

OFFICE OF UNDERGRADUATE RESEARCH
NORTHWESTERN UNIVERSITY
2018-19 ANNUAL REPORT



**FOR: DR. MIRIAM SHERIN, ASSOCIATE PROVOST FOR UNDERGRADUATE EDUCATION AND
THE OFFICE OF UNDERGRADUATE RESEARCH ADVISORY COUNCIL**

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OVERVIEW:

“Undergraduate research provides an excellent opportunity to take control of the learning process and reckon with some of the bigger questions of academia: is what I'm learning effectual? How is my area of study wrapped up in the world at large?”

The Office of Undergraduate Research awarded funding to a record 629 students in 2018-19 (compared to 146 ten years ago). These students have come from more diverse types of backgrounds than ever before, and we have continued our advising-centric approach. We realize that these bright and capable students largely have no idea how to get involved in research, develop their own projects, write grant proposals, and/or follow through with a project that evolves very differently than a class. Students need support and guidance in this journey if they are going to be successful and realize the tremendous potential gains of this high impact practice. In the past year, we greatly expanded our workshop offerings, holding a Finding a Faculty/Lab Mentor Workshop every week of every quarter in the academic year. We increased the number of outreach and collaborative meetings by almost 30% this year while maintaining high levels of our signature one-on-one advising. For the second consecutive year, we met with over 1,000 students for a total of over 2,100 individual meetings. Through advising, workshops, and classroom visits/information sessions, we estimate that we reached over half of the Northwestern undergraduate student population with our four full time and one part time staff (Director, Assistant Director, Administrator/Finance, Outreach Coordinator, and Research Workshop Coordinator).

We saw significant growth in a number of core programs, especially in the Academic Year Undergraduate Research Grant and Conference Travel Grant programs, and this report will provide summaries and data to analyze performance in our programming. However, we will also reflect on the major themes that we saw as emerging from this year and their implications for our future directions: collaboration, equity and access, and faculty engagement.

COLLABORATION: OUR continues to take a leading role working across institutional silos, including cost-sharing with units to further fund opportunities and streamlining and promoting resources that support students who are not applying to OUR programs. Additionally, we seek to take a leading role in promoting and supporting undergraduate research both in and out of the university.

EQUITY AND ACCESS: As Northwestern grows more diverse, OUR continues to take steps to ensure all students are afforded the opportunity to succeed, including lowering barriers to participation. This year we collaborated with the University Library to pay for the printing of any student’s poster for the Undergraduate Research and Arts Exposition to not allow cost to be a factor in presenting their work. We also focus on outreach and advising approaches which meet students where they are and provide support as they seek out academic and professional goals.

FACULTY ENGAGEMENT: Every undergraduate research program is based upon the willingness of faculty to mentor and support students along the bumpy path of learning research. OUR seeks to work with faculty to both relieve their burden through our own advising and seeking their guidance in areas of expertise. With more intentional partnerships, we seek to find ways to allow faculty the opportunity to engage with students fully in their areas of greatest ability with as little administrative burden as possible.

Undergraduate research at Northwestern continues to thrive. However, we know there is more work to be done.

OUR MISSION:

“Research has allowed me to apply what I learn about in classes to something that feels much more tangible and applicable to the real-world. Challenging yourself to think outside of the "lecture" box is something I've found to be extremely important and fulfilling.”

The Office of Undergraduate Research awards funding to hundreds of students each year; a majority of these students are engaged in independent research and creative projects where they learn project management skills that will support their post-college aspirations. Students learn how to explore a topic of significant interest in-depth: first, they learn to collect and interpret scholarly literature to frame a rationale around their research question, supported by expertise from faculty experts (inside and outside the university) to determine what gaps in their field of study need to be filled. Next, they learn how to develop a project and methodology that could potentially fill that gap, wrestling with the real world limitations of time and their current skill level. They learn how to write a competitive grant proposal (ultimately reviewed by multiple faculty across a range of disciplines) with iterative revisions based on feedback from faculty sponsors and OUR advisors. Once awarded, students learn that life rarely goes according to plan, even if the plan is meticulously constructed with expert advice. Consequently, they adjust and revise their projects, learning to be creative and determined, and show grit and imaginative resourcefulness. Finally, they learn to analyze and draw conclusions from their results and relevant findings. Many students render what they learned into papers and presentations to share their new knowledge with the broader world, whatever that may be.

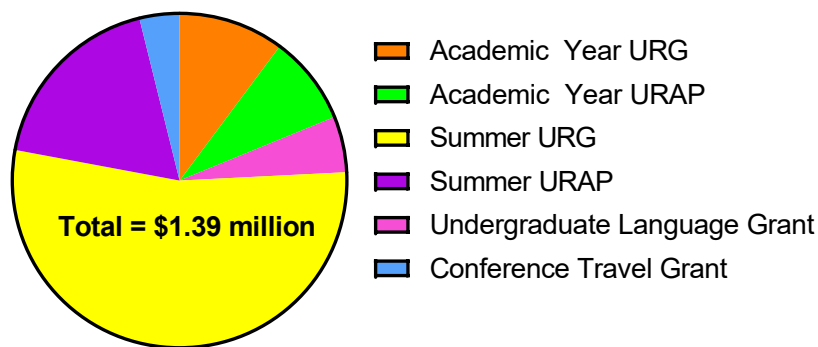
We hope that in the process they discover magnificent things, but we know that the true value is in the experience itself. Confident in the process of knowledge acquisition, curated by thinking in terms of questions and *how* to answer them (instead of existing answers), students are now more prepared for the life ahead of them, whether that be graduate school, industry, non-profit work, creative artistry, or entrepreneurship. It is this process that makes undergraduate research such a high impact practice, and it is our emphasis on helping students to gain this experience that makes Northwestern an innovative and leading voice in this field.

Developing an approach to undergraduate research at Northwestern (and the formation of the Office of Undergraduate Research) centered on leveraging institutional strengths and using these to template new solutions in areas of need. Northwestern has a long tradition of supporting student research in lab environments; within labs and research groups, there is a supporting infrastructure to help students learn and develop. Students gain skills through the mentorship of faculty and graduate students, from conducting literature reviews to writing up results. However, outside of these environs, there was no clear path for students to engage in research. OUR was created to build a parallel infrastructure of support in non-lab/research group environments, seeking to enable and encourage students in all fields to pursue research. Northwestern is now a leader in supporting and funding students in non-lab/research group disciplines, and the results of this high impact practice on these students' lives is tremendous.

The bedrock of all OUR programs is faculty review. At Northwestern, faculty review committees are empowered to make decisions based upon the merits of the student's proposal. Applying rigorous standards as defined by the field of the student's project, Northwestern works to ensure that all students with outstanding and qualified projects receive funding.

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“I have such an appreciation for practice-based research in the humanities. Everything I learned would have been impossible to learn without DOING it.”



\$1,393,545

*Awarded to Undergraduate Student Researchers in 2018-2019
629 awards given across all programs*

COLLABORATION:

“I felt that I learned so much about how to foster professional relationships, make intelligent inquiries, and take initiative. [Conducting research] taught me how important it is to make connections and use your resources.”

OUR was founded as a collaborative unit; its initial goals were not only to administer its grant programs, but also to serve as the entry point for students pursuing opportunities across the University. This work initially consisted of creating a comprehensive website with resources that could also support students and programs not affiliated with OUR. Later, we created a library of 40+ videos on YouTube to help students learn how research is conducted in various disciplines and how to get started; the videos have over 57,000 views. Last year we developed weekly workshops designed to help students learn how to navigate the tricky process of connecting with faculty around research opportunities. In particular, these workshops were our response to an intense, unmet need from students seeking help getting into research group or lab based research. This year we significantly expanded this resource by offering these workshops every week of every quarter during the academic year. OUR also conducts outreach in classes, departments, student groups, and residential halls, often in collaboration with different units invested in their students learning about these opportunities. OUR led over 300 workshops and information sessions in 2018-19, an increase of >30% over last year. This outreach offers significant value to other University programs and faculty by providing foundational information and support for students seeking to get started. Students can apply this knowledge when exploring a range of opportunities, whether or not they end up applying to OUR, from department-specific funding to inviting faculty as guest speakers for their student organization.

In addition, after running analytics on our website, we discovered that our Sample Grant Proposals section was among the most highly trafficked. Therefore, we conducted a complete overhaul of this resource. Previously, we simply posted successful proposals for various fields, but we realized that students needed more guidance in interpreting them. We now have 25 annotated proposals, which include a cover sheet offering the proposal’s strengths and weaknesses and insight into additional considerations such as IRB; Tori Larsen took the lead on this project. Other units regularly link to these resources as a guide to help students applying to their programs, particularly if no individual advising is offered. Recently, these resources were enthusiastically received at a conference of the Council of Undergraduate Research; OUR is receiving requests from external institutions to use them (outreach resources have been intentionally made to be publically available via our website and YouTube page).

OUR continues to collaborate with other units around funding student research opportunities. This year, while the Buffett Institute conducted an internal review and shuttered their travel grant programs, we collaborated with them to support students travelling abroad as part of their research projects, alleviating from Buffett the need to maintain and administer their own separate program, while facilitating the crucial funds for students. Additionally, while WCAS was short staffed, OUR’s administrator Bryce O’Tierney took over paying student recipients of the WCAS Conference Travel Grant to ensure students got their money in an effective time frame.

The URG Faculty Review Committee continues to support programs with other units. WCAS does not open their summer grant program for applications until after Summer URG decisions have been announced in order for their students still needing funding to have concrete feedback on which to base the revision of their proposal – the URG feedback serves as the basis for helping students improve their projects while alleviating the need for WCAS to put together a separate, duplicative faculty review

COLLABORATION:

committee. Some smaller units have chosen to jointly fund their summer students with OUR; this arrangement allows full faculty review without an additional review committee and allows them to lower their administrative burden, as they provide OUR with their funding and we handle all aspects of the grant. In addition to supporting other units, this arrangement provides cost savings to OUR of almost \$30,000 in 2018-19. These arrangements benefit us, other units, and most importantly, students.

OUR's highly regarded presentation workshops, developed for the Undergraduate Research and Arts Exposition, are sought out by other units. Peter Civetta continues to run multiple presentation workshops for the Office of the Provost's Best Practices Forum every year as well as leading them on both the college (WCAS Dean's Office) and smaller unit (MMSS) level. The goal of this work is to help presenters on all levels to improve their communication skills to make them more impactful and effective speakers. Megan Wood has expanded this work in providing presentation support for students giving posters; this year she developed a one page guide to creating a poster. This resource is available on our website and provides a scalable solution for other departments who encourage student poster presentations but do not have the capacity to provide insights on content creation

OUR continues to seek out opportunities to collaborate across the University, as evidenced by our 300+ meetings in 2018-19 with faculty and administrators (both inside and outside the University), and we seek to be a leader in the field of undergraduate research. In the past year, we have fielded multiple calls from various universities seeking our expertise, particularly in establishing a new office of undergraduate research, developing a peer mentor program, and developing undergraduate research in the arts and humanities. Peter has been flown to schools to deliver talks on these issues, and Peter and Megan presented twice at the Council of Undergraduate Research's Program Division Conference 2019 on these topics.

“Undergraduate research helps develop independent skills that are useful both for personal growth but also for use in graduate research or many industry occupations.”

2019-20 GOALS

- OUR will continue meeting with undergraduate deans for all schools each year to discuss how their students are performing within our competitions, set goals for the coming year, and strategize how to best reach their students. For example, the 2017-18 meeting with Medill representatives led to a shift away from targeting junior/senior journalism, who they said were focused on internships, and towards 1st/2nd years. This change led to a significant increase in applications and awards to Medill students. We will expand this year's meetings to also include Student Enrichment Services, Multicultural Student Affairs, and Athletics.
- Peter administers the Global and Research Opportunities searchable database. It is a collection of hundreds of diverse opportunities including study abroad, fellowships, community engagement, and research. Last year, Peter purged out-of-date G&RO data and refocused on undergraduate experiences exclusively (it used to also contain faculty, administrator, and graduate student opportunities). We are advocating for an expansion of the database to include a wider variety of undergraduate opportunities, particularly around support programs like those run by Student Enrichment Services and Multicultural Student Affairs. An expanded G&RO (likely renamed/rebranded) would be of incredible benefit for all students, particularly low income, first

COLLABORATION:

generation, and/or under-represented minorities. Peter looks to collaborate with the Associate Provost for Undergraduate Education's office on this initiative.

- OUR recently won an internal submission competition in order to apply for \$300,000 in funding from the Arthur Vining Davis Foundations. The intended initiative has three prongs: 1) An expansion of our YouTube video library to include videos on reaching out to faculty, dealing with research isolation, etc. 2) A collaboration with the Wisconsin Institute for Science Education and Community Engagement (WISCIENCE) and the Center for the Improvement of Mentored Experiences in Research (CIMER) to take their existing content for STEM faculty and students and adapt and develop parallel resources to reach students and faculty in the humanities, arts, and non-research group social sciences. This collaboration will fill a major void in the larger field of undergraduate research. 3) The creation of a pilot program to support low income, first generation, and/or under-represented minority students as they get started in research. The program will seek to pair interested students with dedicated mentors over 15 months (summer after their first year through the summer after their second year). In addition, the program will run personal and professional development workshops to help students overcome some of the institutional barriers that they have faced. If funded, the work would likely start next summer; if not funded, we will continue to pursue the pilot program through the University budget process.
- OUR has noticed a wide disparity in expectations and experiences with faculty-student mentoring relationships, and both sides expressed an interest in having some agreed-upon expectations. Therefore, OUR, in collaboration with key faculty and administrators including the Searle Center's Marina Micari, Buffett's Patrick Eccles, and Neuroscience DUS Valerie Kilman, will begin working toward the production of a Northwestern Undergraduate Research Mentoring White Paper. We feel it can serve as an effective model not only for OUR programs, but for research mentoring that regularly occurs across the University, seeking to capture the nuances particular to the Northwestern experience.

ACCESS/EQUITY:

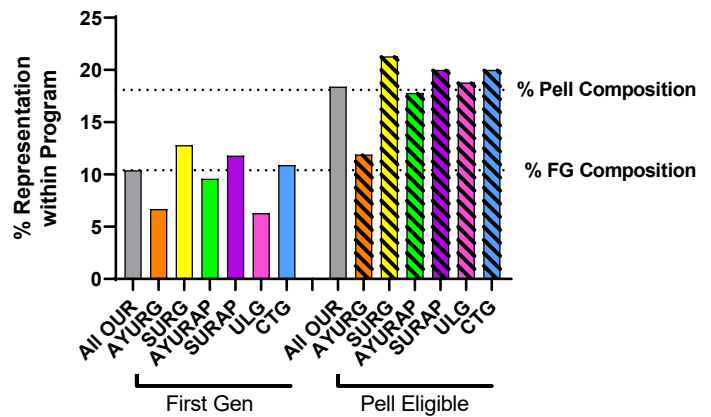
“My position as a research assistant brought me into contact with organizations I'd like to work with and other members of my diaspora.”

OUR does not ask for any demographic or financial information on any of our applications. The faculty are charged with conducting a merit-based review, looking at the quality of the proposal against the program’s stated expectations. Since undergraduate students overwhelmingly have no familiarity or experience in research, we believe our programs provide an equal starting point for students across different backgrounds. This belief is predicated on OUR’s model of individual advising, where advisors are trained to meet students where they are and to guide them on this new and often confusing journey. We feel this approach is the best way to bring down barriers to participation; however, we need to know how different student populations are faring. Starting in 2014-15, we provided our data to Institutional Research and received a report back. This year’s report showcases a number of significant gains, some newly received information, and at least one persistent area for further work – see Appendix for full data.

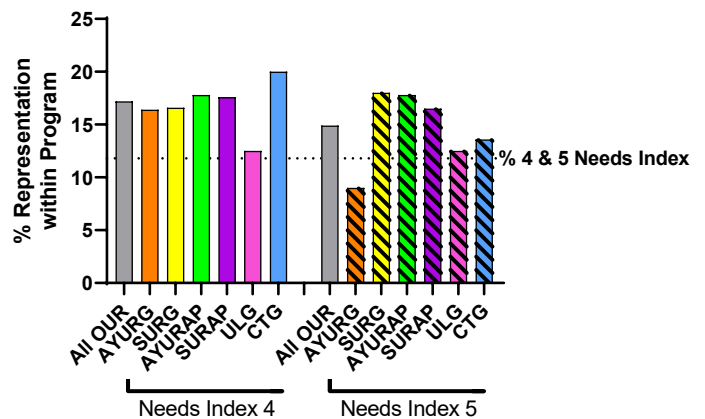
The success rate of first generation students increased by 9% over last year; their success rate is also better than the general student population by 6%. Their volume of applications is in line with their relative size within the student population; first generation students make up 10.1% of the student body, and they comprise 10.4% of all awards (and only 8.2% of all rejections). The numbers for Pell Grant recipients are equally strong, with a 65% increase in awards across all programs, a success rate in line with the overall student population, and a volume of applications in line with their population on campus. This year, for the first time, we also received a breakdown by Need Index, a 0-5 score with the higher numbers representing students with the highest need. The two highest need indexes (4-5) had success rates at or higher than the general population and were awarded grants in higher proportion than their relative size (Need Index 4: 11.5% of population, but 17.2% of awards. Need Index 5: 12.1% of population, but 14.9% of awards.)

Both first generation and high needs students were particularly successful receiving Conference Travel Grants, given to students accepted to present at major regional, national, and international events. Since these grants generally mark the completion of the research experience, it is positive to see these students performing so well.

FGLI Representation in OUR Awards

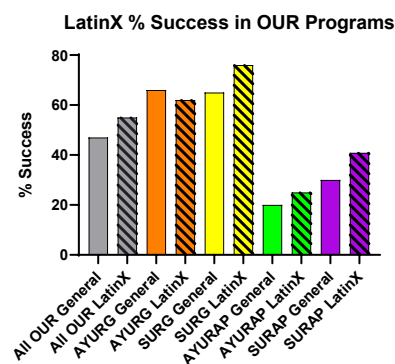


Low Income Representation in OUR Programs



ACCESS/EQUITY:

In terms of race/ethnicity, Latinx identifying students truly thrive across all OUR research programs. In the four years that we have been tracking this data, applications from Latinx students have increased by more than 3 ½ times (365%) from 41 to 150. They are not only over-represented in terms of awards compared to their population size, but their success rate this year was 8% points higher than the general student population. Their success extends across almost every single grant program from URAP (+11%) to URGs (+3%). Students that identify as multi-racial also follow this same excellent pattern of success.



Applications from Asian identifying students have grown significantly, increasing 265% from 2014-15. While their award percentage is equal to the size of their population (21.5%), their overall success rate lags behind (-6%). Digging deeper into the data, we find that these students are excelling in URG (both Academic Year and Summer), Conference Travel Grants, and Language Grants. The issue lies solely with URAP where their success rate is 8% points below the general population. URAP is a unique program in that initially faculty apply for their funded research assistant; faculty have the choice to either apply with a pre-selected student (77% chance of success for general student population) OR run a job search (11% chance of success for general student population). While we do not have demographic data to pinpoint Asian-identifying students within different parts of URAP (pre-selected vs job search, by subject area, etc.), we can look at overall URAP program data for overall trends. Given the low success rate for job search applicants, it is likely that the representation issue lies within this subset of URAP. In addition, the chance of success is lowest for students applying to open positions in the natural sciences; however, we do not know how this correlates with any particular student demographic.

BY TOTAL # STUDENT APPLICATIONS	AYURAP	AYURAP	%	SURAP	SURAP	%	Total	Total	%
	Applied	Awarded	Success	Applied	Awarded	Success	URAP Applied	URAP Awarded	Success
Social Sciences & Journalism AND Search	241	24	10%	108	15	14%	349	39	11%
Natural Sciences and Engineering AND Search	14	1	7%	85	5	6%	99	6	6%
Arts, Humanities, & Performance AND Search	54	7	13%	12	5	42%	66	12	18%
SUM	309	32	10%	205	25	12%	514	57	11%

Finally, Black/African American identifying students have grown from 29 to 99 applications in the past four years (341% increase), and their overall success rate is within 2% points of the general population. However, their growth remains underrepresented relative to the size of their population: 7.3% of awards while comprising 9% of the student population. Upon examining the data program by program, this lack of students is not equal across programs, as Black/African American identifying students do well in our introductory program as well as in opportunities to present their work. Specifically, their success rate is +9% in URAP, and they represent 12.7% of all awards. They also account for 12.4% of all Conference Travel Grants. The gap primarily appears with URGs, where their success rate is 21% points below than the general population. In addition, their total volume of applications is almost 3% points lower than their relative student population, and their percentage of awards is only 4.5% of the population (again compared to their overall 9% representation in the student population). With no ability to drill deeper to see the fields where particular students are struggling, we intend to take a broader approach to better reach these students. It remains our belief that getting students into advising is the best way to impact their success rate, so we are working with Student

ACCESS/EQUITY:

Enrichment Services and Multicultural Student Affairs to develop a plan for the coming year. We anticipate focusing some of our Outreach Coordinator's time specifically to outreach to this community.

OUR took other steps this year to promote equity and access. Previously, Language and Circumnavigators Grant applicants would have to pay for an official transcript to be submitted with their application, but Megan Wood completed training to access student transcripts through CAESAR, allowing us to cut that student cost entirely. In addition, this spring Professor Onnie Rogers reached out about the student cost to print posters to present at the Undergraduate Research and Arts Exposition. Working with Jason Kruse in the University Library, we immediately implemented a policy where OUR paid for all student poster printing. In all, 62% of poster presenters took advantage of this service. In both instances, we sought to remove cost barriers for students applying to our programs.

Finally, we have begun to augment Peer Mentor training to include Diversity and Inclusion work. Evangeline Su collaborated with Rob Brown in Multicultural Student Affairs to offer additional training for her Science Research Workshop Peer Mentors, and Peter Civetta added DE&I interactive training for his Arts, Humanities, and Social Science Research Workshop Peer Mentors. Both approaches were highly valued by the students involved, who felt it helped with how they interacted with their peers through the program. Megan Wood added in training resources on microaggressions for her Summer URG Peer Mentors, and the Summer Skills Workshops that all summer grant winners must attend were reframed around developing self-efficacy. The feedback in all cases has been very strong.

“If I hadn't received funding from OUR, I would not have been able to spend the summer focusing on researching and writing my play. The money enabled me to treat creative writing as worthwhile, serious work that deserves time and effort. This has encouraged me to treat all of my artistic work as such.”

2019-20 GOALS

- We will collaborate with Kourtney Cockrell of Student Enrichment Services and Dav Velazquez Phillip of Multicultural Student Affairs to seek ways to better reach and meet the needs of first generation, low income, and/or under-represented minority students. In particular, we will strategize ways to support Black/African American students more effectively.
- We will have new Outreach Coordinator Jennah Thompson-Vasquez devote significant time and energy to developing relationships with student groups in order to find ways to meet a broader community of students and meet them where they already are (instead of making them come to us). In particular, she will work to foster strong connections with the Quest Scholars.
- We will continue to develop and enhance our Peer Mentor training, seeking to standardize appropriate parts of it across our three different peer mentor programs. We will also explore funding our peer mentors to be in line with similar programs within Academic Support and Learning Advancement.
- We will begin conversations with the OUR Advisory Council and Associate Provost for Undergraduate Education Miriam Sherin about the possibility of creating separate URAP funding and application evaluation by research group disciplines and non-research group disciplines. If there is positive consensus to continue, a budget request will be made.
- As mentioned previously, our application to the Arthur Vining Davis Foundation will significantly assist in our efforts in these areas, if awarded.

FACULTY ENGAGEMENT:

“Researching as an undergrad gives you the freedom to pursue academic interests outside of the classroom. This empowered me to take more responsibility for my learning, especially in my area of research. It also gave me amazing mentorship from my PI, who truly cares about my career and personal goals.”

In 2018-19, 391 unique faculty members supported successful OUR applications across all of our programs; this number represents a total of 800 successful student applications, including presenters at the Undergraduate Research and Arts Exposition. To provide some context, ten years ago less than 100 faculty members supported student research via these programs. These numbers highlight the depth and breadth of faculty investment in undergraduate students. These faculty represent well over 100 different academic units across the University. Encouragingly, this number suggests faculty are willing to mentor student research ambitions, and a number of faculty are supporting multiple students. For example, SESP Assistant Professor of Instruction Lilah Shapiro worked with 6 unique students this year, including supporting multiple students writing senior theses and helping other students get started in research through URAP. In addition, over 70 faculty have served on one of OUR’s faculty review committees or Advisory Council, and almost 100 more served as judges at the 2019 Undergraduate Research and Arts Exposition.

Even in the intense and demanding faculty environment at Northwestern, our faculty are incredible at offering their time and talents to the development of students. However, we realize the heavy demands on faculty, and so we work to mitigate the volume of time needed to help students and to offer supports for faculty directly. For example, OUR’s advising model is directly intended to decrease the load on faculty. Since we meet with students at the beginning of their exploration into research (when they are often still unclear about their goals or intentions), we relieve faculty from having repeated meetings with students who may or may not actually pursue research in that faculty member’s field. We work with students to engage with faculty whose expertise can be of benefit to the student’s aims (and how to do so professionally and effectively), whether that be help with developing an original project or seeking membership in a research group/lab. By offering proposal writing advice, we also collaborate with faculty to support students without faculty needing to read so many drafts.

We also developed a faculty newsletter, distributed at the start of every academic year, in order to explain the programs we offer (and the expectations around their potential involvement) to faculty as well as the advice and support we can offer faculty directly. For example, we advise faculty applying to the Undergraduate Research Assistant Program, offering application feedback in the same way that we do with students. In particular, we offer support for new faculty. It is our goal to help faculty offer the most meaningful experiences both for them and for their students, and so we seek to make the process easier through advising. We also will come into classes and/or research groups to talk about undergraduate research opportunities. OUR funding can benefit faculty regardless of their track at Northwestern; it can help non tenure track faculty engage in research when their funding sources may be limited, which overall helps to maintain the culture of high level research at the University.

At OUR, we understand that faculty are the foundation of everything we do. Without their willingness to support and mentor students, our programs would have little value or impact. Therefore, we always seek to support faculty however we can, working with them to make their involvement/investment easier to manage.

FACULTY ENGAGEMENT:

“My faculty mentor helped create a workable schedule, continually assisted in explaining and teaching about the topics of the research and the goals of the project, and helped facilitate group meetings which allowed us to source ideas and ask for feedback on our progress.”

2019-20 GOALS

- We are working with NUIT to completely redesign our application system. This system allows students to electronically submit their applications, but its benefits to faculty are even more significant. It allows faculty sponsors to enter their endorsements and faculty review committees to provide feedback from any device at any time. This flexibility is of significant value to faculty. The system also allows for results notification and communication throughout a grant period. The new system will significantly improve the experience for faculty directly submitting applications for the Undergraduate Research Assistant Program. In addition to an enhanced interface, the new system will be connected to other University systems making the transition to Payroll, Kronos, and E-Verify more seamless. Integration with SES/Caesar will allow better data collection (currently, we are using student self-reported data), which will allow for easier and more accurate reporting out such as when faculty request their mentoring track record for grants or tenure files. The new system seeks to streamline the amount of time faculty have to dedicate to supporting students.
- Too often faculty mentoring of undergraduate research goes formally unrecognized by the University, particularly in terms of tenure and promotion decisions. As peer institutions ramp up similar efforts, Northwestern needs to adapt. Using a recent white paper by the Council of Undergraduate Research, OUR will press for changes and recognition of the time devoted by faculty to support students in high-impact research experiences that very often change the trajectories of the students' lives. We seek to present the white paper to the Associate Provost for Undergraduate Education's office, and we will collaborate with partners as much as possible.
- In addition, OUR will spearhead an effort to establish a major faculty mentoring award, akin to the University Teaching Awards. We want to honor and acknowledge the tremendous mentorship that takes place in a meaningful way. Currently, OUR's Fletcher URG Prize offers a small acknowledgement for the faculty whose student wins the best URG award for both summer and academic year; however, we are seeking an award with higher visibility and one that works across all of our programs. We will reach out to Development and Associate Provost for Undergraduate Education Miriam Sherin for support.
- This past year we encountered a growing number of faculty at the Feinberg School of Medicine who are willing to work with undergraduate students but are unfamiliar with how the Evanston campus operates. Therefore, we intend to adapt a second version of our faculty newsletter specifically for Feinberg faculty to help explain the different programs and how they can connect with students; Megan Wood will take the lead on this effort, as she completed her PhD on the medical school campus.
- In addition, we have a growing number of students interested in working with faculty at Feinberg during the academic year across research group/lab, medical social science, and public health research. The most common mechanism for this type of experience is for students to use 399/398 independent study credit. However, FSM doesn't have such a course, requiring students to get the credit from their major department; this situation can create problems if the work at FSM doesn't directly relate to their major, or if the faculty affiliation limits sponsorship. For example, we had a Neuroscience/Global Health Studies major working with a faculty member in the

FACULTY ENGAGEMENT:

Obstetrics/Gynecology department; she was turned down for 399 eligibility by not only her home departments, but also psychology, biology, and sociology because the project either did not fit the discipline, or her Feinberg sponsor did not have joint affiliation with the department. Therefore, we need to find a way to allow FSM to offer a 398/399 type course directly in order to facilitate more involvement by undergraduates on the Chicago campus.

- As mentioned previously, we will be working with faculty and students on developing a Northwestern Undergraduate Research Mentoring White Paper in order to establish a foundation of best practices and supports at our institution. We feel these guidelines will be broadly beneficial to faculty and graduate students who very often have little to no training in mentoring.

INDIVIDUAL PROGRAM REVIEW:

UNDERGRADUATE RESEARCH GRANTS (Academic Year, Summer, and Advanced URGs):

Undergraduate Research Grants are among the most prestigious research awards on campus, funding students across all disciplines to conduct independent research and/or creative projects. Academic Year URGs offer up to \$1,000 in research-related expenses to students enrolled in an independent study or thesis seminar. Summer URGs offer a \$3,500 living expense stipend to conduct an 8 week project. Both programs offer additional travel support for student projects conducted internationally.

The URG flagship programs experienced another record year. Combined, we had a record 526 applications, of which 345 were awarded funding. Both programs saw the average score of funded students get more competitive, indicating the rigor used by the faculty review committee remains stringent. The Academic Year URG program saw a 37% increase in applications and a 39% increase in awards over last year. The average increase for AYURGs since the formation of OUR has been +11%/year in applications and +14%/year in awards. We believe that the dramatic growth this year is tied to increased, direct outreach to all faculty teaching 399/398 and thesis seminars (requirement for grant eligibility). While we do not expect this year to be a one-time occurrence, it may have potentially revealed the long term size of the program, as we don't envision dramatically larger numbers of 398/399 students in the future.

The Academic Year URG revise and resubmit process continues to benefit students, giving them an opportunity to get critical feedback on their proposal/project with an opportunity to improve on both. This pedagogical model has led to valuable learning experiences for students, while still affording them access to the money to complete their projects. The value is seen across research disciplines:

138 single student applications: 106 awards (77% success rate)

28 students resubmitted: 26 awards (93% success rate)

3 students resubmitted twice: 2 awards (67% success rate)

Arts, Humanities, and Performance Resubmissions: 3 out of 3 funded (100%)

Natural Science and Engineering Resubmissions: 15 out of 17 funded, but two required a third submission (88%)

Social Science and Journalism Resubmissions: 10 out of 11 funded (91%)

It was another exciting year for the Summer URG program. While we saw decreases in applications in science fields, we had record awards in the arts and humanities. In particular, we funded 28 of 35 creative arts projects (80%). We feel these increases are due to the addition of more arts faculty to the URG committee to ensure expert review and this particular student population taking greater advantage of advising appointments than research-group based students. The impact of OUR advising is also highlighted throughout the award decisions, as nearly three-quarters of all awardees utilized our advising services in addition to their work with their faculty sponsors. OUR advisors met with 410 students over 1187 total meetings for Summer URGs. We feel these results validate the advising-centric model developed for the Office of Undergraduate Research. In addition, 15 of 18 URAP students who applied for Summer URGs were funded, a rate far higher than the general population indicating that that program is a good pipeline for URGs. Staff members also held over 60 different information sessions and workshops reaching well over 1,000 students, including through departments,

INDIVIDUAL PROGRAM REVIEW:

classes, firesides, Greek life, student clubs, dining halls, and drop-in hours. Success can be seen across all schools.

Winners Breakdown By School (65% overall success rate) (dual degree students double counted)	
Bienen	16 out of 19 applicants (84%)
McCormick	30 out of 52 applicants (58%)
Medill	12 out of 20 applicants (60%)
SESP	9 out of 10 applicants (90%)
Communications	28 out of 35 applicants (80%)
WCAS	125 out of 194 applicants (64%)
NU-Q	2 out of 4 applicants (50%)

The 34 member faculty review committee includes representation across the University (including NU-Q). 960 faculty reviews and 400+ faculty hours devoted over finals and spring break were needed to complete the review of Summer URG applications. In addition, 239 faculty members are serving as proposal sponsors, requiring their involvement in developing the projects, reviewing proposal drafts, and completing an endorsement.

Finally, this was the second year for the new URG-Advanced program, which offered students who had already received the grant the opportunity to apply for subsequent funding. If awarded, the funding costs were shared 50-50 between the student's school and OUR. 7 out of 11 students were funded with AY URG-Advanced grants, and 4 out of 5 students were funded with Summer URG-Advanced grants. Awarded students came from WCAS (7), SESP (3), and McCormick (2); only Bienen has declined to participate in the program.

UNDERGRADUATE RESEARCH ASSISTANT PROGRAM (URAP):

The Undergraduate Research Assistant Program pairs inexperienced students with faculty who are in need of assistance on their own research projects. In doing so, students who do not have sufficient research experience to pursue independent projects gain first-hand mentored knowledge of research practices in their discipline, while faculty who would not otherwise be able to hire Research Assistants get help with their own projects. The program has three funding priorities: 1) To help students from any discipline who have no prior research experience and are not yet ready for independent research to get training and mentoring in the research methods of their chosen discipline. 2) To support opportunities in the arts, humanities, journalism, and non-laboratory based social sciences where funding for research experiences is uncommon. 3) To support pairings of residential college faculty and students.

Overall, the URAP program continued to grow with more faculty/student applicants and awards across both grant cycles. Combined, the Academic and Summer URAP faculty review committee awarded 133 of 172 faculty applications (77% awarded), which, for the second year in a row, barely scraped the surface of student need, given only 157 students were hired relative to the 644 applications received (24% success rate overall). Of note, faculty mentors can apply jointly with a specific student(s) (100/130 students hired, 75% success rate), or a run a job search (57/514 students hired, 11% success rate).

INDIVIDUAL PROGRAM REVIEW:

BY TOTAL # FACULTY APPLICATIONS	AYURAP	AYURAP	% Success	SURAP	SURAP	% Success	Total	Total	% Success
	Applied	Awarded		Applied	Awarded		URAP Applied	URAP Awarded	
Total Applications Match	42	28	67%	62	50	81%	104	78	75%
Total Applications Search	40	32	80%	28	23	82%	68	55	81%
Overall Total	82	60	73%	90	73	81%	172	133	77%

BY TOTAL # STUDENT APPLICATIONS	AYURAP	AYURAP	% Success	SURAP	SURAP	% Success	Total	Total	% Success
	Applied	Awarded		Applied	Awarded		URAP Applied	URAP Awarded	
Total Applications Match	59	41	69%	71	59	83%	130	100	77%
Total Applications Search	309	32	10%	205	25	12%	514	57	11%
Overall Total	368	73	20%	276	84	30%	644	157	24%

**Students were counted as "match" if they did not formally apply through an open search process. Several faculty opted to run private searches or found matches while their applications were under review. Note that faculty can hire up to 2 students.*

As the student demographic of Northwestern changes, OUR is no longer thinking just about how URAP functions to provide research infrastructure, but also how it functions to meet student need. Historically, research group environments operated with a largely volunteer culture; undergraduates would volunteer in the lab to gain experience and might consider an independent study during senior year. This approach is not financially possible for many of our students. In particular, URAP is one of the few ways to get paid to conduct research during the academic year. The student interest in Natural Sciences and Engineering positions is so vast that the chance of success in being hired for an open URAP position is significantly decreased relative to open searches for SSJ or AHP positions. During the academic year, 14 students applied to 1 open URAP NSE position, and when we increased the number of opportunities available during summer via faculty targeting, 85 students applied to the 5 positions (cumulatively 6% chance of success; see red below). Long term, OUR may consider splitting URAP into subcategories (as with NSE/SSJ/AHP splits for URGs) for more field-specific evaluation of proposals, but this is not feasible without significant expansion of funding for the URAP program.

BY TOTAL # STUDENT APPLICATIONS	AYURAP	AYURAP	% Success	SURAP	SURAP	% Success	Total	Total	% Success
	Applied	Awarded		Applied	Awarded		URAP Applied	URAP Awarded	
Social Sciences & Journalism AND Search	241	24	10%	108	15	14%	349	39	11%
Natural Sciences and Engineering AND Search	14	1	7%	85	5	6%	99	6	6%
Arts, Humanities, & Performance AND Search	54	7	13%	12	5	42%	66	12	18%
SUM	309	32	10%	205	25	12%	514	57	11%

**data is mildly skewed by faculty who choose to hire 2 students for a single position*

In accordance with OUR annual goals, most changes to the program this year related to scalability to ensure that office administration could keep up with the administration of the program given the high volume of both applications and awards. Importantly, we instituted mandatory onboarding workshops (n=9, all 157 students attended). These workshops mitigated many questions about Kronos and Payroll and prepared students to proactively deal with common Kronos issues to ensure timely payments. Bryce O'Tierney completed Temp Panel training in the fall, so OUR proactively addressed many Kronos issues on the backend without waiting for Payroll administrators. Bryce also developed a guide to paperwork (protocol dependent on whether student is currently in payroll or if they are an international student). Combined, these approaches allowed OUR to process all students in a much more timely fashion than ever before.

We also developed a URAP eligibility tree to help students and faculty better understand funding priorities of the program (namely, what it means to be "new to research") and self-identify best

INDIVIDUAL PROGRAM REVIEW:

candidates. In order to increase awareness and help younger students identify faculty sponsors, we also expanded the offerings of the URAP application workshop (largely in partnership with ORAI) and held weekly Finding a Faculty/Lab Mentor workshops that regularly mentioned the URAP program. This approach shifted the demographics of the applicant pool such that less seniors applied (they are generally better suited for URG programs) and more first/second years applied. In particular, successful student outcomes for first year SURAP mentees improved from 36% to 46%, and for second years from 32% to 41% after implementation. As with last year, OUR had a substantial number of advising appointments with students (n=171) and faculty (n=65) regarding their URAP applications. We also directed students to utilize Northwestern Career Advancement's daily express advising in the library to get rapid feedback on their resumes and cover letters, which are required for student applications to a particular URAP position.

In alignment with other OUR programs, this award is adjudicated by a faculty review committee of 16+ members with representation across schools. Combined, the committee provided over 500 reviews during the decision making processes this year. Since the committee evaluates faculty/student matches on applications from faculty not running a job search, they recommended OUR provide additional oversight to faculty running job searches to ensure that final student selection was in alignment with program funding priorities.

Lastly, OUR has begun collaborating with units to joint fund URAP positions in order to expand funded opportunities for students. This summer we are piloting a collaboration with the Institute for Policy Research, and during the academic year, we continue to offer the option of creating the position as a work/study job.

CONFERENCE TRAVEL GRANT PROGRAM (CTG):

The Conference Travel Grant program provides 50% of expenses (up to \$500) for students selected to present at an academic conference or similar event. Since we began promoting this program to faculty who are aware of conference opportunities (as opposed to students), it has become one of our fastest growing programs. In 2018-19, we awarded a record 110 grants, a nearly 400% increase since the opening of OUR in 2012-13. The grants are going to an increasingly diverse population with the following groups over-represented compared to their size of the undergraduate population: First Generation, Pell Grant Recipients, Needs Index 3-5, Biracial, Latinx, Asian, and Black/African American students. Some additional highlights include:

- Seven students received multiple grants to present at different conferences.
- Nine students presented individually at the American Alliance for Theatre and Education; five students presented individually at the Biomedical Engineering Society's Annual Meeting; six students presented individually at the Association for Psychological Science – indicating the broad use of the grants across fields.
- The grants can be used by students in creative fields where there is a rigorous selection process similar to the selection for an academic conference, allowing us to fund students to present their work at the Redwoods Opera Workshop, Music Academy International, and the Qumra International Film Festival.

INDIVIDUAL PROGRAM REVIEW:

CIRCUMNAVIGATORS TRAVEL-STUDY GRANT PROGRAM:

Given in conjunction with the external Circumnavigators Club Foundation, this grant provides one student a year the opportunity to travel around the world during the summer after their junior year. Candidates are vetted by a Northwestern review committee that selects three finalists; these finalists are interviewed by members of the Circumnavigators Club, who selects the winner. This year's winner was Christopher LaMountain, a dual degree student in the Bienen School of Music (Vocal Performance) and the Weinberg College of Arts and Sciences (Religious Studies). During his trip, Chris will travel to six countries over 11 weeks to study the choral music traditions of the Bahá'í faith. He plans to visit six Continental Bahá'í Houses of Worship and participate in a few Bahá'í Choral Festivals. On his journey, Chris will interact with the choral traditions and choristers unique to each destination; specifically, Chris will be looking out for the different ways that each temple choir approaches musical style, use of languages and vocal technique, as well as presentational aspects of music during Baha'i devotions in each House of Worship. Overall, Chris is hoping to use the observations from this trip to deduce a method by which any community, sacred or secular, can promote inclusion and globalism through locally-appealing music. A blog of his experience can be found here:

<https://blog.undergradresearch.northwestern.edu/blog/chris/>

UNDERGRADUATE LANGUAGE GRANT PROGRAM (ULG):

The Undergraduate Language Grant provides students up to \$5,000 (75% of expenses) to intensively study a language for >6 weeks; awarded students successfully demonstrate how language acquisition is essential to their future academic and career goals, why language study needs to happen during the grant period (and not during other times during their undergraduate career), and why their language program selection best fits their needs. The ULG program experienced a 48% increase in growth over last year, with a total of 49 applications. This program has a capped budget for 10 ULG awards of \$5,000 each; NUQ provides funding for an additional 4 NUQ students. This year we partnered with Buffett to fund one additional grant, awarded through the Keyman Modern Turkish Studies Program. In all, we were able to award 16 grants (one grant was declined and was then offered to a waitlisted applicant).

OUR promoted ULG through new venues this year, including Office of Residential Academic Initiatives, International Office, and Global Learning Opportunities listservs in addition to existing methods of emailing language faculty and advertising via flyering. The most prevalent areas of growth were in applications from Medill, Comm, and 1st Year students (with significant overlap between those two demographics). Last year, there were 0 applications from Medill; this year 3 of 9 Medill applications were funded. Last year, there were 2 applications from Comm; this year, 2 of 9 applications were funded. Overall, 92% (36 of 39) NU-Evanston applicants worked with an OUR advisor; Megan Wood handled the bulk of this advising. Additionally, applications from NUQ increased by 66%, and 9 of 10 applicants worked with Liz Lance for advising. As mentioned above, OUR added in a new workflow this year, so Megan Wood could access student transcripts directly through CAESAR rather than having students pay for an official transcript. This process addresses office concerns regarding transcript integrity, yet remains a free solution accessible for all students.

INDIVIDUAL PROGRAM REVIEW:

UNDERGRADUATE RESEARCH AND ARTS EXPOSITION (Expo):

The goals of the Undergraduate Research and Arts Exposition are three-fold: 1) To provide students with the opportunity to share their work with a broader audience. Presenters are not limited to those students funded by OUR; instead, we encourage all students to apply and present. We offer online resources to help them prepare abstracts and for poster making. 2) To offer students feedback on their research from expert faculty and the general public; we want students to experience the reflection and collaboration that can happen through presenting work at conferences. 3) To give students dedicated feedback on their presentation skills. Too often we focus entirely on the content of presentations; students need to learn that *how* you communicate is as important as the content itself. We aim to provide specific feedback in that regard. We run presentation workshops for all presenters (mandatory for all students selected to give an oral presentation). These workshops seek to help them become better communicators of their knowledge, especially learning the skills of how to communicate with people outside of their field of study.

At the 2019 Expo, more than 250 people heard talks from 42 students across 8 panels. The students were selected based upon recommendations for faculty. An estimated 350 people heard over 100 students give poster presentations at one of our two large sessions; 3 faculty were recruited to judge each poster presentation, including experts from the students' field and non-experts, cumulatively totaling over 100 supporting faculty. Finally, a crowd of over 75 experienced the Creative Arts Festival, where students performed live music and staged readings as well as showcasing documentary, narrative filmmaking, and even a comic web series.

As mentioned earlier, we paid for the poster printing for any student presenting. This information will now be a part of the web page and application, so cost will not be an opt-out factor for students interested in participating.

Again this year we partnered with the Sigma Xi Society to give awards for the Best Overall Poster (Talia Waxman, "Chicago Teen Girls Participatory Photovoice") and Best Overall Oral Presentation (Hollyn Cetrone, "Participating in Agriculture and Nutrition Workshops Decreases Depression among Female Smallholder Farmers in Singida, Tanzania"). The awards were determined by a rubric provided to faculty judges, and these awards were recognized at the Honors Day ceremony during commencement. First place at the Creative Arts Festival, as adjudicated by a professional jury, was awarded to Nadalyn Bangura for her poetry reading "Rainy Season."

OTHER INITIATIVES/PROGRAMS:

The Office of Undergraduate Research has grown to encompass more than the specific core programs that we administer (and the advising connected to them). There are a number of additional initiatives that now take up an increasing amount of time for the staff. However, all of these initiatives remain directly connected to the core mission of OUR. This next section will offer brief summaries of these other initiatives.

Beckman Scholars Program:

In 2016, the prestigious Beckman Foundation awarded Northwestern with the Beckman Scholars Program. The program provides funding and support for students that we believe show advanced research and leadership potential. The Principle Investigators for the grant are Dr. Chad Mirkin (WCAS, McCormick, and Feinberg) and Dr. Peter Civetta (OUR). There are twelve faculty approved to serve as Beckman Scholar mentors, and all applicants must come from one of these labs; these faculty are Dr. Guillermo Ameer, Dr. T. David Harris, Dr. Michael Jewett, Dr. Chad Mirkin, Dr. Ishwar Radhakrishnan, Dr. Carl Scheidt, Dr. Samuel Stupp, Dr. Regan Thomson, Dr. Keith Tyo, Dr. Emily Weiss, Dr. Gayle Woloschak, and Dr. and Dean Teresa Woodruff.

Student applicants are vetted by the URG Committee, who selects finalists for interviews; the interviews are conducted by a subset of the Beckman approved mentors. Two winners are chosen each year, and the winners receive \$26,000 across the next 15 months. The award comes in the form of summer and academic year stipends, money for supplies, and money for attendance at conferences. OUR also provides two workshops per quarter to help with students' professional development. One workshop per quarter is devoted to the development of better oral presentation skills. The other workshop is tailored to areas of interest for the scholars; this year's workshops included admissions representatives from The Graduate School, representatives from the Office of Fellowships, and representatives from Research Computing. All winners must attend the annual Beckman Foundation Symposium, and they must present their research at the end of the funded time. The term of the grant to Northwestern is three years with the opportunity to apply for additional years. Now in the third year of the program, we have recently applied to the Beckman Foundation for an additional three-year term.

The 2018-19 scholars are Sean Hu (Chad Mirkin) and Erik Bidstrup (Mike Jewett). The 2017-18 scholars are Melody Guo (Regan Thomson) and Kelly Zhu (Ishwar Radhakrishnan), and the 2016-17 scholars are Emily Zaniker (Teresa Woodruff) and Sam Davidson (Mike Jewett). Sam is currently pursuing his PhD at CalTech. Emily will begin an MD/PhD program at the Feinberg School of Medicine in the fall, and Kelly Zhu has been accepted to Feinberg's medical school, which she will begin in 2020 after a gap year. Melody, Sean, and Erik are rising seniors.

Research Workshops:

In winter quarter, we offer 2 field-specific quarter-long workshop series to support students potentially interested in applying for Summer URGs. The Science Research Workshops, led by Evangeline Su, focuses on STEM fields, and first and second year students comprised 97% of participants. More than half of the enrollment was first generation and/or low-income students seeking both the staff guidance and the peer community to help build their sense of self-efficacy around entering research. Since 2017-18, program retention increased from 49% to 85%. Of the 39 participants, 17 applied for a URGs. Of that group, 12 were awarded URGs (a higher acceptance rate

OTHER INITIATIVES/PROGRAMS:

than the general population); a subset of the remaining participants pursued funding (WCAS, McCormick grants, etc.) or external funding (REUs etc.).

The Arts, Humanities, and Social Science Research Workshops (AHSS) were led by Peter Civetta. 23 students enrolled from a wide variety of disciplines (majority 1st/2nd years), and the program maintained an 80+% retention rate. 14 students applied for a Summer URG, and they were awarded at an almost 70% acceptance rate – higher than general population. The program featured two excellent peer mentor leaders, and program feedback from participants was extremely positive.

Global and Research Opportunities Database:

In 2015, a joint project between NUIT (Academic and Research Technologies), the Office of the Provost, and the Office of Undergraduate Research produced the Global and Research Opportunities database (<http://globalresearchopportunities.northwestern.edu/>), a comprehensive searchable database of opportunities to get involved in research and global experiences for students, faculty, and administrators. This year Peter Civetta conducted a comprehensive audit of the site, contacting all people with listed opportunities and purging out of date or non-functioning opportunities. In this process, the site now has a clearer focus on the undergraduate experience, as it was those pages that actually received the bulk of the site's traffic.

As mentioned earlier in this report, we believe this database has increased potential as a comprehensive resource for undergraduate opportunities of all types. We hope to expand the database by adding listings from student affairs, residential communities, etc. in order to make the site a one-stop location for a large range of undergraduate initiatives across the University. After this work is completed, the site will likely need to be renamed/rebranded, but OUR is committed to maintaining and administering it moving forward.

Peer Mentor Program:

The primary Research Peer Mentor program serves to support Summer URG winners, since many URG winners will be conducting full-time research for the first time, and Summer URGs are not affiliated with the infrastructure of independent study coursework. ~20 peer mentors are recruited from former URG grant winners; each peer mentor is paired with 8-13 mentees conducting research in similar fields. As noted above, OUR has other Peer Mentor programs affiliated with the winter quarter research workshop series. The 2018 Peer Mentor Exit Interviews (conducted Fall 2018) revealed a significant gap between expectations and reality in terms of the most productive use of Peer Mentors for Summer URG winners; previously Peer Mentors were tasked with getting cohorts together to “build community” around undergraduate research which proved largely unsuccessful. Therefore, OUR overhauled the training and expectations of the Peer Mentor program, focusing on best practices in undergraduate research and skill development in 1-on-1 mentoring relationships. Using foundational material available through the Entering Research curricula, Peer Mentors now receive training on Self-Efficacy, Active Listening, Communication Styles and Microaggressions in addition to the previous content of Common Challenges in Research, OUR Programs, and On-Campus Resources. Rather than casually meeting with their mentee cohorts, Peer Mentors are now expected to connect at least 3 times with each mentee and provide one-on-one support. In order to best provide this support, the cohorts are divided by methodology/field such that mentees cluster by common interest and the Peer Mentor has adjacent experience.

OTHER INITIATIVES/PROGRAMS:

Additionally, Peer Mentors will contribute unique perspectives on outreach and student engagement by organizing at least one event or tangible (article/content, etc) in the Fall. In alignment with this new approach, Megan Wood restructured the URG Skill Workshops to include a conversation on self-efficacy, and re-framed the conversation around common challenges in research to empower Peer Mentors as resources. Each Peer Mentor facilitated small group discussions on these topics at 3 URG skill workshops. All 200+ URG winners attended these workshops (offered as 15 sessions during the Spring).

Looking to 2019-2020, OUR is working to better define the different Peer Mentoring programs while unifying training across programs. In particular, OUR staff will participate in all versions of Peer Mentor Programs to ensure that Peer Mentors are comfortable serving as representatives of OUR as a whole and not just for a particular program. We are also meeting with other campus units to understand best practices around Peer Mentor expectations and responsibilities versus compensation. For example, Peer Mentors/Ambassadors affiliated with both Northwestern Career Advancement and Academic Support & Learning Advancement receive modest compensation, and we will look towards a budget request for funding for our Peer Mentors to be in line with best practices.

Research Community Building:

After piloting summer professional development programs in 2018, this year OUR is providing a narrower selection of offerings tailored to student interest. Specifically we will offer workshops on Citation Management Software, Poster Presentations, Oral Communication Skills, and Next Steps in Research. Given low turnouts last summer, we also changed advertising strategies by moving away from Facebook events and moving to a weekly newsletter format. This newsletter is sent out to a compiled list of 500+ undergraduate researchers at Northwestern, regardless of their funding source (does not have to be tied to OUR funding). The last 3 newsletters have been opened by 350+ students. The newsletter also highlights offerings from other campus units (ie Office of Fellowships, programming offered through the Synthetic Biology REU Program) and free/inexpensive events happening around Evanston and Chicago to encourage students to maintain work/life balance over the summer.

CAURS (Chicago Area Undergraduate Research Symposium):

CAURS was created 15 years ago by a Northwestern student, Chandler Robinson, who wanted to provide opportunities for students at area schools to get together, share their work, get feedback from faculty across all of the schools, and gain presentation experience. Six schools sponsor the event: University of Chicago, Loyola, DePaul, Illinois Institute of Technology, Roosevelt, and Northwestern. Peter Civetta serves as the faculty sponsor of the event, and its finances run through OUR administrator, Bryce O'Tierney. CAURS' annual conference is organized and run by a student board. This year's event was held at Lurie Cancer Center, and Northwestern student Fidak Kahn served as the director of the 2019 event. New directors have been named for 2019-20, and planning has already begun for the spring 2020 event.

TEDx Northwestern:

Seven years ago, a group of students successfully brought the TEDx conference to campus with support from a faculty sponsor. After two successful years, the faculty member left the University, and Peter Civetta became the faculty sponsor. This year's event was organized by seniors Eileen Chen and

OTHER INITIATIVES/PROGRAMS:

Megan Lee along with a student board of twelve. This year's event was held in the recently remodeled Welsh-Ryan Arena. The event was called "Visions and Voices" and featured ten impressive talks, which are all now available on the TED web page. New directors have been named for 2019-20, and planning has already begun for the spring 2020 event.

Office Communications/Branding:

Given the extensive resources developed by the Office of Undergraduate Research, we sought to build brand recognition around our offerings, both at the institution and within the field of undergraduate research. Last summer, OUR completely revised the trifold, which is the primary means of advertising for the office and is distributed to thousands of students, prospective students, faculty, and parents each year. The trifold is now framed with a comic book theme in alignment with our "Adventures of Grant Man" web series and with the tagline of 'Choose our Own Adventure' to highlight the notion that research can be done in any field, by any student, at any time during their academic career. OUR also designed a matching laptop sticker that is distributed to interested students and grant winners. Lastly, the OUR logo is included on all content distribution in order to help raise the visibility of OUR as a resource regarding all aspects of undergraduate research.

APPENDIX:
SUMMARY OF OFFICE OF UNDERGRADUATE RESEARCH DEMOGRAPHICS REPORT
2018-19

ALL OUR PROGRAMS 2018-19

OUR 2018-19								All Undergrad	
Awarded/Rejected		Awarded		Rejected		Total	Success	Students	
		Count	N%	Count	N%	Students	Rate	Count	%
Race/ethnicity (IPEDS)									
	Native American	1	0.2%	0	0.0%	1	100%	8	1.0%
	Asian/Pacific Islander	101	16.0%	163	23.1%	264	38%	1,438	17.5%
	Black/African-American	30	4.7%	30	4.2%	60	50%	473	5.8%
	Hispanic	82	13.0%	68	9.6%	150	55%	1,033	12.6%
	International	59	9.3%	75	10.6%	134	44%	791	9.7%
	Not Applicable	21	3.3%	33	4.7%	54	39%	307	3.7%
	Two or More Races	41	6.5%	37	5.2%	78	53%	470	5.7%
	White	280	44.3%	279	39.5%	559	50%	3,674	44.8%
	Blank	17	2.7%	21	3.0%	38	45%	0	0.0%
								8,194	100%
Race/ethnicity (Count all)									
Af Amer	Yes	45	7.3%	54	7.9%	99	45%	741	9.0%
Asian	Yes	132	21.5%	192	28.0%	324	41%	1762	21.5%
Hispanic	Yes	82	13.4%	68	9.9%	150	55%	1,033	12.6%
Sex	F	380	60.1%	421	59.6%	801	47%	4,167	50.8%
	M	235	37.2%	264	37.4%	499	47%	4,023	49.1%
	Blank	17	2.7%	21	3.0%	38	45%		
Pell any year	Yes	116	18.4%	141	20.0%	257	45%	1,480	18.1%
Needs Index	0	223	35.3%	223	31.6%	446	50%	3,796	46.3%
	1	94	14.9%	126	17.8%	220	43%	921	11.2%
	2	50	7.9%	49	6.9%	99	51%	561	6.8%
	3	62	9.8%	88	12.5%	150	41%	986	12.0%
	4	109	17.2%	102	14.4%	211	52%	943	11.5%
	5	94	14.9%	118	16.7%	212	44%	988	12.1%
First gen	Yes	66	10.4%	58	8.2%	124	53%	828	10.1%

47% OVERALL OUR SUCCESS RATE

COMBINED URG PROGRAMS 2018-19

OUR 2018-19		AY and Summer URG						All Undergrad		
All URG		Awarded		Rejected		Total		Success	Students	
		Count	N%	Count	N%	Count	N%	Rate	Count	%
Race/ethnicity (IPEDS)										
	Native American	0	0.0%	0	0.0%	0	0.0%	0%	8	1.0%
	Asian/Pacific Islander	56	16.2%	33	18.2%	89	16.9%	63%	1,438	17.5%
	Black/African-American	11	3.2%	10	5.5%	21	4.0%	52%	473	5.8%
	Hispanic	43	12.5%	19	10.5%	62	11.8%	69%	1,033	12.6%
	International	30	8.7%	16	8.8%	46	8.7%	65%	791	9.7%
	Not Applicable	11	3.2%	10	5.5%	21	4.0%	52%	307	3.7%
	Two or More Races	20	5.8%	10	5.5%	30	5.7%	67%	470	5.7%
	White	167	48.4%	79	43.6%	246	46.8%	68%	3,674	44.8%
	Blank	7	2.0%	4	2.2%	11	2.1%	64%	0	0.0%
									8,194	100%
Race/ethnicity (Count all)										
Af Amer	Yes	15	4.5%	18	10.2%	33	6.4%	45%	741	9.0%
Asian	Yes	74	22.0%	40	22.6%	114	22.2%	65%	1762	21.5%
Hispanic	Yes	43	12.8%	19	10.7%	62	12.1%	69%	1,033	12.6%
Sex	F	197	57.1%	107	59.1%	304	57.8%	65%	4,167	50.8%
	M	141	40.9%	70	38.7%	211	40.1%	67%	4,023	49.1%
	Blank	7	2.0%	4	2.2%	11	2.1%	64%		
Pell any year	Yes	61	17.7%	34	18.8%	95	18.1%	64%	1,480	18.1%
Needs index	0	124	35.9%	54	29.8%	178	33.8%	70%	3,796	46.3%
	1	62	18.0%	34	18.8%	96	18.3%	65%	921	11.2%
	2	26	7.5%	17	9.4%	43	8.2%	60%	561	6.8%
	3	26	7.5%	17	9.4%	43	8.2%	60%	986	12.0%
	4	57	16.5%	33	18.2%	90	17.1%	63%	943	11.5%
	5	50	14.5%	26	14.4%	76	14.4%	66%	988	12.1%
First gen	Yes	36	10.4%	16	8.8%	52	9.9%	69%	828	10.1%

66% OVERALL URG SUCCESS RATE

AY AND SUMMER URG PROGRAMS 2018-19

		Academic Year URG							Summer URG							All Undergrad	
		Awarded		Rejected		Total		Success	Awarded		Rejected		Total		Success	Students	
		Count	N%	Count	N%	Count	N%	Rate	Count	N%	Count	N%	Count	N%	Rate	Count	%
Race/ethnicity (IPEDS)																	
	Native American	0	0%	0	0%	0	0%	0%	0	66%	0	0%	0	0%	0%	8	1.0%
	Asian/Pacific Islander	19	14.2%	8	11.6%	27	13.3%	70%	37	17.5%	25	22.3%	62	19.2%	60%	1,438	17.5%
	Black/African-American	2	1.5%	4	5.8%	6	3.0%	33%	9	4.3%	6	5.4%	15	4.6%	60%	473	5.8%
	Hispanic	18	13.4%	11	15.9%	29	14.3%	62%	25	11.8%	8	7.1%	33	10.2%	76%	1,033	12.6%
	International	10	7.5%	4	5.8%	14	6.9%	71%	20	9.5%	12	10.7%	32	9.9%	63%	791	9.7%
	Not Applicable	3	2.2%	5	7.2%	8	3.9%	38%	8	3.8%	5	4.5%	13	4.0%	62%	307	3.7%
	Two or More Races	10	7.5%	2	2.9%	12	5.9%	83%	10	4.7%	8	7.1%	18	5.6%	56%	470	5.7%
	White	72	53.7%	33	47.8%	105	51.7%	69%	95	45.0%	46	41.1%	141	43.7%	67%	3,674	44.8%
	Blank	0	0.0%	2	2.9%	2	1.0%	0%	7	3.3%	2	1.8%	9	2.8%	78%	0	0.0%
																8,194	100%
Race/ethnicity (Count all)																	
Af Amer	Yes	2	1.5%	5	7.5%	7	3.5%	29%	13	6.4%	13	11.8%	26	8.3%	50%	741	9.0%
Asian	Yes	29	21.6%	12	17.9%	41	20.4%	71%	45	22.2%	28	25.5%	73	23.3%	62%	1762	21.5%
Hispanic	Yes	18	13.4%	11	16.4%	29	14.4%	62%	25	12.3%	8	7.3%	33	10.5%	76%	1,033	12.6%
Sex	F	85	63.4%	36	52.2%	121	59.6%	70%	112	53.1%	71	63.4%	183	56.7%	61%	4,167	50.8%
	M	49	36.6%	31	44.9%	80	39.4%	61%	92	43.6%	39	34.8%	131	40.6%	70%	4,023	49.1%
	Blank	0	0.0%	2	2.9%	2	1.0%	0%	7	3.3%	2	1.8%	9	2.8%	78%		
Pell any year	Yes	16	11.9%	15	21.7%	31	15.3%	52%	45	21.3%	19	17.0%	64	19.8%	70%	1,480	18.1%
Needs Index	0	62	46.3%	22	31.9%	84	41.4%	74%	62	29.4%	32	28.6%	94	29.1%	66%	3,796	46.3%
	1	19	14.2%	11	15.9%	30	14.8%	63%	43	20.4%	23	20.5%	66	20.4%	65%	921	11.2%
	2	7	5.2%	8	11.6%	15	7.4%	47%	19	9.0%	9	8.0%	28	8.7%	68%	561	6.8%
	3	12	9.0%	5	7.2%	17	8.4%	71%	14	6.6%	12	10.7%	26	8.0%	54%	986	12.0%
	4	22	16.4%	13	18.8%	35	17.2%	63%	35	16.6%	20	17.9%	55	17.0%	64%	943	11.5%
	5	12	9.0%	10	14.5%	22	10.8%	55%	38	18.0%	16	14.3%	54	16.7%	70%	988	12.1%
First gen	Yes	9	6.7%	3	4.3%	12	5.9%	75%	27	12.8%	13	11.6%	40	12.4%	68%	828	10.1%

66% OVERALL AYURG SUCCESS RATE

65% OVERALL SURG SUCCESS RATE

URAP 2018-19

OUR 2018-19														
Grant Type and Awarded/Rejected		AY URAP Student				SURAP Student							All Undergrad	
		Awarded		Rejected		Awarded		Rejected		Total	Total	Success	Students	
		Count	N%	Count	N%	Count	N%	Count	N%	Awarded	Students	Rate	Count	%
Race/ethnicity (IPEDS)														
	Native American	0	0.0%	0	0.0%	1	1.2%	0	0.0%	1	1	100%	8	1.0%
	Asian/Pacific Islander	8	11.0%	73	24.7%	9	10.6%	51	26.6%	17	141	12%	1,438	17.5%
	Black/African-American	5	6.8%	15	5.1%	5	5.9%	5	2.6%	10	30	33%	473	5.8%
	Hispanic	6	8.2%	18	6.1%	18	21.2%	26	13.5%	24	68	35%	1,033	12.6%
	International	13	17.8%	40	13.6%	11	12.9%	15	7.8%	24	79	30%	791	9.7%
	Not Applicable	3	4.1%	16	5.4%	2	2.4%	7	3.6%	5	28	18%	307	3.7%
	Two or More Races	7	9.6%	14	4.7%	7	8.2%	9	4.7%	14	37	38%	470	5.7%
	White	30	41.1%	110	37.3%	32	37.6%	77	40.1%	62	249	25%	3,674	44.8%
	Blank	1	1.4%	9	3.1%	0	0.0%	2	1.0%	1	12	8%	0	0.0%
													8,194	100%
Race/ethnicity (Count all)														
Af Amer	Yes	9	12.7%	23	8.0%	8	9.4%	11	5.8%	17	51	33%	741	9.0%
Asian	Yes	12	16.9%	81	28.3%	15	17.6%	62	32.6%	27	170	16%	1762	21.5%
Hispanic	Yes	6	8.5%	18	6.3%	18	21.2%	26	13.7%	24	68	35%	1,033	12.6%
Sex	F	50	68.5%	195	66.1%	52	61.2%	97	50.5%	102	394	26%	4,167	50.8%
	M	22	30.1%	91	30.8%	33	38.8%	93	48.4%	55	239	23%	4,023	49.1%
	Blank	1	1.4%	9	3.1%	0	0.0%	2	1.0%	1	12	8%		
Pell any year	Yes	13	17.8%	70	23.7%	17	20.0%	31	16.1%	30	131	23%	1,480	18.1%
Needs Index	0	21	28.8%	108	36.6%	27	31.8%	46	24.0%	48	202	24%	3,796	46.3%
	1	9	12.3%	49	16.6%	13	15.3%	37	19.3%	22	108	20%	921	11.2%
	2	9	12.3%	12	4.1%	5	5.9%	16	8.3%	14	42	33%	561	6.8%
	3	8	11.0%	38	12.9%	11	12.9%	30	15.6%	19	87	22%	986	12.0%
	4	13	17.8%	25	8.5%	15	17.6%	39	20.3%	28	92	30%	943	11.5%
	5	13	17.8%	63	21.4%	14	16.5%	24	12.5%	27	114	24%	988	12.1%
First gen	Yes	7	9.6%	26	8.8%	10	11.8%	16	8.3%	17	59	29%	828	10.1%

24% OVERALL URAP SUCCESS RATE

* Number of rejected students are less than 5. Beckman, Circumnavigators, and Summer URG excluded because of small numbers

ULG and CTG PROGRAMS 2018-19

OUR 2018-19											
Grant Type and Awarded/Rejected		Language Grant						Conference Travel*		All Undergrad	
		Awarded		Rejected		Total	Success	Awarded		Students	
		Count	N%	Count	N%	Students	Rate	Count	N%	Count	%
Race/ethnicity (IPEDS)											
	Native American	0	0.0%	0	0.0%	0	0%	0	33.0%	8	1.0%
	Asian/Pacific Islander	5	31.3%	6	18.2%	11	45%	22	20.0%	1,438	17.5%
	Black/African-American	0	0.0%	0	0.0%	0	0%	9	8.2%	473	5.8%
	Hispanic	0	0.0%	4	12.1%	4	0%	15	13.6%	1,033	12.6%
	International	0	0.0%	4	12.1%	4	0%	5	4.5%	791	9.7%
	Not Applicable	0	0.0%	0	0.0%	0	0%	5	4.5%	307	3.7%
	Two or More Races	0	0.0%	4	12.1%	4	0%	7	6.4%	470	5.7%
	White	7	43.8%	9	27.3%	16	44%	42	38.2%	3,674	44.8%
	Blank	4	25.0%	6	18.2%	10	40%	5	4.5%	0	0.0%
										8,194	100%
Race/ethnicity (Count all)											
Af Amer	Yes	0	0.0%	2	7.4%	2	0%	13	12.4%	741	9.0%
Asian	Yes	5	41.7%	9	33.3%	14	36%	25	23.8%	1762	21.5%
Hispanic	Yes	0	0.0%	4	14.8%	4	0%	15	14.3%	1,033	12.6%
Sex	F	10	62.5%	19	57.6%	29	34%	71	64.5%	4,167	50.8%
	M	2	12.5%	8	24.2%	10	20%	34	30.9%	4,023	49.1%
	Blank	4	25.0%	6	18.2%	10	40%	5	4.5%		
Pell any year	Yes	3	18.8%	6	18.2%	9	33%	22	20.0%	1,480	18.1%
Needs Index	0	8	50.0%	13	39.4%	21	38%	40	36.4%	3,796	46.3%
	1	1	6.3%	5	15.2%	6	17%	9	8.2%	921	11.2%
	2	1	6.3%	3	9.1%	4	25%	9	8.2%	561	6.8%
	3	2	12.5%	3	9.1%	5	40%	15	13.6%	986	12.0%
	4	2	12.5%	4	12.1%	6	33%	22	20.0%	943	11.5%
	5	2	12.5%	5	15.2%	7	29%	15	13.6%	988	12.1%
First gen	Yes	1	6.3%	0	0.0%	1	100%	12	10.9%	828	10.1%

33% ULG SUCCESS RATE

99% CTG SUCCESS RATE

* Number of rejected students are less than 5.

OUR DEMOGRAPHICS REPORT NOTES 2018-19

Notes

For race/ethnicity - IPEDS method includes:

One category per student - if a student is Hispanic, they are counted as Hispanic. If a student indicated more than one race other than Hispanic and are not International, then they are in the "two or more races" category

Count all method includes every category indicated by a student

Here are the breakdowns of needs index categories:

5 – 90% or 3 – 50% to 74% need

4 – 75% to 2 – 25% to 49% need

1 - up to 25 0 - Did not apply for financial aid

Put another way, those in the 5 category can pay 0 to 10% of their educational costs without help.

Beckman Scholars Program and Circumnavigators Grant cohorts are too small to break out separately; their data is included in All Programs.

URG-Advanced data is included with AYURG or Summer URG data.

Demographics could not be found for some students:

(Noted as blank on race/ethnicity and gender)

School 1	School 2	Count
COMM		1
COMM	WCAS	3
MCC		2
MEDILL		2
NUQ		15
NUQ		2
SESP		1
SPS		3
WCAS		9
Total		38