Declaration Reference and Key Data

Obligation Section Number: **5.07(c)(ix)**

Obligation Title: **Availability of Faculty**

Obligation Page Number: **54**

Obligation Trigger: **When Upper Level Students Matriculate**

Obligation Start Date: **Beginning of 2012-2013 Academic Year**

Obligation End Date: **End of 2036-2037 Academic Year (25 Years from Commencement)**

Obligation Status: **In Compliance**

Obligation: Innovation/Changed Conditions

In accordance with the Declaration of Covenants and Restrictions Section 5.08, Obligation 5.07 (c)(ix) is modified to clarify the obligation. In general, the scope of services to be provided has not been changed. Additionally, the obligation in Section 5.07(c)(viii) New Public Middle and High School for Math, Science and Engineering that focuses on curriculum support from Columbia Faculty has been moved to this obligation for clarity of faculty engagement.

Original Language:
Availability of Faculty. Commencing with the academic year in which the School matriculates upper level students eligible for competing in regional and national math, science and engineering competitions, CU shall endeavor in good faith to make its faculty from existing campuses available to upper level students from the School interested in competing in regional and national math, science and engineering competitions. As the Project Site is developed, CU shall endeavor in good faith to make its faculty from the Project Site available to upper level students at the School interested in competing in regional and national math, science and engineering competitions. Such support shall continue for a 25-year period from commencement.

Modified Language:
Availability of Faculty. Columbia shall provide curriculum support to the faculty of Columbia Secondary School created in accordance with Section 5.07(c)(viii) to ensure the highest level of education in math, science and engineering, and continuing for a 25 year period from May 20, 2009. This portion of the commitment will end in 2034.

Commencing with the academic year in which the School matriculates upper level students eligible for competing in regional and national math, science and engineering competitions, CU shall endeavor in good faith to make its faculty from existing campuses available to upper level students from the School interested in competing in regional and national math, science and engineering competitions. As the Project Site is developed, CU shall endeavor in good faith to make its faculty from the Project Site available to upper level students at the School interested in competing in regional and national math, science and engineering competitions. Columbia shall provide curriculum support to the faculty of the new school to ensure the highest level of education in math, science and engineering, and continuing for a 25 year period from commencement.

Evidence of Compliance

1. Annual report

Columbia University's Implementation Plan and all supporting documentation are made available on the Community Services Webpage at http://manhattanville.columbia.edu/community/benefits-and-amenities.

EOC Checklist for Obligation 5.07(c)(ix):

Please check to verify EOC items submitted for review.

☐ 1. Annual report

Monitor's Notes / Comments:

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Status:
Please check to indicate the status of Obligation 5.07(c)(ix):

☐ In Compliance

☐ In Progress

☐ Not In Compliance

☐ Not Triggered

COLUMBIA SECONDARY SCHOOL

for Math, Science, & Engineering

425 West 123rd Street, New York, NY 10027

Memorandum

To: ▮▮▮▮▮▮▮ Vice Provost for Administration and Planning, Columbia University
From: Miriam Nightengale, Principal
Re: Columbia University/Columbia Secondary School Staff and Student Interactions
Updated: September 29, 2017

Columbia Secondary School for Math, Science, and Engineering (CSS-MSE) opened in 2007 and has been providing the community with an excellent public secondary school (grades 6–12) option for a decade. The University is committed to supporting CSS-MSE and its students through access – based on the feedback of my staff and our leadership team about the school's needs and priorities – to the expertise of Columbia's faculty and to campus facilities.

This report describes the projects and programs through which CSS-MSE accessed Columbia's faculty and campus resources from September 1, 2016 through August 31, 2017. As is noted in the report, most are ongoing. While Columbia's obligations under the *Availability of Faculty* and *Availability of Facilities* sections of the Declaration began in 2012, CSS-MSE's interactions with Columbia's faculty began as early as 2007.

In addition to the other projects and programs noted in this report, CSS-MSE upper-level students access Columbia University's libraries, computing facilities, and other academic support facilities and services while taking courses at the University. This program, administered by Columbia's School of Professional Studies and described in more detail in this report, benefits our students and staff by exposing them to high-quality research databases and computing facilities on Columbia's Morningside campus. CSS-MSE students enrolled in classes at Columbia University have the support and guidance of their instructors and classmates and have demonstrated the maturity and responsibility needed to successfully navigate a university campus without direct supervision.

In addition to the campus experience and access enjoyed by students who are taking courses, these and other students also visit the campus under the supervision of CSS-MSE teachers in collaboration with Columbia's administrative and academic faculty for a variety of other projects and programs, as also described herein.

University faculty, instructor, or staff member:	███████████
School, department, or unit:	Fu Foundation School of Engineering and Applied Science (SEAS)
CSS-MSE students or staff member:	███████████
Project/purpose:	Faculty member ███████, ███████ Professor of Mechanical Engineering at the Fu Foundation School of Engineering and Applied Science, has been working closely with CSS-MSE for several years on the Engineering the Next Generation Program (E.N.G.), previously the Young Scholar's Summer Program. This program started as a smaller scale program for CSS-MSE students to develop hands-on lab experience in Columbia research laboratories and has developed into CSS-MSE's inclusion in a six-year National Science Foundation grant that resulted in the establishment of the MRSEC (Material Research Science and Engineering Center) at Columbia, which is under the direction of Professor ████. CSS-MSE is an integral, long-term part of the program, and continues to be in consultation to enhance the CSS-MSE curriculum.
	The E.N.G. Program, now in its fourth year of operation, is an intensive 6-week summer research experience for high school students. It also includes an intensive research skills curriculum taught by post-doctorate researchers, oral presentations and participation at the summer research poster symposium, in addition to a college readiness component and the hands-on research experience. The program also follows a "tiered mentoring" format, which structurally incorporates opportunities for high school students to interact with members of the research team at all levels. This format has a range of benefits for students and professionals alike. For this program, tiered mentorship includes high school, undergraduate, graduate, and postdoc researchers, as well as the faculty members; each member of the group represents a unique educational or professional level. In addition to the benefits of mentorship, high school students receive the opportunity to publish their research in an academic journal, present their research at the Columbia Undergraduate Research Symposium, and earn a letter of recommendation from their principle investigator for college admissions. Students are also eligible to continue their research during the academic year, and at least three CSS students have expressed interest in doing so for the 2017-2018 academic year.
Outreach to students:	Identification of potential participants and outreach to students is conducted by CSS faculty and administration. Columbia Engineering Outreach Programs team also holds info sessions at CSS.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty. Students submit applications individually.
Time period:	Ongoing

University faculty, instructor, or staff member:	███████████████████████
School, department, or unit:	Zuckerman Institute, Sable Lab, Neural Circuits (Harris) Lab
CSS-MSE students or staff member:	███████████
Project/purpose:	CSS worked with Columbia's Zuckerman Institute to include six CSS students in its BRAINYAC Program from January 2017 through August 2017. The eight-month BRAINYAC Program has replaced the four week summer internship program that was hosted by Columbia in earlier years. Another group of students will participate again in 2016-2017. BRAINYAC is a program for students with an interest in biomedical and specifically neuroscience research. Through the program, students learn basic neuroscience concepts and laboratory skills which prepare them for a seven-week research experience at a Morningside, Manhattanville, or Columbia University Medical Campus (CUMC) host lab the following summer. Students receive a stipend for their participation. Two CSS students were invited to continue working with their host lab this past year after the formal BRAINYAC program concluded: one student who returned to her 2016 host lab (the Gordon Lab, now known as the Harris Lab) this summer, and another student from the 2017 BRAINYAC program continued in his host lab (the Sable Lab) at the end of the program this year.
Outreach to students:	Identification of potential participants and outreach to students is conducted by CSS faculty and administration.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.
Time period:	Ongoing

University faculty, instructor, or staff member:	███████████
School, department, or unit:	CU Teachers College, Cognitive Studies in Education
CSS-MSE students or staff member:	███████████████████████, CSS 9th and 10th grade students
Project/purpose:	Helping to design and implement research and action steps to reduce student anxiety around science and to encourage persistence through increasingly difficult materials. Work includes interviewing CSS students to determine attitudes around science and academic struggle, and the ongoing creation and modification of CSS curricular materials that support students' development of persistence and appreciation of the scientific inquiry process to problem-solve. This partnership resulted in the publishing of the article "Even Einstein Struggled" in the Spring 2016 issue of the Journal of the American Psychological Association, which detailed the findings of the research up to that point. As an extention to this project, CSS faculty participated in a summer 2017 workshop to create units of study that incorporate the findings from the student interviews and surveys into curricular materials.
Outreach to students:	Identification of potential participants and outreach to students is conducted by CSS faculty and administration.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.
Time period:	Ongoing

University faculty, instructor, or staff member:	███████████████
School, department, or unit:	Office of the Provost
CSS-MSE students or staff member:	███████████
Project/purpose:	Continue supporting existing admissions structures for CSS-MSE students to enroll in the University's School of Professional Studies (SPS) through meetings and calls with SPS and CSS staff as needed. Continue providing outreach and introductions to University departments.
Outreach to students:	Varies by project
Process by which students access benefit:	Varies by project
Time period:	Ongoing

University faculty, instructor, or staff member:	▮▮▮▮▮▮▮▮▮▮▮▮▮▮
School, department, or unit:	Office of the Provost, School of Social Work
CSS-MSE students or staff member:	▮▮▮▮▮▮▮▮
Project/purpose:	Promoting CSS-MSE within Columbia.
Outreach to students:	n/a
Process by which students access benefit:	n/a
Time period:	Ongoing

University faculty, instructor, or staff member:	▮▮▮▮▮▮▮
School, department, or unit:	School of Professional Studies
CSS-MSE students or staff member:	▮▮▮▮▮▮▮▮▮▮▮▮▮▮
Project/purpose:	Facilitating registration of CSS-MSE students in Columbia classes, including outreach to University faculty and staff, refining a system to vet courses to ensure that they are suitable for CSS-MSE students, creating and delivering an orientation for CSS-MSE student registration.
Outreach to students:	CSS administration and faculty identify students prepared for college-level coursework and independence and work with them to chose classes that are of interest and support their learning.
Process by which students access benefit:	CSS administration and SPS staff finalize list of students each term, and after their accounts are set up in the SPS system, students who are participating for the term receive instructions from CSS administrators about how to enroll. An in-person orientation is conducted for participating CSS students by SPS staff, including familiarizing them with the Morningside campus, getting their CUIDs, and visiting the Columbia Bookstore to get their books (which have been set aside for CSS students based on their courses). Once enrolled and oriented, CSS students begin attending their classes alongside, and indistinguishable from, other students in the class.
Time period:	Ongoing

University faculty, instructor, or staff member:	▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
School, department, or unit:	Campus Services, Columbia University Bookstore, School of Professional Studies
CSS-MSE students or staff member:	All CSS-MSE students who are enrolled in CU courses through SPS; Assistant Principal ▮▮▮▮▮▮
Project/purpose:	The Columbia University Bookstore, in conjunction with School of Professional Studies, has developed a streamlined process to facilitate CSS-MSE's acquisition of textbooks for the CU courses for which they are registered. This partnership was developed specifically for CSS-MSE students and is evaluated and improved each semester to ensure students have easy access to appropriate course materials.
Outreach to students:	CSS administration and faculty identify students prepared for college-level coursework and independence and work with them to chose classes that are of interest and support their learning.
Process by which students access benefit:	Once CSS students are enrolled in their chosen courses for the term, a list of their names and courses is sent by CSS administration to the Columbia Bookstore. The Bookstore sets aside all materials needed for the courses (except in the infrequent instance of something not being available there), and at the time of their orientation, CSS students visit the Bookstore, where they are shown the window at which they receive their books and told what to do in the case of a change in course or the need to pick up additional course materials. The Bookstore donates materials annually up to an amount that covers almost the entire cost of the students' books; the small remainder of expenses is covered by the school. Students do not incur any expenses from the Bookstore for required course books.
Time period:	Ongoing

University faculty, instructor, or staff member:	Various
School, department, or unit:	Various
CSS-MSE students or staff member:	▮▮▮▮▮▮▮▮ and ▮▮▮▮▮▮▮
Project/purpose:	Taking graduate courses in specific specializations to further work at CSS-MSE.
Outreach to students:	n/a
Process by which students access benefit:	n/a
Time period:	Ongoing

University faculty, instructor, or staff member:	▮▮▮▮▮▮▮
School, department, or unit:	Metacognition and Memory Lab, Psychology Department, Physics Department
CSS-MSE students or staff member:	▮▮▮▮▮▮▮,CSS 8th grade students
Project/purpose:	CSS-MSE was included in a grant awarded to Department of Psychology faculty member ▮▮▮▮▮▮ by the U.S. Department of Education's Institute for Education Sciences to study the role of errors in learning math. CSS-MSE students benefitted through an after-school academic support program that resulted in nearly the entire 8th grade passing the Algebra Regents. A key aim of the program is to enhance CSS-MSE students' understanding of math. The study was repeated for a second year to ensure accuracy of results.
Outreach to students:	Identification of potential participants and outreach to students is conducted by CSS faculty and administration.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.
Time period:	Ongoing

University faculty, instructor, or staff member:	████████
School, department, or unit:	Hk Maker Lab/SEAS/ Department of Biomedical Engineering
CSS-MSE students or staff member:	████████████, all CSS 12th grade students
Project/purpose:	The Hk Maker Lab is an intensive six-week summer program to learn the foundations of engineering design. The program, run by the non-profit organization HypotheKids, takes place in partnership with SEAS. Focusing on addressing a global health problem, students work in teams to prototype and test a biomedical device and develop an associated business plan. The program culminates in a pitch event to leading executives from the biomedical community. Winning projects may then be incubated using the state-of-the-art facilities at Harlem Biospace. Students then also have the opportunity to be placed in internships within New York City's biotech community. Six CSS students participated in this summer program, forming part of four teams that worked on prototypes of biomedical devices. Two CSS students will continue working with the team during the year to continue to develop and refine their device.
Outreach to students:	HypotheKids program materials are distributed at CSS to all eligible students. The pilot design class course was mandatory for all 12th graders.
Process by which students access benefit:	CSS students interested in the summer program contact HypotheKids. All 12th graders were enrolled in the course at CSS.
Time period:	Ongoing

University faculty, instructor, or staff member:	████████
School, department, or unit:	Teachers College Department of Health and Behavior Studies, Nutrition Program
CSS-MSE students or staff member:	████████, CSS students
Project/purpose:	Recruit and organize Teachers College student volunteers to support CSS-MSE programming related to the CSS Community Garden, including instruction on sustainable gardening techniques, plant maintenance, and poultry care.
Outreach to students:	Identification of potential participants and outreach to students is conducted by CSS faculty and administration.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.
Time period:	Ongoing

University faculty, instructor, or staff member:	████████████████████, graduate students
School, department, or unit:	History Department, East Asian Languages and Cultures
CSS-MSE students or staff member:	████████████████████████
Project/purpose:	Faculty in CU's History Department is engaged in a new partnership with CSS-MSE's History faculty to support and improve the focus on research and writing in CSS-MSE's history curriculum and prepare students for college-level work.
Outreach to students:	The project was a mandatory component of 7th and 10th grade coursework.
Process by which students access benefit:	CSS faculty member facilitated students' participation as part of the ongoing collaboration with CU faculty.
Time period:	Ongoing

University faculty, instructor, or staff member:	████████████
School, department, or unit:	Lamont-Doherty Earth Observatory
CSS-MSE students or staff member:	████████████████████, CSS high school students
Project/purpose:	Students take data samples from various physical locations along the river to contribute to a better understanding of the river's water flow and current behavior. CSS students were also invited to participate in The Explorers Club, a career fair/open house that included career panels that featured science and sustainability careers in academia, government, and the private sectors and hands-on demonstrations and activities that showcase Lamont's work.
Outreach to students:	n/a
Process by which students access benefit:	n/a
Time period:	Ongoing

University faculty, instructor, or staff member:	████████████
School, department, or unit:	SEAS
CSS-MSE students or staff member:	CSS students, ████████████████
Project/purpose:	Throughout the year, CSS students prepare for and participate in the FIRST Robotics Competition, an annual national robotics competition for students in grades 9-12. Working closely with peer team members, undergraduate mentors, and staff from the Mechanical Engineering Department, CSS students build and program robots and compete at the local and regional level.
Outreach to students:	Identification of potential participants and outreach to students is conducted by CSS faculty and administration.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.
Time period:	Ongoing

University faculty, instructor, or staff member:	SEAS outreach staff
School, department, or unit:	SEAS
CSS-MSE students or staff member:	████████████
Project/purpose:	SEAS has adopted an online platform to match SEAS student volunteer tutors with local STEM teachers and students. Thanks in great part to CSS faculty feedback, the platform has been redesigned and relaunched for the coming academic year.
Outreach to students:	n/a
Process by which students access benefit:	n/a
Time period:	Ongoing

University faculty, instructor, or staff member:	██
	██
	████████████████████████████████
School, department, or unit:	Astronomy; Chemistry; East Asian Languages and Cultures; French and Romance Philology; Germanic Languages; Italian; Mathematics; Middle Eastern, South Asian, and African Studies; Music; Philosophy; Physics; Psychology; Statistics; Women's Studies
CSS-MSE students or staff member:	64 CSS-MSE students
Project/purpose:	In the fall 2016 term, 64 CSS-MSE students took courses for college credit at Columbia university, including 20 CSS-MSE students who were newly enrolled at Columbia. Students enroll through the School of Professional Studies and provided with a student orientation and access to discounted textbooks at the Columbia University bookstore. Students have full access to Columbia instructors, including use of office hours if needed. Courses this semester included Calculus I, II, and III, Intermediate German II, Introductory Ear Training, Chemistry, Social Psychology, University Orchestra, Introduction to Statistical Reasoning, and Introduction to Psychology.
Outreach to students:	CSS administration and faculty identify students prepared for college-level coursework and independence and work with them to chose classes that are of interest and support their learning. The program is well established at CSS and discussions about preparedness are a standard part of all CSS students' experiences.
Process by which students access benefit:	CSS administration and SPS staff finalize list of students each term, and after their accounts are set up in the SPS system, students who are participating for the term receive instructions from CSS administrators about how to enroll. An in-person orientation is conducted for participating CSS students by SPS staff, including familiarizing them with the Morningside campus, getting their CUIDs, and visiting the Columbia Bookstore to get their books (which have been set aside for CSS students based on their courses). Once enrolled and oriented, CSS students begin attending their classes alongside, and indistinguishable from, other students in the class.
Time period:	Fall 2016 term

University faculty, instructor, or staff member:	████████████
School, department, or unit:	Lamont-Doherty Earth Observatory
CSS-MSE students or staff member:	████████
Project/purpose:	CSS science faculty participated in Day on the Hudson professional development workshop.
Outreach to students:	n/a
Process by which students access benefit:	n/a
Time period:	Fall 2016

University faculty, instructor, or staff member:	████████████
School, department, or unit:	Lamont-Doherty Earth Observatory
CSS-MSE students or staff member:	████████████, three CSS 12th grade students
Project/purpose:	CSS-MSE students were trained and collected data for an ongoing experiment at Lamont-Doherty's Tree Ring Research Laboratory.
Outreach to students:	Identification of potential participants and outreach to students is conducted by CSS faculty and administration.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.
Time period:	Fall 2016

University faculty, instructor, or staff member:	████████████
School, department, or unit:	Lamont-Doherty Earth Observatory
CSS-MSE students or staff member:	████████████, CSS 9th grade students
Project/purpose:	CSS-MSE students participated in Day on the Hudson. As part of this event on Oct 20, students collected scientific information to create snapshots of the river at dozens of locations, then shared their data via the web in order to better understand how their piece of the river fits into the larger Hudson estuary ecosystem. "A Day in the Life" is sponsored by DEC's Hudson River Estuary Program and produced with assistance from the Lamont-Doherty Earth Observatory of Columbia University.
Outreach to students:	Identification of potential participants and outreach to students is conducted by CSS faculty and administration.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.
Time period:	October 2016

University faculty, instructor, or staff member:	██
	████████████████████████████████
School, department, or unit:	University Provost, Board of Trustees, Latin American and Iberian Cultures, Spanish and Latin American Cultures (Barnard), Center for Mexican Studies, SIPA
CSS-MSE students or staff member:	████████████████████████, CSS students across all grade levels
Project/purpose:	As part of CSS-MSE's annual Hispanic Month, lecturers presented to CSS-MSE students about their disciplines, careers, and backgrounds, as related to the event's themes. Lectures were followed by Q&A and open discussion.
Outreach to students:	Lectures and discussions were a mandatory component of coursework.
Process by which students access benefit:	CSS faculty member invited speakers, publicized events, and facilitated students' participation as part of the ongoing collaboration with CU faculty.
Time period:	October and November 2016

University faculty, instructor, or staff member:	██
School, department, or unit:	Astronomy; Computer Science; East Asian Languages and Cultures; Ecology, Evolution and Environmental Biology; Economics; French and Romance Philology; History; Mathematics; Middle Eastern, South Asian, and African Studies ; Music; Philosophy; Physics; Psychology; Sociology; Statistics; Visual Arts; Women's Studies
CSS-MSE students or staff member:	73 CSS-MSE students
Project/purpose:	In the spring and summer 2017 terms, 73 CSS-MSE students took courses for college credit at Columbia university, including 15 CSS-MSE students who were newly enrolled at Columbia. Students enroll through the School of Professional Studies and provided with a student orientation and access to discounted textbooks at the Columbia University bookstore. Students have full access to Columbia instructors, including use of office hours if needed. Courses these semesters included Calculus I, III, and III; Behavioral Neuroscience; Photography; Principles of Economics; Stars, Galaxies, and Cosmology; Mind, Brain, and Behavior; and Introduction to Philosophy.
Outreach to students:	CSS administration and faculty identify students prepared for college-level coursework and independence and work with them to chose classes that are of interest and support their learning. The program is well established at CSS and discussions about preparedness are a standard part of all CSS students' experience.
Process by which students access benefit:	CSS administration and SPS staff finalize list of students each term, and after their accounts are set up in the SPS system, students who are participating for the term receive instructions from CSS administrators about how to enroll. An in-person orientation is conducted for participating CSS students by SPS staff, including familiarizing them with the Morningside campus, getting their CUIDs, and visiting the Columbia Bookstore to get their books (which have been set aside for CSS students based on their courses). Once enrolled and oriented, CSS students begin attending their classes alongside, and indistinguishable from, other students in the class.
Time period:	Spring and Summer 2017 terms

University faculty, instructor, or staff member:	████████
School, department, or unit:	Columbia University Facilities and Operations
CSS-MSE students or staff member:	████████, approximately 600 5th grade applicants to CSS
Project/purpose:	Provides space for testing incoming students as part of the screening and admissions process
Outreach to students:	Applicants to CSS are participating in the NYC Department of Education's middle school admissions process.
Process by which students access benefit:	Applicants to CSS are participating in the NYC Department of Education's middle school admissions process.
Time period:	January 2017

University faculty, instructor, or staff member:	████████████
School, department, or unit:	Writing Center
CSS-MSE students or staff member:	All CSS-MSE English and Social Studies faculty
Project/purpose:	CSS teachers participated in a day-long professional workshop developed and presented by the CU Writing Center to help identify effective practices in using writing conferences and feedback to help support growth in student writing.
Outreach to students:	n/a
Process by which students access benefit:	n/a
Time period:	January 2017

University faculty, instructor, or staff member:	████████
School, department, or unit:	Doctoral Student in Urban Education, Teachers College
CSS-MSE students or staff member:	████████, CSS 7th grade students
Project/purpose:	Visited 7th grade Social Studies classes during Black History Month to speak about issues around diversity, urban youth, and education.
Outreach to students:	The classroom visit and discussion was a mandatory component of coursework.
Process by which students access benefit:	CSS faculty member facilitated students' participation as part of the ongoing collaboration with CU faculty.
Time period:	February 2017

University faculty, instructor, or staff member:	████████
School, department, or unit:	University Libraries
CSS-MSE students or staff member:	████████████████████, all CSS 7th and 10th grade students
Project/purpose:	Library and CSS staff worked together to host a day at the Columbia University Library in order to familiarize CSS 7th and 10th grade students with library layout, holdings, and research methods. Library staff arranged and conducted workshops and activities for students.
Outreach to students:	The project was a mandatory component of 7th and 10th grade coursework.
Process by which students access benefit:	CSS faculty member facilitated students' participation as part of the ongoing collaboration with CU faculty.
Time period:	March 2017

University faculty, instructor, or staff member:	Columbia Society of Women Engineers (SWE)
School, department, or unit:	SEAS
CSS-MSE students or staff member:	12 CSS-MSE students
Project/purpose:	SWE hosted the annual Engineering Exploration Experience, an all-day program for high school girls interested in learning more about engineering. Students from CSS were invited to attend programming, which included seminars from Columbia SEAS faculty and postdocs and hands-on engineering activities hosted by other SEAS student groups.
Outreach to students:	Identification of potential participants and outreach to students is conducted by CSS faculty and administration.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.
Time period:	March 2017

University faculty, instructor, or staff member:	SEAS students, outreach staff
School, department, or unit:	SEAS
CSS-MSE students or staff member:	▮▮▮▮▮ CSS 11th grade students
Project/purpose:	CSS 11th grade students visited undergraduate engineering course presentations. Columbia Engineering Outreach Programs invited CSS to attend the Art of Engineering Design Expo highlighting SEAS freshmen student design projects.
Outreach to students:	The observation of undergraduate presentations was a mandatory component of 11th grade coursework.
Process by which students access benefit:	CSS faculty member facilitated students' participation as part of the ongoing collaboration with CU faculty.
Time period:	April 2017

University faculty, instructor, or staff member:	▮▮▮▮▮▮▮▮
School, department, or unit:	Psychology Department, Physics Department
CSS-MSE students or staff member:	▮▮▮▮▮▮▮▮▮▮▮▮▮▮,CSS 8th grade students
Project/purpose:	This year the entire CSS 8th grade visited the Physics Department as part of a kickoff for a month of math peparation tied to a study conducted by ▮▮▮▮▮▮ around error recognition in improving math understanding and proficiency. During their visit, they observed physics-based demonstrations that emphasized math connections and applications.
Outreach to students:	The project was a mandatory component of 8th grade coursework.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.
Time period:	May 2017

University faculty, instructor, or staff member:	GSAPP faculty
School, department, or unit:	Graduate School of Architecture, Planning, and Preservation (GSAPP)
CSS-MSE students or staff member:	▮▮▮▮▮▮▮▮▮▮▮▮ all CSS 7th grade students
Project/purpose:	As part of a unit on sustainable housing, GSAPP faculty created a presentation for CSS 7th graders to assist with their identification of elements of sustainable housing and different types of housing in the Morningside area and conducted a tour of the new Lenfest Center for the Arts on the Manhattanville Campus. Students concluded the unit by creating models of sustainable housing.
Outreach to students:	The project was a mandatory component of 7th grade coursework.
Process by which students access benefit:	CSS faculty member facilitated students' participation as part of the ongoing collaboration with CU faculty.
Time period:	June 2017

University faculty, instructor, or staff member:	▮▮▮▮▮▮
School, department, or unit:	University Events Management
CSS-MSE students or staff member:	▮▮▮▮▮▮▮▮▮▮, all CSS 6th grade students
Project/purpose:	As part of a unit on exploring the neighborhood, CSS 6th graders, led by teachers from CSS, conduct an annual Scavenger Hunt on the Columbia University campus. The purpose of the hunt is to familiarize the students with various buildings on the campus that they may use in later years at CSS, including the library, various schools on the campus, campus layout, etc.
Outreach to students:	Participation in the project was a mandatory component of 6th grade coursework.
Process by which students access benefit:	CSS faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.
Time period:	June 2017

University faculty, instructor, or staff member:	▮▮▮▮▮▮▮▮
School, department, or unit:	University Events Management
CSS-MSE students or staff member:	▮▮▮▮▮▮
Project/purpose:	Secured an appropriate venue, arranged logistical details, and assisted with the production of CSS-MSE's June 2017 graduation at Lerner Hall
Outreach to students:	High school graduation
Process by which students access benefit:	High school graduation
Time period:	June 2017