Institutional Information
Queens College, City University of New York
January 2021

Introduction

This document stipulates the background and support material relevant to our faculty applications for SCORE grants. We begin with an overview of the Queens College mission and organizational structure (A), followed by discussion of how the Queens College Strategic Plan (2015-2020) relates to SCORE goals (B). We then provide profiles of Queens College undergraduate and graduate (Master's) students (C) and CUNY doctoral students (D). We provide summary data regarding Queens College funding and scholarship (E). We describe a number of initiatives for training and retaining URM students at Queens College, particularly students in STEM (F). We conclude with a description of our pre-submission review process for SCORE grants (G) and with summary data regarding Queens College eligibility for SCORE funding (H).

A. Queens College Mission and Organizational Structure

The mission of Queens College, in place since 1995, "is to prepare students to become leading citizens of an increasingly global society. The college seeks to do this by offering its exceptionally diverse student body a rigorous education in the liberal arts and sciences under the guidance of a faculty that is dedicated to the pursuit of excellence and the expansion of the frontiers of knowledge. Its goal is that students learn to think critically, address complex problems, explore various cultures, and use effectively the full array of available technologies and information resources."[1] As an academic institution, Queens College has an enrollment of 16,866 undergraduate students and 3,057 graduate students in 2019. We are one of 25 colleges of the City University of New York (CUNY), the nation's largest urban public university. Established in 1937 to offer a strong liberal arts education to the working classes, Queens College was hailed by the people of the borough as the "college of the future." This continues to be a hallmark of our identity and serves as an organizing principle in our College's ongoing development. Queens College offers a rigorous education to undergraduate and graduate students, guided by a highly qualified faculty dedicated to teaching and research and their interaction. We have been recognized as one of the top 10 Best Northern Regional Universities in *U.S. News and World Report*, and we are continuously listed in the *Princeton Review*'s "Best 385 Colleges." The *Washington Monthly* ranked us among the top five American colleges for offering students the "best bang for the buck".

Our academic programs, authorized to grant degrees in over one hundred areas including disciplines germane to SCORE, are housed in four Divisions: Mathematics and Natural Sciences, Arts and Humanities, Education, and Social Sciences. The Division of Mathematics and Natural Sciences houses eight departments that offer undergraduate and graduate degree programs that prepare students for leadership roles in science, technology, and the health professions. Through our research-active faculty and through a number of joint programs, we have a formal, close, and highly productive relationship with the CUNY Graduate Center, the principal doctorate-granting institution in CUNY, which is home to over thirty doctoral degrees and over thirty research centers in the sciences, humanities and social

[1] Queens College Mission Statement, http://www.qc.cuny.edu/Mission.

sciences. CUNY (and through its relationship to the Graduate Center, Queens College) grants doctoral degrees in biomedical fields, including Biology, Biochemistry, Chemistry, and Psychology (Neuroscience) utilizing a consortial model through which we, along with a number of other CUNY colleges, participate in programs housed at the Graduate Center. Many of our faculty are actively involved in doctoral education and are thereby producing pre-doctoral and post-doctoral researchers.

B. Queens College Strategic Plan (2015-2020) and its Relationship to SCORE Goals

Our institutional effectiveness planning is engineered to help us live up to our motto, *Discimus ut Serviamus*: "We learn so that we may serve". Our formal blueprint for this work is our 2015-2020 Strategic Plan[2], which identifies four core goals: (1) facilitate student success; (2) support faculty and staff excellence; (3) weave campus, community, and global connections; and (4) strengthen operational capacity and infrastructure[2]. Goals (1), (2) and (3) relate directly to the stated SCORE goals:

1. Increase the number of pre- and post-doctoral researchers.
2. Increase productivity, including refereed publications, presentations at national conferences, and of external grant submissions and awards.
3. Mentor and encourage new SCORE investigators; and provide faculty development workshops.
4. Increase number of minority faculty at the College involved in biomedical research.

One major initiative in our Strategic Plan to facilitate excellence in our academics is to "foster faculty scholarship in research, teaching, and service" (Initiative 4) through "enhanced support for faculty teaching, research and scholarship" (Outcome 3), and "increased faculty scholarship in the form of research, creative activities, publications, contracts and grants" (Outcome 7) by "strengthening professional development that supports staff professional and career growth (Outcome 4). This Strategic Plan initiative directly relates to SCORE Goals 2 and 3.

A second initiative in our Strategic Plan is to "nurture campus diversity" (Initiative 7) through increased faculty and student diversity to better resemble the demographics of our surrounding community (Queens County, in New York City), specifically by increasing our proportion of African American and veteran students, and by increasing the diversity of our faculty that it may better resemble our student body (Outcome 8). This Strategic Plan initiative directly relates to SCORE Goal 4.

Given that our community colleges represent an increased percentage of under-represented students, a third relevant initiative in our Strategic Plan is to "support the transfer student transition to Queens College" (Initiative 1). Further, recognizing the importance of graduate education in the development of researchers, a fourth initiative in the Strategic Plan is to "improve the graduate student experience" (Initiative 2). These initiatives will be achieved by "improved student retention, graduation, and success/progress rates (Outcome 1). These Strategic Plan initiatives directly relate to SCORE Goal 1.

C. Queens College Undergraduate and Graduate (Master's) Student Profiles

Our low tuition and our location in one of the most ethnically diverse counties (Queens County) in the United States drive the diversity of our student body. Estimates from the U.S. Census Bureau3 indicate that the 2.3 million residents of Queens are 21% Black, 28% Hispanic, 27% Asian, 25% White not Hispanic. The combined total of under-represented minorities (URMs) as defined by NIH criteria among the population in our local community is 50%[3].

In the Fall 2019 semester, Queens College had 19,923 enrolled students of which 16,866 were undergraduate students, and 3,057 graduate students. Undergraduate self-reported ethnicity was 30% Asian, 9% Black, 30% Hispanic, 24% White, for a total of 41% URM's as defined by NIH criteria. Our

[2] Queens College Strategic Plan, 2015-2020, http://www.qc.cuny.edu/StrategicPlan.

[3] United States Census, Queens County QuickFacts, http://www.census.gov/quickfacts/table/RHI105210/36081

students have origins in 139 countries, speaking 83 different languages. Sixty two percent are from households with income below $50,000. Forty one percent are first-generation college. Thirty Seven percent receive Pell Grants, and 70% some form of financial aid. Within CUNY, we rank at or near the top in student retention with a 56% six-year graduation rate.

Table 1. Queens College Undergraduate Student Profile (Fall 2019)[4]

New Undergraduates			
First-time full-time freshmen (FTFT)	51%	Commuters	98%
Transfer students	48%	Have children	9%
Part-time students	12%	Financial aid	70%
All Undergraduates		International	5%
Female	54%	25 years or older	23%
African American/Black	9%	Family Income < $50K	62%
Asian	30%	Languages spoken	83
Hispanic/Latino	30%	Countries of origin	139
White, non-Hispanic	24%	**Graduation Rates**	
Two or more races	2%	FTFT 4-Yr Graduation (2010 Cohort)	28%
Nonresident alien	5%	FTFT 6-Yr Graduation (2008 Cohort)	56%
First generation in college	41%	Transfers 2-Yr Graduation (2012 Cohort)	16%
Full-time students who also work	52%	Transfers 4-Yr Graduation (2010 Cohort)	51%

A substantial proportion of our entering student population started college elsewhere. In Fall 2019, 48% of new students transferred from another college, while 51% entered as first-time freshmen. Queens College's transfer population is more diverse than its freshmen: 42% of transfer students are from underrepresented groups (American Indian/Pacific Islander, Black, and Hispanic), compared to 30% of first-time freshmen are in this category.[5] Two of our major sources of transfer students are sister CUNY community colleges with sizable URM populations: Queensborough Community College (42%) and LaGuardia Community College (62%).[6] This has contributed to our recent designation by the United States Department of Education as an Eligible Institution under Title III and Title V of the Higher Education Act of 1965. By recruiting and graduating students who are diverse in every possible respect, we contribute to the public good and fulfill the first two central provisions of our Strategic Plan: "facilitate student success" (Goal 1) and "support faculty and staff excellence" (Goal 2).

Table 2 summarizes the number of faculty in the departments housing faculty who typically submit biomedical SCORE grants: Biology, Chemistry/Biochemistry and Psychology at Queens College. Table 3 provides historical enrollment and degree attainment data, which shows gradual increases in percentages of URM students both at the undergraduate and graduate level. Table 4 provides one estimate of our impact in the production of PhDs. Over the past ten years, 90 Queens College graduates have completed

[4] Enrollment distributions, gender and ethnicity, and graduation rates are Fall 2019 data from the Integrated Postsecondary Education Data System (IPEDS); other estimates are from in-house queries of the University's data warehouse and from the CUNY Student Experience Survey, CUNY Office of Institutional Effectiveness https://www.qc.cuny.edu/about/research/Pages/OIE_Home.aspx

[5] CUNY Office of Institutional Research and Assessment (OIRA), Racial/Ethnic Composition of New Students: First-Time Freshmen and Advanced Standing Transfer Enrollment, Fall 2018, http://www.cuny.edu/about/administration/offices/oira/institutional/data/current-student-data-book-by-subject/#Race

[6] CUNY OIRA, Total Enrollment by Race/Ethnicity, Gender and College: Percentages, Fall 2018, http://www.cuny.edu/irdatabook/rpts2_AY_current/ENRL_0015_RACE_TOT_PCT.rpt.pdf

a PhD in biomedical or behavioral sciences, of whom 20 (22.2%) are URMs. We turn to a second estimate of our impact in the production of PhDs in the next section.

Table 2. Faculty in three departments engaged in biomedical research, 2019

Category	Biology	Chemistry/ Biochemistry	Psychology	Total
Full-Time Faculty (N)	18	14	29	61
URM N (%)	1 (5.6%)	1 (7.1%)	1 (3.4%)	3 (4.9%)

Table 3. Enrollments in undergraduate and graduate programs, and Bachelors and Master's degrees obtained in biological-related sciences. (Integrated Postsecondary Education Data System, IPEDS)

Enrollments	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019
Undergraduate											
N	1721	1955	1985	2025	2172	2254	2293	2422	2437	2530	2974
URM N	499	588	580	641	788	879	945	1059	1086	1128	1353
URM %	29	30.1	29.2	31.7	36.3	39	41.2	43.7	44.6	44.6	45.5
Graduate											
N	223	224	232	218	212	220	228	231	211	201	208
URM N	47	45	50	70	66	73	85	84	82	74	81
URM %	21.1	20.1	21.6	32.1	31.1	33.2	37.3	36.4	38.9	36.8	38.9

Degree Granted	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Bachelors (BA/BS)										
N	484	553	603	671	705	699	678	692	626	837
URM N	124	136	154	170	235	238	233	248	253	340
URM %	25.6	24.6	25.5	25.3	33.3	34.1	34.4	35.8	40.4	40.6
Master's (MA/MS)										
N	69	61	63	67	69	65	64	54	63	60
URM N	14	9	6	13	13	20	18	14	29	21
URM %	20.3	14.8	9.5	19.4	18.8	30.8	28.1	25.9	46.0	35.0

Table 4. Queens College graduates who have completed a PhD in biomedical and behavioral sciences (NSF National Center for Science and Engineering Statistics, Survey of Earned Doctorates 2018)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
N	9	6	9	5	6	13	5	12	13	12	90
URM N	D	D	D	D	D	6	D	D	5	D	20

D. CUNY Doctoral Student Profiles

As mentioned, Queens College participates in a formal and close collegial relationship with the Graduate Center, the principal doctorate-granting institution in CUNY. CUNY (and through its relationship, Queens) grants doctoral degrees in biomedical fields, including Biology, Chemistry, and Psychology (Neuroscience) utilizing a consortial model. As a result of a self-study, the CUNY Graduate Center revamped its CUNY Doctoral Science Program in Biology, Biochemistry, Chemistry and Physics in 2008 to ensure adequate support for all incoming students. Queens has been an active participant in this

consortium, regularly recruiting graduate students to work with funded and tenured faculty. Whereas the Graduate Center provides full support in the first year, during which the students take courses and do laboratory rotations, the campuses and their faculty are responsible for funding their students from the second through the fifth year, while students complete their coursework, participate in qualifying examinations, and produce their doctoral dissertations.

Table 5. Non-URM, URM, and international doctoral students in biochemical areas

Program	Non-URM	URM	International	Total
Biochemistry	17 (38%)	9 (20%)	19 (42%)	45
Biology	65 (68%)	14 (15%)	16 (17%)	95
Chemistry	28 (46%)	12 (20%)	21 (34%)	100
Psychology	127 (73%)	39 (22%)	9 (5%)	175

The CUNY Doctoral Science Program has also committed to diversity, especially URM doctoral training. These data have been consistent since the Doctoral Science Program was reorganized in 2008. Table 5 summarizes the distribution of non-URM students, URM students and international students for 2019 for the biomedical-related areas of Biochemistry, Biology, Chemistry and Psychology.

E. Queens College Funding and Scholarship

Queens College has consistently ranked third among the 25 CUNY campuses in the last five years in attracting external grant funds of between 20-28 million dollars annually, primarily from the National Institutes of Health, the National Science Foundation, and the U.S. Department of Education. Queens College has been a CUNY leader in receiving Faculty Early Career Development (CAREER) Program research grants in STEM disciplines from the U.S. National Science Foundation. Faculty members in the Biology, Chemistry and Psychology Departments are critical and essential participants of the CUNY Doctoral Science Programs related to biomedical research in Biology (e.g., Neuroscience and Molecular and Cellular Biology), Biochemistry and Chemistry through formal joint appointments based at the CUNY Graduate Center. The College, particularly the Science faculty, ranks at or near the top of CUNY in the amount of annual research scholarship (peer reviewed publications, books, national conference presentations). Our faculty are noted for their collaborative approach to research involving doctoral, Master's-level, and undergraduate-level students in their projects, presentations, and publications.

F. Other Initiatives for Training and Retention of URM Students at Queens College

Queens College has a long-standing commitment to providing access to underserved minority, first-generation, and non-traditional college students. We actively recruit in local high schools with high proportions of URM students, like The Young Women's Leadership Academy (68% URM), Harlem Renaissance (99% URM), and Queens Gateway to Health Sciences (56% URM). Our commitment to access and degree completion is further illustrated through a coordinated network of care that consists of centralized support structures for undergraduate students: advising, counseling, tutoring, mentoring, and our SEEK Program, which supports economically disadvantaged students to attain adequate preparation for college-level work. Additional programs promoting student success in the sciences include the following.

STEM Bridges Across Eastern Queens (US Department of Education HSI-STEM) is implementing three activities designed to improve the success of traditionally underrepresented students pursuing STEM degrees, with an evaluation plan designed to measure impact on Hispanic and low-income students (http://hsistem.qc.cuny.edu). The aim is to increase the number of students from Hispanic and low-income backgrounds who graduate with STEM baccalaureate degrees, through three activities: (1) improve access by redesigning courses in STEM at Queens College and Queensborough Community College; (2) improve learning through learning collectives where peers provide instruction and

mentorship to students; (3) bridge the two institutions by writing articulation agreements for all STEM disciplines.

MARC-U*STAR (Maximizing Access to Research Careers) (NIH) is an undergraduate student training program in academic research designed to increase the number of URM students involved in biomedical sciences by creating an environment conducive to research and learning. Queens College has received NIH MARC-U*STAR funding continuously since 2004, and is the first program specifically focused on developing and directing under-represented minority students toward graduate school and careers in biomedical research. We provide support and opportunities for honor student participation in laboratory research, advise and guide students throughout their college years, and offer specific programs to maximize the opportunities for successful admission to graduate biomedical research programs.

The **Mellon Mays Undergraduate Fellowship** (Andrew Mellon Foundation) supports underrepresented students financially and academically to enter PhD programs in targeted disciplines. Five Mellon fellows are selected annually, typically in their sophomore year, and receive supports that include structured programming, faculty mentoring, stipends for research, research abroad, and repayment of undergraduate loans. Fellows are selected based on academic ability and aspirations to pursue a doctoral degree.

Freshman Year to Geoscience Career GEOPATHS program (NSF) IUSE-GEOPATHS is an NSF initiative that funds pioneering ways to increase the number and diversity of students majoring in the Geosciences, helping them complete these majors and preparing them with the needed skills for successful placement in employment or graduate school. Our Freshman Year to Geoscience Career GEOPATHS program serves Geology and Environmental Science majors at Queens College and our two largest feeder institutions, LaGuardia Community College and Queensborough Community College. The project was launched in September 2015, and has funding through 2020.

Facilitating Teachers' and Young Children's Science Learning through Iterative Cycles of Teacher Professional Development (NSF) is designed to enhance the learning and teaching of STEM by preK-12 students and teachers, respectively, through research and development of innovative resources, models, and tools. The project draws from one of New York City's most diverse districts.

Preparation of STEM Majors and Recruitment of STEM Graduates to Increase the Number of Highly Qualified STEM Teachers (NSF) supports students majoring in STEM in their trajectory to serve in high-needs schools in New York City. The participants receive scholarships for two years as they complete requirements for dual science and education majors. The project also supports STEM professionals seeking initial teacher certification in science.

In the project **Diversity by Design: Scaling and Fostering Diverse and Inclusive Intergenerational Communities of Practice** (IMLS, https://www.imls.gov/grants/awarded/re-14-19-0054-19), Queens College, the University of Pittsburgh, the University of California, Irvine, and The Pennsylvania State University will explore how underrepresented minority students develop and maintain a sense of community and belonging within cohort-based recruitment programs, examining also how these experiences compare to participants' sense of community in their graduate programs and workplaces.

Queens College participates in the **CUNY Louis Stokes Alliance for Minority Participation (LSAMP) Program** (NSF) which provides support for STEM freshman and sophomore students to conduct research. Each year the program recruits 30 freshmen Apprentices and 10 sophomore Fellows. Apprentices take an introduction to research course facilitated by our LSAMP faculty mentors, and Fellows (drawn from the previous year's Apprentices pool) work with a faculty mentor on a research project, supported by a $3,000 stipend.

G. Establishment of Pre-Submission Review Process for SCORE Grants

Given our recent designation by the United States Department of Education as an Eligible Institution under Title III and Title V of the Higher Education Act of 1965, we have an ad-hoc committee to institute the review of potential SCORE grants that would receive institutional approval and support. The committee consists of the Associate Provost for Research, the Dean of Mathematics and Natural Sciences, and a number of senior faculty members from the Division of Mathematics and Natural Sciences who have consistently received prior NIH support to draw up guidelines by which faculty members could apply for SCORE grants and receive institutional support and approval. The committee provides expertise to the faculty as to which SCORE grant category a particular proposal should be prepared as well as all other necessary ancillary information. This process resulted in recommending that one proposal be submitted for this round of SCORE competition.

H. Queens College Eligibility for SCORE Funding

Queens College is eligible for SCORE funding as a public institution of higher education, granting science degrees to undergraduate and graduate students, with a documented track record of recruiting, retaining, training, and graduating URMs. Furthermore, as Table 7 indicates, Queens College has received on average less than $6 million dollars per year from R01 and other NIH support in the last two fiscal years.

Table 7. NIH external grant funding for Queens College (NIH Reporter)

Activity	Admin IC	Project Number	PI	FY	Total Cost IC
R01	NIEHS	5R01ES027890-04	BARON, SHERRY L	2021	$553,378
R21	NIAID	1R21AI156798-01	DENNEHY, JOHN JOSEPH	2021	$231,000
T34	NIGMS	5T34GM070387-17	ZAKERI, ZAHRA	2020	$351,784
SC2	NIGMS	5SC2GM125547-02	NIKULINA, VALENTINA	2020	$154,000
SC2	NIGMS	1SC2GM135114-01	TAJERIAN, MARAL	2020	$154,000
SC3	NIGMS	1SC3GM125564-01A1	SAMUNI, URI	2020	$115,500
SC3	NIGMS	5SC3GM122657-04	BRUMBERG, JOSHUA CRAIG	2020	$115,500
SC3	NIGMS	5SC3GM130430-02	RANALDI, ROBERT	2020	$115,500
R15	NIGMS	2R15GM102846-03	MELENDEZ, ALICIA	2020	$462,000
SC3	NIGMS	5SC3GM122662-04	FOLDI, NANCY SUZANNE	2020	$115,500
SC2	NIGMS	5SC2GM130470-02	CHOI, JUN-YONG	2020	$154,000
R15	NIMH	1R15MH119626-01	SNEED, JOEL R.	2019	$462,000
R15	NCI	1R15CA243109-01	PATHAK, SANJAI KUMAR	2019	$380,680
R15	NIGMS	2R15GM112147-02	SAVAGE-DUNN, CATHY	2019	$462,000
R01	NIMH	5R01MH102729-05	NOMURA, YOKO	2018	$659,387
R15	NIDA	1R15DA046058-01	BEELER, JEFF A.	2018	$462,000
Grant Total					**$4,948,229**