects won Active Learning grants, in departments from across the university: Biological and Environmental Engineering, Entomology, Information Sciences, Mechanical and Aerospace Engineering, Plant Sciences, Natural Resources, Math, Ecology and Evolutionary Biology, and Psychology. Seventy faculty have begun work on making substantial changes to the way they teach more than 40 courses to more than 4500 students. Grants range from three to five years, and from \$175K to \$1M. A large fraction of the funding supports 17 ALI postdocs spread across the projects. The departments now included in the initiative span three colleges and a special program (Computer and Information Sciences), with multiple projects in CALS and A&S, and large projects in Engineering.

We do not yet have quantitative data on the impact of these pedagogical changes. However, qualitative data such as class observations, student interviews, COPUS survey responses, and regular interactions with the teaching postdocs and ALI faculty team suggest that student outcomes are in fact improving.⁴

Departments that apply for ALI grants are required to include plans for assessment and must collect assessment data to identify courses where learning outcomes could be improved. The net effect of is that many departments—even those that have not receiving ALI funding—have become more engaged in

⁴ https://provost.cornell.edu/leadership/vp-academic-innovation/active-learning-initiative/

developing good instruments to assess students' progress toward meeting curricular expectations. We continue to collect data to report how the program's expansion will affect the quality of instruction and student achievement. As the project expands to include courses in the social sciences and humanities, we anticipate that assessments will show the need for further curricular and instructional reforms.

This ambitious program is designed to permeate the pedagogical culture of the whole university, an aspiration that could not be fulfilled without deep commitment from senior leadership. Cornell's administration has actively invested in academic programs, services, infrastructure and academic technologies to support the ALI. For instance, a renovation planned for Baker 200 was designed with these enhanced teaching techniques in mind. The initiative now has an associate director who is responsible for day-to-day operations, and two staff positions, one supported by the Center for Teaching Innovation and the other through ALI. In 2018, the Provost invited faculty to apply for "Innovative Teaching and Learning Awards," up to \$25,000 for 4-6 faculty or faculty teams, designed to support faculty in the development of research-based pedagogical strategies that engage students and improve their success. An assessment plan is a required part of all applications. Central leadership also fortified support for the initiative in 2017 when it combined the Center for Teaching Excellence with the Academic Technologies group in Cornell Information Technologies to create a new Center for Teaching Innovation (CTI).6 This important organizational change generated a closer link between teaching and technology. That year, the Provost created a new position—the Vice Provost for Academic Innovation—and named physics professor Julia Thom-Levy to lead the expansion of the ALI initiative outside of the College of Arts and Sciences.⁷ In Fall 2018, the Provost established the Gateway Course Data Working Group to strategize ways to retain and support students in large introductory courses. We have described CTI and the Gateway Course Initiative in more detail in chapter 3.

To expand the impact of the Active Learning Initiative, Cornell has recently hired tenure-track Discipline-Based Education Researchers (DBER) in the Departments

⁵ https://teaching.cornell.edu/2019-innovative-teaching-learning-awards

⁶ https://teaching.cornell.edu/

⁷ https://news.cornell.edu/stories/2017/09/new-unit-merges-teaching-excellence-center-academictechnology

of Physics, Department of Ecology and Evolutionary Biology, and Computer and Information Sciences. The DBERs study teaching and learning within a discipline from a perspective that reflects its priorities, worldview, knowledge, and practices while also using tools from the social sciences to assess trends and results.

Programs to Support University Learning Goals

Beyond the Active Learning Initiative, programs such as the Knight Institute for Writing in the Disciplines, Engaged Cornell, Global Cornell, and the Intergroup Dialogue Project all support the faculty and provide students with opportunities to meet university learning goals.

The Knight Institute for Writing in the Disciplines

The Knight Institute for Writing in the Disciplines, which coordinates programs to support writing skills and writing pedagogy across the University, is housed in the College of Arts and Sciences and reports to the Senior Associate Dean for the Humanities. Three Knight Institute initiatives in particular reformed their practices and programs in response to learning outcomes assessments:

1. **First-Year Writing Seminars.** All of the undergraduate colleges require that students enroll in at least one First-Year Writing Seminar (FWS). Engineering and Human Ecology require students to enroll in two writing seminars. This program therefore serves nearly every undergraduate at Cornell. The FWS requires all students to hone their writing skills, participate in group reviews, learn to edit and revise, and develop skills in oral and written presentation.

The first-year writing seminars centrally address the university-wide learning goal: to "Express ideas clearly and persuasively orally and in writing." They also encourage students to work toward two other learning goals: "Direct their own learning," by planning ahead, writing multiple drafts, and engaging in frequent rounds of revision; and "Use information from a variety of sources strategically, appropriately and responsibly."

The Knight Institute provides training for faculty and graduate students who teach writing-intensive courses. Designing and stating appropriate learning outcomes are a key component of the training offered in Writing 7100, "Teaching Writing"—a six-week seminar required of all graduate student

instructors that provides an overview of the teaching of writing within a disciplinary context and incorporates readings on pedagogical theories.⁸ In its teacher-training seminars, the Knight Institute stresses learning outcomes appropriate to the discipline of the seminar: in creating their syllabi and assignments, instructors are taught to articulate a desired outcome and reverse-engineer a sequence of writing activities designed to lead toward that goal. Students' written work then constitutes evidence for ongoing assessment, and the instructor adjusts her methods and assignments accordingly.

The FWS teacher evaluation surveys administered at the end of each semester focus partly on salient learning outcomes for a writing course, such as "supporting claims with pertinent evidence" or "revising essays for greater coherence," and student responses allow instructors to learn about and revise their teaching practices. Moreover, the training seminars themselves undergo constant revision: as trainees submit assignments, syllabi, or other course documents, the Knight staff evaluates whether goals are being achieved. Based on such evidence, on the evolving needs of trainees, and on best practices of writing pedagogy, the Knight staff continually revises its course materials and methods for both Writing 7100 and its companion course for TAs, Writing 7101, "Writing in the Majors."

The Knight Institute revised the supervisory structure for graduate student instructors who teach first-year writing seminars in response to a Curriculum Review Committee report in December 2016, which noted the need for greater attention to writing and communication skills for undergraduates. In place of a decentralized system of supervision and advising, Knight launched a program of faculty leaders who work with 8-10 graduate teaching assistants as they design their seminars. The faculty convene groups of TAs, meet individually with each of the graduate instructors, and observe each TA in action. Early surveys from 2018-2019 show that the first group of graduate students to work under this revised supervisory structure report that they have found it useful to meet with faculty mentors and fellow TAs. Knight's attention to measuring the effectiveness of how well communication skills are

⁸ Graduate students comprise two-thirds of FWS instructors. https://knight.as.cornell.edu/fws-learning-outcomes

taught align with the Core Assessments Committee's goals of focusing on these particular learning outcomes.

2. **Writing Centers.** The Knight Institute is home to the Writing Centers, which offer tutorial writing classes⁹ and tutoring services. ¹⁰ Knight's tutoring programs use several types of assessment to help meet learning objectives. Usage data documents the number and length of appointments, the number of students who visit the writing center, and other demographic and site-specific information that shows who is using tutoring services and how often. Staff from the Cornell Writing Center, Multilingual Tutoring Program, and Graduate Writing Service meet regularly to examine programmatic trends and gaps using multimodal assessment tools.

For example, the program evaluates tutoring sessions using structured data collection compiled online. Tutors write client report forms after the sessions, and clients fill in feedback surveys. Both provide information about what happens during tutoring sessions and identify the learning goals and writing issues and strategies addressed in each session.

In order to assess tutor pedagogy and practice, Writing Center tutors have an exit interview with a director after their 6-week pre-service training program. They are also required to participate in yearly peer observations. All tutors attend regular professional development meetings where they are trained to use client surveys and self-reports to inspire rigorous reflective practice and propel pedagogical innovation.

3. **English Language Support Office.** An important component of the Knight Institute is support for graduate and professional students for whom English is a second language. In 2014, the Graduate School, in partnership with the Knight Institute for Writing in the Disciplines, created the English Language Support Office (ELSO) in order to offer better support for academic English and the acculturation needs of international graduate students. The ELSO office employs a director and two lecturers. Since its launch in 2015, ELSO has grown significantly and has expanded its programs and courses.

⁹ https://knight.as.cornell.edu/writ-137080

¹⁰ https://knight.as.cornell.edu/tutoring

Engaged Cornell

The Engaged Cornell initiative, launched in 2015 to deepen the connection between Cornell's land grant mission and public engagement roots with key University priorities, ¹¹ funds and supports high-quality community-engaged courses. All Engaged Cornell courses are required to have clearly stated learning outcomes that are linked to the five Engaged Cornell learning outcomes: intercultural competence, critical reflection, integrative learning, ethical practice, and civic engagement. All grant applications must include instruments to assess the benefits of public engagement to students and the integration of the engaged experience into the curriculum.

Engaged Cornell recently completed a three-year retrospective self-study and strategic planning effort, which involved consultation with a wide range of leaders and stakeholders across campus and analysis of data collected during the first years of the initiative. Data show that since 2016, the number of tagged Community Engaged Learning (CEL) courses, which address the five learning criteria, has risen 26%, from 84 to 106, and the number of academic departments offering CEL courses has increased to 64%. In addition, the annual growth of undergraduate CEL course enrollment has risen nearly 60%, with courses developed through Engaged Curriculum Grants representing an average of 17% of all CEL enrollments over that same period of time. In 2019, data show that 35% of the overall graduating undergraduate class had taken at least one CELtagged course. This rate differs among colleges and schools (56% in CALS, 47% CHE, 30% ENG, 26% AAP, 22% CAS, 21% COB, 19% ILR). Here, it iss important to note that CEL tagging still falls short of capturing all courses that could be considered high-quality CEL courses, a deficit that we are actively working to correct.

Further, data available from the 2019 Cornell Undergraduate Experience Survey (N=3,857) suggest that participation in CEL courses is associated with advances in self-reported student learning. Comparing students who have not taken a CEL course to those who have done so, analyses show that CEL students report significantly higher rates of agreement when asked if Cornell has contributed to their learning and development related to functioning effectively in a team, developing an awareness of social problems, identifying ethical and moral

¹¹ https://engaged.cornell.edu/

issues, relating well to people from different backgrounds, resolving conflict positively, and understanding the process of science and experimentation.

Global Cornell

The Global Cornell initiative affirms the crucial importance of thinking and working globally. Funded by President David Skorton in 2013 with a \$15 million grant, the initial funds sought to increase the number of undergraduate students who studied internationally while at Cornell. In 2012, 27% of all students had some international study, from short research trips of one or two weeks in conjunction with coursework on campus, to a year in a study abroad program. By 2018, more than one third of all students—38%—had had an international study experience.

The initiative also fostered global learning by providing curriculum grants to internationalize courses, distributing a total of over \$800,000 to 56 projects. Using input from 18 of the new grant-funded courses, Global Cornell put together a booklet of case studies to illustrate how to integrate international experiences into curricula across disciplines, and how to assess intended student learning outcomes in these courses.¹²

Each grant recipient was asked to assess whether the articulated learning goals had been met. Results of these assessments showed a need for changes to the curriculum, including the following:

- Three new degree programs were created: a Masters of Public Health, a Global Health major and minor for undergraduates, and a Migration Studies minor.
- The reorganization of the Language Resource Center to provide language education to prepare students for living and learning abroad.
- Feedback showed that some students were unable to participate in international programs for financial reasons. The initiative thus provided over \$3 million for students to experience research, travel, and programming in foreign locations either through direct grants or financial aid support.

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¹² See MSCHE evidence inventory.

The Global Cornell initiative has expanded Cornell's visibility globally as well as the visibility of global concerns at Cornell. Now overseen by the Office of the Vice Provost for International Affairs (OVPIA), it has seen a growth in donations from alumni and a steady stream of international studies, and OVPIA websites—with articles and information about particular parts of the world—reach nearly 200,000 users each year, a 52% increase in three years. Cornell has also seen a growth of applications for study from abroad. The expanded footprint of international activities is outlined on an OVPIA website.¹³

Individual colleges have reaffirmed Cornell's commitment to global experience and awareness. The College of Arts and Sciences made "global citizenship" one of the distribution requirements for graduation in its recent curriculum review. Each student is also expected to demonstrate proficiency in a language other than English. ILR and AAP also defined global competence and cultural breadth as requirements for a degree.

Intergroup Dialogue Project (IDP)

President Pollack's Presidential Task Force on Campus Climate, composed of faculty, staff and students on the Ithaca campus, made recommendations for developing a campus climate that would be more diverse and inclusive. ¹⁴ One recommendation was to build on the proven success of the undergraduate Intergroup Dialogue Project (IDP) to require a three-hour session for all first-year students that launches them on an educational path to fulfill the university learning goals that emphasize respect, tolerance and awareness of different perspectives. We have described the IDP in more detail in chapter 3. Here we focus on its strategies for assessment.

In its original form, the IDP course was a semester-long experience that was assessed through pre- and post-course surveys of class participants. These consistently showed a statistically significant improvement in students' pluralistic orientation, confidence in promoting diversity, and confidence in reducing prejudice, each measured using pre-validated scales from the academic literature. Additional assessments that compared students who had enrolled in the IDP course to those who had not showed that IDP students reported significantly higher levels of confidence in the following learning outcomes:

¹³ https://global.cornell.edu/

¹⁴ https://president.cornell.edu/initiatives/presidential-task-force-on-campus-climate/

placing current problems in historical/cultural/philosophical perspective; working effectively as a member of a team; relating well to people of different backgrounds and social identities; leadership skills; being able to discuss controversial issues with others who hold different views respectfully; developing and clarifying a personal code of values or ethics. This data played an important role in justifying the expansion of this educational opportunity to all students.

The course was so labor intensive in its initial form that it could not feasibly be scaled beyond the 13 sections offered each semester. Thus, the IDP team designed a 3-hour workshop. In its first run during the fall 2018 orientation, close to 80 student and alumni facilitators delivered 170 workshops to 3,400 incoming students during their first 4 days on campus. In fall 2019, the program expanded to 200 workshops to accommodate incoming transfer students. IDP is now offering structured opportunities to engage in deeper-level dialogue with peers in the residence halls. All residential staff and student advisors have now received IDP training, and during the 2019-2020 academic year, the program is offering an inaugural year-long course for professional academic advisors. The graduate and professional schools are now incorporating IDP coursework. The Graduate School and the Johnson Graduate School of Management offer forcredit courses for students, and in August 2019 all incoming Law School students participated in IDP workshops.

Infrastructure for Assessment

University-wide activities such as the ALI, Engaged Cornell, Global Cornell, and the expansion of the IDP project, depend on an organizational structure put in place in 2009 that administers assessment activities on campus and communicates the results of assessment data across the units. ¹⁵ The Core Assessment Committee (CAC), which is the primary body responsible for the assessment of student learning at Cornell, is convened by the Vice Provost for Undergraduate Education. Associate deans or faculty chairs of college-level teaching committees represent colleges and units on the CAC and serve as liaisons between the CAC and their units. The CAC also includes student affairs professionals from the division of Student and Campus Life, the Center for Teaching Innovation, the Office of Engagement Initiatives, and the Associate

15 http://provost.cornell.edu/assessment/core-assessment-committee-resources/

Vice Provost for Institutional Research and Planning. The CAC provides a forum for sharing challenges and best practices and for discussing cross-college assessment issues, such as the assessment of "gateway courses." Meeting monthly throughout the academic year, the CAC has established an assessment leadership structure within each college or school, and enhanced communication about effective student learning across colleges and schools. It is committed to fostering continuous improvement and a push for excellence.

Cornell's framework for assessing student learning depends on these regular communications between the different colleges with the Vice Provost of Undergraduate Education. CAC members promote assessment activities within their respective colleges and schools and communicate the results to key stakeholders at the college and university levels. Within each college or school, the CAC liaison and appropriate committee are responsible for:

- 1. Assessing how well the college/school is achieving its student learning goals and making changes to improve achievement where necessary;
- 2. Overseeing the communication and dissemination of college/school student learning goals, including posting them on the website;
- 3. Overseeing current assessment practices in each major and program, making sure that these are publicized, assessed, and changed to improve achievement;
- 4. Developing procedures for assessing student learning in majors or programs that do not yet have them.

Cornell does not offer a core curriculum required of all undergraduates apart from the shared requirement of a swim test. Reports on individual courses, departments and programs reside in the colleges and units. The CAC sets priorities and areas of focus each year that help to guide collection of information about assessment in the colleges.

Every year, CAC members share their responses to several assessment-related questions they have submitted to the Vice Provost for Undergraduate Education. Discussions allow members to learn about new teaching methods and assessment practices used in other academic units and identify opportunities for better cross-unit collaboration, such as a focus on courses that serve multiple majors across colleges.

In the last decade, the CAC met regularly, even amid several leadership changes in the colleges and central university administration. In the years between 2015

and 2017, for instance, several members of the CAC representing Engineering, Human Ecology, the Graduate School, CALS, and Student and Campus Life convened an ad hoc committee to study learning analytics; these assessment activities informed the formation of the current Gateway Courses Initiative in 2018.

From 2015-2020, the Center for Teaching Excellence, now the Center for Teaching Innovation, has offered workshops and institutes for faculty focused on aspects of assessment at the university, college, or department level. For example, faculty have designed learning outcomes and created assessment action plans as participants via programming such as the Flipping Your Classroom workshop, the Course Design Institute, the Faculty Institute for Diversity, the New Faculty Institute, the Community Engaged Learning and Teaching, and the Design for Online Institute. Customized college and department workshops, and partnerships with Office of Engagement Initiatives and the Vice Provost for International Affairs (Internationalizing the Cornell Curriculum initiative), have focused on assessment and curriculum planning. University workshop examples have included sessions on question design and testing, learning outcomes for online modules or hybrid courses, technologies and pedagogical ideas for formative and summative assessment, and collecting and incorporating feedback. Collectively, hundreds of Cornell faculty have participated in these workshops that run on a regular basis.

In addition, trainings on assessment practice and protocols are offered by the office of Student and Campus Life (SCL), which also report to the VPUE and the CAC. Staff from several colleges (Engineering, Industrial and Labor Relations, Law School, Arts and Sciences), other administrative units (Office of Academic Diversity Initiatives), and student affairs attend these workshops. Assessment 101, which is a semester-long, non-credit course that focuses on student learning outcomes assessment is offered every year. In addition, workshops on Ripple Effect Mapping are offered at least once a year to those engaged in the student experience. The Cornell Survey and Assessment Review Team (previously the Student and Campus Life Research Group) meets monthly to discuss how to increase awareness of existing data, while providing consultation on data collection methods, and formal review of research/data collection proposals.

A spring 2019 review conducted by the Core Assessments Committee revealed that although strong assessment activities are becoming established in several colleges and programs, pockets remain where assessment efforts are less

rigorous and systematic. To address this concern, during the fall 2019 semester the CAC partnered with the Center for Teaching Innovation to provide customized workshops and planning sessions to support colleges that lag behind in assessing course- or program-level learning outcomes. Because several of Cornell's deans are new, having been hired within the last two years, Deans' annual reports from 2018-19 onward include questions about program assessment to ensure that the assessment of student learning outcomes and the use of data for making improvements remain top priorities.

Over half of Cornell's degree programs undergo additional reviews of their assessments of student learning and achievement of learning goals through the specific accrediting agencies appropriate to their profession: ABET for Engineering, AACSB for the School of Hotel Administration, Dyson School and Johnson School, NAAB for Architecture Art and Planning. These accreditation processes ensure adherence to a series of standards beyond Cornell's own.

Since 2009, a half-time Assessment Project Manager within the Provost's office has provided staff support for much of the work overseen by the CAC. There is also an associate director for assessment in the Center for Teaching Innovation. These central positions complement human resources in the units, such as the Director of Assessment in the Graduate School, the Manager of Assessment and Accreditation in the School of Hotel Administration, and the Director of Assessment and Planning in the division of Student and Campus Life.

Assessment within the Colleges

Beyond centrally administered programs such as the Active Learning Initiative and Gateway Courses Initiative, and the work done by the Center for Teaching Innovation, the Knight Institute for Writing in the Disciplines, Engaged Cornell, and Global Cornell, Cornell's culture of assessment is deeply embedded across programs and departments in each of the colleges.

Individual colleges establish their own structures for the review and continuous improvement to support student learning. Some have standing committees, while others have mechanisms within academic departments for regular review and communication about assessment. A number of colleges have made changes recently, as we show below.

College of Agriculture and Life Sciences

The College of Agriculture and Life Sciences (CALS) requires annual reports from the Directors of Undergraduate Studies in all majors. These reports are uploaded to a CALS assessment website and are available to all assessment leaders in the college. The site also includes the list of learning outcomes for the college and for each major. It is updated annually. CALS requires that course syllabi include course learning outcomes. The assessment process continues to result in improvements to the majors, encouraging greater coordination among instructors, and leading to changes in courses and curricula. Several departments are undertaking curriculum revisions: Science and Earth Systems, Environmental and Sustainability Sciences, and new a major in Global Development that came out of a merger between International Agriculture and Rural Development and Development Sociology.

The CALS Committee on Support of Teaching and Learning assesses college learning outcomes. This committee is now reviewing the college learning outcomes, assessing those outcomes, and evaluating distribution requirements. In response to several departments that noted gaps in students' information literacy, which is a college learning goal, the Mann Library staff has created a new course on information literacy. Some other courses now include interactive classroom activities and working sessions with the science librarian at Mann Library, and some have added assignments that require students to find and cite scientific literature. For example, assessment of students' use of primary literature in the Department of Nutritional Sciences resulted in revisions to NS 1220, Nutrition and the Life Cycle. The course now incorporates peer review and a graded outline into the students' final paper assignment, which involves investigating a health claim via a critical analysis of primary literature. Similarly, when Agricultural Sciences found that students were unable to interpret and articulate primary literature, they introduced modules into freshman and sophomore level courses that targeted this skill.

Some departments have introduced curricular changes as a result of assessment. In Plant Sciences, for example, in 2019, faculty reviewed the ePortfolios of graduating students to assess the learning outcomes of the major. The students' research skills were disappointing. In response, the major now requires all students to have a research experience outside a class. Faculty are also now encouraging students to participate in the CALS Research Honors Program, which includes a senior thesis. After the Viticulture and Enology major

conducted senior exit interviews and reviewed course evaluations, the department created new fall and spring "Vineyard Practicum courses," focused on vineyard management and the plant biology of management decisions.

College of Architecture, Art and Planning

Three distinct departments make up the College of Architecture, Art and Planning (AAP). Each department has articulated specific learning goals that are posted on the college website under the "Academics" heading.

The departments of Art and City and Regional Planning (CRP) have designated faculty committees to oversee the assessment of student learning. CRP assigns this work to its standing Curriculum Committee, while Art has created a new "Learning and Assessment" committee. Both groups have been developing and clarifying program learning goals, creating assessment plans, and leading department faculty to engage in assessment activities.

Architecture's curricula and syllabi are tightly bound to the explicit learning objectives articulated by their accrediting body, the National Architectural Accrediting Board (NAAB). There are benchmark skills to assess, including comprehensive design, professional practice, systems and structures. All faculty are required to collect samples of student work from each course, including portfolios, written papers, required one-semester theses, and special projects, and some use student self-assessments. These submissions provide essential markers to demonstrate that the department has met the Student Performance Criteria for accreditation. In January 2019, the faculty participated in a retreat to assess overall effectiveness of department pedagogy, aiming to improve student learning experiences and outcomes. The department's assessment activities have shaped the number and content of its course offerings, which take place in Ithaca, Rome, and New York City.

The Art Department completed a full cycle of assessment in 2018 for its undergraduate BFA program. They focused on assessing intermediate level (3000) courses and on collecting and archiving student work. In response to what they found, the Department implemented four core learning components in all 3000-level courses and provided all art majors with a blog to use as a journal archive. They established a standard practice for collecting student work as evidence of learning. The department has recently revisited its assessment methods and will be pursuing a more holistic approach in the future. Using Digication for e-portfolios, students will record, track and centralize portfolios to

include documented artwork, critical writings, statements of purpose, and the courses they have taken. The department will also change its assessment practices in response to a newly rigorous and individualized advising model that is intended to grant students broader access to university electives and to integrate art with other academic subjects.

CRP has set learning goals and objectives for all degree programs, including a table that maps courses across the Urban and Regional Studies Program to 13 educational goals. The CRP assessment plan includes students' written papers, exams, journals or sketchbooks, and design and planning projects. In response to student feedback, CRP faculty have launched a Peer Advising initiative, and created new web resources to support student learning.

College of Arts and Sciences

The College of Arts and Sciences (A&S) is the largest undergraduate college at Cornell. In addition to seeding the Active Learning Initiative in key introductory courses, the Arts College provides administrative support to the Knight Writing Institute that administers the first-year writing program for all students. A&S has been employing student surveys, enrollment data, assessment reports, and other forms of faculty and student feedback. The evaluation of the Active Learning Initiative in the College of Arts and Sciences in 2013 depended on assessment data gathered in courses in Physics and Ecology and Evolutionary Biology. The Arts College now requires all chairs and program directors to evaluate their units' success in meeting learning goals in an annual report. Each department and program has an assessment plan that builds on the plans established in 2011.

In 2016, as the result of an external review, the College of Arts and Sciences reorganized the undergraduate Admissions & Academic Advising office. The College reorganized its undergraduate advising structure and conducted a curriculum review. One key change was the creation of a new position—the Senior Associate Dean for Undergraduate Education—to be held by a faculty member. In 2016, Professor Rachel Bean began her five-year term. Starting in fall 2019, all incoming students were advised through a new advising seminar, which we have described in more detail in chapter 4.16 Assessments of the initial pilot, including surveys of students and faculty, led to some changes in the program,

¹⁶ https://as.cornell.edu/news/expands-advising-seminars-all-first-year-students

but also clearly showed that this method of advising was yielding higher levels of student satisfaction and faculty engagement than the previous system.¹⁷

In January 2016, the College of Arts and Sciences began a curriculum review to assess the effectiveness of the distribution and graduation requirements for the bachelors' degree. An ad hoc Curriculum Review Committee (CRC) articulated a revised set of graduation requirements that encourage breadth, exploration, and educational innovation in the first two years of a student's career. The new outcomes are listed on the website and will apply to all students who begin in fall 2020.¹8 The College replaced its former breadth and elective requirements with this new, broad set of expectations for all undergraduates.

College of Business

The SC Johnson College of Business was most recently reviewed and reaccredited in Spring 2019 by its accrediting body, the Association to Advance Collegiate Schools of Business (AACSB).

Since this college is composed of three unique schools that were independent until recently, the faculty of each school has been leading a separate assessment of learning outcomes for each degree program. In preparation for reaccreditation, the schools began communicating about assessment in new ways and developed an ongoing plan to coordinate learning goals and objective development across programs. Chairs of faculty assessment committees in each school began meeting regularly to share best practices and to seek central support from the college to collect, analyze, and report assessment data. As the three schools become more integrated, the college will allocate more resources to enhancing its assessment program and to ensuring continuous improvement to all of its curricula. We focus on each school's assessment activities below:

The Charles H. Dyson School of Applied Economics and Management assesses its undergraduate and professional masters learning objectives on a biannual basis, using course-embedded metrics to facilitate iterative review and continuous improvement. In response to assessments of student writing, faculty teaching the required first-year Management Communications course developed writing guides which they shared with other first-year faculty to reinforce

¹⁷ See reports in MSCHE evidence inventory under criteria 2.

¹⁸ https://as.cornell.edu/outcomes

writing skills across the introductory curriculum. The school also increased faculty time in this required course to allow for smaller sections and thus more opportunities for individualized attention and feedback on student writing.

The School of Hotel Administration, in response feedback from its 2014 AACSB review, recently reviewed its curricula. Pending approval by the Provost and the New York State Education Department, it proposes to add an ethics course to the required core curriculum, to eliminate six core credits to allow for more electives, and to add hospitality specializations. The Master of Management in Hospitality (MMH) is working to deliver a more focused set of core courses and greater access to elective coursework tied to career goals. The master's program also recently revamped its structure to allow for a summer internship experience and to make sure that cohorts of students overlap, both of which are intended to enhance students' professional development.

The Johnson Graduate School of Management houses seven programs that award Master of Business Administration degrees. Each MBA program assesses common learning goals and objectives.

The College of Business offers three PhD programs: Management, Hospitality Management, and Applied Economics and Management. In response to assessments, the College has encouraged these graduate fields to expand to include more faculty in order to give students a broader ranger views to guide their study and research. It has also deepened cohort building across fields so that students can learn from their peers.

College of Engineering

Engineering has a well-developed and comprehensive suite of processes for assessment and continuous improvement. During the most recent ABET accreditation evaluation in 2016, the College took the opportunity to develop more college-wide processes to encourage and enhance assessment, to share best practices, and to coordinate course content and overlap across majors within the college. While most majors had mechanisms in place for continuous assessment and improvement of individual courses, these often did not look holistically and broadly across the major, much less across the College.

In order to create a central repository of ABET-required assessment materials, the College adopted a shared-file system. This site covered all departments and programs evaluated by ABET, as well as related courses and materials from

supporting departments outside of the College—including Physics, Chemistry, and Math—that are critical to achieving student outcomes in Engineering. The College also began to assess all majors, including those that do not belong to single departments, such as environmental engineering.

Since the expectations and goals of ABET are constantly evolving, the next evaluation of the College of Engineering in 2022 will need to respond to new standards. The College has instituted the Cornell Engineering Assessment Committee (CEAC) to guide the college through its next accreditation review, and also to develop a new set of standard processes for assessment, analysis, and continuous improvement across the College. Currently, the CEAC is developing a new assessment plan based on seven core student outcomes, with procedures that streamline data collection, focus on cumulative learning as students move through the curriculum, and interpret student outcomes in consistent ways. In preparation for the 2022 accreditation review, the CEAC has taken a staggered approach, targeting 2 or 3 of the core learning outcomes each year. The committee has also developed the first draft of a college-wide handbook for assessment, which offers detailed rubric and assessment matrices that will form a common standard across all levels and majors. While still a work in progress, "Engineering's Educational Assessment Handbook" has already addressed several learning outcomes comprehensively.¹⁹

College of Human Ecology

The Educational Policy Committee (EPC) and directors of undergraduate studies for each academic plan lead assessment in the College of Human Ecology (CHE). In spring 2019, the EPC reviewed College learning outcomes, focusing attention on their relationship to University, department, and academic plan learning outcomes. They agreed that all students completing an academic plan should encounter every learning outcome for that plan at least once, and that every learning outcome should be addressed in a required course.

All departments in the College complete assessment reports as part of the annual reporting processes. Here are some examples of ongoing assessment activities:

• In 2015-2016, Design and Environmental Analysis (DEA) reviewed course learning outcomes in preparation for re-accreditation reviews by the Council

¹⁹ https://indd.adobe.com/view/454f3ecb-bc97-461f-9dd8-18d5f5f4d540

- for Interior Accreditation and the International Facility Management Association.
- During the last academic year, the Division of Nutritional Sciences focused on one specific learning outcome: that students should be able to "Demonstrate the ability to access and critically evaluate scientific information from the primary research literature to investigate causal effects of nutrition and other environmental factors in human health and disease." Instructors set target levels above 80% for all courses involved in this assessment, and all courses met their targets.
- Learning outcomes are part of discussions of all new Fiber Science and Apparel Design courses, and are considered in curriculum reviews by the FSAD faculty.
- After previous assessments showed that students were not achieving outcomes in research ethics, two faculty members included a new focus on ethics in their classes. Robert Sternberg taught HD4450, Ethical Challenges in the Brain and Behavioral Sciences, and Elaine Wethington lengthened her segment on research ethics in HD3570, Social Inequalities in Physical and Mental Health, and now incorporates questions about research ethics into her tests and assignments.
- All graduate programs associated with CHE departments now have assessment plans posted on the Graduate School web site and have completed one round of reporting on outcomes from these assessments.

All courses offered by faculty in CHE include learning objectives in their syllabi. Compliance rates for incorporating learning outcomes are currently very high: they are articulated for 98% courses, and are posted on 91% of syllabi. But there is room for improvement in assessment reporting.

Particular areas of emphasis for the coming years will be:

- 1) Leadership across the College—not limited to departments—and engaged learning courses will participate in the assessment process and will report any changes based on previous assessments.
- 2) Applications for new courses are taking a new online form, which will allow stakeholders to track the relationship between learning outcomes for individual courses, departments and the College, and to assess whether students have ample opportunities to achieve all outcomes.

3) A new system will share strategies used by individual faculty assess learning outcomes and give examples of ways that faculty have used assessment to make changes to their teaching.

School of Industrial and Labor Relations

Faculty in the School of Industrial and Labor Relations (ILR) have identified six core learning objectives. Every year, as part of their annual performance reviews, faculty are required to identify one of the six objectives; they must describe how they assessed that objective in a course they taught during the year, and how they used the results of that assessment to improve the course. This approach to information gathering, combined with data analysis from a 2016 strategic planning process and a number of qualitative evaluations, resulted in a full curriculum review beginning in the spring of 2017. This review became part of the self-study that ILR produced for their external review in 2019.

All ILR faculty are expected to include learning objectives in their course syllabi and to assess their courses and report their progress in Activity Insight, the online faculty review portal. Although assessment of the School's one major occurs does not occur annually, ILR conducted a thorough review over the past two years as part of the School's review of the undergraduate curriculum.

For the curriculum review, the Senior Associate Dean for Academic Affairs asked all faculty members who teach core undergraduate courses to describe the extent to which their core course meets each of the School's six learning objectives. He constructed a grid that listed each of the School's learning objectives on the vertical axis and each core undergraduate course on the horizontal axis. A meeting about this grid enabled the School to determine how well it was achieving each of its learning goals across the curriculum and to discuss means of assessing these goals in each of the core courses.

Assessment efforts have helped to identify areas where ILR students could use additional coursework to achieve school-wide learning objectives. The Curriculum Committee made use of this information to propose revisions to ILR's undergraduate curriculum. Their recommendations include the following: expanding the statistics/data analysis element of the curriculum; requiring students to take an introductory course in International and Comparative Labor; requiring students to take an advanced "writing intensive" ILR course; and requiring students to take an advanced course focusing on diversity and inclusion.

The School's Teaching Advisory Committee has focused attention on assessment, including a session for all faculty devoted to Learning Goals for Students. This committee also serves as a central repository for the assessment information supplied by faculty in their annual reports. In response to a meeting about student writing, the Curriculum Committee proposed that students be required to take an advanced "writing intensive" course. The Teaching Advisory Committee plans to devote future meetings to assessing the students' achievement of learning goals, including ways to assess progress.

The Graduate School

Since 2010, the Graduate School has rationalized assessment to ensure that graduate students are meeting learning goals articulated by each individual graduate field. Various methods of data collection, mapping enrollment data, and studying student progress reports have pointed to pathways to improving outcomes for all graduate students, particularly those from underrepresented groups.

The Graduate School engages four approaches for reviewing graduate programs and encouraging continual improvement:

1. External reviews

Academic department reviews, overseen through the Faculty Committee on Program Review (FCPR), must include evaluations of graduate education. Each unit's self-study must give a critical analysis of graduate education and plans for the future. The Graduate School provides data to inform the self-study, including numbers of applications and admissions, enrollments, median time to doctoral degree, doctoral attrition and completion rates, funding trends, student perceptions based on survey results for all degree programs, doctoral alumni career outcomes, and student diversity, including gender, race/ethnicity, and citizenship. The department provides explanations for any significant changes in their graduate programs, and outlines plans to strengthen or maintain current programs, or eliminate weak areas.

2. Biennial meetings of each Director of Graduate Studies with the Graduate School leadership team

Approximately every two years, each Director of Graduate Studies (DGS), along with the department chair, if they choose to attend, meets with the Graduate

School dean and associate deans to discuss graduate field program achievements, opportunities, and challenges; trends in student metrics; and suggestions about how the Graduate School can better support the field faculty and graduate students. Topics regularly discussed include curricular issues and degree program requirements, the purpose and design of qualifying and admission to candidacy exams, attrition timing and amount, factors contributing to time-to-degree, doctoral student funding patterns, program climate, student perceptions of faculty advising and obstacles to success, the value of meeting with doctoral student cohorts regarding issues specific to their particular stage of the academic program, and career/professionalization preparation.

3. Biennial reports of graduate student learning objectives

Learning goals pertaining to the degree programs of the Graduate School have been in place since 2011, ²⁰ and learning outcomes are posted for every Graduate School degree program in the online Fields of Study²¹ catalog. Each graduate field is required to submit a biennial assessment report to the Graduate School, describing information that the faculty has examined in relation to one or more of the field's learning outcomes, observations or conclusions that resulted from that consideration, and changes made or planned based on the results. The Graduate School reviews these reports, sends feedback to the Directors of Graduate Study, and gathers examples of model practices to share with all fields. Changes made by graduate fields in recent years include streamlined proficiency requirements for PhD students entering with a master's degree, improved teaching assistant training, first-year seminars targeted to support the development of specific skills, and new requirements for the frequency of special committee meetings. Learning goals for several graduate degree programs have been recently updated.

4. Data dashboards

The Graduate School has made publicly available data²² that includes student survey results, doctoral career outcomes, doctoral alumni career-related perceptions, doctoral attrition, doctoral completion, doctoral median time to

²⁰ https://gradschool.cornell.edu/degrees-fields/program-metrics-assessments-and-outcomes/learning-assessment/

²¹ https://gradschool.cornell.edu/degrees-fields/cugradfos/

²² https://gradschool.cornell.edu/degrees-fields/program-metrics-assessments-and-outcomes/

degree, enrollment, and admissions. For directors of graduate studies and graduate administrators, the Graduate School has developed a real-time data dashboard that allows graduate fields to filter and sort students and faculty who serve as special committee members; these filters can be according to degree program, field, discipline, term or year, and other parameters. The user can also view and compare graduate fields, which means that a DGS can compare their field's performance to related or aspirational peers at Cornell, and to aggregate the data by an umbrella discipline to be able to compare their specific field to the overall performance of all the fields that make up that discipline at Cornell. A portion of these data are used to inform the Biennial Field Meetings.

The Graduate School reviews specific fields and programs, and assesses student experiences more broadly across the University. Two major changes in response to these assessments are especially notable:

- Engagement and inclusion. Doctoral student surveys provide student-reported data on several measures of engagement and inclusion. The Graduate School monitors these data and develops professional development programs and guidance to graduate fields and faculty based on observed trends. For example, in 2013 the Graduate School found that doctoral students identifying as URM were less likely than other groups to engage effectively in early research opportunities, a demonstrated high-impact practice associated with long-term academic and professional success. Based on this assessment, the Graduate School made expanded its programming for URM students, described in greater detail in chapter 4, with the effect that doctoral students identifying as URM were significantly more likely to engage effectively in early research opportunities in 2017 than they had been in 2013.
- Graduate Student Progress Review (SPR). To support the regular exchange of constructive, written and verbal feedback between advisees and advisors, the Graduate School developed software for research degree students and their special committees to report on their annual progress. Students are asked to reflect here on their recent accomplishments, identify challenges, and set goals. Committee chairs review and assess their students' reflections and offer constructive feedback. Chairs indicate whether progress has been excellent, satisfactory, needs improvement, or unsatisfactory. This feedback is made available to the student, all members of the student's special committee, and the director of graduate studies and graduate field assistant in that student's field. The form

prompts feedback on potentially problematic areas and the discussion of possible remedies. The SPR was implemented in 2017 and is now an annual requirement in all graduate fields.

The Graduate School will be undergoing the process of self-study and external review in 2019-2020, which will include further assessments.

Cornell Tech

Cornell Tech is not a degree granting body, but a location for advanced study. Students at Cornell Tech receive Master of Arts and PhD degrees from the Graduate School on the Ithaca campus. Because the learning goals for the PhD programs of study at Cornell Tech are shared with the graduate fields on the Ithaca campus, they are included in reports to the Graduate School as described above.²³

Two graduate fields, Computer Science and Information Science, offer a small number of dual Cornell Technion Master's degrees. The Graduate School confers the MS-Information Systems degree, with concentrations or hubs in Connective Media and Healthier Life. Learning outcomes for this degree are listed on the Computer Science field on the Graduate School catalog.²⁴ The dual Cornell Technion M.Eng. degree is under the purview of the College of Engineering, not the Graduate School. Learning goals for that program may be found online.²⁵

Survey data collected at orientation and after students completed their degrees at Cornell Tech show a high level of satisfaction with the student experience and with the level of academic training students have received. Two-thirds of students report that the studio component of the curriculum had been effective in training them to develop new products, one of the learning goals; over three-quarters felt that the contact with faculty and business leaders had been successful.²⁶ In addition to these surveys, regular town halls with students have generated suggestions for improving student outcomes.

²³ https://tech.cornell.edu/programs/phd/phd-studies/

²⁴ https://gradschool.cornell.edu/academics/fields-of-study/subject/computer-science/information-systems-ms-cornell-nyc-tech/

²⁵ https://gradschool.cornell.edu/academics/fields-of-study/subject/computer-science/computer-science-meng-cornell-nyc-tech/

²⁶ See MSCHE evidence inventory: "End of Semester Fall 2018 results."

Weill Cornell Graduate School

In 2019, the Weill Cornell Graduate School revamped its approach to assessment, and created a set of overarching goals for the graduate educational experience. Each academic program has its own learning goals that complement the overarching outcomes. At both the School and program-level, academic leadership and program faculty assess whether learning goals are being met on an annual basis. They also review whether any changes need to be made to the overall learning assessment approach. Additional information may be found online.²⁷

Weill Cornell Medical College

The MD program is accredited by the Liaison Committee on Medical Education, and was last reviewed by a survey team in March 2018. The college is also accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The MD program objectives maybe found online.²⁸ Information related to the assessment of student learning may also be found online.²⁹

In August 2014, Weill Cornell Medical College launched an innovative new curriculum, centered on three themes: The Scientific Basis of Medicine, Patient Care, and Physicianship. The program enhances the integration of foundational sciences and clinical activities, and teaches medical students to "think like physicians" from day one. Students also participate in the Areas of Concentration program and select an area of research which culminates in a Scholarly Project. Each Area of Concentration has posted learning objectives and an assessment plan on its website. Teaching methods are assessed through a variety of methods that include papers and essays, and ratings from faculty and residents based on a rubric of performance indicators and targeted quizzes.

Law School

Accredited by the American Bar Association (ABA), the Law School underwent its most recent review in 2018. In preparation for this review, the Dean appointed

²⁷ https://gradschool.weill.cornell.edu/academics/learning-assessment

²⁸ https://medicaleducation.weill.cornell.edu/about-us/medical-education-program-objectives

²⁹ https://medicaleducation.weill.cornell.edu/medical-education/md-program/required-curriculum

a Special Committee on ABA Standards to develop learning outcomes and assessment methods and plans to use those tools to monitor the curriculum for the JD degree. The Special Committee reviewed the literature dealing with assessment, met with colleagues across campus, and attended conferences on outcomes and assessment presented at other law schools. The Special Committee also surveyed faculty to determine assessment mechanisms currently in use by faculty at the law school, including the Socratic Method, mid-semester work product, and classroom iclickers. As a result, the Committee proposed a set of learning outcomes for the law school programs, which the law faculty officially approved in 2018 and are now published.³⁰ Individual faculty are also expected to identify learning outcomes on the syllabus for each course that they teach.

The accreditation review revealed that some students wish for opportunities to hone their professional skills for legal careers. The school's most significant effort to address this need was a pilot program called the Professional Development Institute (PDI), a two-credit course in the upper-level curriculum. Here, students work in small teams to address a range of simulated problems in short assignments, running a day or two in length. Professors provide feedback in real time so that students can integrate that feedback as they progress. Student teams produce varying types of work, but the course puts a strong emphasis on informal, professional communications such as emails, summary overviews, and oral reports. Experts in the Cornell community give lectures and team-building exercises, and coaches assist student teams in working effectively and resolving disputes. The course ends with a capstone assignment where student teams present their legal solutions to practicing lawyers who give them real-world feedback on their skills.

College of Veterinary Medicine

The College of Veterinary Medicine is accredited by the Council on Education (COE) of the American Veterinary Medical Association. The last accreditation review occurred in 2017, and learning goals and outcomes are listed on the website.³¹

The College is required to submit annual reports to the COE addressing each of the eleven accreditation standards. One of these is the assessment of outcomes

³⁰ https://www.lawschool.cornell.edu/registrar/aba_standards.cfm

³¹ https://www2.vet.cornell.edu/education/doctor-veterinary-medicine/curriculum

for the program learning objectives and competencies. A faculty Syllabus Committee meets every five years to review the entire Doctor of Veterinary Medicine curriculum and to make recommendations to the College Curriculum Committee. The Syllabus Committee last completed a report in 2015.

An Interim Report to the COE in 2018 showed that the Vet School draws constructive and practical feedback on curricular structure and areas for improvement from a range of sources, including the clinical competency assessment during core clinical rotations, the Objective Structured Clinical Examinations, annual exit surveys of graduating students, surveys of 1-year and 5-year graduates and employers, meetings with student advisory groups, and the Syllabus Committee curricular review process. The College has developed a variety of initiatives to address areas of weakness identified by this data:

- Exit surveys revealed that a small number of students do not have opportunities to perform basic surgeries by the time they graduate, in part because of inconsistencies in case loads. To ensure a more standardized training experience, the college purchased 3 SynDaver Synthetic Canine models to ensure that surgical training is part of the core surgery rotation.
- The College launched a Veterinary Business and Entrepreneurship initiative in response to outcomes data around preparedness and an analysis of economic considerations. A revised version of the "Career Development and Practice Management" course this year will be offered again this year as part of the initiative.
- Exit and alumni/ae surveys showed that students currently feel inadequately prepared to perform emergency procedures. To develop emergency medicine teaching models in the Simulation Training Center, and to facilitate the integration of these models into the curriculum, the College has hired a registered veterinary technician with a Master's degree in veterinary science.
- Data from surveys and meetings with student representatives revealed the need to develop and support student psychological resilience as they move through veterinary school and their professional lives. In response, the College hired a Wellness Director, who will play a role in developing a school-wide culture of wellness, as well as in developing curricular changes to promote a positive psychological approach to stress and challenges.

Reporting from each of the units demonstrates that Cornell's curriculum is reviewed annually by departments who report whether learning goals are being met; these department and program reports are shared with deans, who are then communicating their findings with their counterparts in other colleges.

External Reviews

Cornell routinely monitors learning outcomes and educational effectiveness not only through its colleges and schools but also through external reviews overseen by the Faculty Committee on Program Review (FCPR).³² Every five to ten years, a committee of outside experts is invited to campus to review every curricular unit. An assessment of educational effectiveness is central to each external review: each department of program's self-study has to document how effectively students in their courses and major are learning based on the unit's learning goals.

Since 2016, 23 departments, programs, or units have had external reviews. Apart from departments and colleges, number of co-curricular units on campus have undergone extensive processed of self-study and external review, including the Einaudi Center, which oversees international programming, the Arts College Advising and Admissions office, the West Campus Initiative, and Engaged Cornell. Eight units are scheduled for review in 2019-2020.

In response to the assessment data generated through external reviews, departments and programs have made numerous changes. The evidence inventory includes a spreadsheet reflecting specific changes. Here are a few key trends and examples:

- Several programs, including Mechanical and Aerospace Engineering, Design and Environmental Analysis, and Policy Analysis and Management, have changed their curricula to ensure better alignment and continuity between courses at different levels.
- Classics and Plant Sciences used the occasion of their external reviews to apply for grants from the Active Learning Initiative.
- ILR, Africana Studies Research Center, and Entomology, among others, have developed public engagement and professional internship programs to meet university and college student learning goals.

³² http://irp.dpb.cornell.edu/academic-program-regulation/academic-program-review/faculty-committee-on-program-review

 Many units, based on student feedback and data, improved their advising structures in order to track student progress more closely, particularly in the first year.

The data we have collected shows that many instructors are making learning goals and objectives visible on syllabi and course instruction materials. Assessment processes are less consistent in measuring students' success in achieving these outcomes. A self-study from Human Development, based in the College of Human Ecology, for example, says: "There is excellent faculty compliance for listing the learning goals/outcomes on each HD course syllabus, however there is less than excellent compliance for reporting the assessment data."

Summary

Programs such as the Active Learning Initiative, the Knight Institute, Engaged Cornell, Global Cornell, and the expansion of the IDP project, depend on an institutional commitment to assessment. The Core Assessment Committee communicates the results of assessment activities across the units, and crosspollinates ideas across units. As we have noted, when departments apply for grants from ALI, Engaged Cornell, Global Cornell or the Center for Teaching Innovation, an assessment plan is a required part of all applications. The requirement for an assessment protocol requires that some assessment occurred in order to draft the grant proposal, these assessments informed the desired learning goals, and those assessments are necessary to evaluate the success of the grant. As we imagine next steps, we have several foci as we plan to continue to monitor and assess how well our new initiatives are working to support learning outcomes.

First, we plan to continue to collect and evaluate assessment data for our new programs and units. Programs such as the Active Learning Initiative, Engaged Cornell, and Intergroup Dialogue that emphasize more effective student engagement have spread through the university. We note that two new units, Cornell Tech and S.C. College of Business, which are closely tied to established departments and programs in Ithaca are expanding. The new curriculum in the Arts college will be rolled out in Fall 2020. In all these cases, we look forward to

³³ http://provost.cornell.edu/assessment/core-assessment-committee-resources/

further assessment data to follow whether students are successfully achieving program-, college- and university-wide learning outcomes.

Second, through the work of the Core Assessment Committee, we continue to ensure that we offer a high-quality education to our students. The committee has enhanced collaboration across departments, particularly in adjacent academic disciplines that have generated clusters of courses that students find attractive. We anticipate that our established cycle of assessment and data sharing between the different colleges will enhance the student learning experience.

We note with some satisfaction at how robust the process of external review has become at Cornell. These reviews have proved invaluable at linking departments to deans to the provost's office. We recognize there is still some unevenness in how assessments feature in the self-study reports written by different units; to address that concern, we hope that more rigorous investment in providing data through IRP and linking the work of the Core Assessment Committee with the external review process can be instituted.

We will continue to ensure that our students meet the learning goals we have established. As we move forward, assessing the success of our new initiatives and units will be critical in maintaining a high level of educational effectiveness.

Recommendations

Cornell should continue to evaluate whether new university-wide programs (such as Active Learning Initiative, Engaged Cornell, and Intergroup Dialogue) and the expansion of programs in new units (Cornell Tech and S.C. College of Business) are achieving program-, college- and university-wide learning outcomes.

Cornell should integrate the process of external review of departments and programs more closely with the Core Assessment Committee and Institutional Research and Planning to increase consistency and awareness of the high-quality data and resources available to support assessment.

Planning, Resources and Institutional Improvement

Financial Decision-Making and Planning Processes

As both a private university and the land grant institution of New York State, Cornell is unusually complex. Four of its 12 colleges—Agriculture and Life Sciences, Human Ecology, Veterinary Medicine, and the School of Industrial Labor Relations—are "contract colleges," established by state legislation and administered through the State University of New York. The State provides significant financial support for the operation and support of these colleges, and prohibits Cornell from receiving any income, profit or compensation for administering them. In 2014, the University established a hybrid budget model to allocate resources and distribute costs: it is a responsibility-centered budget model but one that ensures that the University does not profit financially from the operation of the contract colleges.

The fiscal 2020 operating budget for Cornell University totals \$4.77 billion, with the Ithaca campus constituting \$2.53 billion of the total (see Figure 2 below). The Board of Trustees has ultimate responsibility for University-level strategic directions and accountability, although in practice they delegate this authority to the President.

Two provosts divide responsibility; the University Provost makes decisions for the Ithaca campus, and the Provost for Medical Affairs does the same for Weill. Although deans and vice presidents are charged with overall management of their own colleges and units, the University Provost and Vice President for Budget and Planning oversee resource allocation on the Ithaca campus, and the Weill Cornell Medical College's Dean and Provost for Medical Affairs and the Weill Executive Vice Dean for Administration and Finance are responsible for resource allocation at the medical college. The Executive Vice President and Chief Financial Officer at the University level is closely involved with developing major operating and capital planning parameters and reviews operating and

capital budgets on both campuses before they are finalized. The Vice President for Budget and Planning reports jointly to the University Provost and the Executive Vice President and Chief Financial Officer, a reporting role that helps maintain up-to-date and consistent understanding and direction. Academic responsibility is delegated to the college deans, who meet regularly with the University Provost and provide annual reports.

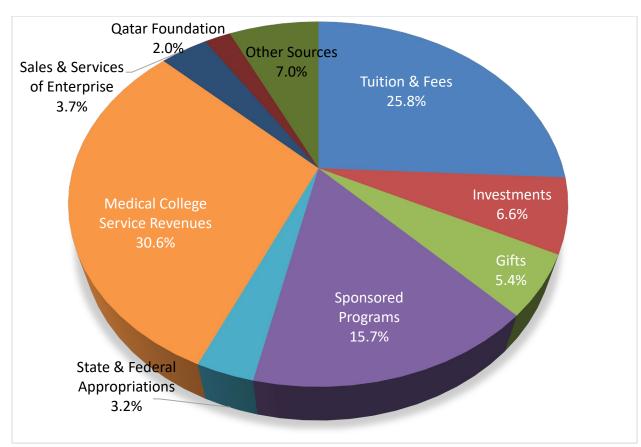


Figure 2. FY20 Total University Budget with Revenues of \$4.77 Billion

Operating Budget

10-Year Budget Model

Cornell recently developed a 10-year financial planning model to inform long-range resource planning for each of the campuses as well as the University as a whole. The 10-year model provides a long-term plan to support principled decision-making, allocate resources to the President's strategic priorities, and enforce financial discipline for all campuses. The model projects the growth rate of each major source of revenue and type of expenditure and ties the growth in

tuition revenues to the costs of compensation by linking each to the projected Employment Cost Index. The model is dynamic; input variables can be modified to show likely financial impacts. The University administration presents this model to the Trustees to provide context for their decisions.¹

As we see in Figure 2 above, tuition and fees are expected to generate about onequarter of Cornell's revenues in fiscal 2020, Weill's clinical services about 30%, and sponsored programs 16%. The most significant change in the revenue mix in recent years is the growth in clinical services at Weill Cornell Medicine, which amounted for just 18% of the total revenues a decade ago. Except for a planned enrollment increase—approximately 800 new students following completion of the North Campus Residential Expansion project—Cornell forecasts undergraduate tuition increases to be modest as annual growth rates are linked to a standard inflationary metric. Tuition has increased 3.8%, 3.8%, and 3.6% over the past three years, respectively. These are the lowest percentage increases in recent memory. The administration and the Board of Trustees are committed to keeping the rate of increase of tuition as low as possible in order to maintain and promote access. Because the endowment is expected to provide about 7% of the University's revenue, the expected payout from the \$7.3 billion of invested funds is an important budget parameter. In 2017 Cornell moved its endowment investment operations to New York City and has seen an improvement in its return.

The 10-year budget model allows for four important objectives and outcomes:

- It allows Cornell to fund strategic investments, and to direct resources to the University's most important priorities;
- It establishes a structural contingency fund for each college and major administrative unit, which will be managed by each entity to provide security against uncertain events;
- It connects the operating and capital budget models to ensure consistency between them; and
- It provides information to guide fundraising goals for future capital campaigns.

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¹ See MSCHE evidence inventory for "Exec Comm and BOT" pdf file with an example of the 10-year financial planning model.

The current 10-year model indicates a balanced budget, including some incremental strategic investment, but achieving Cornell's strategic priorities will depend on additional philanthropy.

The 10-year budget model for Cornell Tech assumes growth: it is expected to use the full capacity of the campus built through the first phase of development. The 10-year model will need to be updated once plans are in place for Phase II development. For Weill Cornell Medicine the 10-year model is based primarily on continuity. Weill Cornell Medicine does have a strategic plan, but implementing it depends significantly on new philanthropy, which means that it is too early for the strategic plan to shape the 10-year model.

Annual Budget Model

The Ithaca campus implemented a new annual budget model in fiscal year 2014 that is separate from the 10-year planning model. This model, which is a hybrid between a responsibility center management (RCM) and provost allocation model, guides senior leadership in making decisions that will allow Cornell to achieve its goals and strategic priorities. This annual budget model has four objectives:

- to create a common budget model across all colleges on the Ithaca campus (prior to 2014, the state colleges were on an RCM while the endowed colleges were on a provost allocation model);
- to help each unit achieve its strategic priorities;
- to raise sufficient funds to allow the University to pursue its strategic priorities; and
- to distribute revenues and expenses to all colleges based on a common and transparent set of drivers, thus aligning financial management responsibility with decision-making responsibility at the unit/college level.²

The annual model aligns resources with costs by distributing the cost of institutional support, or overhead, to revenue-generating units. The distribution is based on an estimate of the percentage of the overhead costs emanating from each unit, but it also provides a mechanism for the Provost to redistribute resources across units as well as to fund investment in institutional priorities.

² https://blogs.cornell.edu/dist/b/6138/files/2015/09/Budget-Model-Overview-3.7.17-11xsd1k.pdf.

Tuition and financial aid

Cornell pools undergraduate tuition and financial aid and then distributes the resources to colleges based on their average enrollments and responsibility for instruction over 5 years. Thus more tuition and financial aid revenue goes to colleges with more majors and those that teach more students. By design, the budget model encourages colleges to offer high- quality academic programs and course instruction in order to attract students to their courses, ultimately benefiting students. The hybrid model also mitigates the unintended consequences of these incentives by providing financial support to departments where effective instruction requires small class sizes via the Provost's allocation, which is described below.

Tuition for professional students goes first to the college of enrollment. A portion of professional tuition is then redistributed to the college of instruction.

Ten percent of all tuition earned after financial aid redistributions is "taxed" and placed in the University Support Pool (USP), which totaled approximately \$150 million in fiscal year 2020. The USP is critical source for the Provost to use to support individual colleges that need resources beyond the ordinary distributions. This pool is also a mechanism to fund strategic priorities and initiatives. The Provost invests a considerable portion of the USP funds in support the President's four key institutional priorities: academic distinction, educational verve, diversity and access, and One Cornell.³ At present the USP is supporting faculty recruitment and retention; investments in radical collaborations; diversity programs supporting faculty hiring and development; specific facility investments linked to strategic priorities; the Presidential Post-doctoral Fellow Program; general research investments; the Center for Teaching and Innovation; investments in gateway courses; and more. We describe several of these initiatives at greater detail in chapters 1 and 3.

Administrative and overhead costs

The University allocates administrative and overhead costs to colleges and other units based on key drivers of these costs: numbers of graduate and professional students, undergraduate tuition, numbers of faculty, numbers of staff, research expenditures, and a five-year rolling average of gifts received. Each unit is

³ https://president.cornell.edu/presidential-priorities/

allocated costs based on its proportional share of each of these metrics. One of the benefits of the budget model is that colleges are assessed costs as well as distributed revenues. By observing the actual costs of a college's financial aid, student services, etc., a college can make informed strategic decisions.

Incentives Created by the Hybrid Budget Model

All budget models present potential incentive issues that could work themselves into curriculum offerings. The hybrid RCM budget model presented a *possibility* that it would create incentives that would spill over into competition on course offerings where, for example, each college might offer courses that duplicate others in other colleges in order to garner more tuition revenue. In order investigate whether this was a problem (and to mitigate it were it found to be a problem), the Provost Curriculum Oversight Committee was charged to examine a number of these issues, including undue duplication of courses. The committee found that this was not a problem as there was very little duplication and when similar type courses were offered across colleges there was good rationale for this; they were designed differently based on the needs of the students in the respective colleges.

The introduction of the new budget model contributed to anxieties among Cornell's humanities and arts departments because it coincided with a national decline in student enrollments across arts and humanities fields. From 1985 to 2008, numbers of humanities majors were largely stable. Then, across the nation, humanities enrollments saw sudden and dramatic drops as students shifted to STEM and business fields. These fears intensified as some universities, like the State University of New York at Albany, suspended majors in French, Italian, classics, and theater on financial grounds.⁴

According to most commentators, many students believe—mistakenly—that only science, technology, and business majors will allow them to find well-paying careers.⁵ These commonplace understandings are in tension with Cornell's learning goals, which emphasize strong communication skills (both oral and written), knowledge of varying cultural practices and values, and the

⁴ https://www.npr.org/2010/11/15/131336270/cuts-to-university-s-humanities-program-draw-outcry

⁵ https://www.theatlantic.com/ideas/archive/2018/08/the-humanities-face-a-crisisof-confidence/567565/

ability to make moral and ethical choices. Cornell has emphasized humanistic skills as central to its mission.

A strict responsibility centered management (RCM) budgeting model would reward colleges that draw large enrollments and restrict resources to disciplines like English, music, performance arts, and foreign languages, where instruction requires small class sizes. The hybrid budget model, on the other hand, supports both colleges and majors with high enrollments and units that depend on small class sizes and low faculty-to-student ratios via the USP-funded Provost allocations that allow colleges to maintain faculty sizes at levels higher than they otherwise might be able to achieve. An example is the Provost supporting humanistic learning by helping fund the required First-Year Writing Seminars (FWS) where enrollment is capped at 18 students.

Weill Cornell Medical College

The resources of each campus (Ithaca, Weill Cornell Medical College, and Cornell Tech) are separated with the objective of having the campuses be fiscally independent. The total fiscal 2020 operating budget for Weill Cornell Medicine (WCM) is \$2.19 billion.

Like the University as a whole, Weill Cornell has developed a 10-year financial planning model to inform long range resource planning. The Office of the Executive Vice President and Chief Financial Officer review and report actual financial performance monthly through a financial dashboard.

The Weill Cornell Medical College has a process for allocating resources that is separate from the Ithaca campus. The chief academic officer, the Dean of Weill Cornell, and the chief budgetary officer, the Provost for Medical Affairs, have budgetary authority over the College's operating funds. The Office of Budget & Financial Planning (OBFP) coordinates the annual WCM budget process, which involves WCM senior leadership and several subcommittees: the Dean and Provost for Medical Affairs, the Mission Deans, the Chief Operating Officer, the University Trustees and WCM Board of Overseers, and sub-committees on Student Affairs and Education, Clinical Affairs/Physician Organization, Business and Finance, and Real Estate, Renovation and Facilities Planning. The process begins in late fall or early winter with the compilation of future planning assumptions based on current activities, recent trends, and planned strategic initiatives. Discussions of three-year financial projections, industry changes, and

market sensitivities include leadership of the tripartite missions—education, research, and high-quality patient care. The WCM Dean and Provost for Medical Affairs present key budget planning assumptions, including tuition, to the governing boards of the medical college and the University for their approval prior to each new fiscal year.

Once budget planning assumptions have been approved, the OBFP works with Weill Cornell administrative and academic units to forecast upcoming budget performance and validate planning parameters, such as changes in enrollments, grant activity, clinical operations, and endowment performance. The WCM Dean and Provost for Medical Affairs then present this information to the WCM governing Board of Overseers for approval, and afterward to the University Board of Trustees in the spring.

Cornell Tech

The fiscal 2020 operating budget for Cornell Tech totals \$50.3 million. The Dean and Vice Provost of Cornell Tech holds responsibility for resource allocation and reports to the Provost of the Ithaca campus, who provides overall oversight of budget and financial planning at Cornell Tech. The Cornell Tech Dean, Provost, and the Executive Vice President share a memorandum of understanding regarding the financial principles of Cornell Tech.

The Dean and the Chief Administrative Officer at Cornell Tech lead the annual budget process. They set tuition rates for degree programs at a rate identical to comparable degrees offered on the Ithaca campus. They align other major planning assumptions, such as investment payout, merit compensation programs, benefit rates, and graduate student stipends, with parameters on the Ithaca campus.

The highest priority for Cornell Tech, as a relatively new and growing campus, is hiring faculty and recruiting and supporting students. The Dean meets with leaders of academic program areas to establish faculty hiring priorities annually. For decisions involving non-academic investments, this group broadens to include the Chief Administrative Officer and leaders of major support functions.

The Cornell Tech campus will continue to grow over the next two decades, with phased plans for development through 2037. Phase I is currently being completed. Planning for Phase II will likely begin during fiscal years 2020 and

2021. As Cornell Tech's capacity and revenue continue to grow, it is expected to pay its proportional share of institutional support costs.

Planning Processes

Cornell has comprehensive processes for planning, resource allocation, and institutional renewal. The planning process is both regular and ad hoc. Regular elements include the 10-year financial planning model, the Provost Capital Planning Group, the Capital Funding & Priorities Committee, and major fundraising campaigns. Examples of ad hoc processes include the Provost's Curriculum Oversight Committee and the entrepreneurship initiative, which we describe further below. Planning can entail major initiatives such as the North Campus Residential Expansion or smaller ones such as managing enrollment in gateway courses. Multiple planning processes overlap and interconnect. For example, an individual college often has both an academic and a facilities plan; the University has both capital and operating budgets; and facilities planning incorporates both institutional and academic directions and needs.

Planning processes for major institutional initiatives are typically led by the Vice Provost or Vice President most closely associated with the initiative. The Office of Institutional Research and Planning (IRP) supports planning and decision-making processes. This office reports to the Vice President for Budget and Planning and, in order to provide accurate and objective information and analysis, it works closely with the Vice Provosts, the Vice President for Student and Campus Life, the Vice President and Chief Human Resource Officer, and the Deans. IRP provides ongoing data analysis in areas such as admissions, enrollment, financial aid, degree recipients, faculty and staff counts and demographics, diversity measures, faculty teaching loads, student and other survey research, and peer analysis. These data and analyses inform strategic decision-making.

Some major initiatives at Cornell develop when stakeholders and constituents identify an opportunity or a challenge. In these cases, Cornell develops specific planning, resource allocation, institutional improvement, and assessment functions. Here we describe an examples:

Entrepreneurship education and research

⁶ http://irp.dpb.cornell.edu/university-factbook

Cornell's evolution into a leader in entrepreneurship education and research is a story of multiple stakeholders. The first entrepreneurship program began in the early 1990s when the deans of the College of Agriculture and Life Sciences (CALS) and the precursor to the SC Johnson College of Business pooled resources and sought partnerships to form the University-wide Entrepreneurship and Personal Enterprise Program (EPE). It initially operated with little funding. Following a number of coordinated expansions of the program driven by donors, the EPE was renamed Entrepreneurship@Cornell in 2004.7 The program now runs large conferences, hackathons, dedicated internship and mentorship programs, the eLab business accelerator, and eHub spaces on campus in Kennedy Hall and in a new space for students, over 15,000 square feet in size, in the Collegetown district in Ithaca. Philanthropic donations totaling about \$4.5 million dollars allowed Cornell to renovate these spaces. Annual contributions from a dedicated advisory council, corporate sponsorships, a set of small endowments, and contributions from all 12 of Cornell's schools and colleges sustain the current program, which has an annual operating budget of approximately \$1.5 million, and is overseen by board of 12 deans. The fact that all of the schools and colleges have committed funds is a testament to the breadth and depth of interest in Entrepreneurship@Cornell.

Many and varied constituents contributed to the growth and evolution of this program. Student interest was high from the start, with large enrollments in the earliest classes and workshops, and steady growth over the last 10 years. Faculty were excited by the program and convinced of the need for University-wide planning and support.⁸ Alumni stakeholders recognized the value of entrepreneurship education in their own personal development and, together with administrators, were able to mobilize this interest to create tangible benefits for Cornell students. The new University-wide minor in entrepreneurship administered by SC Johnson College of Business, which was launched in 2018 and now has close to 100 students from seven colleges, is one example of the impact of this investment. Another indicator of success is the 900 undergraduate requests to reserve space in the eHub facility just in the last fiscal year.

⁷ http://eship.cornell.edu/

⁸ Streeter, Deborah; Jaquette, John. "University-wide entrepreneurship education: Alternative models and current trends" *Southern Rural Sociology*. 20:2 (2004): 44-71.

Human Resources

Four pillars anchor human resources work at Cornell: belonging, effectiveness, stewardship, and talent.

The recruitment, retention, and development of a talented workforce is critical to Cornell's mission. Without skilled faculty and staff, the University cannot discover, preserve, and disseminate knowledge; educate the next generation of global citizens; or promote a culture of broad inquiry throughout and beyond the Cornell community.

Cornell University employed 17,928 faculty and staff in 2018-19, with 43% located at Weill. Since Cornell's 2011 self-study, the number of staff and union employees outside of Weill has increased by 7%. The number of staff has grown most in the following three occupational categories: community, social service, and/or legal occupations; management; and student affairs, educational services and/or healthcare.

The University is committed to attracting and retaining an outstanding faculty. The Provost has launched an ambitious series of initiatives to enhance faculty hiring and pave the way to new discovery, called "Celebrating Radical Collaboration in Faculty Research." We describe this initiative in more detail in chapter 1.

Recruiting and retaining a diverse workforce is an institutional priority, and the Presidential Task Force on Campus Climate and the Provost's Task Force to Enhance Faculty Diversity have developed programs designed to facilitate diversity and inclusion. The Office of Faculty Development and Diversity (OFDD) also supports more than 100 professional development activities annually, with a focus on faculty of color and other faculty underrepresented in STEM. In September 2018, the Provost emphasized Cornell's commitment to a diverse faculty when discussing the progress of the Presidential Task Force on Campus Climate and the Provost's Task Force to Enhance Faculty Diversity: "We want to foster an environment that attracts faculty from all backgrounds, ethnicities and perspectives, seeks out scholars of diverse viewpoints, and encourages them to pursue their careers at Cornell for the long term." Cornell

⁹ https://president.cornell.edu/presidential-priorities/

¹⁰ http://facultydevelopment.cornell.edu/

has committed more than \$60 million over the next five years to recruit faculty from underrepresented groups and provide ongoing retention support. 11 These funds will come from philanthropy, the Provost's USP fund, and departments and colleges.

In order to foster inclusion, the University has adopted a purposeful approach to onboarding new employees. Resources include a welcome center website for newly-hired employees and acclimation tools for supervisors to help orient new staff. The Division of Human Resources works with members of the Colleague Network Groups, a platform for senior leadership to connect with marginalized communities around planning and executing diversity and inclusion strategies.¹²

The University monitors the number and demographics of new hires, keeping track of their source of recruitment, and breakdowns by job family/type, race/ethnicity, and gender, in order to inform future recruitment efforts. The number and proportion of Cornell employees who are members of racial or ethnic minority groups has grown in recent years, from 14% of all Ithaca and Cornell Tech staff in fall 2018 to 21% this past year.

As Cornell's workforce grows more diverse, it becomes increasingly important to foster an inclusive environment. This effort will help the University retain talent and help employees grow professionally. The University leadership and the Ithaca campus community have collectively identified a number of initiatives to create a more inclusive and welcoming campus for staff. One example is the Culture of Belonging Award, part of the President's Awards for Employee Excellence, which recognizes an employee who goes beyond expectations to create and support an open, inclusive, welcoming and equitable workplace environment for all members of the Cornell community. Another is the "Disability is Diversity" campaign, designed to enhance awareness of the disability experience, build a community of disability allies, develop a culture in which individuals are empowered to speak out, and move the campus toward greater accessibility for all.

Cornell strives to improve employee attitude, productivity, and a feeling of belonging. Initiatives include special campus-wide events to appreciate and recognize employees such as High Five RED Days and Employee Celebrations,

¹¹ https://diversity.cornell.edu/institutional-initiatives

^{12 &}lt;a href="https://hr.cornell.edu/colleague-network-groups">https://hr.cornell.edu/colleague-network-groups

as well as a staff appreciation portal that allows for quick messages—like thanks and congratulations—to be sent to peers across the University.

Given the increasingly mobile workforce, recruiting and retaining a talented workforce is challenging. The locations of the Ithaca, WCM, and Cornell Tech campuses all present their own specific challenges. Cornell supports employee recruitment and retention with flexible work arrangements, paid parental leave, employee wellness programs, onsite day care in Ithaca, child-care grants, and generous retirement benefits.

The University offers a variety of opportunities for staff members to advance their skills and abilities, including the Administrative Academy, which develops technical and professional job skills. The Management Academy helps managers and supervisors develop effective business operations, human resources, and other skills. The Turning Point Program, the Harold D. Craft Leadership Program, and Building Teams and Leading Change, are designed to develop leadership and supervisory skills. The New Supervisor Orientation program combines information about Cornell's HR policies and procedures and compliance requirements with training in the skills needed to carry out supervisory responsibilities. The Employee Degree Program allows eligible employees to enroll in degree programs at Cornell.¹³

Cornell's "Career Navigator" tool shows staff where their current roles might lead and offers tools to advance and explore new career areas. The "Colleague Connections" program provides networking and job shadowing opportunities for staff. "Gigs," or Experiential Development Opportunities, give employees opportunities to develop skills and learn about different departments through projects and short-term assignments beyond their normal roles. This program also provides managers with access to talent outside their department, which can help during busy periods or employee leaves.

Facilities and Infrastructure

Cornell has instituted a robust process for identifying, prioritizing, and authorizing major capital projects, as well as routine and planned maintenance,

¹³ There were 12 graduates of this program in 2018; another 11 employees graduated from other institutions using the Tuition Assistance Program.

and ensuring that there are funds available to complete these projects and perform routine maintenance once they have been built.

Proposed capital projects are usually initiated at the college level and are then reviewed by central administration. The Provost established a 14-member Capital Planning Group (PCPG) in the fall of 2015, Which includes three faculty members, two deans, the Vice President of Student and Campus Life, a Vice President from Alumni Affairs & Development, and other administrators. The PCPG prioritizes major capital needs by evaluating the feasibility and appropriateness of each project, reviewing its proposed scope, including its alignment with institutional priorities, and considering the cross-campus impact and potential synergy with other campus needs. The PCPG provides important input for the development of a rolling five-year capital plan and an annual capital budget that must be approved by the Capital Funding and Priorities Committee (CF&PC) and the Board of Trustees. This process ensures that the Provost reviews the objectives and projected costs of all significant projects before any significant work begins.

The Capital Funding & Priorities Committee (CF&PC) reviews and approves capital projects. ¹⁷ Its nine members include the President, Provost, Executive Vice President and Chief Financial Officer, Vice President for Facilities and Campus Services, Vice President for Alumni Affairs and Development, Vice President for Budget & Planning, and other administrators. The CF&PC reviews the design and authorizes the construction of major capital projects. Projects expected to cost more than \$10 million must be authorized by the Board of Trustees. The CF&PC's review and approval of capital projects is a key internal control point.

The Director of Capital & Space Planning, in coordination with Facilities & Campus Services (FCS) and under the direction of the Vice President for Budget and Planning, reviews the capital needs submissions. The Vice President for Budget and Planning leads the development of a one-year capital budget, keeping track of future spending for projects that will not be complete within the

¹⁴ The 2016 Report of the Campus Planning Committee recommended 12 prioritization criteria.

¹⁵ https://dbp.cornell.edu/home/offices/capital-budget-integrated-planning/provosts-capital-planning-group/

¹⁶ A facility or IT project is defined as a "capital expenditure" if it is expected to cost \$250,000 or more.

¹⁷ https://dbp.cornell.edu/home/offices/capital-budget-integrated-planning/capital-budget-integrated-planning/

year and maintaining a 10-year plan for major capital projects. The 10-year capital plan identifies major priorities and their anticipated costs and funding strategies. It also sets directions and priorities, but each project must be reviewed and approved separately at the appropriate time. The capital budget is reviewed closely against the operating budget to ensure that the operating budget has the necessary resources available and is fully documented. The CF&PC reviews the one-year budget and ten-year capital plan, and approves the one-year budget before presenting it to the Finance Committee of the Board of Trustees. The full Board approves the one-year capital budget along with the operating budget.

The review process seeks to limit the development of new space and to reuse and renew existing space where possible. Future maintenance needs are an explicit component of every project's budget. Before any work on feasibility or design can proceed, the Provost or the Executive Vice President must approve any project that is expected to cost more than \$2 million.

One of Cornell's most significant current capital projects is the construction of new residence halls on North Campus (NCRE), which began in 2019 and is expected to be completed by 2022. These halls will provide an additional 2,000 beds. The NCRE project came out of an extensive Housing Master Plan in 2017, which included students, faculty, staff and community partners. It found a significant shortage of residential accommodations on campus and in the surrounding community, creating untenable conditions for second-year Cornell students who struggle to find adequate affordable housing. The North Campus Residential Extension was one of the first projects to come to fruition through the newly-revised capital planning processes, with regular involvement from the PCPG and CF&PC. Once it is complete, there will be ample on-campus housing for all first- and second-year students, and Cornell will be able to support modest enrollment growth.

Sustainability is a key factor in decisions surrounding uses of space and capital planning. The Sustainable Cornell Council was formed in 2019 and includes senior administrative and academic officials. Its goals are to help create a more sustainable campus and community and support partnerships for global impact. ¹⁸ Cornell's Ithaca campus aspires to be carbon-neutral by 2035. The Ithaca campus has also adopted a minimum construction standard of LEED

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¹⁸ https://sustainablecampus.cornell.edu/our-leadership/sustainability-plan

Silver, with many projects exceeding this standard. The University monitors its Energy Use Intensity and has a goal to be at least 30% above the requirements of the New York State code. The University is aggressively pursuing cutting-edge technology that will allow it to achieve the 2035 carbon-neutrality goal.¹⁹

Information Technology

In 2017 Cornell centralized essential IT operations to ensure that they operate in a manner consistent with the University's requirements for data security, data confidentiality, and business continuity. An essential part of that process has been the formation of the IT Governance Council (ITGC), which has final decision-making authority for information technology across the Ithaca campus, including Cornell Tech.²⁰ The ITGC, which consists of the Provost and five other administrators and faculty, advises the Chief Information Officer (CIO) on institutional priorities and compliance, and approves enterprise IT capital requests. The ITGC strives to reduce duplication of services, ensure appropriate use of institutional data, and coordinate with pertinent stakeholders.

The IT governance process allows colleges and units to obtain and develop IT applications that meet their unique needs and to supplement or create new applications and related services that are not provided by central systems. Data used to exist in multiple incompatible formats, which made it difficult to share and analyze. Now the IT function is migrating to the cloud, which allows the IT capital budget to be focused on research and teaching.

Software is evolving to improve the student experience. Cornell has completed its shift to Canvas as its Learning Management System (LMS). Canvas has a clean, modern interface that most faculty and students find easier to use than the Blackboard system it replaced. Switching to Canvas provides an opportunity to encourage innovation in teaching and to engage the faculty in reflection on the tools they use for the classroom. Canvas's emphasis on the easy integration of third-party tools, open source framework, and community-driven development allow Cornell to develop and implement innovative teaching tools to meet our specific needs. It also enables instructors to share teaching resources.

¹⁹ https://sustainablecampus.cornell.edu/options-carbon-neutral-campus

²⁰ https://it.cornell.edu/itgovernance-it-partners/it-governance-council-itgc

Salesforce software for customer relationship management (CRM) will soon streamline student interaction with the University.²¹ The Salesforce webpage includes formal programs, research opportunities, funding possibilities, and more, all in one place. Those who want to do more than browse must log in using a netID, which allows Salesforce to assess who is interacting on Cornell's web pages. The data will help Cornell to redesign the site to promote access for students who are less tuned in and for prospective students.

Audit

Cornell University has an independent financial statement audit performed each year. Pricewaterhouse Coopers LLP, the independent audit firm, issued a clean audit opinion, stating that the financial statements fairly present the financial position of Cornell University.²² The independent auditors did not identify any significant internal control matters during the audit. An indication of the University's strong financial position are the credit ratings issued by the two primary rating agencies: Moody's assigned Cornell University a rating of Aa1, and Standard and Poor's a rating of AA. Both ratings were reaffirmed in March 2019.

Measuring and Assessing Effectiveness

Cornell periodically assesses its planning, resource allocation, and institutional renewal. For example, the Office of Faculty Development and Diversity assesses the effectiveness of its activities with an institutional dashboard that tracks hiring, promotion and retention.²³ Assessing the "Radical Collaboration" initiative will involve tracking the number of new faculty hired in the eight disciplines, collaborations, proposals, grants submitted, and new research centers.

In most cases, individual initiatives use customized methods for measuring, assessing, and recommending ways to increase the efficiency of resources. For example, Engaged Cornell, *described in more detail in chapter 3*, has a website to track courses where students go beyond the classroom to connect theory and

²¹ https://experience.cornell.edu/

²² https://www.dfa.cornell.edu/controller/reporting

²³ http://irp.dpb.cornell.edu/university-factbook/diversity.

practice.²⁴ In another example, the University has appointed a Vice Provost for Academic Integration to forge and strengthen connections between the Ithaca and New York City campuses. The Provost will be responsible for assessing the effectiveness of the Radical Collaboration and the Ithaca-Weill integration initiatives. Metrics to assess the effectiveness of this institutional investment have shown an increase in collaborative extramurally funded grant programs between the two campuses. Similarly, the Cornell Center for Health Equity, a campuswide research center devoted to community-engaged research, includes membership from multiple colleges, including WCM, Cornell Tech, and the Ithaca campus. Assessing the effectiveness of the institutional investment has included tracking the number of collaborations, proposals, and grants submitted related to the health equity.

Summary

Cornell is a complex institution. The diversity of its revenue streams provides some protection against budgetary shocks. Budget processes are thoughtful and forward looking. Planning and assessment activities happen at multiple levels throughout the institution. Although not centralized, they are a part of the institutional culture and are robust.

²⁴ https://engaged.cornell.edu/courses/

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Governance, Leadership and Administration

Cornell University has a long-standing and robust governance structure,¹ an experienced leadership team, and an effective administration. The University reviews and updates its policies and procedures² on a regular basis to ensure that they are organized and transparent.

The bylaws of Cornell University specify its governance structure,³ including a Board of Trustees;⁴ separate Boards of Overseers for Weill Cornell Medicine⁵ and Cornell Tech⁶; and constituent assemblies.⁷

Board of Trustees

Cornell University has an active Board of Trustees with a membership that reflects the diverse character of Cornell's educational mission and constituencies. According to its bylaws,⁸ the 64-member board shall include the New York State Governor (one of four ex officio voting members); three trustees appointed by the Governor; members selected to represent the fields of agriculture, business, and labor in New York State; eight elected from and by the alumni; two elected from and by the faculty; two elected from and by the students; one elected from and by the nonacademic staff; and the eldest lineal descendant of university founder Ezra Cornell.

Most trustees serve four-year terms. Once elected or appointed, all new members receive a Trustee Orientation notebook, which is updated annually, and are

¹ http://dbp.cornell.edu/university-org-structure/

² https://www.dfa.cornell.edu/policy

³ https://trustees.cornell.edu/Shared%20Documents/19-2%20bylaws%20w-TC.pdf

⁴ https://trustees.cornell.edu/Pages/welcome.aspx

⁵ https://overseers.weill.cornell.edu/

⁶ https://tech.cornell.edu/people/board-of-overseers/

⁷ https://assembly.cornell.edu/

⁸ https://trustees.cornell.edu/Shared%20Documents/19-2%20bylaws%20w-TC.pdf

oriented by the Chairperson of the Board, the Secretary of the Corporation, and members of the administration. A follow-up to this orientation takes place midway through the first year as a board member.

The Board of Trustees has control over the University, including every college, school, and academic department, division and center. The Board adopts an annual plan of financial operation for the entire University, upon recommendation of the Executive Committee and the Board of Overseers.

The University Counsel and Secretary of the Corporation, Madelyn F. Wessel, is responsible for governance matters involving the Board of Trustees and is the official record keeper for the proceedings of the Board of Trustees meetings. The full Board meets in Ithaca in March, May, and October, and in New York City in January. ⁹

Members of the Board of Trustees understand their role as supporting the President and senior officers. In their description of the President's role in the 2016 presidential search, the Board explicitly described the President as the visionary, leader, manager, and spokesperson for the University. The Board publicly supports the President on public statements about the University's independence and changing public policies.

The Board and University administration periodically review representation on the Board, asking whether it is sufficiently diverse and whether the numbers of staff, students, and faculty board members are appropriate. Current board members come from business, design, human and veterinary medicine, law, academe, and a wide range of career paths; geographically, they include people who live in China and India as well as across the United States; and they are racially and gender diverse. Many trustees serve on advisory boards to the various colleges, giving them additional ways of interacting with the university community. The Committee on Board Composition and Governance (CBCG), in consultation with University officials and Board leadership, recently identified areas that could be better represented on the Board, including fiscal/development abilities, ethnic diversity, and specific areas of academic and administrative expertise. The CBCG also considered whether the Board of Trustees should undertake a broader self-evaluation, and reported to the Board that current

⁹ During the COVID-19 pandemic, meetings of the Board and its committees have been held online through videoconference software.

procedures already adequately addressed issues such as diversity, operation, and orientation, concluding that a full-scale self-examination would divert them from higher priority issues.

Fourteen standing committees of the Board oversee academic quality, fiscal management, and other University functions. Each committee receives regular reports from relevant administrators and, when it deems appropriate, requests reports and updates on new and continuing initiatives. By delegating most detailed discussions to these committees, the Board ensures that all members are engaged in substantive discussions about key issues. Most committees meet in the day or two preceding full Board meetings; some also meet during intervening periods. Each committee provides an oral report to the full Board at each regular meeting, and a written annual report. The CBCG (which itself evolved from an earlier Nominations Committee) regularly reviews committee structures and charges, recommending changes when needed. Board committees include the Executive Committee, the Committee on Academic Affairs, the Committee on Research and Innovation, the Committee on Student Life, the Investment Committee, the Audit, Risk and Compliance Committee, the Finance Committee, the Committee on University Relations, the Buildings and Properties Committee, the Committee on Board Composition and Governance, the Committee on Alumni Affairs, the Committee on Development, the Trustee-Community Communication Committee, and the Committee on Compensation. Other task forces are created on an ad-hoc basis to address special needs (such as a task force in the early 2010s on the creation of Cornell Tech).

Each committee has a detailed charge. For example, the Academic Affairs Committee for the Board advises on educational policy and the academic programs of the whole University except for the Medical College. This committee:

- 1. reviews the long-range academic goals of the University;
- 2. informs and advises the Board about the educational implications of new programs and degrees and the termination or substantial reduction of academic programs, including degree programs for the Medical College;
- 3. informs the Board about financial decisions that could have a substantial impact on educational policy or programs;
- 4. advises and reports to the Board about the University's recruitment, admissions, and financial aid policies and procedures;

- 5. considers the role and responsibility of the University as the land grant institution for the State of New York, including matters of outreach and extension;
- 6. updates the Board on matters related to the research mission of the University;
- 7. periodically reviews faculty appointment, promotion, tenure, and dismissal policies;
- 8. approves the appointments of faculty to named chairs;
- 9. elects faculty who are deemed qualified for appointment for indefinite tenure; and
- 10. considers other matters of academic import as the Board or the President may request.

Many committees work closely together, such as the Finance and Investment committees, the Alumni Affairs and Development committees, and the Academic Affairs and Student Life committees. For example, the Committee on Academic Affairs meets with the Committee on Student Life at least once a year, and sometimes more often, to consider items of importance to both committees. Such issues may include advising, mentoring, civic engagement, public service, diversity, the first year experience and the living/learning initiative.

In order to ensure transparency and communication, the deans of the colleges—in addition to members of the central university administration—attend all Board of Trustee meetings. The Executive Committee of the Board also meets annually with the deans of the colleges and schools for frank exchange about governance, strategic planning, and the overall mission of the university.

The Board establishes the Search Committee for a new President, and has final approval over the appointment. This procedure, unfortunately, had to be used twice in the last five years, first to appoint President Elizabeth Garrett and then to identify her successor when she died after just 8 months in office. Each time, the search committee included a broad array of constituents: trustees, students, faculty, and staff. Open fora on campus and elsewhere solicited broad feedback.

Boards of Overseers

In 1980, the Board of Trustees created a separate Board of Overseers¹⁰ for the Weill Cornell Medical College because it had been difficult to streamline communication and share decision-making across the distance between Ithaca and New York City. The Board of Trustees retains ultimate governance authority over Weill Cornell, but it delegates powers regarding the Medical College and Graduate School of Medical Sciences to the Board of Overseers, which is actively engaged with day-to-day operations.

The Board of Overseers has broad representation: five ex officio members (including the Cornell President and Chair of the Board of Trustees) as well as ten university trustees, one full-time Weill Cornell faculty member, one member of the voluntary faculty of Weill (private physicians who contribute to education, clinical research, and clinical care), one medical student, and two members of the board of New York—Presbyterian Hospital, Weill Cornell's primary teaching hospital affiliate. The overseers also elect 50 public members drawn primarily from the greater metropolitan New York City area; this group includes alumni, medical educators, community partners, and donors. The Weill Cornell Board of Overseers operates through a series of committees specified in the enabling resolution, which is periodically updated and included as an appendix to the University bylaws.

A second, separate Board of Overseers¹¹ of 14 people is responsible for oversight of the affairs of Cornell Tech. The Cornell President, Provost, and Chair of the Board of Trustees sit on the Board of Overseers, as well as several university Trustees or Trustees Emeritus. Other members are drawn mostly from industry. Because of the tight integration of Cornell Tech with departments on the Ithaca campus, this Board of Overseers has more limited authority over some financial matters and faculty appointments than the Weill Cornell Board of Overseers. The enabling resolution is included as an appendix to the University bylaws.

¹⁰ https://overseers.weill.cornell.edu/

¹¹ https://tech.cornell.edu/people/board-of-overseers/

University Assemblies

Shared governance operates through university assemblies representing various constituencies on campus. ¹² There are five assemblies on the Ithaca campus: Student Assembly (undergraduates); Graduate and Professional Student Assembly; Employee Assembly; Faculty Senate; and University Assembly (consisting of representatives of the other assemblies). On the Weill Cornell Medicine campus, an Executive Faculty Council brings together the deans, associate deans, department chairs, and other designated members. A General Faculty Council includes representatives from the educational, clinical, and research faculty, as well as postdoctoral associates and faculty from affiliated institutions and hospitals.

Each assembly (and their various subcommittees) enables members of the community to have access to information, voice concerns, examine issues, and make recommendations to the administration. The assemblies provide a community-based response to administrative actions and proposals, and also act as advocates for them. They provide fora for active and open debate, the discussion of controversial issues, the exchange of ideas, and proposals for the common good. Resolutions from the Ithaca campus assemblies go to the President, who provides formal responses.

Each of the assemblies periodically reviews its own membership; in recent years, for example, the Faculty Senate has added representatives from the non-tenure-line research, teaching, and extension faculty; the GPSA has added representation from Cornell Tech; and the SA has added representation for students with disabilities and enhanced the scope of its liaison to the LGBTQIA+community.

Each college also has its own governance structure to represent the concerns of faculty, students, and staff. Some operate through executive committees (such as CALS)¹³, while others engage the entire faculty through standing committees and

¹² https://assembly.cornell.edu/

¹³ https://cals.cornell.edu/faculty-staff/faculty-governance/structure-and-procedures-cals-faculty-governance

physical or virtual meetings (e.g., CHE, CAS)¹⁴. Many deans also have formal student advisory councils to ensure regular input from students in their colleges.

The President and Provost engage regularly with the University Assembly, Student Assembly and the Faculty Senate. The President visits these assemblies at least twice a year to discuss updates and answer questions.

The assemblies also provide an important link between the Board of Trustees and the campus constituencies. The student, faculty, and staff representatives on the Board are all ex officio members of their respective assemblies. These trustees participate in campus committees, task forces, and other service to the University. During Board of Trustee meetings on the Ithaca campus, formal meetings are held between Board leadership and leaders of the various assemblies.

Cornell strives to move decision-making close to the parties who are most accountable for the impact of the decision: departments make decisions about their own majors and faculty hiring, colleges about their own programs, and so on. The Faculty Senate on the main campus, and the Executive and General Faculty Councils at Weill Cornell, make decisions about general academic titles and overall academic policies. University leadership is responsible for overall university financial health, the common student experience, and overarching policies and practices that may govern local decision making.

In practice, the challenge of identifying the proper sphere for a specific decision sometimes involves collaborative compromise. For example, one immediate need during the response to COVID-19 was to establish University policy on Satisfactory/Unsatisfactory (S/U) grading – should it be mandatory or optional? The SA supported mandatory S/U grading for all courses. The Faculty Senate supported giving students choice about individual grading options. Ultimately, the administration chose to make S/U optional, but allowed students to make their choices up to the last day of exam period. Another need was a unified approach to academic integrity and equitable instruction, which came with a

https://www.human.cornell.edu/about/administration/governance/committees, https://facultymeeting.arts.cornell.edu/meeting/

¹⁵ https://www.cornell.edu/coronavirus/teaching-learning/students.cfm, under "Grading" tab

single statement endorsed by the two student assemblies and the Faculty Senate.¹⁶

Cornell's historic tendency toward decentralization serves well the core academic missions of colleges and programs. However, localized decision-making—especially when coupled with a budget model that emphasizes self-sufficiency—can also result in a splintering of efforts. Ultimately, while there may be areas where greater centralization would be helpful, the balance of the university's organizational structure does meet the need for clear "lines of sight" up and down the organization.

The Board of Trustees demonstrated their commitment to shared governance in 2019, when a controversy emerged over the election of the student-elected trustee. Though the Board Chairman and the President publicly disagreed with the decision of the Trustee Nominating Committee¹⁷, which managed the election, they also explicitly stated that they had no authority to challenge its actions. The Trustee Nominating Committee eventually asked the Board's Committee on Board Composition and Governance to assess the issues raised by the controversy, which led both to a resolution of the immediate concerns and a robust discussion and restatement of the relevant principles and procedures.¹⁸

Similarly, when campus concerns about divestment of fossil fuel investments reached the Board of Trustees in 2015, the Board established a process in which it would respond if all five Ithaca assemblies requested it. In early 2020, all five assemblies passed a resolution requesting divestment. The President discussed the issue with the Board, the Investment Committee explored the issue, and in May 2020 the Board voted to endorse the Investment Committee's establishment of a moratorium on direct investments in fossil fuel, including a goal of eliminating current investments.¹⁹

http://theuniversityfaculty.cornell.edu/faculty-senate/archives-and-actions/current2-draft/resolution-147-s20-commitment-to-academic-integrity-and-equitable-instruction/

¹⁷ Subsequently reconstituted as a "Committee for Campus-Constituency Elected Trustees," to more properly indicate its role.

¹⁸ https://cornellsun.com/2019/04/24/jt-baker-21-would-have-won-trustee-election-will-serve-with-jaewon-sim-21/

¹⁹ https://news.cornell.edu/stories/2020/05/cornell-announces-moratorium-fossil-fuel-investments

Not all issues over shared governance are fully resolved. In Cornell's shared governance system, the bylaws specifically authorize the university faculty to "consider questions of educational policy which concern more than one college, school or separate academic unit, or are general in nature" (Article XIII, section 2). Clearly, many administrative decisions made by the central leadership apply to more than one unit. At Faculty Senate meetings, some members have argued that decisions about allocation of resources, such as tuition rates, budget models, or building construction, affect education across colleges and are therefore the proper purview of the Faculty Senate. The university leadership and the Board of Trustees interpret Article XIII more narrowly. Several resolutions passed between 2000 and 2015 called for more timely and transparent interaction between the administration and the Faculty Senate on major issues.²⁰

The Faculty Senate clashed with the Board of Trustees soon after President Elizabeth Garrett assumed office in 2015. Following the recommendations from a series of internal studies, Garrett proposed the creation of a College of Business that would incorporate three existing units: the Johnson Graduate School of Management, the Hotel School, and the Dyson School of Business, an undergraduate unit within the College of Agriculture and Life Sciences. Two days after the announcement, the Faculty Senate adopted a resolution requesting that the Board of Trustees table the creation of the new college until after the Senate had time to consider it. The Board declined to do so and established the college at its next meeting. Many faculty members voiced displeasure, ²¹ and sponsors withdrew a Faculty Senate motion to censure Cornell's central administration and Board of Trustees two days before a scheduled vote only because of President Garrett's death.

An informal committee was created to foster discussion between the Faculty Senate and the administration regarding interpretation of Article XIII, which as noted above authorizes the university faculty to consider questions of educational policy that cross multiple academic units. The committee met several times over the next year. It reached no conclusions; participants provided, informally, the traditional diplomatic phrase: "A full and frank discussion was

²⁰ https://theuniversityfaculty.cornell.edu/faculty-senate/other/shared-governance/

 $^{^{21}\,\}underline{https://www.nytimes.com/2016/02/16/nyregion/at-cornells-hotel-school-an-icy-reception-for-a-planned-merger.\underline{html}$

held of all issues." In 2020, the Provost and the Dean of the Faculty returned to the issue and agreed to create an ad-hoc committee to address appropriate roles.

More recent discussions about creating a new entity focused on public policy were resolved more amicably. In this case, over a period of three years, the Provost appointed a series of faculty-led committees to address a range of issues associated with the social sciences. In 2019, one of the committees included the creation of a School of Public Policy among a list of options. Over the next year, an implementation committee considered several possible models for such a school, including the possibility of reframing the mission of the College of Human Ecology. Many faculty of the College of Human Ecology, as well as the Faculty Senate, expressed strong concerns about this option and ultimately the President and Provost opted in favor of creating a new, independent school. Throughout the process, they had kept the Board of Trustees informed of the various options, and the Board voted in early 2020 for the creation of the new School.

The University President

The President is the chief executive and chief educational officer of Cornell University, and has administrative authority over all University personnel, both academic and nonacademic, as outlined in Article V of the Cornell bylaws. The current President, Martha Pollack, took office in April 2017, after an international search. Pollack was previously Provost and Executive Vice President for Academic Affairs at the University of Michigan, a university similar in its complexity to Cornell. She was also an internationally recognized professor of computer science and information. As Michigan's chief academic officer and chief budget officer, she was responsible for an academic enterprise that spanned 19 schools and colleges, all academic support units, and a number of research centers, libraries, and museums. Before her tenure as Provost, she served as Michigan's Vice Provost for Academic and Budgetary Affairs and as Dean of its School of Information. She has also served on the faculty of the University of Pittsburgh and as a member of the technical staff at SRI International. The Cornell Board of Trustees formally approved her appointment as President on November 14, 2016. At Cornell, she is a member of the Computer Science, Information Science, and Linguistics Departments.

Pollack was preceded by Elizabeth Garrett, Cornell's 13th president, who was diagnosed with cancer shortly after assuming office, and died in March 2016. The

response to her illness and death demonstrates the strengths of Cornell's institutional organization and resources. As her illness progressed, the Executive Committee of the Board of Trustees delegated her duties to the Provost, Michael Kotlikoff. After Garrett's health deteriorated further, Kotlikoff was named Acting President, a title confirmed by the Board after Garrett's death. Kotlikoff (formerly dean of the College of Veterinary Medicine) drew on a depth of administrative expertise among his colleagues to serve as both Acting President and as Provost until Hunter Rawlings III, Cornell's 10th President, agreed to serve as Interim President of Cornell in April 2016. This allowed Kotlikoff to return full time to his role as Provost. Rawlings served a year, allowing time for a full presidential search and the selection of Martha Pollack as 14th president.

The President is formally evaluated each year, based in part on goals that she has set. At the end of each fiscal year, she provides a self-evaluation to the Chair of the Board of Trustees, including her progress towards her goals. The Chair asks the Executive Committee to review the report and to provide him with comments. He also talks with each of the people who report directly to the President, promising confidentiality. He then meets with the President to review the year. In addition to this formal evaluation, the President holds a private session with the Board at each meeting to gather concerns and issues that she then discusses with the Board Chair. Finally, the Board Chair convenes at each Board meeting a completely private session without the President present when Board members can convey concerns to him.

University Administration

President Pollack's senior leadership team consists of the Provost of the Ithaca campus, Michael Kotlikoff, and the Provost for Medical Affairs, Augustine M. K. Choi, who also serves as the Stephen and Suzanne Weiss Dean of Weill Cornell Medicine. Both Provosts are elected by the Board, as well as the vice presidents and vice provosts who support them. The President's cabinet²² includes the President's chief of staff, university counsel, and five vice presidents who align with the major areas of operation: finance, human resources, student and campus life, university relations, and alumni affairs and development. Three additional vice presidents report to the executive vice president who is the chief financial officer.

²² https://blogs.cornell.edu/dist/b/6138/files/2019/07/1000005-President-07012019.pdf

Provost Kotlikoff delegates decision making about each of the colleges to the college deans, who allocate resources to support their units' strategic plan. The Provost's leadership team also includes a deputy provost and vice provosts (some of whom, in various configurations, have also served as vice presidents) whose portfolios align with key campus strategic areas: undergraduate education, academic affairs, engagement and land grant affairs, international affairs, academic innovation and enrollment, budget and planning, research, and academic integration. An organizational chart documents the organizational structure of the academic leadership.²³

The President and the Provost regularly visit departments and colleges as well as events and panels organized by the Dean of the Faculty and the Office of Faculty Development and Diversity.²⁴

All of the current vice provosts, vice presidents and deans are well positioned to lead the university in their areas of expertise, as their professional biographies on the academic leadership website make clear.²⁵ While the number of vice provosts has remained stable in the last decade, the full time FTEs allocated to administration have decreased from 10.5 FTE vice provosts in 2008 to 6.65 in 2018. The President and the Provost regularly review the areas of senior leadership and redistribute positions to maximize efficiency and effectiveness. Leaders who are not a full FTE commit the rest of their time to scholarly activity and teaching.

The President, Provost and deans are supported by an IT infrastructure headed by Vice President David Lifka and an office of Institutional Research & Planning (IRP), within the Division of Budget & Planning. We have described IRP in some detail in chapter 6. The University Investment Officer and a University Auditor also support Cornell's senior leadership.

²³ https://blogs.cornell.edu/dist/b/6138/files/2019/09/1000006-Provost-08202019.pdf

²⁴ Faculty senate meeting and agendas can be found here: http://theuniversityfaculty.cornell.edu/faculty-senate/archives-and-actions/archived-agenda-and-minutes/ and University assembly minutes are here: https://www.assembly.cornell.edu/committee-meeting

²⁵ https://provost.cornell.edu/leadership/

Assessment

The President and Provost conduct reviews of the academic and administrative leadership.

The President conducts annual performance evaluations of each of her direct reports: Provost; Provost for Medical Affairs and Dean of WCM; University Counsel and Secretary of the Corporation; Chief of Staff and Special Counsel to the President; Executive Vice President and Chief Financial Officer; VP for student and campus life; VP for university relations; VP and chief human resources officer; and VP for alumni affairs and development. Each performance dialogue includes a self-evaluation by the direct report, discussion of future goals, review of current and previous goals, and an opportunity to discuss successes as well as potential opportunities for improvement.

When a Provost is being considered for reappointment to an additional term, the President conducts a full evaluation, soliciting views on performance, particularly with regard to academic leadership and vision; management skills; demonstrated commitment to diversity and equity; responsiveness to university priorities; willingness to be collaborative; and communication skills. The President solicits this feedback from the Provost's direct reports, including all deans, vice provosts, and vice presidents and the President's own direct reports.

Provost Kotlikoff conducts three major reviews of deans, vice provosts, and the vice presidents who report jointly to him: the Vice Provost for Research/Vice President for Technology Transfer, Intellectual Property, and Research Policy; the Vice President for Information Technology and Chief Information Officer; and the Vice President for Budget and Planning.

The first is an annual review. The Provost asks all Deans, Vice Provosts, and Vice Presidents to provide the following in advance of the meeting:

- accomplishments as leader of the college or school/administrator in the past year;
- individual goals as academic leader for the remainder of the academic year and for the next academic year;
- summary of efforts in support of institutional diversity planning this past year;
- significant contributions to Cornell outside of the leadership role;

 professional activities and accomplishments as a member of the Cornell faculty outside of the leadership role.

In the second year of a dean's or vice provost's term, the Provost conducts a 360 review. The dean/vice provost and 30-40 individuals from within and outside of the college or unit complete an extensive survey. The Provost discusses the results with the dean/vice provost to identify and correct or improve deficiencies relatively early in the administrator's term.

The fourth year of a five-year term brings a reappointment review. The Provost solicits feedback on deans from all members of the college faculty, senior leadership members, key staff in the college, and student and alumni advisory groups. Vice provosts undergo a modified version of this review.

The Cornell Board of Trustees periodically conducts formal reviews of its own performance and effectiveness. One such review was done in 2010, chaired by a board member and the general counsel for the university. A second review took place in 2013, led by the Chief Human Resources Officer with contributions from external experts in board governance.

The Board also engages in continuous review of its functions and operations, principally through its Committee on Board Composition and Governance. Such reviews center on core issues such as the size of the Board, the current mix of committees, and the effectiveness of full Board and committee conversations, all of which complement the formal reviews. For example, one important change resulting from the 2010 Task Force was the transformation of the Nominating Committee into the Committee on Board Composition and Governance, which was expressly done to empower a standing committee to deal with governance issues and recommend changes. In 2019, the President, Chairman of the Board, and Chairman of the Committee on Board Composition and Governance spoke with leaders at Johns Hopkins University and the University of Southern California, institutions known for having made significant governance improvements, for insight into the results of those changes. With that feedback as well as input from many individual trustees, the Committee on Board Composition and Governance, after much consideration of the matter, decided to implement the following changes: (A) limits on the number of committee assignments; (B) limits on committee attendance to enhance the quality and focus of deliberations of members; (C) more frequent rotation of committee leadership; and (D) implementation of a leadership training program for all Trustees.

The Board has also made structural changes and enhancements in response to feedback and input from its members as well as senior university administration in recent years. For example, the Board recently created a new Subcommittee on Oversight of Cybersecurity. The Board also created a new Committee on Research and Innovation, and modified and expanded both the title and the charter for the Audit Committee (now the Committee on Audit, Risk and Compliance). Finally, as appropriate, the Board has evaluated the need for (and dissolved unnecessary) temporary task forces that were distracting to its mission. The Board has also developed new tools to improve the process of selecting and orienting Board members.

The Weill Cornell Board of Overseers periodically engages in reviews, including one in 2017 that led to a significant set of updates to their governing document approved in 2018 by the Board of Trustees.

The Cornell Tech Board of Overseers is relatively new (established 2015). Written into its governing resolution is a requirement that it be reviewed by the CBCG periodically, and at least by its eighth year in existence.

As part of continually evaluating its own effectiveness, the Board of Trustees works with Cornell's Secretary of the Corporation to compare its work to Cornell's peers through the Association of Board Secretaries. It also regularly solicits input and feedback, including annual reports from the various college councils and the assemblies. Its Trustee-Community Communications Committee facilitates communication with the campus and the larger Ithaca community. The Board also sets aside time for open private dialogue at each Board and Executive Committee meeting for the Trustees to review any issues of importance or concern to the Board.

Summary

Cornell University is managed through loosely-articulated but well-functioning systems of accountability under the direction of an impressive Board of Trustees and respected university leadership. The commitment to shared governance as expressed through the constituent assemblies creates high expectations of inclusion as well as ambiguity around decision-making authority.

Recommendation

Conflicts regarding the respective roles of the administration and the colleges on issues of curriculum and related matters periodically arise. These tensions can lead to healthy debate, but occasionally interfere with the smooth operation of the shared governance system. The Provost and the Dean of the Faculty should continue to foster conversations around the respective roles of the administration and the faculty in shared governance.