



Testimony of Vivek Upadhyay
University Executive Registrar, the City University of New York

Update on the Pathways General Education Initiative

New York City Council
Committee on Higher Education
October 11, 2018

Good morning Chair Barron and members of the Higher Education Committee. My name is Vivek Upadhyay and I am the University Executive Registrar for the City University of New York. The Office of the University Registrar (OUR) serves to ensure academic integrity by communicating University policies and is a resource for all the members of the University community. My office promotes an environment that supports students, alumni, faculty, administrators, staff and the community to advance the educational mission of the University.

I am pleased to join my colleagues from the University. My testimony will focus on the implementation of Pathways General Education across Student Information Systems used every day by students, faculty and advisors.

DegreeWorks Implementation and Pathways Integration: DegreeWorks, the University's academic degree audit system, is an online tool that tracks and displays degree requirements students have completed, have in progress, and still need to meet for their degree, including General Education (Pathways), Major and Minors (if applicable). DegreeWorks informs students about pre-requisites, helps students determine which courses to register for, and allows students to explore how their completed requirements would apply towards their degree, if they change or add a major or minor. Critically, DegreeWorks also provides data to certify students for New York State Tuition Assistance Program (TAP) eligibility, Excelsior Scholarship verification and certification, and for graduation. The University identified DegreeWorks as the optimal degree audit system after an extensive review of several such systems led by Brooklyn College and LaGuardia Community College in 1998. By summer 2018, all of the University undergraduate colleges have migrated to CUNYfirst (University's student information system which I will discuss next), and the DegreeWorks system has been implemented across all these campuses. In Fall 2016, University's Computer Information Services (CIS) Office

upgraded DegreeWorks to the latest version, 4.1.6, bringing enhanced functionalities such as a Student Education Planner (*functionality which allows student to create a program of study for each term until graduation*), and a Transfer What if feature (*which allows students to review their current degree requirements applied to the degree requirements at another college within University if they transferred*). DegreeWorks has been programmed ("*scribed*") across the University's colleges, for students and advisors, to track and to inform them about degree requirements, students have completed, have in progress, and still need to meet during their course of study.

CUNYfirst: CUNYfirst stands for Fully Integrated Resources and Services Tool and for the University it means a massive upgrade in how we did things in past. CUNYfirst is our local branding of our student information system, Oracle/PeopleSoft, which is used by higher education institutions both nationally and internationally. New CUNYfirst processes in Student Administration, Human Resources and Finance have changed how we do everything from registering for classes, tracking enrollment, and to paying our bills. CUNYfirst applications have replaced aging legacy systems like SIMS that *had separate and individual systems of records for every student, for each of the University colleges*, helped us in streamline, and standardize many of the things we do at our colleges. CUNYfirst has now been implemented across the University and has helped tremendously in establishing policies, processes and procedures especially General Education coding for enrollment and transfer credit evaluation across the University for students, *using a single system of records*. CUNYfirst has been modified since Pathways implementation to display General Education designations for students and advisors during enrollment and advisement cycles every term.

Student Information Systems for Transfer: As Dr. Zoe testified, not only are all courses transferring, but also they are fulfilling degree requirements for General Education, the Major or for electives upon

transfer. This was not always the case before Pathways. All courses are coded in CUNYfirst at the course catalog and class schedule level, with a Pathways *Requirement Designation (RD)*, to fulfill one of the eight Pathways Common Core areas. We find that these courses are successfully transferring over into the required designated Pathways area. This is also evident in student degree audits in our DegreeWorks audit system. The Pathways transfer guarantees ensure that once a student successfully completes a course in a particular Common Core area, the credits transfers and satisfies the requirements for that Common Core area at any other college at the University.

Dr. Zoe mentioned the newly implemented SUNY transfer policy and as the University expands these transfer credit guarantees, we are planning for greater automation of the *Transfer Credit Evaluation* process. For example, the CUNYfirst External Catalog, which includes course records from non-CUNY institutions (including SUNY), allows for the automation of transfer credit evaluation.

Thank you for the opportunity to offer an overview of CUNY's student advisement system (DegreeWorks) and student information system (CUNYfirst) and how each is used by students and advisors in making informed decisions during enrollment and towards graduation.

Thank you again, and panel is happy to answer any questions you may have.

**Testimony of Dr. Lucinda R. Zoe
Senior University Dean for Academic Programs and Policy
City University of New York**

Update on the Pathways General Education Initiative

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**City University of New York
Office of Academic Affairs**

Good morning Chairperson Barron and members of the Higher Education Committee. I am Lucinda Zoe, Senior University Dean for Academic Programs and Policy for the City University of New York. Thank you for the invitation and opportunity to provide an update on the Pathways Initiative to the Committee. With me today to present testimony are several CUNY colleagues. Allow me to introduce Associate Provost for Undergraduate Retention and Dean of Undergraduate Studies from John Jay College, Dr. Dara Byrne and Vivek Upadhyay, our University Executive Registrar, who plays a key role in maintaining the university systems that ensure that student course work is transferring properly.

BRIEF BACKGROUND

Since I have appeared before you in 2016 to provide more detailed information on Pathways, I will start by providing a brief background on the initiative, then will follow with an update on the evaluation process and student outcomes. On June 27, 2011 the CUNY Board of Trustees passed a *Resolution on Creating an Efficient Transfer System*. Implemented in Fall 2013, the CUNY-wide common curricular *structure* created through Pathways provided for the smooth and efficient transfer of students' credits from any CUNY college to all other CUNY colleges. Prior to its implementation in Fall 2013, students who transferred would often find that some course credits earned at one college did not match course requirements at another college; as a result, the credits were not applied to degree requirements, causing students to retake and pay again for general education courses.

The increase in both the number and proportion of transfer students entering CUNY contributed to the need to create a University-wide common curriculum structure. Since 2009, the majority of students enroll in a baccalaureate program at CUNY having transferred from another college, while only about one-third of all students enter as a first-time freshman. Close to two-thirds of new students enter CUNY baccalaureate programs as transfer students. Since the implementation of Pathways transfer into CUNY baccalaureate programs have increased by 19%.

The Pathways Initiative was designed to strengthen curricular alignment across CUNY's undergraduate colleges and improve the efficiency of credit transfer throughout the system.

EVALUATION PROCESS

As mandated in the Board Resolution that established Pathways, annual evaluations have been conducted each year, for the first three years. Through the evaluation process, which has involved representatives from the University Faculty Senate and a variety of colleges and academic disciplines, a number of important questions have been raised. The Office of Academic Affairs has also solicited feedback from the administrative Pathways Liaisons at each campus, requested comments through an online suggestion form, and hired an outside

consultant to conduct student focus groups. Questions and areas of concern identified through these various sources have formed the basis of the evaluations conducted to date.

The Central Office of Academic Affairs has continued to monitor, track, and make public Pathways data and reports. Analyses have focused on every component of the initiative, including the Common Core, Major Gateways, and student perceptions. Reports and updated tracking data are made publicly available on the Pathways web site. While the next mandated review is scheduled for 2019-2020, efforts are underway to explore options for a comprehensive external review and analysis of Pathways implementation and effectiveness.

OUTCOMES

The Pathways Common Core curriculum is robust and fully integrated into all CUNY undergraduate degree programs. Close to 2,600 courses have been approved by the CCCRC and are coded as Common Core courses throughout the system. With each entering class starting Fall 2013, all new students, including new transfer students, are required to follow Pathways curricular requirements. As of Fall 2016, preliminary data show that 91.4 percent of all undergraduates were following the Pathways curriculum, including 96.2 percent of all associate degree students and 88.4 percent of all baccalaureate degree students.

We are now in our sixth year of Pathways and have our first indicators of the Pathways structure on graduation rates and time to degree completion for associate degree students. Available data provide an initial view of the impact that Pathways is having in various areas. A major goal of Pathways is to improve the efficiency of credit transfer. In fact, under Pathways, there has been a steady increase in the number of credits transferring to receiving colleges. Here are a few key indicators of note:

- From Fall 2012 to Fall 2016, the percentage of students who transfer to CUNY baccalaureate programs *with* associate degrees increased by 42.9 percent. The number of students who transferred back into CUNY after more than three years since their last enrollment at CUNY increased by 24% from 2012 to 2016.
- Transfer from community colleges to senior colleges continues to rise, with Brooklyn, John Jay, Lehman and Queens being the colleges with the highest number of incoming transfers at around 1,000 transfers each fall.
- The total number of credits that transfer students have earned and received credit for has also increased. Prior to Pathways, the *average credit accumulation* for internal transfers into senior colleges within a *year after transfer* was 76.8. By Fall 2014, it had increased to 80.9; in Fall 2016 it was up to 81.8.

- The average credit accumulation for external transfers into CUNY senior colleges within a year after transfer was 69.6 in Fall 2012; by Fall 2016, it had increased to 76.3.
- The average number of credits transferred to senior colleges was 56.4 in Fall 2012, and increased to 61.7 in Fall 2016. Among students transferring to community colleges, there was an increase from 15.7 in Fall 2012 to 21.4 in Fall 2016.

Evaluation of Pathways has also focused on student academic performance.

- Average GPA after one year has remained stable for both first-time freshmen and internal transfer students, at approximately 2.5 and 2.8, respectively. We found that one-year student retention rates have also remained steady, at approximately 65 percent for associate degree students and 86 percent for baccalaureate degree students. The mean GPA for external transfers after one year was 2.96 in 2012 and 3.03 in Fall 2016.
- We also examined student GPAs one year after transfer in the disciplines and found that the GPAs have remained steady or have increased, thus the evidence shows students are prepared to handle the course work in the senior colleges. For example, transfers in Gateway Majors in biology had a mean GPA of 2.8 in 2012 and a GPA of 3.2 by 2016; in Business transfers has a mean GPA of 3.0 in 2012 and in 2016 it was 3.1; in Economics the mean GPA was 2.7 in 2012 and 3.0 in 2016. In English it was 2.9 in 2012 and remained the same at 2.9 in 2016; In Psychology, the mean GPA went from 2.8 to 3.1 from 2012 to 2016.
- Finally, preliminary data show that since Pathways, the 3-year community college graduation rate among first-time, full-time students has risen from 14.1 percent for the cohort that began in 2011 to 19.1 percent for those who began in 2014.

Pathways and Remediation

Having spent 10 years of my career at Hostos Community College in the South Bronx, the last two years as Provost, I have a particular interest and concern about our students that come to us with remedial needs. We have taken extra care to ensure that there are appropriate Pathways courses in Math and English available to this cohort of students. Thanks to the City's generous investment in our remedial reforms, remedial students are making particularly notable progress toward completion of their Pathways Math and Quantitative Reasoning (MQR) and English Composition requirements. We have begun implementation of improved, more accurate placement practices, and fewer full-time, first time freshmen in our associates

programs are taking traditional 0 credit remedial courses in their first term. We have some preliminary outcomes to share. In English, since 2014 we have reduced traditional 0 credit remedial course fall enrollment by 42% and in math we've reduced 0 credit courses fall enrollment by 37%. Since Fall 2014, the percentage of students enrolled in *corequisite*, credit-bearing, pathways approved MQR courses has tripled and in English it has more than quadrupled. This progress is accelerating as we expand course availability, and some campuses are really showing the power of our reforms. For example, at LaGuardia Community College, the percentage of students earning Pathways MQR credit in their first year has increased by nearly 50% since Fall 2014. University-wide, 22% more students are passing their MQR course in their first year.

SYSTEMS SUPPORT & CURRICULUM DESIGN for TRANSFER

Let me step back and briefly describe the development and structure of the Common Core as it will be useful here to understand *how* the courses are transferring based on their *Requirement Designation* or "RD." As part of the design and implementation process, a Task Force, consisting predominantly of faculty, established the curricular parameters and contours of a 30-credit Common Core for all CUNY undergraduates. They created learning outcomes for each of the Common Core's eight core areas: English composition, math and quantitative reasoning, life and physical sciences, and five additional thematic areas namely Creative Expression, Individual and Society, World Cultures and Global Issues, Scientific World and US Experience in its Diversity.

This broad curricular framework provided the flexibility needed for CUNY colleges to design their own General Education program and maintain many of their existing requirements and course offerings. Each college decided which courses belonged in each area, depending on their academic priorities and values. All courses have been developed by faculty members at the colleges and reviewed by the *Common Core Course Review Committee*, consisting entirely of faculty from across CUNY. This committee ensures that all Common Core courses meet the learning outcomes set forth by the original Task Force so that a course with a Scientific World "RD" in one college will transfer seamlessly to the next college to fulfill the Scientific World Common Core area. My colleague, Vivek Upadhyay, will provide more detail in his testimony on how our systems work to ensure courses are transferring properly.

Pathways guarantees students that each course they take in CUNY will transfer for credit to any other CUNY college; that any general education course taken at a CUNY college will transfer for general education credit to any other CUNY colleges; and that Pathways major gateway courses will transfer for Major credit from one institution to another. *This is the Pathways Promise.*

Given the emphasis on a framework based on learning outcomes, rather than a distributed model based on academic disciplines, concerns about how Pathways would affect course-taking patterns in certain disciplines have also been monitored. Due to the flexibility of the Common Core structure, colleges have maintained consistent levels of course-taking in most fields. In some fields, such as foreign language, natural science, and math, course-taking for first-time freshman actually increased during the first year.

Among first-time freshman, between the 2012-13 and 2017-18 academic years, foreign language course-taking increased from 18 percent to 21 percent, the natural sciences saw an increase from 28 percent to 40 percent, and math course-taking jumped from 80 percent to 86 percent.

Major Gateways

As required by Pathways, faculty committees designated a minimum of three “gateway” courses leading into several of CUNY’s most popular majors. Students who anticipate pursuing one of these majors can take the designated courses and transfer them for major credit seamlessly between CUNY colleges that offer the major. OAA has evaluated the efficiency of credit transfer for Major Gateway courses. The 10 participating majors are: Biology; Business; Criminal Justice; Economics; English; Nursing; Political Science; Psychology; Sociology; and Teacher Education.

We examined data from approximately 2,000 CUNY students who completed at least one Pathways Major Gateway course, transferred to another CUNY college, and declared the major. We found that 87 percent of all incoming Major Gateway courses were accepted as equivalent Major Gateway courses and were counted toward the major at the receiving colleges. Moreover, virtually all of the remaining coursework was accepted for academic credit that may have been applied toward major requirements, suggesting a successful implementation of the Major Gateway transfer guarantee. After our assessment confirmed that this unique feature of Pathways is working properly, we are now working to increase the number of major gateways in three more areas: Accounting, Chemistry and Computer Science. We hope to collaborate with faculty discipline committees to develop more major gateways to serve more students.

External Transfers

Pathways transfer guarantees may be having an influence on students’ transfer decisions. As noted earlier, since Pathways implementation there has been an increased number of students transferring into CUNY baccalaureate colleges, from 13,900 in 2013 to 16,170 in 2017. This trend has been pronounced among students transferring from another CUNY college.

In contrast to the steady increase in the number of internal transfers, the number of students transferring from outside CUNY has remained steady at around 5500 each fall. In 2017 the Office of Academic Affairs began to review transfer flows from SUNY, a primary feeder, and to consider policies to attract and serve SUNY transfers. For the Summer and Fall 2017 semesters, CUNY admitted more than 6,400 students who previously attended SUNY, including 4,600 to the senior colleges, 1,280 to the community colleges, and 496 to the comprehensive colleges. Students from each of SUNY's 64 institutions transfer to CUNY colleges.

Similar to CUNY, SUNY also has a standardized 30-credit framework for general education requirements at their undergraduate institutions, offering credit transfer guarantees for students who transfer within the system. Both the SUNY and CUNY frameworks consist of ten 3-credit courses distributed across areas. Both frameworks include a broad array of offerings across History, Humanities, Natural Sciences, Social Sciences, and Foreign Languages. Within both systems, faculty developed learning outcomes for general education requirements, and an approval process is in place for general education course offerings.

Due to the close working relationship between our two public university systems, the frequency of student transfer between the two systems, and the similarities between the SUNY and CUNY general education frameworks, in June 2018 CUNY implemented a new policy to expand existing Pathways transfer credit guarantees for students who transfer to a CUNY college from a SUNY college. CUNY's transfer guarantees now include all SUNY general education courses consistent with grade requirements and residency rules. CUNY faculty will continue to determine course equivalencies, which are used to award academic credit for other degree and major requirements. This policy helps to streamline credit transfer and ensure greater parity for students across the university who transfer from SUNY. Students will be able to complete their degrees more efficiently, saving them time and money, and saving tax payer dollars.

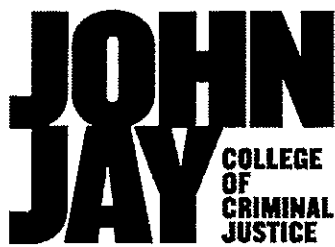
CONCLUSION

With the Pathways Initiative, the University has clarified the path to degree completion and put measures in place to ensure that transferring does not set students back. We believe that the best interests of students are being served. Now in our 6th year, both faculty and students accept the Pathways framework as the vehicle for delivering their general education program. It is simply general education and is thoroughly integrated into each and every undergraduate degree program.

These ongoing analyses, and the subsequent actions taken to address issues, are expanding opportunities and enabling students to make more efficient progress toward degree completion. We understand that further adjustments will be necessary, and we shall continue

to conduct reviews and evaluations routinely to track student outcomes. Plans for the sixth-year external review is underway and ongoing evaluation and modifications will continue to be made. We welcome substantive feedback and suggestions for improving opportunities for CUNY students.

Thank you again for the opportunity to provide testimony today. I will now turn this over to Dean Dara Byrne from John Jay to present a college perspective on their Pathways design and implementation process on the ground.



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Testimony Prepared for Hearing Conducted by the Committee on
Higher Education of the City Council

Good morning, honorable Chair Barron and members of the Higher Education Committee. My name is Dara Byrne and I am the Associate Provost for Undergraduate Retention and Dean of Undergraduate Studies at John Jay College of Criminal Justice of the City University of New York. Before I begin, I would like to thank the committee for its ongoing support of the hundreds of thousands of New York City residents who enroll in CUNY colleges each year. As my role and work title suggest, my portfolio is dedicated entirely to student success. We have in common a commitment to public higher education and the desire to help graduate better prepared students who are equipped to achieve personal and professional success and contribute to a thriving New York City.

Our General Education curriculum is at the heart of our work on student success. The curriculum provides a compelling, rigorous learning experience that is the academic foundation of the college's justice mission. Our Pathways story, the story of the transformation of our General Education curriculum, reveals our campus's holistic approach to student learning and success, our faculty's dedication to General Education and curricular excellence, and the college's commitment to shared governance. It is these priorities that inform academic planning, outreach, program development, and assessment of General Education at John Jay.

My office, The Office of Undergraduate Studies, has led the transformation of the general education curriculum, collaborating with faculty colleagues on the creation of 118 new General Education courses since 2013. We have made significant investments in infrastructure to sustain and improve the curriculum. We created the position of Director of General Education to oversee curriculum development and student learning in General Education courses; we created the Council of Major Coordinators, with representation from every academic department; we have mapped the curriculum to our Justice Mission and our institutional goals; we continue to hone our processes for assessing students' learning in General Education. We are also investing in supporting faculty teaching in General Education by cultivating the use of open access resources, developing shared teaching materials, and by creating faculty coordinator positions to foster communities of excellent course design, pedagogy, and assessment for continuous improvement of student learning in key general education courses.

The Office of Undergraduate Studies takes seriously the financial barriers that often prevent our students from completing their degrees on time. As is common across CUNY, our students work to pay for all aspects of their education, including tuition, books, Metrocards, etc. Data show that they miss out on valuable opportunities to maintain academic momentum and graduate on time because of their work schedules. According to the most recent Student Experience Survey, more than 50% of John Jay students work for pay, 63% work 21 or more hours per week, and 35% work

full time. Faculty and academic advisors also report students drop courses or drop out because they need to work to pay bills and support their families. To address this, we have been working with faculty to reduce the high textbook costs often associated with General Education courses. With an investment from CUNY, we have commenced a multi-year project to use open and alternative resources as a means of providing every undergraduate, regardless of their financial resources, access to education of the highest quality. Our long-term aim is to reduce the annual textbook expense in General Education courses by \$1 Million a year by 2020. This plan focuses on a zero text cost pathway through the general education curriculum to reduce financial obstacles to student success; an open source Justice E-Reader and a collection of assignments adaptable for use across the Justice Core, cutting costs for students and enriching the conversation about justice across the college; and shared OER materials across the CUNY Justice Academy, ensuring curricular alignment for student success and contributing to the University's work toward a "Connected CUNY."

The flexibility of John Jay's General Education curriculum has led to a number of other digital innovations and improvements. Recognizing our students need for exposure to cutting-edge digital technologies, Undergraduate Studies leveraged a one-time CUNY investment to integrate digital literacy and web-design skills into an array of General Education courses. To date, we have supported more than 3300 students and 75 faculty members. To further digital readiness, we are developing a number of digital literacy strategies and tools for faculty.

As my colleague, Lucinda Zoe, Senior University Dean for Academic Programs and Policy, has documented, student outcomes have improved—particularly for transfers—on all of our campuses and using every metric available. John Jay has been a frontrunner in transfer student success due in part to the CUNY Justice Academy (CJA), an educational partnership between John Jay College and six CUNY community colleges, including Borough of Manhattan, Bronx, Hostos, Kingsborough, LaGuardia, and Queensborough. Launched in 2009, CJA students who do not meet the entrance requirements of John Jay College are accepted jointly by a community college and John Jay and enter into justice-related majors such as Criminal Justice; Forensic Science; and Fraud Examination and Financial Forensics; and Cybersecurity. When they complete their associate degrees, these students move seamlessly to John Jay to pursue their baccalaureate degrees. Supporting our culture for transfer student success, Pathways helped us improve our transfer credit review process and, by extension, improve our success pipeline. The number of credits transferred to John Jay increased from 59.4 credits in 2012 to 63.5 credits in 2014. By contrast, the transfer credit opportunity gained via the CJA and Pathways have created a culture of openness to transfer students, contributing to higher transfer enrollments. For example, the number of students transferring increased from 870 in 2012 to 1092 by 2014. Today, there are approximately 8,800 students enrolled in the CJA, far exceeding original projections of 1,475 by 2015.

The CJA was developed collaboratively by John Jay and community college faculty and this collegiality across seven CUNY colleges has continued to this day with the creation of the CJA Academic Council to foster ongoing conversations among CJA faculty about curriculum, pedagogy, and learning. The participating institutions now hold an annual CJA Summit attended by presidents, provosts, deans, and faculty of the partner institutions and have recently convened a Strategic Planning Working Group that is now developing a five-year strategic plan. The CJA partnership has also resulted in three collaborative Title V grants (two with John Jay in the lead and one with John Jay secondary to Bronx) and one Department of Education STEM grant (with John Jay secondary to BMCC) for a total of \$11.5 million over the past six years. These

grants supported the development of structures and activities that facilitate the pipelines between two institutions.

The advent of Pathways came at an opportune moment for John Jay. It harmonized with the curricular reform and student success work we had already begun. Today, the framework continues to provide avenues for fruitful collaboration with faculty around our shared goals of graduating more students in less time and preparing them to be fierce advocates for justice.

Thank you for the opportunity to provide testimony today. I will now turn this over to University Registrar Vivek Upadhyay to present an overview of the implementation of Pathways across CUNY's student information systems.

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