A New Community College Concept Paper

August 15, 2008

The City University of New York
Office of Academic Affairs
535 East 80th Street
New York, NY 10021

Table of Contents

Acknowledgements

Many people willingly gave their time and expertise to the planning work and contributed to the development of this draft plan. The idea for a new CUNY community college emanated directly from Chancellor Matthew Goldstein. The Chancellor encouraged me and those who would do the planning work to come up with a bold and imaginative plan. I thank him for that opportunity. From the outset of the planning process, Executive Vice Chancellor Selma Botman was my active partner and strong supporter.

We convened a team of staff from within the Office of Academic Affairs to begin the work. The Planning Team members undertook an inclusive effort to reach out to faculty, administrators and officials in CUNY and to nationally known experts outside of CUNY for their thoughts on how to design this new model. The foreword that follows and Appendix A detail the many generous contributors to the plan outlined in this paper, and I want to thank everyone involved—from the distinguished educators we consulted on our Advisory Board, the CUNY leaders on our Steering Committee, our community college presidents, provosts and faculty, the more than one hundred and fifty respondents to an open invitation who provided feedback in an online survey, and to the many educators, researchers and business people we consulted outside of CUNY.

I want to especially thank the members of the Planning Team, led by University Director of Collaborative Programs Tracy Meade, who committed themselves to this extensive outreach process and took on the responsibility of synthesizing the best ideas and practices for postsecondary education into a concept paper for the new college. The depth of their intellectual commitment to this work, on top of the demanding work they were already doing, is a remarkable tribute to their determination to improve the chances of success for our students.

John Mogulescu
Senior University Dean for Academic Affairs and Dean of the School of Professional Studies

Foreword: A CUNY Priority—A New Community College

In the spring of 2008, Chancellor Matthew Goldstein initiated a process for developing a model for a new CUNY community college. Driving this effort was the projected growth in student enrollment at CUNY's six community colleges[1] and the belief that a community college structured differently might better address the persistent challenges of improving graduation rates and preparing students for further study and job readiness.

A Planning Team was organized to serve as a coordinating entity, responsible for consulting with CUNY faculty, staff and educational professionals across the nation; surveying the larger CUNY community (see Appendix B); and reviewing research and findings about community college practices and outcomes. A Steering Committee of Central Office administrators and community college leaders was convened to oversee the planning process.

Members of the Planning Team, under the leadership of Tracy Meade, who took temporary leave of her position as University Director of Collaborative Programs, reflect diverse backgrounds in higher education. Many have taught at the postsecondary level and have experience in developing and implementing programs that work with traditionally underserved and at-risk students who must make the transition from high school to college. Others have experience in adult literacy and GED programs, adult and continuing education, career and technical education, and professional and youth development. Additional members include two individuals who previously held high-level positions at the University and a number of representatives from the New York City Department of Education.

The Planning Team began its effort by seeking to answer a simple question: In light of what we know today about community college education, what would we do differently if given the opportunity to create a new institution? Using that question as a basis for further discussion, team members approached faculty, staff and administrators

[1] The CUNY system currently includes six community colleges: one in Manhattan, two in the Bronx, two in Queens and one in Brooklyn. Four other colleges also offer associate degrees: one in Manhattan, two in Brooklyn and one in Staten Island. However, John Jay College in Manhattan is phasing out its associate degree programs.

across the CUNY community college system who responded both candidly, by identifying challenges they face each day, and positively, by offering suggestions to improve the effectiveness of community colleges and increase the number of graduating students. As will be seen throughout this document, their recommended changes include practices and policies regarding developmental coursework, introductory courses, student advisement, faculty collaboration across disciplines, the use of data, articulation with baccalaureate institutions, and partnerships with prospective employers. Taken as a whole, their suggestions and those made by others underscore the importance of exploring, through the creation of a new community college, major departures from more traditional approaches.

The opportunity to imagine a new institution, one that is singularly focused on the need to dramatically increase graduation rates, has been incredibly valuable, allowing us to gather and record the thinking of so many professionals, within CUNY and beyond, who labor each day to shape more effective postsecondary institutions. However, the scope of this document should be made clear. This concept paper is not meant to provide detailed instructions for the implementation of a new community college. It neither addresses issues of faculty governance nor recommends an organizational structure or operating budget for the new college—both of which are critically important matters to be tackled in the next phase of the planning process. Rather, this concept paper wraps up the first or exploratory phase of planning for a new community college and provides a set of key ideas and practices that the Planning Team deems essential to transforming the Chancellor's charge into a reality.

I. Introduction

Graduation rates in New York City's public high schools, although improving, remain distressingly low, hovering around fifty-five percent. Equally troubling, only eleven percent of full-time first time freshmen enrolled in CUNY associate degree programs graduate within three years, with about a quarter of the entering cohort still enrolled.[2] Even as high school educators are making progress through innovations such as small schools and CUNY is examining its own practices, for those students who earn their high school diplomas by meeting New York State's *minimum* graduation requirements, the expectations of success in an associate—let alone a baccalaureate—degree program are simply not realistic ones.

School and college graduation rates are particularly distressing for minority students and students from low-income households. While college, according to most of these students, is a place everyone "should want to go," many lack the academic background or experience with college-going friends and relatives that might help them acquire the skills necessary for success. Furthermore, the majority of their high schools are not, at this point, designed to prepare them for college. As David Conley (2007), Professor of Educational Policy and Leadership at the College of Education, University of Oregon, explains, students "from low-income families are particularly vulnerable to a system that does not send clear signals to students on how ready they are for college" ("Toward a More Comprehensive Conception of College Readiness," p. 10).

The consequences upon enrollment in college are painful. In "A Cutting Edge Formula for Student Success," Thomas Bailey (2007), George and Abby O'Neill Professor of Economics and Education in the Department of International and Transcultural Studies at Teachers College, Columbia University, writes:

> Despite the importance of community colleges and the best intentions and hard work of their faculty and staff members, we are failing these students in profound ways. A majority of

[2] The federal and New York state reporting standards include the "on-time" or two year completion rates as well as the 150 percent, or three year rates. CUNY's two-year graduation rates for associate degree programs for each year from fall 1997 through fall 2004 do not exceed 2.7 percent (fall 2002). The three year rates over the same period of time range between 9.9 – 11.8 percent, with increases of about six percent at the four-year mark, although the four-year rate is not a reported rate. All in all, little progress has been made in increasing associate degree graduation rates at CUNY.

.

> incoming students expect to earn a bachelor's degree but only 18 percent obtain one within eight years of enrolling. Some 15 percent earn an associate degree. Many fail to make it through their first year, much less reap the benefits of programs that help them take advantage of new opportunities in the global economy. These facts are hardly revelations to those who study and work in the institutions. The question is what to do about it. (p. 4).

"What to do about it?" is the very question raised by CUNY Chancellor Matthew Goldstein that informs the response that unfolds below. As revealed in conversations across the University, "equal access and opportunity for all students" remain prominent ambitions of the University's faculty and staff that constitute the University's mission statement.[3] And, not surprisingly, many of the ideas that inform the design of the new community college come from innovative practices at CUNY's six community colleges and suggestions for changes in policy that prevent community college educators from doing their best work. Still, significant attention has been given to reconceptualized institutional structures that will ultimately depend on new roles and expectations for all faculty and staff hired to work at the new college.

Several things need to be made clear about the new community college at the beginning. First, this concept paper does not recommend a one-size fits all model for community college education, and so it should not be viewed as *the* single answer to the problems faced by community colleges. What we propose is a pathway—one tightly designed and highly structured associate degree pathway—that will lead to significantly increased graduation rates for community college students. This new pathway will require full-time enrollment, at least over the course of the first year. We understand that those students unable to study full-time will be excluded from this pathway. Nevertheless, 87 percent of first-time freshmen begin their CUNY community college careers as full-time students, so the new college will provide another college choice for most students who rely on CUNY community colleges for their postsecondary educational opportunities.

The full-time requirement is shaped by the belief that unprepared students require more sustained time to develop, practice, and demonstrate *beyond the level of minimum proficiency* the skills and knowledge they will need for associate degree completion,

[3] According to New York State Education Law, CUNY is "supported as an independent and integrated system of higher education on the assumption that the University will continue to maintain and expand its commitment to academic excellence and to the provision of equal access and opportunity for students, faculty and staff from all ethnic and racial groups and from both sexes."

baccalaureate transfer and/or workplace readiness. Equally important is that "more sustained time" not be more of the *same* time, that is, time spent in zero credit remedial courses or introductory courses designed to provide broad introductions to the liberal arts and sciences. The implications of time spent differently suggests a need for curricular and instructional configurations that depart significantly from the traditional baccalaureate structures community colleges inherited and are expected to replicate.

Another important aspect of the new college will be that every course of study will incorporate the theme of creating and sustaining a thriving New York City. The college's theme will structure first-year program curricula, and it will inform the college's mission to connect the new college with the city's public institutions, private firms, cultural organizations, unions and other organizations in order to create and maintain internships and field placements related to student coursework. The college's Office of Partnerships will establish and manage New York City employer partnerships, whether public, private and/or union and will demonstrate how strong partnerships that make employment opportunities tangible and attainable will increase student engagement, success and graduation rates.

Another defining feature of the new community college will be its focus on offering students a limited number of programs of study and pathways that have well-defined steps to degree, transfer and/or employment. In *After Admissions, From College Access to College Success,* Rosenbaum, Deil-Amen and Person (2006) write that "Although community colleges offer many choices, we find that they rarely offer one: highly structured programs that curtail choice but promise timely graduation and an appropriate job" (p. 21). The planning team will recommend that, at the outset, the new college offer no more than ten to twelve programs of study, and that articulation agreements with baccalaureate programs be established prior to the opening of the college. The limited number of programs will, as a consequence, focus the work of the Office of Partnerships so that deeper relationships can be developed with fewer, more committed partners.

Several other elements of the new college represent improvement and expansion rather than innovation. The new college will identify which student services are essential to timely progress to graduation, and all student services will be focused on solving, not

creating, problems. The new college will develop a comprehensive institutional assessment and accountability program, led by a Center for College Effectiveness. And finally, the new college will design all aspects of its uses of technology and facilities in light of its fundamental goal of student success.

II. Pre-College Programs, Admissions/Assessments & The Summer Program

Pre-College Programs

Because many challenges faced by CUNY community college educators begin in the K-12 system and are exacerbated by the disconnect between secondary and postsecondary systems, the University has invested substantial resources in college preparatory programs for public school students. For years now, CUNY has worked with New York City's public schools through a number of programs designed to help students make the transition to college. CUNY's public school programs include: College Now, the Early College Initiative, CUNY School Support Organization, CUNY Preparatory Transitional High School, CUNY Affiliated Schools, Creative Arts Team and the Middle Grades Initiative/GEAR UP.[4]

In addition to CUNY's public school programs, the University's GED and Adult Literacy programs serve a large number of students with college-going aspirations. The data on their college achievement and persistence, however, indicate ever more clearly that passing the high school equivalency exam does not in and of itself prepare students for college. As a result, these programs have been developing college readiness curricula for their students and are an important source of information on the weaknesses and gaps of out-of school youth and adult students who are entering college.

With CUNY's public school and GED/Adult Literacy programs already in place, the new college's admissions staff will work closely with the directors of these programs to promote the new college and will call on them to play a more explicit role in helping high school principals and staff and GED program directors understand that open access describes community college admissions—it does not translate into reduced expectations for schools to support students in the college application and financial aid process. An example of the importance of and need for this kind of work is revealed by a comment made in a recent conversation with a retiring high school principal whose school is partnered with a College Now program at a CUNY community college: "I have

[4] For more information on CUNY's Collaborative Programs, see http://web.cuny.edu/academics/CUNYPublicSchoolPrograms.html

suggested to the director of our college program, our guidance counselor and future principal that we need to make trips to community colleges. Some students choose them but do not visit them. That would be a plus. We do not know enough about the community colleges."

In addition to the opportunities for promoting college awareness and increasing college readiness created by CUNY's existing pre-college programs, the possibility to work closely with one or more of the New York City Career and Technical Education demonstration schools scheduled to open in fall 2009 should be further explored as the new community college plan moves forward. The final report of the Mayoral Task Force on Career and Technical Education Innovation, "Next-Generation Career and Technical Education in New York City," (July 2008), includes this recommendation: "As CUNY plans for its new community college, its precollege components should be deeply embedded in CTE programs and schools, just as high school CTE courses and programs should be oriented to those being offered in the new college" (p. 34).

It would, of course, be advantageous for the new community college if all its incoming students participated in one or another CUNY pre-college program, especially considering that the work of aligning the two systems is far from complete. In light of the fact that the new community college will attract a large number of students unfamiliar with the college-going process and norms, admissions will be restructured to face these challenges, and the college will require participation in a summer program.

Admissions

The admission process of the new college will perform a college preparatory function and help students develop and articulate an educational plan, as well as begin to create connections with the college's faculty and staff. In effect, admissions will serve as part of the *transition to college*. The authors of "Starting Right: A First Look at Engaging Entering Students" (CCSSE, 2007) explain that "At its best, the entry process offers opportunities to build relationships with students, help them set academic goals, bolster their commitment to attaining these goals, and provide critical academic advising and planning services" (p.7).

As opposed to one-shot orientations that tend to be structured to serve the college-

ready student, the new college will require interviews as part of the admissions process. We want to impress upon students that open access should not amount to *uninformed* access. Staff and faculty of the new college will consult the interview protocols developed by the POSSE Foundation[5] and the CUNY Baccalaureate Program. They will create an interview process intended to identify the qualities students bring to the college that should be tapped immediately, as well as to gather information on student needs and their understanding of college requirements so college staff can respond in a timely and efficient way throughout the admission process. The new college's interview process will not deny college entrance to applicants unless they fail to complete the interview process.

In part, the interview process will be designed to assess how much students know in light of how much they need to know about college, and it will explore the role community colleges can play in pursuit of a college degree and meaningful work. The amount of time for the interview process raises questions about student convenience versus the need to make a timely and straightforward case about the real demands that college-going and college-success entails. The complicated lives of many community college students warrant making sure that college access is convenient, but the college should not forego the need to make demands of students if those demands are tied to substantially increasing their chances for success. The first part of the interview will be conducted by admissions staff; the second part will involve college faculty and will be designed to introduce students to the academic expectations of the college.

Organizationally, the Admissions Office will be part of a one-stop student service center which will house financial aid, the registrar, and the bursar. Borrowing from the Onondaga Community College one-stop shop model, "cross-trained staff members and peer mentors [will] serve as the first point of contact as screeners who greet students

---

[5] The interview process will be informed by a model developed by the Posse Foundation. "The Posse Foundation identifies, recruits and trains student leaders from public high schools to form multicultural teams called "Posses"… The Posse Program has exhibited great success over the past 18 years placing 1,850 students into colleges and universities. These students have won over $175 million in scholarships from Posse partner universities and are persisting and graduating at 90 percent—a rate higher than the national averages at institutions of higher education" (http://www.possefoundation.org). Students are selected through a Dynamic Assessment Process (DAP) in which students participate in interactive workshops and group interviews intended to allow them to demonstrate certain skills (leadership, teamwork, etc.)

entering the Student Center, assessing their needs and referring them to an appropriate station to be processed" (Walters, 2003, p. 50). With a one-stop model in which the bursar, registrar and financial aid offices are located in proximity to each other, and with each student assigned a staff member who will help them navigate the enrollment process, students will be able to quickly enroll and register for the first-year program.

Finally, we will consider completing the FAFSA and TAP applications an essential step in the college admissions process, and every effort will be made to ensure that every student applies for financial aid.[6] Our goal will be 100 percent completion of this step. Through the college's one-stop model, as well as through the use of technology that will allow college staff to conduct computer-mediated financial aid advisement with applicants, college staff will be able to ensure that financial aid is processed and will be able to track the application to make sure that it has been properly submitted. Each year, college staff will help students resubmit their FAFSA and TAP forms.

Diagnostic Assessments

We expect that the students applying to the new college will need to strengthen and expand their skills in reading, writing and math. We believe that most of them would, in the prevailing approach to assessment and placement, be deemed in need of remediation in one or more areas. We do not believe that knowing whether students do or do not need remediation as determined by the existing freshman testing program adds value to what we need to know as we design instruction or make placement decisions. For that purpose, we suggest that all admitted students be presumed in need of remediation, and therefore we forego the various COMPASS placement tests the University currently employs.

Instead, we will obtain as much information as possible about what the students do know and can do during the college's summer program. In the case of reading and writing, students will complete reading and writing assignments that closely resemble the

[6] In *From High School to the Future: Potholes on the Road to College*, Melissa Roderick, et. al. (2008) Professor in the School of Social Service Administration and co-Director at the Consortium on Chicago School Research, University of Chicago, writes: "Applying for financial aid is not easy, but it may be the most critical step for low-income students on the road to college" (p.47). She goes on to note that the "American Council on Education (ACE) estimates that approximately one in five low-income students who are enrolled in college and would likely be eligible for Pell grants never filed a FAFSA."

kinds of assignments they will be asked to complete in college courses, and their skills will be assessed by how well they demonstrate proficiency in completing those types of assignments. Towards that end, we recommend that the new college assess students' competency in areas that CUNY faculty consider important for later study—such as: reading and interpreting textbooks and general interest materials; organizing and presenting ideas; writing clearly and effectively for an audience, and interpreting and evaluating materials in charts and graphs. Such an assessment will ask students to read materials and to respond to those materials in writing. The students' actual writing products will be carefully reviewed by faculty, who will be responsible for designing and teaching the first-year program, so that they can identify the particular ways in which students' skills in reading comprehension and written communication are inadequately developed.

In the case of mathematics, we recommend that the new college use the Maplesoft Placement Test Suite—an online version of a comprehensive placement instrument developed by the Mathematical Association of America (MAA).[7]

The subjects on the placement test include: arithmetic, basic algebra, algebra, advanced algebra, trigonometry/elementary functions and calculus readiness. Among the powerful aspects of the product are: the availability of multiple forms, instant results as soon as the student has completed the test, flexible delivery and scheduling, high quality security, score analyses for multiple purposes (such as individual placement, class reports, and error analysis). The Placement Test Suite was piloted with several hundred students at the College of Staten Island during the spring 2008 semester and received favorable reviews. Math faculty members at other colleges are currently considering its possible use as well.

The performance of all students will be analyzed to allow for appropriate placement into one of the Math Topics sections and to enable the math faculty to identify those topics which students appear to have mastered, those that they have uneven control over, those that they appear to be confused by and those that they apparently have never really learned.

[7] MAA is the largest professional society focused on mathematics at the undergraduate level. The Association conducts a number of annual math competitions, including the prestigious Putnam Competition. See http://www.maplesoft.com/products/placement/index.aspx for more information.

Summer Program

Summer bridge programs are increasingly used by postsecondary institutions concerned with ensuring that students—particularly first-generation college attendees and traditionally underrepresented students—enter college prepared to succeed. A recent national study found that African American and Hispanic male students who participate in summer college preparatory programs have better grades in their first-year of college than comparable students.[8]

The new community college summer program will be a full-time, three week program. The goals of the program will be four-fold: to begin to develop the reading, writing and research skills necessary for success in the first-year City Seminar course; to familiarize students with the college's math program and begin its intensive work; and to acquaint students with the resources available at the college and help them develop a sense of comfort and familiarity with the college through a student success course.[9] Finally, all students will complete diagnostic assessments in reading, writing, mathematics and quantitative problem-solving.

A reading and writing seminar will focus on developing the skills and strategies needed to read a variety of non-fiction texts that students will encounter in their first-year seminar (and which few students encounter in traditional high school English classes.) Students will encounter a variety of texts (including newspaper articles, policy briefs, journal articles, census data and government reports) around the topic of New York City. In the final week of the seminar, students will identify an issue facing New York City, research the issue, and make brief group presentations.

Based on the award-winning MathJam[10] program, developed at Pasadena City College, the math seminar will focus primarily on group work and addressing math fears, thus providing students with the support and strategies necessary to begin the intensive first semester math work with greater confidence.

---

[8] http://chronicle.com/news/index.php?id=4795&utm_source=pm&utm_medium=en

[9] In "An Exploration of Tinto's Integration Framework for Community College Students," Karp et al. note the importance of student comfort in persistence. They write, "[s]tudents who become integrated into a college, by developing connections to individuals, participating in clubs, or engaging in academic activities, are more likely to persist than those who remain on the periphery. Preventing this integration process may be *incongruence*, or a lack of institutional fit. Students who do not feel at home in an institution or do not believe that an institution can help them meet their goals are unlikely to persist" (p.2-3).

[10] http://www.pasadena.edu/externalrelations/TLC/mathjam.cfm

A student success course will allow students to engage in small and large group activities focusing on the resources available at the college. The course will not only allow students to develop a level of comfort and familiarity with the college campus, which O'Gara et al. (2008) demonstrate is crucial in students *using* as opposed to simply learning about important student services, but it will also allow students to develop an information network of peers, staff, and faculty.[11]

[11] Information networks are defined as "social ties that facilitate the transfer of institutional knowledge and procedures" (Karp et al., 2008, p.8). Karp et al. note that the information networks help students develop campus and social contacts, as well as help students understand potentially overwhelming amounts of information. The note that students "who were part of information networks also felt that, no matter what the college 'threw' at them, they had someone to go to for help" (12).

III: Educational Model

The structures typically in place to help community college students succeed academically and personally do not appear to be adequate for the success of the majority of community college students. The separation of student services from classroom learning, the stratified approach to remediation outside the interesting work of disciplines, and the introductory course requirements across multiple departments create an environment of disconnect that works against student success. In these institutions, students often experience college, especially a commuter college, as a jigsaw puzzle of discrete courses, services, and administrative obligations.

In the new college, the educational model will meet students where they are and move them along a path that strategically builds their academic confidence and independence, as well as the social and emotional maturity essential to graduate and pursue more advanced studies and/or enter the workforce with the knowledge and skills required to succeed. The model's first major feature is shaped by a belief that an alternative model of required credit-based coursework for all first year students—those who traditionally would be assigned to remediation and those assigned to introductory level work—will significantly improve community college student academic performance. The move away from the traditional remediation/credit divide is one of the guiding principles of the new community college.

The consequences of traditional remediation policies can be devastating: the National Center for Education Statistics reports that only about 20 percent of U.S. students who take remedial reading or a combination of two non-reading remedial courses earn a baccalaureate degree (in Conley, 2007). At the same time, while developmental coursework is intended for those who test into remediation, professors consistently report that many students who were not required to take developmental classes are nevertheless unprepared for college work. Moreover, recent studies comparing students just below and just above placement cut-offs suggest little or no positive effects of remediation (Calcagno & Long, 2008).

If we take to heart that students on either side of the remediation cut-off scores lack sufficient preparation, then at the very least we need to challenge whether the

division of remedial and credit coursework is the best way to serve community college students. It is also necessary to resist the complaint that rethinking established curriculum and course sequences automatically leads to weaker, watered-down coursework. Innovation, coherence, and disciplinary integration are possible and desirable. More imaginative and challenging curricula, and a more intelligent sense of the cumulative effect of a coherent program of courses, can be developed by faculty and staff in order to improve student achievement across all levels.

The educational model will also reconfigure general education as implemented through conventional first-year introductory courses. Faced with a menu of courses that fulfill distribution requirements and with a shallow understanding of subject areas, students often find themselves wondering why they are taking some courses or how the material is relevant to their own academic or professional interests, let alone the college's educational goals. So while a student's first-year encounter with the new college will not be spent taking zero-credit classes, it will also not be spent in traditional and isolated introductory courses that are all too frequently delivered through content-heavy delivery models like lectures.

The educational model defines what the institution values most about student learning. James Slevin, a former department chair at Georgetown University and expert in composition, theories of literacy and community-based intellectual work tackled the stratified nature of postsecondary education and its practice of isolating certain types of intellectual work, which he believed led to the marginalization of students and practitioners. In response to a colleague's "recommendation that genuine disciplinary work should be separated from the task of remediation," Slevin argued that "[every introductory course] must be seen as radically remedial in both its purposes and pedagogies … [N]o student is really prepared for it, which is precisely why it is important. Where the course is not conceivable as remedial, it needs to be rethought to make it so" (2005).

Slevin's vision informs the new community college plan to regard the intellectual work of developmental educators as essential to and equally a part of the work of disciplinary and interdisciplinary course design. In effect, the educational program will merge the developmental and disciplinary expertise of college faculty and staff, most

compellingly in the first-year but throughout the educational program, in order to demonstrate that a much greater number of unprepared students on either side of the traditional remediation/credit course structure can successfully complete college-level coursework than presently do.

The educational model includes several other defining features, including:

- a required first-year core curriculum;
- the restructuring of semesters into shorter modules;
- the incorporation of student development and work-place education in the first-year program, and
- the full-scale implementation of learning communities.

The new community college program will be designed to enable students to graduate in three years, although students in good standing will have the opportunity to graduate in two years through full-time enrollment during each semester and additional study during the college's intersessions and summers.[12]

The First-Year Core Curriculum

All freshmen will be required to take the college's first-year core curriculum—an integrated liberal arts and occupational curriculum that will fulfill a Liberal Arts Elective course requirement. The core curriculum will require full-time attendance for 22 hours a week. In the first semester, the core will consist of three blocks of three courses each. Each block will last for five weeks and will include: 1) a City Seminar, 2) a Professional Studies course and 3) a Mathematics course. The City Seminars will be organized around the broad theme of *Problem-solving for the Future of New York City*, and will consist of four components: a case study that focuses on interdisciplinary learning; an

[12] The use of summer terms, both before students enter and once they are enrolled, is strongly recommended by Clifford Adelman in *The Toolbox Revisited (2006)*. He writes: "Summer term credits are more than metaphors for high octane persistence: Earning more than 4 credits during those terms held a consistently positive relationship to degree completion, and gave African-American students, in particular, a significant boost in hypothetical graduation rates" (xx). He continues, "It is thus in an institution's self-interest to encourage the use of summer-term work, either at the institution itself or at another school. Ways of approaching this goal shy of tuition discounting include moving some of the offerings of high demand courses from the traditional academic-year term into the summer term, offering summative course work in the major in the summer term, and recruiting students for credit-bearing internships and cooperative education placements in the summer terms" (90).

integrated reading and writing workshop; a quantitative reasoning workshop, and what we are calling Group Workspace.

The **City Seminar** will use a problem-based approach, with the complex physical, social, environmental, and political realities of urban life—focused by the college's fields of study (see section V)—serving as the primary course content. For instance, all four components of the seminar will be organized around a New York City-based topic such as "Managing New York City Transportation While Accounting for Long-term Population Growth." Case study pedagogy will be informed by the 80-year old approach of the Harvard Business School:

> The case method forces students to grapple with exactly the kinds of decisions and dilemmas [leaders] confront every day. In doing so, it redefines the traditional educational dynamic in which the professor dispenses knowledge and students passively receive it. The case method creates a classroom in which students succeed not by simply absorbing facts and theories, but also by *exercising* the skills of leadership and teamwork in the face of real problems. Under the skillful guidance of a faculty member, they work together to analyze and synthesize conflicting data and points of view, to define and prioritize goals, to persuade and inspire others who think differently, to make tough decisions with uncertain information…. (http://www.hbs.edu/case/)

In the first semester, students will study three cases in depth—one per block—and each case will include time to meet with the practitioners in the field who were pivotal in the decision-making processes of each case study. Time spent on *reading and writing* and *quantitative reasoning* will connect the content of the cases with the foundational skills necessary for expanding background knowledge while strengthening analytical processes. Reading and writing faculty will work together with disciplinary experts to design engaging seminars with opportunities to learn successful reading and writing strategies for doing increasingly challenging work. These ideas apply to the quantitative reasoning workshop as well. The workshops will allow faculty to identify and provide the right amount of time and intensity of academic support to meet the different needs of the college students. The approach to skills development in the City Seminar is similar to that of the Digital Bridge Academy at Cabrillo College,[13] where specific skills are

[13] "The Digital Bridge Academy (DBA), developed at Cabrillo College's Watsonville Center campus in Santa Cruz County, California, serves a predominantly Latino population. DBA provides a new model for serving under-prepared students that has shown great success with a group of students considered unlikely to succeed in college. It is a curriculum-based persistence model, designed to "light the fire within," and

addressed "on demand." It also follows from the work in CUNY College Now Foundation Courses, where academic literacy skills are scaffolded within the curricula of theme-based courses that introduce students to college learning in the disciplines.

The **Group Workspace** component of the City Seminar is really the inclusion of required time for students to work together, or individually, on seminar assignments, and where they begin to build an eportfolio that captures and showcases their work over the course of their degree. The Group Workspace is not a study hall, but a structured session facilitated by one member of the seminar team (City Seminar, Reading and Writing, or Quantitative Literacy faculty) and required so that the expectations we set for student achievement can be closely observed and supported. Student advisement also will take place during the Group Workspace, and the faculty member facilitating the workshop will hold individual advisement sessions during this component (see section IV for details on advisement). Student development specialists will be available to support faculty when students' needs require greater attention. Requiring time to acquire strong study habits and strategies, complete City Seminar assignments, and receive academic advisement and when necessary, counseling, may appear overly prescriptive, but we believe that a less structured approach leads far too often to student failure.

The City Seminar will be connected to the **Professional Studies** course. As previously described, the City Seminar will be developed to explore the challenges and complex problem(s) that exist in New York City in one or more of the college's fields of study. The Professional Studies course will look closely at the role of majors specific to the college in addressing the problems presented by the case study and the role of these majors in society. The course will explore the value of associate, baccalaureate and advanced degrees to career success and advancement in the different types of positions related to the case study, and students will research and present on the qualifications necessary to obtain such positions. Furthermore, the Professional Studies course will make work-based learning an integral part of the college's mission through visits to work-sites connected to the case studies, which will provide opportunities to witness first-hand how experts in the field address the real-world problems of the case studies.

---

help students develop a true sense of self-efficacy and potential, and motivate them to engage in learning once again and claim a future they couldn't see before." (Community College Journal. August/September 2005, pp. 20 – 21.)

Course curricula will be developed to teach general workplace competencies (including, but not limited to, oral communication skills and the ability to work with a team on a project) and will include a performing arts element. Interactive drama[14] exercises based on workplace scenarios and intensive practicing and performing of a variety of professional roles will help students develop public speaking confidence and effective communication strategies. The Professional Studies course will count for elective credit.

All students will take a **Math Topics Course** which will also meet in a three-module structure for the first semester. The first module will be designed to provide challenging math content that is relevant to all majors at the college. However, the initial courses will be designed to ensure that an appropriate level of content is available for all entering students. The initial module will also provide an opportunity for students' mathematical strengths and weaknesses to be refined beyond the level determined through the initial diagnostic assessment. This assessment could lead to a variety of placements in other courses as early as the second module (Week 7), so students would move into an appropriate math sequence based on their intention to follow math-intensive or non-math-intensive majors. Even for non-STEM majors, math courses will be rigorous and include a mixture of abstraction and context-based approaches. Math faculty will meet regularly with faculty teaching the quantitative reasoning and Group Workspace components of the core seminar to discuss student needs and support.

Math curricula and pedagogy in the new community college would have a deeper and broader set of math learning goals that would emphasize not only students' facility with procedures and skills, but also the development of students' conceptual understanding and ability to problem-solve in non-routine instances, make connections between math content areas, work in context as well as with abstraction, and meaningfully link mathematics to other academic disciplines. The significant

[14] Since 1974, the CREATIVE ARTS TEAM has pursued its mission to challenge young people and adults with interactive drama workshops that develop important learning skills and positive social development. CAT has pioneered the use of drama as an educational tool in schools and communities throughout New York City. CAT is now a university-wide arts-in-education initiative of The City University of New York, whose commitment to community outreach and involvement is a great aid in deepening CAT's impact within at-risk communities. CAT has been a leader in the development of innovative teaching methodologies and evaluation processes, which demonstrate the value of participatory drama in helping participants develop meta-cognitive skills and resiliency, the critical life skills that equip students of all ages to overcome obstacles and setbacks and achieve success in school and life.

instructional intensity over the first year of study (at least 135 hours/semester—200% more time—of math and quantitative reasoning) reflects the time that will be needed for this task. Upon successful achievement of college-level math competencies, students will receive college credit for a mathematics requirement. We are anticipating that most students will require a second semester of math topics coursework in order to enable them to demonstrate that level of proficiency.

Table #1. First-Year Core: First Semester

Block 1: Weeks 1-6*	*Core Course: City Seminar*	Case Study Quantitative Reasoning	Reading & Writing Group Workspace	12 hours/week
	Math Topics			6 hours/week
	Professional Studies	Student Development	Workplace Skills	4 hours/week
Block 2: Weeks 7-11	*Core Course: City Seminar*	Case Study Quantitative Reasoning	Reading & Writing Group Workspace	12 hours/week
	Math Topics			6 hours/week
	Professional Studies	Student Development	Workplace Skills	4 hours/week
Block 3: Weeks 12-16	*Core Course: City Seminar*	Case Study Quantitative Reasoning	Reading & Writing Group Workspace	12 hours/week
	Math Topics			6 hours/week
	Professional Studies	Student Development	Workplace Skills	4 hours/week

*The first module includes an additional week for introducing student to the process of assessment.

The first semester is divided into three blocks in order to introduce students to several case studies and to provide several opportunities for assessment. An additional week is added to the first block to include time for faculty to analyze the first round of course assignments and to conference individually with students. The conferencing week is crucial. Too often at too many schools, the semester ends silently, with a grade and not much else, when a "looking back, looking forward" conversation would be enormously useful. This mandatory week will be carefully structured, with students meeting with instructors to discuss the outcomes of their first block of coursework.

The second semester program resembles, structurally, the first semester, although the program begins to account for the need to move students into majors and involves

more extended engagement with two case studies, each 8 weeks long for a 16 week semester. Students will continue full-time study for 22 hours per week. The core seminar will continue to consist of all four components (City Seminar; Reading and Writing Workshop; Quantitative Reasoning Workshop, and Group Workspace) and will explicitly develop cases from the specific majors offered by the college. A single interdisciplinary City Seminar in, say, *Health and the Environment*, could be used to introduce students to several of the college's majors while fulfilling a liberal arts science requirement. Intensive reading and writing and quantitative reasoning work will again be coordinated with the case study curriculum and supported by the Group Workspace.

During the second semester, the *Professional Studies* course will continue to engage the topics introduced over the first semester but will include a longer work-site experience in which students will work in small groups to solve a problem identified by partner agencies or businesses. Students will follow a similar model to that of the case study, in which they research the background of an issue, identify the key players and levers for change, and propose a possible solution which will be presented publicly. Through this project, students will further develop competencies in oral communication, research, managing and organizing information, and creating effective presentations. The integration of academic and occupational learning is a central objective of the City Seminar and Professional Studies courses, and there are a host of successful models to turn to that might inform the development of this course (co-op programs at LaGuardia Community College, Alverno College, University of Cincinnati, and the Wagner Plan at Wagner College). Finally, the Professional Studies course will lay the groundwork for the college's required internships (or clinicals) that will follow in years two and three.

For those students who earn three credits of math for their work in the first semester, a limited menu of introductory college courses in other disciplines will be available (and, so their schedule will be 19 hours per week). As much as possible, individual student schedules will mirror the first semester, with students and faculty traveling in cohort learning communities.

First-Year Program Credit Model

Although numerous individuals, including community college faculty and researchers, have recommended that developmental coursework be blended with college credit, most efforts to do so have floundered because it appears difficult to justify the awarding of college credit to students who do not have the skills needed to be successful in college courses.

The typical response has been to place students in a mix of courses—some that carry credit and others that do not. We have already rehearsed the shortcomings of that approach. We are recommending instead that students be registered in a full program of study that has no pre-determined credit value. At the same time, we hope that we have made clear that the content of the City Seminars and other courses will be fundamentally grounded in the content of college coursework.

The number of credits that students will earn through the completion of each of the modules included in the first-year program will be determined on the basis of the quantity and quality of the work they produce. Each student's work (in the City Seminar, Math Topics and Professional Studies) will be collected in eportfolios and will be reviewed, using a standardized rubric, by a team of faculty, including faculty members who did not teach the students involved. The eportfolios will include a wide variety of work products, including examinations. The eportfolios will also include an overall assessment of each student's achievements by a faculty member who had direct knowledge of other aspects of the student's participation and performance.

On the basis of the reviews, the faculty team will award credit on a sliding scale. We anticipate that students could earn a maximum of ten credits in each of the first and second semesters.

We recommend that the college establish a Credit Audit Process which would consist of periodic but regular reviews of samples of student portfolios by external teams of faculty from other CUNY institutions, especially faculty from the baccalaureate degree programs with which that the college will establish formal articulation agreements.

It will be necessary to establish college policies and procedures for determining the status of students who fail to earn minimally satisfactory credits at the end of the first

two semesters. The first task in that work will be to determine what number of credits will be considered as evidence of satisfactory completion of the core requirement.

The Second- and Third-Year Program

The second year moves students fully into their majors and full-time study will be strongly encouraged. Courses will continue along the 8-week calendar, with students taking two linked courses in each module and either 1) a field internship and an additional course that fulfills liberal arts requirements or 2) clinical studies. Internships in the second and third year will be program-specific. Within each academic program there will be a college faculty/staff member responsible for working through the college's Partnership Office to develop relationships with appropriate public and private entities that will serve as internship sites for students in their programs and facilitate the incorporation of workplace education into the curriculum.

The model of the full second- and third-year programs will be fleshed out for each major when the majors (see the proposed majors in section IV) and their degree status (A.A., A.S., A.A.S.) are determined. A significant amount of work defining course requirements and developing course sequences for each major will then need to take place. Nevertheless, it is important to note that the proposed majors were selected to *complement* each other as much as possible in order to promote interdisciplinarity and the integration of academic and occupational learning in both the required liberal arts courses and the courses in the majors.

The first-year core curriculum design is informed by extensive knowledge of the weaknesses of many students from different educational backgrounds who enter community colleges. We propose it as a highly structured, coherent and imaginative program in which students can thrive, make substantial progress and learn to enjoy learning. The second and third years need to be no less coherent and imaginative and no less structured. In fact, we recommend the creation of prescribed pathways for each major that limit choice and exploration but nevertheless fulfill degree requirements in a clear and timely way.[15] We also recommend that the required courses in the majors and

[15] James Rosenbaum (2007) highlights successful practices associated with the best private, two-year colleges that "[devise] procedures to help students succeed even if they lack the traditional social

the liberal arts continue to tap into the city-oriented theme of the new community college and build advanced reading, writing, quantitative reasoning and information literacy skills in the context of all of these courses.

Finally, we recommend the use of learning communities throughout the second- and third-year to link courses in the major. Kingsborough Community College and LaGuardia Community College will serve as models in the development of the new college's learning community structure.

Table #2. Second-Year Model

Semester 1				**Semester 2**			
Module 1: 8 weeks		**Module 2: 8 weeks**		**Module 1: 8 weeks**		**Module 2: 8 weeks**	
Linked courses	Major 1	Linked courses	Major 3	Linked courses	Major 5	Linked courses	Major 7
	Major 2		Major 4		Major 6		Major 8
and	Field internship	*and*	Field internship	*and*	Field internship	*and*	Field internship
	Liberal Arts course		Liberal Arts course		Liberal Arts course		Gen Ed course
or	Clinical	*or*	Clinical	*or*	Clinical	*or*	Clinical

Professional and Curriculum Development

The institutional commitment to professional and curriculum development will be central to the success of the educational model. The kind of teaching required will represent a significant departure from traditional classroom practice, which is most often an isolated and isolating activity (Grubb, 1999). Professional development and curriculum planning will draw upon recent research on how knowledge is organized and how people learn (see Appendix C for the Professional Development Framework). Furthermore, it is precisely the various collaborative structures of the new college that will lead to the professional development that is needed among faculty and staff with complementary forms of expertise.

---

prerequisites of college" (p.3). An important element is the "'package deal' plan" that provides "a structured program that alleviates the burden of collecting information and the risk of making mistakes" by removing "the problems of directionless exploration, unneeded courses, unexpected timetables, and labor market struggles…found in community colleges. Options also overwhelm institutions; community colleges have difficulty offering required courses in the semesters when students need them and during time slots that fit students' schedules" (p.3)

The first-year City Seminars will be developed and taught in teams comprised of disciplinary, reading and writing, and quantitative reasoning/math faculty. Disciplinary faculty have deep knowledge of their areas but may not have the pedagogical experience to mentor students who have been traditionally marginalized in higher education. Reading and writing and quantitative specialists, on the other hand, must gain greater understanding of the ways of thinking, reading, and writing in a range of disciplines in order to effectively provide pedagogical support to disciplinary faculty.

Linked courses will be a part of students' second-year experience, necessitating the close collaboration of two faculty members from related disciplines in a student's area of study. While the primary collaborative relationship will be between the two disciplinary faculty, reading and writing and quantitative specialists will continue to have a role in promoting successful, engaging pedagogical approaches.

Even courses led by individual faculty members will not be taught in isolation. For these courses, faculty members will bring the proposed curriculum to a curriculum team that includes faculty from other disciplines, reading, writing and quantitative specialists, as well as student development specialists teaching the Professional Studies courses. The team will give feedback that is focused on the ways in which the proposed curriculum achieves or needs to achieve the teaching and learning principles outlined in the educational model. The goal of this collaboration is not to control faculty and their curricula, but to regularize a process whereby all faculty and staff have a role in promoting the highest quality learning experiences possible for the college's students and to ensure that courses within a program of study build on each other (in terms of content and skills) and ultimately result in a coherent program of study.

The new community college will recognize the importance of and succeed in forging a culture that honors faculty collaboration and the complementary expertise shared among members of instructional teams. One year will be needed before the opening of the college in order to engage a core group of faculty in various disciplines, quantitative/reading and writing specialists, and student development specialists who are capable of creating model curricula for the first-year seminars. This core group will need to be large enough to develop one case study curriculum in each area of study (Liberal Arts; Health and Human Services; Information Systems, and Urban Systems, described in

Fields of Study, section V) before the summer in advance of opening. These model case studies will be based on real problems facing New York City and will involve significant research time for faculty at worksites and/or at public agencies. They will be designed not only to include the pedagogical, context, and content foci of the educational model but also to introduce students to the kinds of work and workplace learning that happens in that field**.**

Model curricula for the first-year seminars will be introduced to the discipline and specialist faculty as well as staff teaching Professional Studies courses as models of pedagogy, context, content, and connection to a field of work. Using these model curricula as guides, the faculty will be grouped into areas of study and will proceed to create additional case study curricula for use in the seminars. First-year case study curricula, linked course curricula, and other course curricula are not static products. All curricula, when used with actual students, have areas of strength and weakness. Instead of accepting that as inevitable, curricula at all levels in the college will undergo revision each time they are used. This revision process will happen in two ways—within the year, for example, as seminar teams make suggestions to other seminar teams that will teach the same curriculum in a subsequent 5-week period, but also in summer professional development periods, when more focused curriculum work of all types can happen apart from busier teaching schedules.

The ongoing revision of first-year seminar curricula is perhaps the most exciting and challenging aspect of curriculum development at the new college. This is because old cases will give way to new ones as conditions change in New York City, providing new opportunities for rich explorations by faculty and students, and because the college is likely to grow and include new majors.

An important goal of professional and curriculum development at the new college is its contribution to institutional learning. After the first year, the college will implement an annual Summer Institute that will serve as a cross-departmental forum for sharing materials, curricular innovations, feedback from students, and for reviewing progress toward the college's goals of improving student learning and significantly raising graduation rates. The issues and questions raised at the Institute will be used to plan later research related to teaching and learning.

IV. Student Services

In the same way the academic model will restructure teaching and learning around a best case scenario for student educational engagement and achievement, student services must impact students' ability to move through college to graduation in as timely a manner as possible. Therefore, the goal of college preparation and completion will shape the culture of each office that provides services to students admitted to the college. While the following areas do not account for all of the services that will be offered by the college, they represent a refocusing of those services that will be valued as pivotal to increasing student graduation rates.

Advising

Based on numerous studies[16] and recommendations from faculty and staff across CUNY's community colleges, student advisement will play a central role in the new community college. Student cohorts organized for the first-year program will each be assigned an advisor, who will be at the same time one of their first-year core seminar (City Seminar or Reading and Writing or Quantitative Reasoning) faculty. During dedicated time in the Group Workspace component, these faculty will hold individual and small group (peer cohort) advisement sessions throughout the first semester to follow-up on attendance, academic performance, social integration, and any other issues that emerge. When difficult issues and situations arise, faculty will receive support from appropriate student services staff. Furthermore, by creating peer cohorts for advisement, connections between students will take root and they will begin to serve as support

[16] In "'Like, What Do I Do Now?': The Dilemmas of Guidance Counseling in Community Colleges," W. Norton Grubb notes the importance of counseling (academic, career and personal) given the dominant perception that today's students are "needier," less academically prepared, "less likely to get information and moral support from their parents, less attuned to what 'college' involves and less socialized to academic routines" (2006, 198). Grubb notes different types of counseling and advocates for the use of "intrusive advising" or "active counseling," which requires multiple meetings during each semester (2008, 206). Additionally, in "Do Support Services at Community Colleges Encourage Success or Reproduce Disadvantage?" Karp, O'Gara and Hughes, echo Grubb and conclude that their "findings lend support to the idea that disadvantaged students may benefit from what Grubb (2006) and others term 'intrusive advising.' Such advising includes structured meetings with advisors, mandatory activities such as academic planning (like those found in student success courses), and close tracking of student success" (2008, p.22).

systems for each other.[17] As a result of the work that will have begun in the summer program and these advisory sessions, students will come to know the college's policies and procedures, degree requirements, on-campus support services and support programs and services linked to external partners. Additionally, they will begin to develop educational, personal, and career goals that reflect an evaluation of personal and academic skills, abilities, and interests.

In the second semester, students will continue to receive their advisement through the Group Workspace course. Advisement curriculum in the course will be modeled after the LifeMap program used at Valencia Community College and will involve students using eportfolios to fully develop education and career goals based, in part, on the work they begin in their first semester advisement sessions.[18]

In the second year of college, students will transition from their first-year program advisor to a faculty advisor within their chosen major.

Transfer Planning/Advisement

An important feature of the new college will be its pre-established articulation agreements with baccalaureate programs. These agreements, of course, will help the new college make the case to students to complete their associate degree before transferring to

[17] In their study of learning communities at Kingsborough Community College, Dan Bloom and Colleen Sommo (2005) note: "many experts believe that students' academic and social experiences during their first semester of college often determine whether they will persist in school over the long term. According to this theory, students who develop strong initial connections with other students, with faculty or staff, and with the material they are studying are far more likely to continue and succeed" (p.45).

[18] LifeMap is a developmental student service program used at Valencia Community College that moves students through five stages: the Postsecondary Transition; Introduction to College; Progression to Degree; Graduation Transition; and Lifelong Learning, with each stage having outcomes, performance indicators, guiding principles and interventions. As Grubb explains, LifeMap is a "framework that organizes a student planning process, a set of clear expectations for completing programs that all students, counselors, and faculty share, and a series of student services. It creates a set of expectations from the outset" (2006, 214). The core of LifeMap is a set of computer-based planning tools which includes: My Education Plan, My Career Planner, My Portfolio, My Job Prospects, My Profile. As Dr. Joyce C. Romano outlines in "LifeMap: A Learning-Centered System for Student Success," LifeMap "describes to students what they should do and when; links all of the services/program/activities that form the developmental advising system; describes to faculty and staff how they contribute and participate with students in developmental advising; presents to students visual cues in the physical college environment as to where they can obtain different forms of assistance towards their career/educational goals; links together written publications that are designed to assist students in achieving their career/educational goals."

their joint program. Nevertheless, articulation agreements alone will not prepare students for the new and different college environment they will be entering.

All students will be presented with information about the joint baccalaureate transfer agreements (as well as career opportunities) as they interview at the college and begin the process of developing educational goals. Throughout the small group advisement sessions in the first year, information on joint programs will be provided and students will revisit this information with college staff each semester to keep them focused on degree completion and transfer.

During their second year, students who intend to transfer to a pre-established joint baccalaureate program will participate in periodic transfer advisement sessions in which college staff (and alumni who have successfully transferred and earned their baccalaureate degree) will help them complete the transfer and financial aid applications, as well as connect with faculty and staff at the transfer college. After graduation, every effort will be taken to help students transfer to CUNY and other colleges in cohorts.[19]

Student Employment

The new college will commit to creating student employment opportunities, which will contribute to the college's focus on student retention. Often, the responsibility for creating and staffing employment opportunities for students is scattered across multiple campus offices, with, for example, the Human Resources office filling openings at the college (college assistants), the Career Services office placing students in positions outside the college, and the Financial Aid office assigning work-study positions. The new college will charge the Office of Partnership Office (see section VI) with the coordination of internal and external job placements and with creating as many employment opportunities as possible for the college's students. The Office of Partnerships staff will meet regularly with employers to ensure that all employment opportunities are crafted with an eye towards explicitly developing the work-place competencies students will be practicing in the Professional Studies course. In addition, the Office of Partnerships will examine the potential of creating a partnership with the

[19] This follows the model employed by the Posse Foundation, which is based on the "simple idea, of sending a group (or posse) of students together to college so they could 'back each other up'" (http://www.possefoundation.org/main/learn/how.cfm).

New York City Public Service Corps, so that students will be able to use their work-study grants to work with a city agency in their field of study.[20]

Connecting Students to External Resources

Research indicates that urban college students experience a distinct set of challenges when they or those with whom they are in relationships (both familial and social) become ill or have chronic health problems. These challenges often result in absence, poor performance, and withdrawal from school. Typical areas of concern include the range of reproductive health issues, substance abuse, mental health, family health problems, and chronic and acute illness management. In addition, many urban community college students struggle with issues around housing, employment, and childcare. In order to ensure that students receive the services they need in order to be successful, the new community college will seek to establish partnerships with community-based organizations that have a record of success in helping individuals apply for benefits and programs, including health insurance, nutrition, federal and state subsidies for childcare, housing assistance, and tax credits.

Student Activities

At commuter campuses, it can be very difficult for students to create relationships with peers, faculty and staff. In addition to relationships created through the learning community course structure, it will be important to create structures that allow and encourage student interaction. The new community college will develop a wide range of co-curricular activities and clubs which will allow students to develop leadership skills, make connections with other students, staff and faculty, and have a strong voice in the governance and daily operation of the college.

[20] "The New York City Public Service Corps was begun more than 40 years ago as an alternative to on-campus placements for students receiving Federal Work-Study Program financial aid. Public Service Corps internships are for undergraduate and graduate Work-Study students from affiliated colleges and universities both in New York City and across the nation. With more than 30 city agencies participating, students may chose from a myriad of internship opportunities related to their college major" (retrieved August 14, 2008 from, http://www.nyc.gov/html/dcas/html/employment/psc.shtml).

V. Fields of Study

The fields of study, and the majors that derive from those fields, were considered in the context of the impact they would have on the students and the City. Would students be interested? Would the major positively influence retention and graduation rates? Would it encourage and enable a student to be an active participant in developing and sustaining the future of New York City? In addition, the majors were to align with the economy of the region, including the emerging economy (e.g. concerns about energy and the environment), and in doing so offer ample opportunity for employment within specific industries or occupational sectors.

Although many of the majors are new to CUNY, newness was not a rigid condition; the uniqueness of the programs offered by the new community college will be in the delivery. For each major it must be possible to design curriculum that includes intensive and early field work, place-based learning, and/or internships. The knowledge economy requires that students be horizontally skilled and that they be able to adapt to change and continue learning as their jobs require. Thus, the majors will be, to the extent possible, interdisciplinary and will strengthen the students' skills in reading, writing and mathematics, and in the critical thinking skills of analysis, synthesis and evaluation. Furthermore, many of the majors will complement each other, strengthening the possibilities for interdisciplinarity, enabling core curricula to be developed in several areas and facilitating the recruitment of faculty.

The incentive for the students to select one or another major, aside from inherent interest, will be the opportunity for employment upon earning the degree and/or the opportunity for smooth transfer to a joint baccalaureate program. Toward that end the development of partnerships will be critical—internal partnerships with CUNY senior colleges, to facilitate articulation, and external partnerships with a range of employers and organizations to facilitate internships and employment.

Broadly speaking, the majors are in four fields of study: Liberal Arts, Health and Human Services, Information Studies and Urban Systems. The first three are fairly self-explanatory. Urban Systems focuses on urban infrastructure and sustainability concerns and leads to programs addressing energy and the environment, green jobs, and city

infrastructure. Each choice was the result of many hours of research into industry sectors, workforce issues and labor projections, as well as an examination of community college programs (and some baccalaureate programs) at CUNY and around the country. The choices were suggested, confirmed and/or reinforced through consultation with people in the field, in New York and across the country. Twelve majors are recommended, two with caveats. In comparison to most community colleges this is a very small number, and it is likely that as the new community college goes forward the scope will broaden.

The division into fields of study facilitated research and discussion. The reality though is that there is substantial overlap in current and emerging fields, and many of the programs cluster in more than one area. Many of the programs are technology-rich, a reflection of the new community college's commitment to train a workforce that will help usher in the City's effort in emerging information and technology markets. The various clusters also reflect current concerns about the environment and sustainability, the health and well-being of our populace, the needs of the business community, and the urban experience.

While some of these majors, and the occupations to which they are generally linked, will sound familiar, others will be new. Some of the titles, particularly in emerging areas, e.g., Information Studies, Community Health Worker, Energy Services Management, are tentative.[21] The following suggests 12 possible majors and the reasons we believe they resonate with the goals of the new community college.

The Majors

Nursing

Registered nurses provide patients with direct care and assist doctors. They work in hospitals, home care settings, clinics, nursing homes, community health organizations, doctors' offices and other settings. They may also be health educators and work with individuals and communities to prevent illness and improve health. The Nursing curriculum will provide a strong foundation in general education, biological sciences, and social sciences, as well as nursing science, and will be complemented by intensive clinical experiences in a range of health care settings.

[21] Summary research on the selection of majors is available on request.

Surgical Technology

Surgical technologists are part of operating room teams and assist in operations under the supervision of surgeons, registered nurses, or other surgical personnel. They help prepare the operating room, including sterile and non-sterile equipment, get patients ready for surgery, and clean and restock the operating room following surgery. During surgery, technologists observe patients' vital signs, check charts, and pass instruments and other supplies to surgeons and surgeon assistants. They help prepare, care for, and dispose of specimens and help apply dressings. They help operate sterilizers and other surgical and diagnostic equipment.

The Rationale: According to the 2008-2009 edition of the Bureau of Labor Statistics *Career Guide to Industries*, health care was the largest industry in the country in 2006; seven of the 20 fastest growing occupations are health care related. Furthermore, it is projected that health care will generate 3 million new wage and salary jobs through 2016, more than any other industry. The employment of registered nurses is expected to increase by 25.2 percent. The *Survey of Nurse Staffing in GNYHA* (Greater New York Health Association) *Member Hospitals, 2005* notes that 60 percent of the RN staff nurse workforce is over 40 years of age, indicating a potential wave of retirement over the next 10 to 20 years and estimates that nationally by 2020, hospitals will have a nurse vacancy rate of 29 percent, up from the current 7 percent rate. Of equal concern is the parallel track on which the American population is progressing with regard to aging, increased demand for health care services, and increases in patient acuity. The employment of Surgical Technologists is expected to increase by 24.6 percent. In addition the number of surgical procedures is expected to rise dramatically as the population grows and ages. Older people, who generally require more surgical procedures will account for a larger portion of the general population. Technological advances, such as fiber optics and laser technology, will permit an increasing number of new surgical procedures to be performed and also will allow surgical technologists to assist with a greater variety of procedures. New York has now and will continue to have huge needs for skilled workers in the health care area; graduates who can fill these positions will be in great demand. New York's United Health Care Workers Union (1199 SEIU), the Health and Hospitals Corporation,

and the Visiting Nurse Service have all expressed interest in working with the new community college to meet demands in health care.

Environmental Technology

Environmental Technology utilizes the principles of science, engineering, communication and economics to evaluate the impact we have on the environment and to protect and enhance safety, health and natural resources. A technician, in general, is a person who applies scientific, technical and communication skills and knowledge to specific tasks. An environmental technician uses state-of-the-art instrumentation in the service of environmental compliance in public and private sector organizations, pollution prevention, environmental remediation, and workplace health and safety. The environmental technician may work in chemical analysis or biological analysis, water/wastewater treatment, EPA compliance inspection, hazardous material handling, waste abatement/removal, contaminated site assessment/remediation and even consumer service.

Energy Services Management

The coming decades will see a major expansion in the range of careers in energy services and technologies. These will include not only jobs in energy efficient building construction, operations and maintenance, but also in buying and selling energy, energy assessment, and regulatory affairs. Energy Services Management focuses on the business, marketing and customer service aspects of the energy services field. The graduate will have a broad knowledge of alternative energy systems, as well as the skills needed to conduct audits of existing systems and feasibility studies relevant to the retrofitting of existing systems or proposed new systems. Employers will include public utilities, alternative energy systems manufacturers, architectural and engineering consultants, energy management companies, heating and cooling contractors, and independent energy systems retailers.

The Rationale: In December 2006, Mayor Michael Bloomberg challenged New Yorkers to generate ideas for achieving key goals for the city's sustainable future. From their

responses came a comprehensive plan for long-term environmental sustainability in New York City, called "PlaNYC," focusing on the five key dimensions of the city's environment: land, air, water, energy and transportation. While Bloomberg's mayoralty will end, and initiatives such as congestion pricing have been at least temporarily defeated, the broad outlines of the plan's proposals will undoubtedly be implemented on a large scale as the fiscal and environmental costs of our current energy use and other habits of living become clearer. An analysis by the Louis Berger Group of future jobs associated with PlaNYC shows massive amounts of employment related to expanding and revamping the city's water systems, transportation infrastructure, and power plants(2008, p. 29). Interviews with sustainability experts generated projections of substantial growth in areas such as energy efficiency, storm water management, and air quality control.

Young people in particular are interested in environmental sustainability issues, as evidenced by the number of organizations dedicated to channeling their energy into environmental advocacy. This interest is likely to grow over the next several years, as they become more aware of the impact of the environment on their futures. As student interest grows, and as city policymakers, planners, and residents pay more attention to issues of environmental sustainability, job growth in these areas will continue to rise.

The Bureau of Labor Statistics projects that employment of environmental science and protection technicians is expected to grow much faster than the average, 28 percent through 2016. New energy technology careers are emerging at an unprecedented pace, and skill sets traditionally associated with energy technology are cutting across both traditional and emerging industries. Current unmet demand for employees in this field is such that a number of energy services companies and their clients are planning the first annual energy services job fair in New York City.

Earth and Environmental Sciences

In Earth and Environmental Sciences, students study the fundamental physical, chemical, geological and biological processes that shape the Earth's natural environment. Earth and Environmental Sciences promotes understanding of Earth systems and their components by integrating geological and biological views of how these systems function

and interact. It also examines the ramifications of human interaction with the environment. At the Queens College School of Earth and Environmental Sciences, majors are offered in: Geology, Earth Science Education, Environmental Sciences and Environmental Studies (the latter two are interdisciplinary and include courses in the Social Sciences and the Humanities, e.g., Urban Studies, Social and Cultural Aspects of the Environment and others). "The [Queens] School of Earth and Environmental Sciences brings a multi-discipline approach to the study of the processes operative within the Earth and especially, on the surface of the Earth, the products of those processes, and how both processes and products can and have changed through geologic time."

The primary intent of this program is to prepare students for transfer into a baccalaureate degree program, probably with a major in Earth and Environmental Sciences. Some students may pursue initial teacher certification as secondary school science teachers. Others may pursue careers in geoscience, with its wide range of subspecialties (e.g., geology, mineralogy, oceanography) or become environmental scientists and use their knowledge of the physical makeup and history of the Earth to protect the environment, provide environmental site assessments, advice on air quality and hazardous waste site remediation, etc.

The Rationale: Earth and Environmental Sciences provides an understanding of the natural functioning of our planet and considers the consequences of human interactions with it. The point has been made, above, that young people in particular are interested in environmental issues and that this interest is likely to grow. In addition, the City of New York has embarked upon a comprehensive approach to sustaining the city's environment, PlaNYC 2030, which will generate jobs and keep the relevant issues in the public sphere. Furthermore, many baccalaureate programs note that while the degree provides a good background for students interested in the science of earth systems and ecology, it can also support career goals in areas such as law, journalism, business, and government—anywhere an understanding of Earth and human interaction and the application of the scientific method are relevant.

Employment prospects for environmental scientists and geoscientists, specifically, are quite good, though the best jobs require a master's degree. Nevertheless, the Bureau

of Labor Statistics projects that growth in both areas will be well above the average: 25 percent for environmental scientists and 22 percent for geoscientists through 2016. This growth will be spurred by the increasing demands placed on the environment by population growth, the need to comply with complex environmental laws and regulations, the need to monitor the quality of the environment and to interpret the impact of human actions on ecosystems, and to develop strategies for restoring ecosystems. In addition, environmental scientists will be needed to help planners develop and construct buildings, transportation corridors and utilities that protect water resources and reflect efficient and beneficial land and energy use.

These arguments make Earth and Environmental Sciences a practical choice for a science program in the new community college and provide the first example of how the programs selected can form a coherent whole. Earth and Environmental Sciences can provide relevant liberal arts courses for students studying Environmental Technology, Energy Services Management, and Geographic Information Systems, and can provide science courses for students in Urban Studies.

Information Studies

In many ways, the emerging field of information analysis is a bridge connecting IT to a particular field of study such as the sciences, business, and social sciences. This program would offer tracks in business and healthcare, but areas which increasingly utilize information analysis also include security, law, finance, and journalism. The program is built on many of the same areas studied in computer science (database skills, data analysis, data mining) but is more focused on the applications of these technologies. In a business setting a graduate might work as an analyst to streamline databases, design software to better anticipate the needs of customers, spot customer trends, or uncover new sales opportunities. In health care the graduate might find employment in hospitals or other health care facilities, insurance companies, government agencies, consulting firms—wherever it is important to manage health-related information and analyze and communicate that information in the context of research, planning, provision, financing and evaluation of health services.

Geographic Information Systems

Geographic Information Systems is a database management system that handles large amounts of information in a digital map format. It organizes this information into computer databases, performs various data manipulations and analyses, and displays spatially referenced information both graphically and numerically. With specialized computer software that takes images drawn from satellites, Global Positioning Systems waypoints, aerial photography, and any other source of data, a Geographic Information Systems technician can make interactive maps for decision-makers from a wide range of career areas. Geographic Information Systems is a tool that is being applied in environmental studies, real estate planning, election administration and redistricting, market analyses, public health and safety, transportation and logistics, law enforcement and emergency response. Technicians work in private companies and government agencies that use geographic information systems, often alongside engineers, architects, environmental specialists, homeland security experts, park and utility managers, urban planners, etc., assisting these professionals by collecting data in the field, making calculations, and helping with computer-aided drafting.

As in the Urban Systems area the associate degree graduate would likely work at the level of technician or specialist.

The Rationale: These two majors typify the kinds of programs that educate technically savvy workers for the new knowledge or information economy. They train computational thinkers, people who will be better creators and users of computing technology and will think critically about technology's role in society.

These two majors will appeal to students who are interested in improving their IT skills, who want to learn more about how IT is used in disciplinary areas outside of computer science, and who simply enjoy technology. They blend strong technology skills with a traditional liberal arts foundation and develop problem-solvers who understand the broader context for learning and how it applies in the world beyond technology. Both require knowledge of many of the skills developed by computer scientists, but they also foster skills in communication, technical writing, problem-solving, project management and customer service.

They typify as well the jobs that are available to graduates with an associate degree in the knowledge economy. Both prepare professionals to use information technology to solve problems in a variety of settings. Their prospective employers are often as interested in their experience as in the degree. Almost all organizations have some information analysis and management needs. In business, finding business solutions, spotting consumer trends and gaining a competitive advantage are concerns. In health care, differentiating the roles of various health care delivery systems, analyzing and interpreting data in a patient's record, identifying trends that demonstrate quality, safety, and effectiveness in health care delivery are common challenges. So too, directly or indirectly, almost every human activity has some kind of spatial or location-based component: Where should the shopping center be located? What areas should be set aside to protect the habitat of an endangered species? Where should patrols be scheduled to reduce crime?

Information Studies and Geographic Information Systems both provide immediate job opportunities, usually at the technician and/or specialist/analyst level, often working under the supervision of someone with a higher educational degree, gathering and analyzing data, providing decision support, and generating reports. Both programs lead to careers with provide opportunity to advance and assume new and different responsibilities over time both as technologists and in more professional roles. Ample opportunity exists as well for further education.

Supply Chain Management

Supply Chain Management encompasses the planning and management of all activities involved in sourcing and procurement, including negotiation, coordination and collaboration with suppliers, intermediaries, third-party service providers and customers, and all logistical management. Logistics is that part of supply chain management that plans, implements, and controls the efficient flow and storage of goods, services and related information between the point of origin and the point of consumption. Sometimes called the hidden profession, Supply Chain Management offers a wide variety of job options including entry level positions such as buyer, purchasing analyst, inventory control manager, materials planner, transportation coordinator, production coordinator,

and warehouse manager. Settings are equally wide-ranging and include manufacturing, construction, retail operations, educational institutions, wholesale service and distribution businesses and government offices.

The Rationale: The potential of supply chain management as a program of study was brought to our attention by Iris Weinshall, former Commissioner of Transportation for the City of New York and currently Vice Chancellor for Facilities Planning, Construction and Management at CUNY. Vice Chancellor Weinshall noted the large number of vacant positions in city government for which it was difficult to find people with the appropriate skills and knowledge. In particular she cited "procurement" or purchasing. In fact, purchasing is just one aspect of supply chain management, an area with a wide range of career prospects, limited only by a graduate's geographical requirements and the industries the graduate is willing to pursue. People who understand supply chain management, and have the corresponding skills are needed in all sectors of the economy—public and private, service, manufacturing, construction, distribution, health care, retail, government, etc. Nearly every organization is involved in purchasing goods, controlling inventory, building products, moving freight, and/or managing relationships. These fundamental activities translate into many different supply chain employment opportunities with a vast number of potential employers. The advent of e-commerce has added still another dimension to this area. Supply Chain Management nicely complements other areas in the new community college. Graduates must be computer savvy; they must be able to gather, analyze and use, with some sophistication, the information from spreadsheets and the Internet. They also need to consider green transportation, warehouse, and distribution solutions to minimize the carbon footprint, new technologies, regulations and best practices that apply to sustainable resources in the regional and even the global supply chain. And there is a nice continuum through joint baccalaureate programs—particularly in business, which is of interest to so many young people.

Community Health Worker

The Community Health Worker provides a bridge between health and social service systems and the communities they serve. Their titles depend on the organizations or agencies for which they work, and may include: care coordinator, community health aide, community health outreach worker, family support worker, health facilitator, health liaison, patient navigator, peer counselor, public health aide, and so on. They often share culture, language and life experience with the communities in which they function as frontline workers. Specific responsibilities depend on the place of employment, but in general these workers provide health education and advocacy, coordinate care for people with diseases and chronic conditions, help people navigate complicated health systems, assist in the health insurance process, and address, in a variety of ways, the issues that impact their community's health.

Disability Studies

The program in Disability Studies would educate Direct Support Professionals who would work with people with disabilities in a wide range of settings, including community agencies, schools and their own homes. Direct Support Professionals "are generalists who "provide a wide range of supportive services … on a day-to-day basis, including habilitation, health needs, personal care and hygiene, employment, transportation, recreation [so that the people they serve can] lead self-directed, community and social lives." An essential aspect of Disability Studies is its definition of disability as a "social construction," as distinct from the prevailing medical model of disability. The social model recognizes that disability is not inherent in the individual as a deficit, but rather, is a set of physical and social barriers that often constrain people.

The Rationale: It has been suggested that the establishment of a new community college provides an opportunity to (1) get ahead of the marketplace by offering programs of study that will have greater currency over the coming decades and (2) advocate, through those programs, for new structures that would benefit students and the city. Disability Studies and Community Health Worker are two programs that would put CUNY in a position to take on these roles.

In both, the needs are there and CUNY is well placed to step up and help address these needs. The 2007 Institute of Medicine report, *The Future of Disability in America*, describes the ubiquitous nature of disability, and other reports have documented the need for an educated workforce, in particular Direct Support Professionals. Over the last fifteen years, the development of Disability Studies as a distinct field has been a priority of the National Institute for Disability and Rehabilitation Research. Dr. William Ebenstein, CUNY's Dean for Health and Human Services, has been a leader in this movement. CUNY now has a graduate certificate program in Disability Studies and The Board of Trustees recently approved a Master of Arts in Disability Studies offered through the School of Professional Studies. Recently, too, the Society for Disability Studies selected CUNY's John F. Kennedy, Jr. Institute for Worker Education, directed by Dean Ebenstein, to house its administrative offices.

From bureaucrats to advocates, disability generalists to specialists, hundreds of thousands of New Yorkers are employed in a fragmented system of federal, state and locally funded organizations, both public and private, that provide services and other resources for people with disabilities. However, we cannot ignore caveats about jobs and salaries in both areas. For Direct Support Professionals, many of whom have no degree, the starting salaries are in the mid-twenties, and at this time it is not clear that the attainment of an associate degree makes much difference in either salary or career advancement. Establishing this program would, however, make an important statement about professionalization of the role and open the door to further education for the thousands of people who choose to go into the field.

During the course of research on this project, several leaders in public and urban health told us that the major challenges faced by New York in coming decades are the aging of the population and the management of chronic diseases. In addition, although much progress has been made in reducing health disparities in the City, substantial inequalities remain among New Yorkers in different neighborhoods and in different economic and racial and ethnic groups. One strategy that has proved effective in addressing these concerns is the enlistment of community health workers. These are non-physician, non-nursing providers who are functionally trained for work in the field. Though their actual titles may vary, in general they are people who can relate both to the

community and to the health and social service providers. They help to educate health providers about the cultural norms of communities, disseminate health information to communities, and follow up with patients concerning the correct use of medications and other aspects of chronic disease management. They can reduce preventable health visits and help to keep clients out of nursing homes and hospital emergency departments. Defining a wider role for the Community Health Worker could produce a wide range of benefits for New Yorkers including reduced costs, increased access to quality care, and improved quality of life.

Here too, CUNY is well-positioned to take the lead. The University is about to launch its new Graduate School of Public Health. This would be a good time to reach out to senior colleges in the system and explore possible partnerships with programs that address public health, environmental health, gerontology and health promotion and education. Such partnerships would provide relevant work for students who stop after the associate degree or need to work while studying for the baccalaureate degree.

Both programs are multidisciplinary, bringing in material from history, anthropology, medicine, literature, sociology, biology, psychology, economics, philosophy, and political science.

Urban Education

The primary intent of this program of study will be to prepare students for transfer into a baccalaureate program. Students interested in becoming certified teachers will be expected to complete the introductory coursework needed for successful entry into a joint baccalaureate program that would lead to initial certification as a teacher in New York State. This program would provide students with a substantial introduction to the wide range of factors that shape education in the urban centers of the United States—with a decided emphasis on the specific ways in which those factors shape education in the City of New York. Education will be understood as encompassing traditional schooling at all levels, from early childhood through postsecondary and non-traditional education as provided by labor, community and cultural organizations and institutions. The program will emphasize the development of knowledge and skill through intensive content area

study in college courses and through extensive fieldwork experiences in schools and other educational settings.

Urban Studies

Urban Studies is a variation on the traditional liberal arts degree and requires core curriculum across the humanities, social sciences, sciences and the arts. The program would emphasize intensive examination of New York City realities and issues, including: health care, education, economic development, city planning, housing and neighborhood development, labor relations, transportation, the environment, politics, governance and public administration. By enabling students to think about cities in an informed and integrated way, this major will prepare them to explore and understand many of the central issues of U.S. society today and to make connections between urbanization and issues of race, ethnicity, gender and class.

An associate degree program in urban studies prepares students for transfer into a baccalaureate program with a major in urban studies or a related field, (such as Human Services, American Studies, Public Policy). Careers in the urban professions cover a wide range in both the public and private sectors, and baccalaureate degrees provide the foundation for careers in business, law or journalism.

The Rationale: This is the first time in history that the majority of people are living in cities, and of course New York with its expanding population of eight million people in the five boroughs and almost 20 million in the greater metropolitan area is a notable example of this trend. An urban university has a unique opportunity and responsibility to educate professionals who can understand and develop innovative approaches to critical urban issues. CUNY is fortunate to be able to use New York City as a laboratory for teaching about urban development, the institutions of urban life, including the schools, urban cultural dynamics and the social and environmental consequences of urbanization.

Teachers in urban schools work with students who have a variety of needs and who come from many different backgrounds. The Urban Education program will help those future teachers deal with the special challenges and opportunities of urban teaching. Through coursework from a range of disciplines students will examine socialization, as

well as different ethnic cultures. The program will work in partnership with urban communities and urban schools to enable students to conduct community-based research and develop the teaching skills needed in a complex and diverse urban school environments. When they step into the classroom they will have a repertoire of innovative teaching strategies, as well as the skills and attitudes necessary to effect positive change in urban school settings.

Urban Studies itself is the quintessential interdisciplinary program—disciplines such history, political science, sociology, anthropology, economics, literature, criminal justice, psychology, environmental science, and mathematics can all be brought to bear on the examination of urban issues and problems. Urban studies majors use the tools and research skills of these disciplines to study city life, government and services.

Both Urban Education and Urban Studies will attract students interested in social change, people who want a meaningful career in public and community service. They complement each other, as well as other new community college programs that address health care, business, and the environment. Both can help students develop a framework for thinking about issues of social justice, environmental sustainability, housing, transit, access to health care and other issues that affect hundreds of thousands of people.

While these students would need baccalaureate degrees, an incentive would be the ubiquitous demand in the urban professions. In recent years, the New York City Department of Education has employed between 7,000 and 8,000 new teachers annually. Other urban professionals work in planning, designing, managing and operating public services—in transit, disaster preparation, zoning, recreational facilities, social services, city governance to mention just a few.

VI. Office of Partnerships

Recent articles have expressed concern that the U.S. economy is facing a shortage of "middle-skilled workers," workers for jobs that require training past high school, but not a four-year degree. Community colleges can play an important role in developing this portion of the workforce, although much will depend on their ability to work with employers to develop curriculum and provide opportunities for students to have hands-on training and the incentive of a job if all goes well. In this context, community colleges must persuade employers that the college not only teaches technical skills but also provides a rigorous academic program that will enable graduates to understand the industry, adapt to new circumstances and keep on learning. In short, an employer must be convinced that a community college education, be it technical or in preparation for transfer, and the kind of liberal arts instruction that develops the critical thinking, problem-solving and communication skills that employers seek, are not mutually exclusive. This is the job of the Office of Partnerships, a critical component of the new community college.

There are several different kinds of partnerships that will have to be attended to. Internal (system) partnerships to develop articulation agreements will be largely the province of the faculty and the programs. The administration will take the lead in creating partnerships with organizations that have expertise and experience in developing innovative programs in community colleges or helping students transition from jobs to work, such as the Community College Research Center at Columbia, or Jobs for the Future. The focus of the Partnership Office, working with the faculty, staff and administration, will be on developing and sustaining relationships with industry, employers, community organizations and government agencies for purposes of curriculum planning and developing internship and employment opportunities. These relationships will come about only if they advantage all parties. Currently, many community colleges provide excellent workforce development programs—the college receives funding from an employer, or an industry, or a government agency to train incumbent workers who need to update their skills or learn new skills. But we believe the partnership paradigm goes further.

Community colleges, for example, face constant pressure to provide innovative curriculum to their students, especially in areas—often technology driven—that change quickly. Indeed, one criticism of college career programs is that faculty are often out of the workplace too long. Working with industry, and other potential employers can create linkages to employment that will resolve this problem. It also creates an awareness of the kinds of programs a college should offer, and the challenges that come with efforts at innovation. We were well aware of this as we researched possible fields of study and majors.

In the partnership paradigm the employer, or industry, or organization, works with the community college faculty to develop curriculum. They also provide hands-on training for students in relevant college programs. This facilitates the new community college's emphasis on the integration of work-based and classroom learning and gives students a leg up in future job searches, perhaps with the very company or agency in which they trained. And it can ensure the company a steady source of skilled workers.

In this exploratory phase we have begun already to tap into some employment/industry networks, and have learned more about what it will take to fully exploit this critical component. We envision a large and well-staffed Partnerships Office with specialists in different sectors of employment, who will develop in-depth knowledge of an industry and the employers in that industry. They will be thoroughly familiar with industry certifications and, for students expecting to transfer, with requirements in different curriculum areas and at various receiving colleges. These sector specialists will help to educate employers in their sector on the potential benefits for themselves and their communities of thinking in a more strategic way about how they invest in the education or training of future employees. They will develop and maintain relationships with these employers, their industries and others that could offer students internships and future employment.

In these efforts, Partnerships Office staff will work closely with faculty and other college staff, keeping them abreast, for example, of articulation requirements and internship and employment opportunities. Faculty will play the larger role in curriculum development and articulation considerations, and in many cases it may be faculty who identify a potential partner. Faculty who are recruited for the new community college

should be committed, by contract or obligation, to help develop and sustain relationships that facilitate work-based learning and student internships and employment. It seems likely that faculty who have nurtured a relationship will want to play a large role in sustaining it as well; the Partnerships Office will provide all necessary support and will attend to the nuts and bolts of the affiliation.

The Partnerships Office will develop a Web site to be used by students, faculty, staff and potential partners, will convene regular focus groups to explore industry and employer needs, and will plan regular meetings with employers in various sectors to discuss curriculum and to keep up-to-date on industry certifications and licensure requirements.

Internships are important aspects of partnerships and will be cultivated assiduously. They link academic learning with the world of work and can be tailored to the needs and interests of the student and employer. They provide meaningful transitions to the world of work, and for the student can be an important résumé builder.

Although businesses are not required to hire their interns, many do. They see an advantage in hiring employees who know their culture and whose personal characteristics and skills are known to them. The National Association of Colleges and Employers (NACE) reports that "For the third straight year, employers rated their internship programs as the most effective recruiting method they use for hiring new college graduates." They rated them more effective than on-campus recruiting, job fairs, Web site job postings and newspapers. "Employers responding to NACE's *2007 Recruiting Benchmarks Survey* reported that they offered full-time jobs to nearly two out of three of their interns. More than 70 percent of those offers were accepted; nearly half of the interns came on board as full-time hires. Overall, employers reported that nearly 31 percent of all their new college graduate hires from the Class of 2006 came from their own internship program." (www.naceweb.org)

The Partnerships Office will find internships, develop internships, work with the students to set them up, and, with supervising faculty and staff, ensure that they are successful. Many large companies (Siemens, DMJM Harris) and government agencies (the NYC Department of Health) offer internships; the Partnerships Office will need to be

aware of local opportunities and explore those that may be open to community college students.

The Partnerships Office will also seek funding opportunities for community college internships. A recent news release, for example, from the New York State Department of Labor announced a $200,000 award to Columbia-Greene Community College as part of a collaborative effort among the education, economic development and business communities and the workforce system. The Partnerships Office will prepare marketing literature to encourage potential partners to participate in internship programs. A sample brochure from Bunker Hill Community College, in Boston (www.bhcc.mass.edu), suggests that local employers join their internship network and offers to help employers design an internship program for their organization. Another, from Frederick Community College, in Maryland (www.frederick.edu), suggests that members of the business community build a partnership with Frederick Community College's career programs that educate their current and prospective employees, and that they help Frederick Community College improve courses and degree programs with their feedback. Marketing literature describes the roles of the various partners (including FAQs) and discusses considerations for successful internships (meaningful assignments, measureable objectives, and appropriate supervision).

In every aspect of its work, the Partnerships Office must bring clarity to all parties. In particular, potential employers need clarity about what is expected from their participation in the community college program and they need support for their participation. The Partnerships Office is the intermediary that provides that clarity and support. There are those who say that a cultural gap exists between the world of schools and the world of business—that too many faculty have spent too many years out of the workplace and that despite their best intentions, the workplace is changing too rapidly for them to keep up. Employers do not have time to develop the activities that produce meaningful results from internships and work-based learning, and schools may not have the knowledge to define which activities must be developed. The job of the Office of Partnerships is to help close that gap.

VII. Accountability

A whole college model of responsibility requires a whole college approach to accountability, so we propose to locate accountability and institutional research in a Center for College Effectiveness that will continually disseminate information derived from data analyses to faculty, students, staff and administrators as well as college and university officials.

Many of the respondents to the online survey (see Appendix B: Question 10 on accountability) offered ideas on the characteristics and elements of an accountability system that we strongly endorse, including the need for: 1) well-defined goals; 2) a transparent, collaborative process by faculty and staff to develop and present clear performance measures and to communicate the goals, measures and results effectively and honestly; 3) continual feedback by faculty, staff and students on the means of assessment and the achievement of goals; and 4) a flexibility that promotes timely, rapid decision-making.

Goals

We understand that any evaluation of the new college will take place within the framework of the Chancellor's Performance Management Process. The defining goal of the college will be the graduation of students with an associate degree who are prepared for work in a field of their choice and/or for success in a baccalaureate program. We propose an initial target of 30 percent graduation and readiness for next steps, within three years, for all students—commencing with the first entering class. Our four-year target will be 35 percent, and our fifth year target 40 percent. Our initial goal for the CUNY Proficiency Exam (CPE) pass rate is 90 percent (the percentage of required test-takers passing the exam)—increasing to 92 percent by the fifth year. Our target pass rate for all graduates required to take a licensure or certification exam is 90 percent, with 75 percent of the college's graduates employed or enrolled in further postsecondary education within one year of graduation. We believe these are realistic yet ambitious goals that can be realized only if the whole college is mobilized to achieve them.

Data

In addition to acquiring customary pre-college educational student records, whether from high school or GED programs, we will also document baseline attitudes and intentions through the admissions interview and survey process. We will manage a variety of data collection and analysis on student demographic, attendance, course enrollment and outcomes data, and student engagement. We will carefully monitor the effectiveness of college services and students' on-track academic progress towards degree through analysis of credits attempted and earned, GPA, persistence, degree attainment and other performance measures based on regular online student pre- and post-graduation surveys. Particular attention will be paid to post-graduation outcomes and their relationship to program effectiveness and goals by reporting on transfer to baccalaureate programs and baccalaureate enrollments by program of study, baccalaureate degree attainment rates, initial job placements by program of study, and online surveys of graduates and employers on alumni readiness, achievement and performance.

In addition to faculty evaluations and employee performance reviews, staff effectiveness will also be assessed in terms of the attainment of key student and institutional outcomes, and their quality of work satisfaction will be monitored through ongoing consultative processes and anonymous surveys.

A System of Shared Accountability

During the implementation phase, the new college will set and meet appropriate enrollment targets. The system of accountability will carefully monitor and assess efforts at outreach and recruitment, especially during the start-up years. While, as described elsewhere, the new college will be an open admissions institution, its admissions process will require extensive outreach to ensure that adequate number of potential students become aware of the college's distinctive program and choose accordingly.

The college must seek accreditation by the Middle States Commission on Higher Education, and therefore we recommend that a Standing Committee on Accountability and Self-Study be established at its inception to oversee the ongoing review of all aspects of the college's operations and effectiveness—specifically including all of the above-

mentioned data indicators and targets of the Chancellor's Performance Management Process. The college's ability to ensure smooth post-graduation articulation into baccalaureate programs will also require that it have well-defined articulation agreements with receiving colleges. This committee will be charged with developing a comprehensive accountability model including the annual review of programs and majors, academic and student support services, articulation, accreditation, faculty and staff performance, and budgetary expenditures and resource management. We suggest that developing this model should be the work of the initial faculty and staff selected prior to the opening of the college.

A radically innovative educational restructuring requires a thoughtfully designed and carefully implemented multilevel and multifaceted accountability plan, with a variety of data appropriate to sophisticated assessments of student learning and development, faculty teaching and curricula, and the paramount institutional goal—the timely attainment of degrees. Ultimately, data will be used right from the start in ongoing formative assessment to help build a community of teachers and learners who are increasingly able to examine and understand the efficacy of their own work, how to improve it, and how to share their insights with peers.

VIII. Technology

The problem with technology in higher education today is that it is seen as an alternative way of delivering the same old goods: classroom instruction is supplanted by online instruction; online research replaces library research; students get online tutorials instead of a tutoring center. In the new community college, technology will not be a replacement mechanism, but an extension and enhancement of what we know is most important: access, feedback, interaction, connection. Technology will not replace contact with faculty, student peers, advisors; it will extend it. It will not take the place of socializing and extracurricular activity but will give it new outlets. It will not substitute for classroom instruction but augment it. And the goal will never be to make more work for the students or faculty but to make their work together more efficient and effective.

There are five principles informing the use of technology in the new community college: 1) extended access; 2) individualized instruction; 3) collaborative learning; 4) community; and 5) cross-curricular connection.

Extended Access. By virtue of a course management system like Blackboard, every course will have a course site, as well as a classroom, that will contain the course's readings, assignments, lectures, and discussions. Students will never be without access to course content. They will not have to wait till the next class meeting to ask a question. Material they might want to review will be available at the push of a button, regardless of time or place. They can contribute to class discussions even when class is not in session.

Individualized Instruction. An online discussion differs from a classroom discussion in that everyone contributes. If one is used to supplement the other, the instructor no long has to wonder who is "getting it." That will be immediately apparent from the students' participation in the online site, and the instructor can intervene at the point of need. Each student can be expected to articulate and apply what is being learned, and to an extent that the time constraints of the classroom could never allow. This will let instructors see how successfully each student is learning while building skills like problem-solving, critical thinking, and effective communication.

Collaborative Learning. Important as individualized instruction is, the real leaps in learning happen through broader interaction, as students model effective performance for each other and extend each other's knowledge base. A project done with three or four peers is worth three or four times the learning experience of a project done alone. The Group Workspace course in the first-year program builds group interaction into the educational model. The course site for every course will provide additional synchronous and asynchronous communication tools for college study.

Community. Such tools can ensure the student is always connected to the school as a community, a source of support and social connection. College students are "digital natives," members of a generation always online, given to interacting with others in social networks like MySpace and Facebook. Students in the new community college will be linked not just to course sites but to a campus social network that will let them build relationships according to their interests. They will be able to engage in extracurricular activities through the same network that provides them the means to access advisement, form or join learning communities, monitor their academic progress, and generally reach out to peers, tutors and faculty for academic support.

Cross-curricular connection. There is another kind of connectedness technology can provide—a cross-curricular (and not just extracurricular) kind of connection, a sense that the student's academic career is cumulative and coherent. Traditional instruction can seem egregiously compartmentalized. Courses are often experienced as unconnected and unrelated. But tools like eportfolios, which allow students to select, present, and reflect on their coursework, establish connections across courses (e.g. students can see and show how their writing or research skills have improved over time). The eportfolio gives them a developing, longitudinal sense of the interrelation of what they have learned and accomplished.

We have been considering the impact on students, but these same principles—of access, individualized instruction, collaborative learning, community-building, cross-curricular connection—obtain for the faculty. The same sense of networked connection

and support is there for them. Technology makes effective pedagogy more visible (a glance at a course site can convey more about the resources and thoughts informing a course than hours of classroom observation), so the very tools that faculty use can become resources for professional development and mutual support. Best practices become things they can see and share (even send electronically), not just hear about in workshops and at conferences. Like the students, the faculty will have their own eportfolios—growing archives of pedagogical capital they themselves have created—to draw on, share, and showcase.

The faculty will be expected to be as familiar as their students are with the uses of technology outlined here. These require, most basically, the proficiencies that justify faculty status: superlative interpersonal communication, the ability to manage information, the capacity to establish connections. What faculty need to build on these proficiencies is professional development about pedagogical practices and standards, the work it takes to get on the same page about critical issues. Here, too, the technology should be used as a means, with the same sites and networks faculty will inhabit with their students being used to build consensus about uses and expectations. Because technology is not a foreign element either in the academic context or the larger culture, because its uses are woven into the fabric of interaction in our time, the need for training is superseded by a culture of use.

Technology can mean expensive gimmickry and faddish applications. It should be clear from what has been said that this is emphatically not the vision, and so there should be no unusual demands made on infrastructure, networks, or users. Wireless networks now have more bandwidth than expensive in-the-wall cabling done a few years ago. Increasingly, we are moving to software-as-a-service, so the hardware used is not a place to store applications but a transmitting and receiving device; in fact, the personal computer is approximating the condition of the mobile phone, both in growing range of functionality and dropping cost. A laptop leasing program for students and faculty would ensure a level of compatibility beyond what could be had were everyone left to their own devices, but short of that laptops and ubiquitous access through wireless networks will suffice, providing access includes a course management system, a social network, and additional online tools like wikis, blogs, and podcasts. Investments in expensive window-

dressing (media walls, high-end "smart classroom" equipment and the like) should be neither necessary nor desirable.

Technology can offer alternative ways of doing what has always been done. But it is so much better as way of taking what we know works—collaborative, constructive, active learning; feedback and individualized attention; open access and ongoing support; building community and a culture of evidence—and making these strengths that much stronger.

IX. Facilities

For the purposes of facilities planning, we assumed the University was committed to providing the new community college with state-of-the-art facilities, utilizing the most current technologies, designed specifically to support the delivery of academic programs and student services for up to 3,000 full-time students. Current design trends and best practices will be used to create a welcoming, flexible and efficient building that will foster the collaborative and innovative environment we envision. Attracting and retaining students will be the creative and critical focus of its design. Additionally, the new facility will be designed to U.S. Green Building Council's Leadership in Energy and Environment Design (LEED) silver certification, as are all new CUNY buildings in line with PlaNYC 2030, the blueprint for making New York City more sustainable by 2030. Furthermore, the new community college will not only benefit from operating efficiencies and environmentally friendly practices, but also these building elements will be used to educate students about environmental issues and illustrate current technologies.

The instructional space in the facility will be designed for the college's academic programs. In general, colleges and universities have moved away from classrooms with tablet armchairs and towards more flexible layouts with tables and chairs. Therefore, all of the classrooms in the new facility will have tables and chairs that can be easily moved for entire class discussions and small group work. The laboratories provided will be designed for particular programs of instruction and will include computer labs with simulation and other discipline-specific software that can be utilized by multiple academic areas.

Office space in the new building will be clustered to foster interdisciplinary collaborations among the academic areas. Additionally, academic and administrative offices will be positioned to integrate faculty and administrative colleagues in the close partnerships the new community college means to foster.

CUNY has learned quite a bit in recent years about one-stop student service centers. Successful one-stop centers exist at Hunter College and LaGuardia Community College and are planned in John Jay College's new building and Brooklyn College's

West Quad building, both of which are currently in construction. By cross training staff to address frequently faced issues relating to registration, bursar, financial aid and advisement, they can better serve students who will be less frustrated by the administrative requirements of attending college. These centers are designed with counters where students can quickly get answers to common questions or be directed to surrounding areas or offices, if an individual issue needs to be resolved by staff more fully trained in a specific area. A one-stop student service center will be centrally located, highly visible, and well thought out to support the college's enrollment and retention goals.

The teaching and learning commons will function as a "hub" where students can study individually or in small groups, meet with faculty during office hours, meet with staff when needed, but it also will serve as a space where the college's faculty and staff spend time learning and working. *We believe this commons/hub should be the architectural element that sets the tone for the entire facility*. Even more so than the one-stop student service center, it will be centrally located and highly visible. We envision it as a transparent element that will be experienced immediately upon entering the building—a space humming with activity, drawing students, faculty and staff to participate in the collaborative learning endeavors taking place at the college. All other areas of the college will "spoke" off this hub with clear signage and other architectural elements to direct students, faculty, staff and visitors through the building.

The North Hall Building, located at Tenth Avenue and Fifty-Ninth Street in Manhattan and currently in use by John Jay College, has been identified as the site for the new community college. It be emptied in 2011 when John Jay College occupies the new 620,000 gross square foot (gsf) building currently in construction between Tenth and Eleventh Avenues along West Fifty-Eight and Fifty-Ninth Streets. This prime location in Manhattan is an ideal place for the new community college. It is two blocks west of Columbus Circle, at the conjunction of the A, B, C, D and 1 subway lines, and two blocks north of Fifty-Seventh Street—a major east/west artery in Manhattan.

Initial analysis indicates that just over 1,000,000 gsf can be built on the site when community use bonuses and/or inclusionary housing are part of the components that make up the new construction. The location and volume of allowable space make this

site a prime candidate for a public/private partnership, which will provide the necessary capital funding for the facility. Initial analysis indicates that approximately 300,000 gsf can be constructed at no cost to the University, if the remaining 700,000+ gsf is sold or land-leased to a private developer for a highest and best-use function (most likely residential units.) This 70/30 split is based upon the anticipated funding required to construct CUNY's new facility at no cost. If the new community college were to need additional square footage, the cost-neutral construction would no longer be possible, in which case private fundraising and/or New York State and New York City capital appropriations would be required.

Further refinement of the academic offerings will provide the necessary detail to design the layout and properly estimate the cost of the 300,000 gsf for the new community college; additional market analysis to garner the best public/private partnership will occur slightly in advance of the North Hall site's availability for reuse. In the meanwhile, we should focus on the facilities needs of the new community college as the academic and administrative elements evolve.

X. Conclusion

One respondent to the final open-ended question of the online survey wrote: "It is a wonderful opportunity. It is best to make the most of it; when in doubt, why not err on the side of venturesome, the different, even the radical?" In all honesty, we did not set out to "err on the side of venturesome," and we are not sure, although what we recommend is very different, that what we propose is venturesome. The recommendations we make throughout the paper are, to a large extent, the result of years of thinking derived from daily practice—we are, after all, teachers, staff developers, program managers, and administrators.

Community colleges seem to be the place where some of the most urgent educational questions converge, and where the hope to do as much as possible for millions of unevenly prepared students ends up pulling these colleges in too many directions. When one decision is made—to integrate academic and occupation subjects, or to restructure remediation—surely we leave out other interesting, promising possibilities. We have tried hard to make the best possible choices and have focused our recommendations on making essential changes to community college structures and practices. We believe that the model we have proposed provides a coherent approach to significantly improving graduation rates and we believe that it can work.

Finally, we want to be clear about student interest in the proposed program. Our experience with New York City high school and out-of-school youth and adults consistently reinforces our sense that, given the right set of circumstances, the majority of them wants to and will succeed. We are not unrealistic about whether students will come to a new college like the one proposed—one that requires more of their time. So much of what we hear in our work is about what students won't do: they won't enroll full-time in a GED program (although at CUNY Prep they do *and* stay on a waiting list until they have a chance to enroll); they won't do extra work before the high school day (although thousands of College Now students enroll in college credit classes before their school day, some as early as 6:45am), and they won't enroll in required summer bridge programs (although students in the ASAP[22] program who were required to attend a

[22] http://web.cuny.edu/academics/academic-programs/programs-of-note/asap.html

summer program did so). Our students' lives are complicated and full of demands, but they want a college degree.

What we propose will not be easy, but that is no reason to keep from doing it. There is consensus about the need to do much, much better; we hope these ideas contribute to that effort.

XI. References

Adelman, C. (2006). *The toolbox revisited: paths to degree completion from high school through college.* Washington, D.C.: U.S. Department of Education.

Advanced Technology Environmental and Energy Center. (2008). *Defining energy technologies & services.* Retrieved July 8, 2008, from http://www.ateec.org/.

Akst, G., Crook, D., Moreno, V., Littman, C., & Grima, A. (2006, February). Performance in selected Mathematics courses at the City University of New York: Implications for retention. CUNY Office of Institutional Research & Assessment.

Alfred, R. L. (2008). Governance in strategic context. *New Directions for Community Colleges, 141 (Spring),* 79-89.

Allen, L., & Kazis, R. *Building a culture of evidence in community colleges: Lessons from exemplary institutions.* Retrieved on July 2, 2008, from Jobs for the Future Web site: http://www.jff.org/Knowledge Center.php.

Allensworth, E., Correa, M., & Ponisciak, S. (2008). *From high school to the future: ACT preparation--Too much, too late*. Consortium on Chicago School Research (CCSR). Retrieved on July 2, 2008, from University of Chicago, CCSR Web site: http://ccsr.uchicago.edu/content/publications.php?pub_id=122.

American Association of University Professors. (1966). *Statement on government of colleges and universities.* Washington, DC: AAUP.

Amey, M. J., Jessup-Anger, E. & Jessup-Anger, J. (2008). Community college governance: What matters and why? *New Directions for Community Colleges, 141 (Spring),* 5-14 .

Bailey, T. R., Hughes, K. L., & Karp, M. M. (2002, March). *What Role Can Dual Enrollment Programs Play In Easing the Transition Between High School and Postsecondary Education?* Teachers College, Columbia University: Community College Research Center.

Bailey, T. & Karp, M. (2003). *Promoting college access and success: a review of credit-based transition programs.* Washington, D.C.: U.S. Department of Education, Office of Adult and Vocational Education.

Bailey, T., & Alfonso, M. (2005). Paths to persistence: An analysis of research on program effectiveness at community colleges. New Agenda Series, 6(1). *Lumina Foundation for Education.* Retrieved on July 8, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/.

Bailey, T., Jenkins, D., & Leinbach, T. (2006). *Is student success labeled institutional failure? Student goals and graduation rates in the accountability debate at community colleges. CCRC Working Paper No. 1.* Retrieved on July 2, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/.

Bailey, T. & Morest, V.S. (2006). "The Community College Equity Agenda in the Twenty-First Century: Moving from Access to Achievement". In T. Bailey & V. S. Morest(Eds.), *Defending the Community College Agenda* (pp. 246-271). Baltimore: The Johns Hopkins University Press.

Bailey, T. (2007, April 9). A cutting edge formula for student success. *Community College Week.*

Bailey, T. (2008). Rethinking the distinction between developmental and "college-ready" students in the community college. Teachers College, Columbia University. Community College Research Center & the National Center fro Postsecondary Research.

Baker, D.B., Clay, J.N. & Gratama, C.A. (2005). *The essence of college readiness: Implications for students, parents, schools, and researchers.* The BERC Group. Retrieved on July 2, 2008, from http://www.bercgroup.com/publications.php.

Bashford, J., & Slater, D. (2008). *Assessing and improving student outcomes: What we are learning at Miami Dade College.* Achieving the Dream: Community Colleges Count. Retrieved on July 2, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/Collection.asp?cid=15

Bean, J.P., & Eaton, S.B. (2000). A psychological model of college student retention. In J.M. Braxton (Ed.), *Reworking the Student Departure Puzzle* (pp. 48-61). Nashville, TN: Vanderbilt UP.

Bean, J. C. (2001). *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom.* San Francisco: Jossey-Bass.

Bereiter, C., & Scardamalia, M. (1993). S*urpassing ourselves: An inquiry into the nature and implications of expertise*. La Salle, IL: Open Court.

Bloom, D. & Sommo, C. (2005). "Building Learning Communities: Early Results from the Opening Doors Demonstration at Kingsborough Community College." Retrieved on July 8, 2008 from http://www.mdrc.org/publications/410/full.pdf.

Bloomberg, M.R. (2007). *PlaNYC: A Greener, Greater New York*. Retrieved on August 15, 2008, from Office of the Mayor, City of New York Web site: http://www.nyc.gov.

Braxton, J.M., Hirschy, A.S., & McClendon, S.A. (2004). Understanding and reducing college student departure. *ASHE-ERIC Higher Education Report 30(3)*, pp. 1-51.

Bureau of Labor Statistics. (2008). *Career Guide to Industries (CGI), 2008-09 Edition*. Retrieved on August 15, 2008, from U.S. Department of Labor Web site: http://www.bls.gov/oco/cg/.

Cabrillo College. (2008). *Digital bridge academy.* Retrieved on July 8, 2008, from http://www.cabrillo.edu/academics/wdba/.

Calcagno, J.C., & Long, B.T. (2008). *The impact of postsecondary remediation using a regression discontinuity approach: Addressing endogenous sorting and noncompliance (An NCPR Working Paper).* Retrieved on July 2, 2008, from Teachers College, Columbia University. National Center for Postsecondary Research Web site: http://www.postsecondaryresearch.org/.

Carnegie Foundation for the Advancement of Teaching. (2008). *Faculty learning about learning: Reclaiming faculty development.* Retrieved July 8, 2008, from http://www.carnegiefoundation.org/index.asp.

Carnegie Foundation for the Advancement of Teaching. (2008). *Strengthening pre-collegiate education in community colleges.* Retrieved July 8, 2008, from http://www.carnegiefoundation.org/index.asp.

Center for Student Success. (2007). *Basic skills as a foundation for student success in California community colleges.* Research and Planning Group for California Community Colleges. Retrieved on July 8, 2008, from http://www.cccbsi.org/publications.

Clarke, B.R. (1960). The "cooling-out" function in higher education. *The American Journal of Sociology* 65(6), 569-576.

Collins, A. et al. (1987). Cognitive apprenticeship: Teaching the craft of reading, writing and mathematics. *Technical Report No. 403*. Cambridge: BBN Laboratories.

Community College Survey of Student Engagement. (2007). *Starting right: A first look at entering students.* Retrieved on July 8, 2008, from http://www.ccsse.org/sense/SENSE_report07-FINAL.pdf

Community College Survey of Student Engagement. (2007). *Committing to student engagement: Reflections on CCSSE's first five years.* Retrieved July 8, 2008, from http://www.ccsse.org/publications/2007NatlRpt-final.pdf.

Conley, D. T. (2005). *College knowledge: What it really takes for students to succeed and what we can do to get them ready.* San Francisco: Jossey-Bass.

Conley, D. T. (2007). *The challenge of college readiness.* Educational Policy & Improvement Center. Retrieved on July 2, 2008, from https://www.epiconline.org/publications/college_readiness.

Conley, D. T. (2007). *Toward a more comprehensive conception of college readiness.* Educational Policy & Improvement Center. Retrieved on July 2, 2008, from https://www.epiconline.org/publications/college_readiness.

Conley, D.T. (2007). "Challenges in the transition from high school to college." In N. Hoffman, J. Vargas, A. Venezia, & M. S. Miller (Eds.), *Minding the Gap* (pp. 93-104). Cambridge, MA: Harvard Education Press.

ConnectEd. (2007, February 21). *Connecting college and career: A high school exhibition and hands-on classroom experience.* The California Center for College & Career. Retrieved July 8, 2008, from http://www.connectedcalifornia.org/archive.php.

ConnectEd. (2008). *Expanding pathways: Transforming high school education in California.* The California Center for College & Career. Retrieved July 8, 2008, from http://www.connectedcalifornia.org/publications.php.

CUNY Office of Undergraduate Education. (2005, November). *Report of the task force on reading and writing.*

Deil-Amen, R., & Rosenbaum, J. E. (2002, July). The unintended consequences of stigma-free remediation. *Sociology of Education, 75*(3), 249-268.

Deil-Amen, R. (2006). To teach or not to teach "social" skills: Comparing community colleges and private occupational colleges. *Teachers College Record* 108(3), 397-421. Retrieved on July 8, 2008, from Teachers College Record Web site: http://www.tcrecord.org.

Friedel, J.N. (2008). The effect of the community college workforce development mission on governance. *New Directions for Community Colleges, 141 (Spring), 45-55.*

Gaff, J. G. (2007). What if the faculty really do assume responsibility for the educational program?" *Liberal Education, 93(4),* 6-13. Retrieved on July 2, 2008, from Association of American Colleges & Universities Web site: http://www.aacu.org/liberaleducation/le-fa07/le_fa07_FacultyResponsibility.cfm.

Garfield, T.K. (2008). Governance in a union environment. *New Directions for Community Colleges, 141 (Spring), 25*-33.

Gee, J. P. (2003). *What video games have to teach us about learning and literacy*. New York: Palgrave Macmillan.

Gee, J. P. (2004). Situated *language and learning: A critique of traditional schooling.* New York: Routledge.

Greater New York Health Association. (2006). *Survey of Nurse Staffing in GNYHA Member Hospitals, 2005.* Retrieved on August 15, 2008, from Greater New York Health Association Web site: http://www.gnyha.org/4644/Default.aspx.

Gromer, J., & Hutchinson, A. (2006, September). 10 radically innovative college programs. *Popular Mechanics* Retrieved on July 8, 2008, from http://www.popularmechanics.com/science/research/3491456.html.

Grubb, W. N., et al. (1999). *Honored but invisible: An inside look at teaching in community colleges*. New York: Routledge.

Grubb, W.N. (2006). "Like, what do I do now? The dilemmas of guidance counseling." In T. Bailey, & V.S. Morest (Eds.), *Defending the Community College Equity Agenda* (chap. 8). Baltimore, MD: The Johns Hopkins UP.

Grubb, W. N., & Oakes, J. (2007). *"Restoring value" to the high school diploma: The rhetoric and practice of higher standards.* Retrieved on July 2, 2008 from the University of Colorado at Boulder. Education & the Public Interest Center Web site: http://epicpolicy.org/publications.

Harvard Business School. (2008). *The Case Method.* Retrieved on July 2, 2008, from http://www.hbs.edu/case/.

Hilliard, T. (2007). *Working to learn, learning to work: Unlocking the potential of NewYork's adult college students.* Schulyer Center for Analysis & Advocacy and Center for an Urban Future (CUF). Retrieved on July 2, 2008, from CUF Web site: http://www.nycfuture.org/content/articles/article_view.cfm?article_type=0.

Hoffman, N., Vargas, J., & Santos, J. (2008). *On ramp to college: A state policymaker's guide to dual enrollment.* Retrieved on July 2, 2008, from Jobs for the Future Web site: http://www.jff.org/Knowledge Center.php.

Hoffman, N., Vargas, J., Venezia, A., & Miller, M. (Eds.). (2008). *Minding the gap: Why integrating high school with college makes sense and how to do it.* Cambridge, MA: Harvard Education P.

Institute of Medicine of the National Academies. (2007). *The Future of Disability in America*. Retrieved on August 15, 2008, from Institute of Medicine Web site: http://www.iom.edu/?id=42497.

Jackson, J.F.L., & Kile, K.S. (2004). Does a nexus exist between the work of administrators and student outcomes in higher education? *Innovative Higher Education 28(4)*, 285-301.

Jenkins, D. (2008). *A short guide to "tipping point" analyses of community college student labor market outcomes (CCRC Research Tools No. 3).* Retrieved on July 2, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/Publication.asp?uid=600.

Jerald, C. D. (2006). *Identifying Potential Dropouts: Key Lessons for Building an Early Warning Data System*, Achieve, Inc. American Diploma Project Network & Jobs for the Future Report. Retrieved on July 2, 2008, from Jobs for the Future Web site: http://www.jff.org/Knowledge Center.php.

Karp, M.M., Calcagno, J.C., Hughes, K.L., Jeong, D.W., & Bailey, T.R. (2007). *The postsecondary achievement of participants in dual enrollment: An analysis of student outcomes in two states.* A National Research Center for Career & Technical Education Report. Retrieved on July 2, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/.

Karp, M. M., Hughes, K.L., & O'Gara, L. (2008). *An Exploration of Tinto's Integration Framework for Community College Students. Working Paper No. 12*. Retrieved on August 15, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/.

Karp, M. M., O'Gara, L., & Hughes, K. L. (2008). *Do Support Services at Community Colleges Encourage Success or Reproduce Disadvantage?: An Exploratory Study of Students in Two Community Colleges. CCRC Working Paper No. 10.* Retrieved on July 2, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/.

Kirst, M.W., & Venezia, A. (Eds.). (2004). *From high school to college: Improving opportunities for success in postsecondary education.* San Francisco: Jossey-Bass.

Kuh, G.D., Kinzie, J., Buckley, J.A., Bridges, B.K, & Hayek, J.C. (2007). Piecing together the student success puzzle: Research, propositions, and recommendations. *ASHE Higher Education Report 32(5)*, pp. 21-26.

Lerner, J.B., & Brand, B. (2006). *The college ladder: Linking secondary & postsecondary education for success for all students.* Washington, D.C.: American Youth Policy Forum.

Louis Berger Group, Inc. (2008, March). *Analysis of Job Creation in PlaNYC Final Report*. Retrieved July 2, 2008, from http://envirovaluation.org/index.php/2008/05/20/analysis_of_job_creation_in_planyc.

Lieberman, D. (2005). Beyond faculty development: How centers for teaching and learning can be laboratories for learning. *New Directions for Higher Education* 131, 87-98. Retrieved July 8, 2008, from http://www3.interscience.wiley.com/journal/111090308/issue.

Long, B.T. (2008, January). T*he effectiveness of financial aid in improving college enrollment: Lessons for policy.* Retrieved on July 8, 2008, from Harvard Graduate School of Education Web site: http://gseacademic.harvard.edu/~longbr/publications_access.htm.

Long, B.T. (2008, April) *What is known about the impact of financial aid? Implications for Policy. An NCPR Working Paper.* Retrieved on July 8, 2008, from Teachers College, Columbia University, National Center for Postsecondary Research Web site: http://www.postsecondaryresearch.org/.

Lucey, C. A. (2002). Civic engagement, shared governance, and community colleges. Academe 88(4), 27-. http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=7063282&site=ehost-live.

Mathematical Association of America. (1998). *Quantitative literacy: Goals. Quantitative reasoning for college graduates: A complement to the standards.* Retrieved on July 2, 2008, from http://www.maa.org/past/ql/ql_part2.html.

Mazzeo, C., Rab, S., & Alssid, J. (2003). *Building bridges to colleges and careers: Contextualized basic skills programs at community colleges.* Workforce Strategy Center. Retrieved on July 2, 2008, from http://workforcestrategy.org/publications/bysection/all.

Mellow, G. O. (2008) Each and all: Creating a sustainable American higher education system. Robert H. Atwell Lecture. The American Council on Education Annual Meeting, San Diego, CA, February 11. Retrieved July 8, 2008, from LaGuardia Community College Web site: http://www.lagcc.cuny.edu/atwell/.

Miller, M. T. & Miles, J. M. (2008). Internal governance in the community college: Models and quilts." *New Directions for Community Colleges, 141 (Spring),* 35-44.

National Commission on Community Colleges. (2008). *Winning the skills race and strengthening America's middle class: An action agenda for community colleges.* Retrieved on July 2, 2008, from The College Board Web site: http://www.collegeboard.com/.

New York State Education Department. (2007). *Protocol for opening a college in New York State.* Office of College & University Evaluation. Retrieved July 8, 2008, from http://www.highered.nysed.gov/ocue/Protocolforopeningacollege.htm.

O'Gara, L., Karp, M.M., & Hughes, K.L. (2008). *Student success courses in the community college: An exploratory study of student perspectives (CCRC Working Paper No. 11).* Retrieved on July 2, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/.

Pace, D., & Middendorf, J. (Eds.). (2004). Decoding the disciplines: Helping students learn disciplinary ways of thinking. *New Directions for Teaching & Learning 98*. San Francisco: Jossey-Bass.

Perin, D. (2001). Academic-occupational integration as a reform strategy for the community college: Classroom perspectives. *Teachers College Record 103 (2),* 303-335. Retrieved on July 2, 2008, from Teachers College Record Web site: http://www.tcrecord.org.

Perin, D. (2006). Can community colleges protect both access and standards? The problem of remediation. *Teachers College Record* 108(3), 339-373. Retrieved on July 2, 2008, from Teachers College Record Web site: http://www.tcrecord.org.

Person, A.E., Rosenbaum, J.E., & Deil-Amen, R. (2006). Student planning and information problems in different college structures. *Teachers College Record* 108(3), 374-396. Retrieved on July 8, 2008, from Teachers College Record Web site: http://www.tcrecord.org.

Puente Project. (2003). Bridge to a better future: A state-of-the-program report from the Puente Project. Oakland, CA. http://www.puente.net/about/.

Pulley, J. L. (2008, April 8). In need of remediation: The challenge of remediating ill-prepared students continues to confront community colleges. *Community College Week, 20(6)*, 6-12. Retrieved on July 2, 2008, from http://www.ccweek.com.

Pusser, B., Breneman, D.W., Gansneder, B.M., Kohl, K.J., Levin, J.S., Milam, J.H., et al. (2007). *Returning to learning: Adults' success in college is key to America's future*. Lumina Foundation. Retrieved on July 2, 2008, from http://www.luminafoundation.org/publications/.

Ravitch, R., & Brown, H., Co-Chairs. (2007). Engaging, recognizing, and developing the MTA workforce. Blue Ribbon Panel on Workforce Development. Metropolitan Transportation Authority. Retrieved on July 8, 2008, from http://mta.info/.

Redden, E. (2008). Rethinking remedial education. *Inside Higher Education,* January 29. Retrieved on July 2, 2008, from *http://insidehighered.com/news/2008/01/29/california*.

Rhoades, G. (2005). Capitalism, academic style, and shared governance. *Academe* 91(3), 38-42. Retrieved July 8, 2008, from http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=17232390&site=ehost-live.

Richart, V. M. (2004). Cascadia Community College: Finding the "Cascadia way." *New Directions for Higher Education* 125, 51-68. Retrieved July 8, 2008, from http://www3.interscience.wiley.com/journal/107633204/issue.

Roderick, M. (2003). What's happening to the boys? Early high school experiences and school outcomes among African American male adolescents in Chicago. Urban Education 38(5), 538-607. Retrieved on July 2, 2008, from http://uex.sagepub.com/cgi/content/abstract/38/5/538.

Roderick, M., Nagaoka, J., Coca, V., Moeller, E. et al. (2008). *From High School to the Future: Potholes on the Road to College*. Consortium on Chicago School Research (CCSR). Retrieved on July 2, 2008, from University of Chicago, CCSR Web site: http://ccsr.uchicago.edu/content/publications.php?pub_id=122.

Roksa, J., & Calcagno, J.C. (2008). *Making the transition to four-year institutions: Academic preparation and transfer. CCRC Working Paper No. 13.* Retrieved on July 2, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/.

Rosenbaum, J. E., Miller, S. R., & Krei, M. S. (1996, August). Gatekeeping in an era of more open gates: High school counselors' views of their influence on students' college plans. *American Journal of Education, 104*(4), 257-279.

Rosenbaum, J.E., Deil-Amen, R., & Person, A.E. (2006). *After admission: From college access to college success*. New York: Russell Sage Foundation Pubs.

Rosenbaum, J.E., Redline, J., & Stephan, J.L. (2007, June). Community college: The Unfinished Revolution. *Issues in Science & Technology*. National Academy of Sciences. Retrieved on July 2, 2008, from http://www.highbeam.com/Issues+in+Science+and+Technology/publications.aspx?date=200706

Scales, P. C., & Roehlkepartain, E. C. (2003). Boosting student achievement: new research on the power of developmental assets. *Search Institute Insights & Evidence, 1 (1), 1–10*. Retrieved on July 8, 2008, from Search Institute Web site: http://www.search-institute.org/research/insights-evidence.

Schoenbach, R., Greenleaf, C., Cziko, C. & Hurwitz, L. (1999). *Reading for understanding: A guide to improving reading in middle and high school classrooms.* San Francisco: Jossey-Bass.

School of Earth & Environmental Sciences. (2008). Retrieved on August 15, 2008, from Queens College, CUNY Web site: http://qcpages.qc.edu/EES/.

Schwartz, W., & Jenkins, D. (2007). *Promising Practices for Community College Developmental Education*. A Discussion Resource for the Connecticut Community College System. Retrieved on July 2, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/Publication.asp?uid=551.

Scrivener, S., Bloom, D., LeBlanc, A., Paxson, C., Rouse, C.E., & Sommo, C., et al. (2008, March). *A good start: Two-year effects of a freshmen learning community program at Kingsborough Community College.* MDRC. Retrieved July 8, 2008, from http://www.mdrc.org/publications/473/overview.html.

Simplicio, J.S.C. (2008). Shared governance: An analysis of power on the modern university campus from the perspective of an administrator. *Education 126(4)*, 763-768.

Slevin, J.F. (2005). Association of Departments of English Francis Andrew March Award for Distinguished Service to the Profession of English Address to the Modern Language Association Annual Convention, Washington, D.C.

Sternberg, R. J. (2008). Interdisciplinary problem-based learning: An alternative to traditional majors and minors. *Liberal Education, 94(1),* 12-17. Retrieved on July 2, 2008, from Association of American Colleges & Universities Web site: http://www.aacu.org/liberaleducation/le-wi08/le-wi08_inter_prob.cfm

Summerfield, , J. & Benedicks, C. (Eds.). (2007). *Reclaiming the public university: Conversations on general & liberal education.* New York: Peter Lang Publishing.

Tinto, V. (1994). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago Press.

Troyer, D. K. (2005). Designing a learning college for the 21st century. (2002). *Academic Leadership 9(1)*, 22-23.

Upcraft, M.L., Gardner, J.N., & Barefoot, B.O. (2004). *Challenging and supporting the first-year student: A handbook for improving the first year of college.* San Francisco: Jossey-Bass.

Venezia, A., Kirst, M. & Antonio, A. *Betraying the College Dream: How Disconnected K-12 and Postsecondary Education Systems Undermine Student Aspiration.* Final Policy Report from Stanford University's Bridge Project. Retrieved on July 2, 2008, from http://www.stanford.edu/group/bridgeproject/.

Visher, M. G., Wathington, H., Richburg-Hayes, L., & Schneider, E. et al. (2008). *The learning communities demonstration: Rationale, sites, and research design. NCPR Working Paper.* Retrieved on July 2, 2008, from Teachers College, Columbia University. National Center for Postsecondary Research Web site: http://www.postsecondaryresearch.org/.

Walters, E.W. (2003, December 22). Editor's choice: becoming student centered via the one-stop shop initiative: A case study of Onondaga Community College *. *Community College Review 31(3)*, 40-54. Retrieved on July 08, 2008, from The Free Library: http://www.thefreelibrary.com/Editor's choice: becoming student centered via the one-stop shop...-a0114286875

Wolff, S., Troyer, D., & Pang, C.K. (2002). Planning and designing a community college for a lifetime of learning & change. *Educational Facility Planner* 37(3), 5-9.

Zeidenberg, M., Jenkins, D., & Calcagno, J.C. (2007). *Do student success courses actually help community college students succeed? CCRC Brief No. 36.* Retrieved on July 8, 2008, from Teachers College, Columbia University. Community College Research Center Web site: http://ccrc.tc.columbia.edu/.

XII. Appendices

Appendix A

Advisory Board Members

Thomas R. Bailey

is the George and Abby O'Neill Professor of Economics and Education in the Department of International and Transcultural Studies at Teachers College, Columbia University. Dr. Bailey holds a PhD in labor economics from MIT. He is an economist, with specialties in education, labor economics, and econometrics. In 1996, with support from the Alfred P. Sloan Foundation, Dr. Bailey established the Community College Research Center (CCRC) at Teachers College, which conducts a large portfolio of qualitative and quantitative research based on fieldwork at community colleges and analysis of national- and state-level datasets. The research focuses particularly on access and student success at community college, with a particular focus on the experiences low income and minority students. In July 2006, Bailey became the Director of the National Center for Postsecondary Research (NCPR), funded by a five-year grant from the Institute of Education Sciences of the U.S. Department of Education. Since 1992, Dr. Bailey has also been the Director of the Institute on Education (IEE) and the Economy at Teachers College. His articles have appeared in a wide variety of education, policy-oriented and academic journals, and he authored or co-authored several books on the employment and training of immigrants and the extent and effects of on-the-job training.

Randy Bass

is the Assistant Provost for Teaching and Learning Initiatives at Georgetown University, and the Executive Director of Georgetown's Center for New Designs in Learning and Scholarship (CNDLS, pronounced "CANDLES"), a University-wide center supporting faculty work in new learning and research environments. He has been working to integrate new technologies, pedagogy, and educational change since 1986, and is a nationally recognized leader in the field. He is the editor and author of numerous publications and has directed or collaborated on numerous education and technology projects, including the Visible Knowledge Project and the American Studies Crossroads Project. He served as the Electronic Resources Editor of the Heath Anthology of American Literature, and won the 1999 EDUCAUSE medal for outstanding achievement in technology and undergraduate education. Before founding CNDLS at Georgetown, he served as the chair and founder of the Teaching, Learning, and Technology Roundtable. Dr. Bass is an Associate Professor of English, a member of the American Studies committee, and a Senior Scholar with the Carnegie Foundation for the Advancement of Teaching.

Deborah Bial

is an education strategist who addresses the challenges of college access for underrepresented populations by identifying and fostering latent talent and opening opportunities for them to pursue higher education. Traditional admissions metrics such as grade point average, class rank, and entrance exam scores have long been recognized as inadequate predictors of success for some undergraduates. Through her Posse Foundation, Bial offers an alternative model for identifying promising young people from less advantaged, urban environments. Working with public high schools and other community organizations, Bial evaluates potential candidates using a rigorous assessment process based on qualities such as leadership, teamwork, communication skills, and motivation – qualities that are as critical to successful navigation of undergraduate education as academic track records. The most promising students are invited to join a "posse," a small group that participates in an eight-month, pre-collegiate training program that builds individual and team skills and serves as an essential social support system once students arrive at college. In

parallel, she develops partnerships with admissions officials from dozens of highly selective liberal arts colleges and universities, offering a powerful means to augment the cultural and economic diversity of their institutions. Bial is now refining her model to provide a focused program for students specifically interested in science and medicine. Today, 90 percent of "posse" students graduate, a rate significantly higher than the national average. By demonstrating the importance of less-recognized skills in educational achievement, Bial continues to open doors for thousands of students and to reframe college admissions into a more successful and inclusive process.

W. Norton Grubb

is the David Pierpont Gardner Professor in Higher Education at the Graduate School of Education at the University of California, Berkeley. He is also the faculty coordinator of the Principal Leadership Institute, a program to prepare principals for urban schools in the Bay Area. His research spans the role of schooling in labor markets, reforms in high schools and community colleges, the effects of institutional practices on teaching quality, the interactions among education and training programs, community colleges, the flow of students into and through postsecondary education, and social policy toward children and youth. In addition to his research, he provides workshops for secondary and community college instructors and administrators, presenting different approaches to reform. He has also participated in a number of policy-oriented efforts, most recently the California Master Plan Commission, a National Research Council Committee on high school motivation, and a panel of experts for the case of Williams v. California. He recently completed a book on the economic roles of schooling, titled The Education Gospel: The Economic Power of Schooling.

Nancy Hoffman

is the Vice President of Youth Transitions and the Director of the Early College High School Initiative at Jobs For the Future. She also leads JFF work on dual enrollment policies and practices, as well as JFF's undertaking toward making college opportunity affordable, a major initiative of Lumina Foundation for Education. Dr. Hoffman's career spans work in high schools and higher education. She came to JFF from Brown University, where she was Senior Lecturer in Education and also served as Director of the President's Office and Secretary of the Brown Corporation. Previously, at Temple University, she served as Vice Provost for Undergraduate Studies, Presidential Fellow, and director of the University Honors Program, with faculty appointments in English and women's studies. Hoffman holds a B.A. and Ph.D. in comparative literature from the University of California, Berkeley. She chaired the board of directors of the Feminist Press, the oldest women's press in the United States, from 2002 to 2006. In addition to her publications for Jobs for the Future, she is the author most recently of Women's True Profession: Voices from the History of Teaching (Harvard Education Publishing Group). With Joel Vargas and Andrea Venezia, she is co-editor of High School Through College: Programs and Policies Integrating Grades 9-14 (forthcoming from the Harvard Education Publishing Group).

Robert L. Hughes

was appointed President of New Visions in June 2000. A prominent lawyer, Mr. Hughes formerly served as Deputy Director of the Campaign for Fiscal Equity, a coalition of parent organizations, community school boards, concerned citizens and advocacy groups that seeks to reform New York State's education finance system to ensure adequate resources and the opportunity for a sound basic education for all students in New York City. Mr. Hughes recently served as Co-Counsel in the nationally-watched Campaign for Fiscal Equity v. State of New York state constitutional challenge. Prior to joining Campaign for Fiscal Equity in 1993, Mr. Hughes was Deputy Director for Advocates for Children, a leading non-profit agency long active in securing

quality and equal public education services for New York City's most impoverished and vulnerable families. Mr. Hughes received his undergraduate degree from Dartmouth College and his law degree from Stanford Law School. Mr. Hughes' articles on public education have appeared in the Record of the Association of the Bar of the City of New York, the Connecticut Law Review, the Journal of Law and Education and the Yale Journal of Law and Policy.

Marcia Lyles

serves as the Deputy Chancellor for Teaching and Learning at the New York City Department of Education. Prior to the 2003 reorganization, Dr. Lyles was the Community Superintendent for District 16. As superintendent of Community School District 16, she created four new middle schools, redesigned professional development for teachers and administrators, and made progress in improving student achievement. She earned city and state recognition for the gains made on standardized assessments under her leadership. In May 2003 she was recognized by NYC ASCD as an Outstanding Educator for her work in District 16. She was the first Deputy Superintendent for Brooklyn and Staten Island High Schools. Before that she was at the forefront of high school restructuring, helping to create house structures in her capacity as assistant principal at Erasmus Hall High School and Principal at Paul Robeson High School. Under her leadership Paul Robeson High School was named a REDBOOK America's Best Schools Project Winner for classroom innovation. As a high school English teacher she also worked with students as a Coordinator of Student Affairs, Cooperative Education Advisor, Honor Society Advisor, Yearbook Advisor and Debate Team Coach. Dr. Lyles graduated cum laude from Hunter College in 1974 with a Bachelor of Arts in English, then gained her Masters degree in English from New York University in 1976. In 1992, she earned an Ed.D. from Teachers College at Columbia University.

Edwin Meléndez

is Professor of Management and Urban Policy at Milano The New School for Management and Urban Policy at the New School in New York City. From 1999 to 2004 Dr. Melendez was the Director of the Community Development Research Center at the Milano Graduate School, and from 1992 to 1998 he was the director of the Mauricio Gastón Institute for Latino Community Development and Public Policy at the University of Massachusetts Boston as well as a faculty member in the Economics Department and the Ph.D. Program in Public Policy. Dr. Meléndez was also an associate professor of political economy and urban studies in the Department of Urban Studies and Planning at the Massachusetts Institute of Technology from 1986 to 1992. Dr. Meléndez has worked as a consultant on employment, economic development, job creation, and small business for numerous government, community, and philanthropic foundations. In his twenty years of experience as principal investigator, he has managed over 35 research, outreach or demonstration projects, and supervised or collaborated with over 60 researchers in projects that resulted in several edited books, special issues of academic journals, and other publications.

Melissa Roderick

is the Hermon Dunlap Smith Professor at the School of Social Service Administration at the University of Chicago and is a co-director at the Consortium on Chicago School Research. Professor Roderick is an expert in urban school reform, high stakes testing, minority adolescent development, and school transitions. Her work has focused attention on the transition to high school as a critical point in students' school careers and her new work examines the transition to college among Chicago Public School students. In prior work, Professor Roderick led a multi-year evaluation of Chicago's initiative to end social promotion. She has conducted research on school dropout, grade retention, and the effects of summer programs. She is an expert in mixing qualitative and quantitative methods in evaluation. Her new work focuses on understanding the

relationship between students' high school careers and preparation, their college selection choices, and their post-secondary outcomes through linked quantitative and qualitative research.

James Rosenbaum

is a Professor of Sociology, Education and Social Policy and a Faculty Fellow at the Institute for Policy Research, Northwestern University. For the past two decades, Dr. Rosenbaum has conducted an extensive research project on the effects of relocating poor inner-city black families in public housing to subsidized housing in the white middle-class suburbs of Chicago. This quasi-natural experiment, known as the Gautreaux Program, has enabled him to study the effects of these moves on children's educational outcomes and job opportunities, as well as the social and economic effects on the mothers. Rosenbaum's second major area of research concerns the high school to work transition and linkages among students, schools, and employers. He currently is focusing on the ties between employers and community colleges. Rosenbaum has testified before Congressional committees on several occasions. He serves as an adviser to the U.S. Office of Educational Research and Improvement. He is a member of the Steering Committee of the W.T. Grant Foundation's Commission on Youth and America's Future.

Ronald Williams

is a vice president of the College Board. One of his areas of responsibility is strengthening the relationship between the College Board and community colleges nationally. Dr. Williams served as president of Prince George's Community College in Largo, Maryland from 1999 until 2007. Previously, he served as acting president of the Community College of Philadelphia. Dr. Williams' civic and professional engagements include the following boards and organizations: member of the International Advisory Board of the Chair Academy, the American Council on Education's Commission on Leadership and Institutional Effectiveness, the American Council on Education's Center for Policy Analysis Advisory Committee, and the past chair of the board of the Directorate for Education and Human Resources of the National Science Foundation. Dr. Williams received his doctorate in literature, his master's degree in English, and his baccalaureate degree in history and English from Lehigh University.

Steering Committee Members

Selma Botman, Executive Vice Chancellor & University Provost*

Daisy Cocco De Filippis, Provost and Vice President for Academic Affairs, Hostos Community College

David Crook, University Dean for Institutional Research & Assessment

John Garvey, Dean of the Teacher Academy and Collaborative Programs

Alexandra Logue, Interim Executive Vice Chancellor and University Provost

Ernesto Malave, Vice Chancellor for Budget and Finance

Tracy Meade, University Director for Collaborative Programs

Gail Mellow, President, LaGuardia Community College

John Mogulescu, Senior University Dean for Academic Affairs and Dean of the School Professional Studies

Garrie Moore, Vice Chancellor for Student Development

Regina Peruggi, President, Kingsborough Community College

Frederick Schaffer, Vice Chancellor for Legal Affairs & General Counsel

Iris Weinshall, Vice Chancellor for Facilities Planning, Construction and Management

* Dr. Botman left CUNY to become the tenth President of the University of Southern Maine on July 1, 2008.

CUNY Community College Presidents

Antonio Pérez, President, Borough of Manhattan Community College

Carolyn G. Williams, President, Bronx Community College

Dolores M. Fernandez, President, Hostos Community College

Regina S. Peruggi, President, Kingsborough Community College

Gail O. Mellow, President, LaGuardia Community College

Eduardo J. Marti, President, Queensborough Community College

New CUNY Community College Planning Team

Chair: **John Mogulescu**, Senior University Dean for Academic Affairs and Dean of the School Professional Studies

Team Leader: **Tracy Meade**, University Director for Collaborative Programs

Stephanie Benjamin, Consultant (Formerly Dean, Office of Academic Affairs, CUNY)

Gregg B. Betheil, Senior Executive for Career & Technical Education, Office of Portfolio Development, New York City Department of Education

Claudia Colbert, Director CIS Project Management Office

Sherry M. Cleary, Executive Director, NYC Early Childhood Professional Development Institute, ACS/CUNY Informal Family Child Care Training Project

Gayle Cooper-Shpirt, Language and Literacy Staff Developer, CUNY Adult Literacy Program.

Suri Duitch, University Director for Adult and Continuing Education

Derrick Griffith, Director/Principal, CUNY Preparatory Transitional High School

Steve Hinds, Mathematics Staff Developer, CUNY Adult Literacy/GED Program

Eric Hofmann, Acting Director, CUNY College Now

Florence Jackson, Secretary to the Advisory Council for Career and Technical Education and Senior Director for Career & Technical Education, New York City Department of Education

Meghan Moore-Wilk, Director, University Space Planning & Capital Budget

Larry Mucciolo, Consultant (Formerly Deputy Chancellor, CUNY)

Paul Russo, Director of Online Programs, CUNY School of Professional Studies

Miriam Sondheimer, Senior Director for Policy and Planning for Career & Technical Education, New York City Department of Education

Daniel Voloch, Director, College Now, Hostos Community College

Ex-Officio: **John Garvey**, Dean of the Teacher Academy & Collaborative Programs

Consultative Meetings with Community College Provosts and Invited Faculty

Borough of Manhattan Community College

Sadie C. Bragg, Senior Vice President, Academic Affairs

Michael Gillespie, Dean, Faculty Development & Academic Support Programs

Mete Kok, Professor of Computer Information Systems

Sarah Salm, Professor of Science

Melissa Nashat, Professor of Science

Kay Conway, Professor of Business Management

Rebecca Rivera, Professor of Counseling

Diane Simmons, Professor of English

Carlos Hernandez, Professor of English

Klement Teixeira, Professor of Mathematics

Jean Plaisir, Professor of Teacher Education

Precious Sellars-Mulhern, Professor of Counseling

Brahmadeo Dewprashad, Professor of Science

Bronx Community College

George L. Sanchez, Senior Vice President of Academic Affairs

Lois Augustus, Chair, Nursing and Allied Health Sciences Department

John Davis, Director of ASAP and Health Sciences Academy

Teresa McManus, Chair, Library and Learning Center

Luis Montenegro, Chair, Physics and Technology Department

Frederick De Naples, Chair, English Department

Anthony Weaver, Chair, Mathematics and Computer Science Department

Hostos Community College

Daisy Cocco de Filippis, Provost and Senior Vice-President, Academic Affairs

Carlos Molina, Dean for Special Programs

Gerald Cohen, Associate Dean

Nieves Angulo, Assistant Professor of Mathematics, Director of Honors Programs, & Coordinator of Engineering Program

Alberto Bird, Professor of Humanities

Amanda Bernal-Carlo, Director of the Center for Teaching and Learning & Chair, Natural Sciences Department,

Gina Cicco, Assistant Professor of Education

Robert Cohen, Assistant Professor of Language & Cognition

Linda Hirsch, Professor of English

Christine Mangino, Chair, Education Department

Loreto Porte, Director of Instructional Technology, & Professor of Mathematics

Rees Shad, Assistant Professor of Visual and Performing Arts

Danny Voloch, Coordinator of College Now

Kingsborough Community College

Stuart Suss, Vice President for Academic Affairs & Provost

David Gomez, Dean of Instructional & Student Support

Rebecca Arliss, Professor of Health, Physical Education & Recreation

Gordon Bassen, Professor of Mathematics & Computer Science

Carla Beeber, Professor of Biological Sciences

Janine Graziano-King, Professor of English

Fran Kraljic, Chair, History, Philosophy & Political Science

John Mikalopas, Chair, Physical Sciences

Theodore Markus, Professor of Biological Sciences

Gloria Nicosia, Chair, Communications & Performing Arts

Denise Giachetta-Ryan, Director, Department of Nursing

Rina Yarmish, Chair, Department of Mathematics & Computer Science

LaGuardia Community College

Peter Katopes, Vice President of Academic Affairs

Paul Arcario, Dean of Academic Affairs

J. Elizabeth Clark, Professor of English & Center for Teaching & Learning

James Giordano, Professor of Accounting & Managerial Studies

Gordan Crandall, Professor of Mathematics

Laura McGowan, Director, Academic Support Center

Laksmi Nor, Director, School/College Collaborations—College Now

Queensborough Community College

Dan L. King, Vice President for Academic Affairs

Arthur Corradetti, Assistant Dean for Academic Affairs

Stuart Asser, Chair, Electrical and Computer Engineering Technology

Barbara Brauer, Director, ASAP (Accelerated Program in Associate Studies)

Joseph Culkin, Chair, Social Sciences

Phillip Pecorino, Professor of Social Sciences

Other Meetings & Consultations

Experts in CUNY consulted in the process of planning the new community college:

The City University of New York

Steven Amarnick, Associate Professor of English, Kingsborough Community College

Michael Arena, University Director of Communications and Marketing

Fenix Arias, Testing Director, York College

Bonne August, Provost and Vice President for Academic Affairs, NYC College of Technology

Claudia Baldonedo, Director of Employment and Career Services, LaGuardia Community College

Robin Bargar, Dean of The School of Technology and Design, NYC College of Technology

Rebecca A. Boger, Professor of Geology, Brooklyn College

Jerry Bornstein, Associate Professor & Deputy Chief Librarian for Public Services, Baruch College

Judy Bergtraum, Deputy to the Vice Chancellor for Facilities Planning, Construction and Management

Stephen Brier, Vice President for Information Technology and External Programs, The Graduate Center

Josh Brown, Executive Director, American Social History Project & Center for Media & Learning, The Graduate Center

Theodore Brown, Executive Officer, Ph.D. Program in Computer Science, The Graduate Center & Executive Director, CUNY Institute for Software Design and Development

Tria Case, Executive Director, CUNY Sustainability Task Force & Center for Sustainable Energy, Bronx Community College

Jane Coffee, Professor of Mathematics, College of Staten Island

Laurel Cooley, Associate Professor of Mathematics, Brooklyn College

Ben Corpus, Vice-President for Student Development and Enrollment Management, Baruch College

Marva Craig, Dean of Student Affairs, Borough of Manhattan Community College

Deborah D'Amico, Senior Program Developer, The Murphy Institute for Worker Education and Labor Studies, School of Professional Studies

Arthur Downing, CIO and Chief Librarian, Baruch College CUNY

William Ebenstein, University Dean for Health and Human Services

Mary Flanagan, Associate Professor & Director of the Tiltfactor Laboratory, Film & Media Studies, Hunter College

Susan Forman, Professor of Mathematics and Computer Science, Bronx Community College

Nicholas Freudenberg, Distinguished Prof of Public Health & Acting Dean, School of Public Health, Hunter College

David Gerstner, Associate Professor of Media Culture, College of Staten Island

Mark S. Gold, Director of Information Technology Services, Brooklyn College

Adrian Griffin, Director of Career Services, New York City College of Technology

Ellen Hartigan, Vice President Student Affairs, Queensborough Community College

Kim J. Hartswick, Academic Director, CUNY Baccalaureate Program, The Graduate Center

Todd Herrell, College Services, CUNY Preparatory Transitional High School

Otis Hill, Interim Vice President of Student Development & Enrollment Management, Bronx Community College

Rebecca Hoda, Director of Career Services, Hostos Community College

Valerie Imbruce, Director of New York City Science & Engineering Fair, Collaborative Programs

Robert Isaacson, Director, CUNY TV, The Graduate Center

Sonja Jackson, Dean of Curriculum and Instruction, New York City College of Technology

Curtis Kendrick, University Librarian

Ann Kirschner, Dean, Macaulay Honors College

Carl Kirschner, University Assistant Dean of Student Affairs

Beth G. Kneller, Deputy Director, CUNY Baccalaureate Program, The Graduate Center

Steve Little, Vice President for Finance and Administration, Brooklyn College

Cheryl Littman, Assistant Dean for Institutional Research

Sharon Long, Senior Job Placement Counselor, LaGuardia Community College

Allan Ludman, Professor of Earth & Environmental Sciences, Queens College

Joseph Malkevitch, Professor of Mathematics and Computer Studies, York College

Gregory Mantsios, Director of The Murphy Institute for Worker Education & Labor Studies, School of Professional Studies

Joe-Joe McManus, Executive Director, CUNY Leadership Academy

Pamela Mills, Professor of Physical Chemistry, Hunter College

John Mollenkopf, Professor, Ph.D. Program in Sociology, The Graduate Center

Lisa Montgomery, Vice President, Student Development & Enrollment Management, Hostos Community College

George Otte, Academic Director, CUNY Online Baccalaureate & CUNY Director of Instructional Technology

Angelo D. Pappagallo, Dean of Student Life & Special Functions, Kingsborough Community College

Robert Paaswell, Distinguished Professor of Civil Engineering, The City College of New York

Michael Paull, Dean of Continuing Education, Lehman College

Brian Peterson, Associate Dean, School of Professional Studies

Nancy-Laurel Petterson, Assistant Professor of Basic Educational Skills, Queensborough Community College

Sandra S. Poster, Faculty, Speech, Communications & Theater Arts, Borough of Manhattan Community College

Wayne G. Powell, Chair of Geology, Brooklyn College

Esther Rodriguez-Chardavoyne, Senior Vice President, Finance and Administration, Hostos Community College

Lisanette Rosario, Cooperative Education Coordinator, Hostos Community College

Susan Saegert, Professor of Psychology & Director, Center for Human Environments, The Graduate Center

Daniel Shure, Managing Editor, CUNY.EDU

Morton Slater, Director, Gateway Institute for Pre-College Education, City College of New York

Gillian Small, Vice Chancellor for Research

Ellen Smiley, Faculty Fellow, Office of Academic Affairs

William Solecki, Professor of Geography & Director, CUNY Institute for Sustainable Cities, Hunter College

Ronald Spalter, Deputy Chief Operating Office

Karen Steele, Dean for Academic Affairs, Queensborough Community College

Reid Strieby, Professor of Environmental Science, Bronx Community College

Judith Summerfield, University Dean for Undergraduate Education

Ashleigh Thompson, Deputy to the University Dean for Health and Human Services

Marie Ting, University Director of Student Affairs and Special Programs

Andrea Vazquez Andes, New Media Lab Managing Director, The Graduate Center

Gregory Ventura, Senior Employment Counselor, Hostos Community College

Judy Watson, Associate Dean, CUNY Graduate School of Journalism

Yan Zheng, Chair of Earth & Environmental Sciences, Queens College

Experts outside CUNY consulted in the process of planning the new community college:

Niv Ahituv, The Marko and Lucie Chaoul Chair for Studies in Information Evaluation & Academic Director of Netvision Institute for Internet Studies, Tel Aviv University

Julian Alssid, Executive Director, Workforce Strategy Center

Angelo Araimo, Vice President for Enrollment & Planning, Wagner College

Joseph Armstrong, Faculty, Advanced Transportation Technology Center, Sacramento City College

Warren Axelrod, SVP, Bank of America & Executive in Residence, Stevens Institute of Technology

Elisabeth Barnett, Senior Research Associate, Early College, NCREST

John Beard, Senior Epidemiologist, The Center for Urban Epidemiological Studies, New York Academy of Medicine

Hilary Beber, Policy Analyst for Long-Term Planning and Sustainability, Mayor's Office, City of New York

Jerry Bernstein, Director, Center for Advanced Transportation Technology, City College of San Francisco

Fran Boren, Education Director, SEIU Local 1199

Jo Ivey Boufford, MD, President, New York Academy of Medicine

Tom Brock, Director, Young Adults & Postsecondary Education Policy Area, MDRC

Andrew Brust, CTO 26NY & Vice Chair, New York Software Association

Rick Brunner, Sales Engineer, D.P. Wolff

Andy Catlin, Chief Executive Officer, Ottawa Interactive Reporting

Joan Chaya, Director of College Relations and Staff Retention, Visiting Nurse Service

Margaret Cohen, Director of Training, New York City Health and Hospitals Corporation William Crosbie, Faculty, Computer Science, Raritan Valley Community College

Phillip Cypret, Director, Center for Advanced Transportation Technology, Sacramento City College

Denise Davin, Vice President for Human Resources, Visiting Nurse Service

Peter Davis, Statewide Energy Director, Advanced Transportation Technology and Initiative

Joanne Derwin, Executive Director, Urban Agenda

Patricia Dombrowski, Director, Life Science Informatics Center, Bellevue Community College

Nancy Doyle, Vice President, New York City Health and Hospitals Corporation

Mark Elliott, Assistant Professor of History, Wagner College

Michael Forte, New York City Department of Citywide Administrative Services

Greg Foster, ConnectEDU

Michael Freedman, MD., Professor Emeritus of Medicine, New York University School of Medicine

Cass Freeland, Director, Center for Leadership & Service, Wagner College

Ruth Genn, Director, Data Analysis and Applied Research, New Visions for Public Schools

Susan Goldberger, Director of New Ventures, Jobs for the Future

Leon Goodman, Assistant Director of Staffing & Employee Relations, Metropolitan Transit Authority

Becky Gray, Senior Program Manager, Seedco

Gary C. Heath, Director of Bureau Operations and Environmental Analysis Bureau, New York City Department of Environmental Protection

Mel Horwitch, Chair, Department of Technology Management, Polytechnic Institute of New York University

Katherine L. Hughes, Assistant Director for Work and Education Reform Research, Community College Research Center, Teachers College, Columbia University

Kevin Hyland, Director of Human Resources, Metropolitan Transit Authority

James Jacobs, President, Macomb Community College

William Johnson, Assistant Deputy Director, New York State Office of Cyber Security & Critical Infrastructure Coordination

Melinda Mechur Karp, Senior Research Associate, Community College Research Center, Teachers College, Columbia University

Laurie Kerr, Senior Policy Advisor on Sustainability: Buildings and Energy, Mayor's Office, City of New York

Debby King, President, SEIU Local 1199

Jennifer King, Chief, EHS Audits, Bureau of Wastewater Treatment, NYC Department of Environmental Protection

Jon Klonsky, President, Something Digital

Suzanne Korey, Faculty, Career & Technical Education, City College of San Francisco & Director, Northern California Logistics and Distribution Project, California Community College System

Devorah Lieberman, Provost & Vice President for Academic Affairs, Wagner College

Michael LoBue, Executive Director, Institute for Innovation and Information Productivity

Anne Love, Dean, The Center for Academic & Career Development, Wagner College

Myrna Manly, Professor of Mathematics, El Camino College (ret.) & Consultant, U.S. Office of Vocational and Adult Education

Ariella Maron, Deputy Director for Long-Term Planning and Sustainability, Mayor's Office, City of New York

Laura Martocci, Assistant Dean of Learning Communities & Experiential Learning, Wagner College

Elisabeth Mason, Chief Executive Office, Single Stop

Roberta Matthews, Senior Advisor, Jobs for the Future

Kristin Morse, Director of Program Development and Evaluation, Center for Economic Opportunity, Mayor's Office, City of New York

Leigh-Ann Nowicki, Dean of Admissions, Wagner College

Imke Oster, Vice President, Green Industry and Construction, New York City Economic Development Corporation Judith Patton, Associate Dean, School of Fine & Performing Arts, Portland State University

Gary Phillips, Coordinator, Environmental Studies Program, Iowa Lakes Community College

Von Plessner, Dean of Business Technologies, Northwest State Community College

Adam Procell, Vice President, Director of Strategic Development, DMJMHarris

Daniel A. Rabuzzi, National Program Director, The National Foundation for Teaching Entrepreneurship

Myrna Ramon, Chief of Staff, Metropolitan Transit Authority

Richard Reilly, Professor of Management, Stevens Institute of Technology

Candace Reynolds, Director of Mentor Programs, University Studies, Portland State University

David Rinaldi, Director, NYC Asset Lab Project

Alex Saavedra, Vice President at Upper Manhattan Workforce1 Career Center, Seedco

Patricia Schafer, Associate Dean, Community and Clinical Services, Center for Health Sciences, Kirkhof College of Nursing, Grand Valley State University (MI)

Mike Schmidt, Coordinator, Wind Energy & Turbine Technology, Iowa Lakes Community College

Mary Jane Schmitt, Adult Numeracy Projects Director, TERC

Ruta Shah-Gordon, Dean, Campus Life, Wagner College

Karan J. Sorensen, CIO and Vice President, Information Technology, Johnson & Johnson Pharmaceutical Research & Development L.L.C. and Centocor Research & Development, Inc.

Lynn Arthur Steen, Professor of Mathematics, St. Olaf College

Wade Tinney, President, NY Chapter, International Game Development Association

Ernest Tollerson, Director of Policy & Media Relations, Metropolitan Transit Authority

Diana Troyer, President, Lone Star College-CyFair

Brian Turner, Community Transportation Center, Silver Springs, MD

Mary Vaughn, Chair, Integrated Media Department, Columbus State Community College

Norma Vega, Senior Youth Development Officer, Children's First Network

Veronica M. White, Executive Director, Center for Economic Opportunity, Mayor's Office, City of New York

Eric Zimmerman, Co-Founder and Chief Design Officer, gameLab

Appendix B

Planning for a New Community College: Invitation to a Dialogue

In response to a request from Chancellor Matthew Goldstein, the Office of Academic Affairs has begun an exploratory effort into the compelling need to create more opportunities for students studying at our community colleges. Data suggest that more seats will be required, particularly in the borough of Manhattan, to accommodate an anticipated increase in student demand. The initial phase is expected to culminate in the submission of a set of options to Chancellor Goldstein by the end of June.

This effort is intended to meet an anticipated need of a greater number of students for community college credentials. It is also intended to experiment with a new approach to the challenges involved in making sure that students who graduate from high school or who earn a high school equivalency diploma, without having acquired the skills and knowledge essential for college success, can complete a college degree. At the same time, the new college is intended to provide degrees in programs of study that will enable its graduates to navigate the social and economic challenges of the 21st century. The college will prepare students both for direct entry into the workforce and for transfer to baccalaureate degree programs.

An exploratory team, composed of staff from the Office of Academic Affairs and representatives from the New York City Department of Education, has been working on the project since mid-February. A Steering Committee, composed of the leaders of essential University offices and several community colleges, met for the first time in mid-March.

Thus far, the process has included literature reviews, consultations with community college presidents, and conversations with individual faculty members and nationally recognized experts on community colleges.

We are soliciting input from the entire University community to ensure the best possible outcomes for our students. To begin the conversation, we ask that you share your thoughts in a short open ended survey. You will note that the survey refers to a "new community college." By this we mean either an institution connected to an existing community college or the creation of a stand alone institution. Click here to participate in the survey. >> If at any time you experience technical difficulty with the survey, please contact XXXX.

Thank you,

Selma

Dr. Selma Botman
Executive Vice Chancellor and University Provost

Planning for a New Community College

Thank you for participating in the conceptualization of a new community college. The following survey contains nine short, open-ended questions as well as a space for you to add anything else that you think should be considered.

All of your comments will be anonymous. However, we would appreciate the opportunity to speak with you further about some of your ideas. If you would be willing to have us contact you, please add your contact information in the space provided. Again, adding your contact information is optional. No comments will be shared outside the Planning Team without the consent of the respondent.

Name: **Title:** **Institution**:

Email address: **Phone number:**

The following topic areas are particularly important to the current phase of the planning process. Feel free to add comments on all things you think relevant. When you are finished, please click **DONE**. If at any time you experience technical difficulty with the survey, please contact XXXX.

Academics:

- What kinds of degree programs will prepare students for modern urban occupations?
- How can the academic and occupational coursework be integrated?
- How can developmental/remedial education be re-imagined as part of all introductory level curricula?

Student Support:

- What kinds of learning environments are most conducive to creating a college culture of learning?
- How might administrative structures be designed to maximize student use of and satisfaction with college services and systems?
- How can academic and student affairs be integrated?

Administration and Organization:

- What should be the relationship of the new community college to the existing community, comprehensive and senior colleges?

- What college governance structures would be most conducive to achieving the goals of the new college?
- What are the elements of a comprehensive college accountability system?

Additional Topics for Consideration:

- Please share your thoughts about any of the areas or others not presently listed. If you can point to important research and resources, we would appreciate it if you include references in your post.

Planning a New Community College Online Survey

A Summary Analysis of Responses

Drew Allen

June 12, 2008

Research & Evaluation
Collaborative Programs
Office of Academic Affairs
101 West 31st Street
New York, NY 10001

Introduction

In a CUNY E-news update on April 30, 2008, Executive Vice Chancellor and University Provost Selma Botman extended an invitation to the "entire University community" to share its thoughts on the planning of a new community college by responding to an online survey. A total of 156 respondents filled out the survey, 85 of whom (54.5 percent) self-identified as faculty; 49 (31.4 percent) as administrators or staff; 2 (1.3 percent) as graduate students/researchers; and the remaining 20 respondents (12.8 percent) chose to not identify themselves or their job title. All 17 CUNY colleges were represented, as well as the Graduate Center, the School of Professional Studies, and the CUNY Central Office.

The survey consisted of 11 open-ended questions across the following topics: degree programs, integration of academic and occupational majors, developmental /remedial education, placement and proficiency testing, learning environments, administrative structures, integration of academic and student affairs, the relationship of a new community college to existing colleges, governance structures, and a comprehensive college accountability system. For each question, responses were analyzed by coding each individual reference to a specific concept or issue as a separate "node." An individual respondent's answer to a question may contain more than one specific concept; therefore, the total number of references to specific concepts may be greater than the total number of individual respondents.

Our primary concern in producing this analysis was to identify key ideas that would be useful to the planning team and, secondarily, to represent the range and quality of ideas expressed. Within each question, there were rarely any specific concepts or "nodes" that appeared often enough to represent a real consensus of opinion among respondents. However, when grouped together into general categories, patterns and themes do emerge. The following report is a summary analysis of those key concepts and themes, presented together with selected excerpts from individual survey responses.[23]

[23] While the analysis in this report is closely based upon concept coding lists and categories, the order of concepts and themes presented in this report does not necessarily reflect the order/ranking of nodes in terms of total number of mentions by respondents. The Appendix to the full document details frequencies of response by major categories and codes. This summary analysis and the full transcription of survey responses in both case-by-case and question-by-question formats are available on the Blackboard site under Planning Documents.

Question 1: What kinds of degree programs will prepare students for modern urban occupations?

Major Response Categories: Critical Thinking Skills, Communication Skills, Technology-Focused Skills, Specific Degree Types/Fields, Other Degree Types, Fields, and Areas of Focus

Respondents tended to gravitate to three core competency areas: critical thinking, technology, and communications.

> "Students need a balanced degree with critical thinking, technology, multicultural communications as well as the vital discipline specific skills."

Critical Thinking Skills

Several respondents, rather than specify majors or degree fields, stressed the overall importance of critical thinking and reasoning skills. Respondents suggested integrating critical thinking and reasoning into all disciplines and degree types.

> "Degree programs that will teach students how to reason as opposed to merely hold certain beliefs will become necessary to navigating a complex world."

> "Students need to learn how to learn, since modern urban occupations change so quickly that occupational skills really have to be learned (and constantly re-learned) on the job. Learning how to learn means learning how to revise one's own writing, how to read complex texts, how to ask critical questions."

Communication Skills

A large group of respondents maintained that all degrees should have a strong focus on oral and written communication skills. Some responses centered on communication technology, while others touched on clear verbal communication skills (in English as well as other languages). Communication skills are closely tied to critical thinking/reasoning skills, and, in fact, over half of all respondents who recommended critical thinking/reasoning skills also suggested a focus on communication skills.

> "I think this is more a marketing question than anything else; what will best prepare students is actually the cultivation of a kind of versatility and adaptability consonant with an openness to on-the-job training and lifelong learning. Since much of this will have to be self-directed, even self-motivated, the most important competencies are the higher-order ones: critical thinking, problem solving, communicating effectively, finding and using information. Degree programs that foster these -- above all, communication studies and information studies -- will be the most useful..."

Technology-Focused Skills

One in three survey respondents' answers included mention of some type of technology-focused skill or technical field. Many stressed that technology-related occupations continued to be in demand and that technical training was an important part of degree programs.

> "Programs that 1) use technology seamlessly and painlessly as part of the instructional process…"

Technology and/or technical skills ranged from information technology and advanced computer skills to health and environmental technology (specific technology-related fields will be discussed below). Six respondents also specifically mentioned an Associate in Applied Science (A.A.S.) degree as the kind of degree program that will prepare students for modern urban occupations.

Specific Degree Types/Fields

When asked about kinds of degrees that will prepare students for modern urban occupations, one Baruch College administrator responded:

> "The answer lies in key NYC labor markets such as Healthcare, IT, Education and Finance."

The above response closely resembles the major categories of specific majors or fields of study that respondents provided. Over half of all respondents included at least one specific academic field or career that degree programs should cover; these programs fell into four areas: Healthcare, Information Technology, Education, and Business and Finance.

- Healthcare: More respondents specified healthcare than any other subject area (more than one-third). This grouping includes degrees for nursing (over 14% specifically listed nursing) and allied healthcare careers. This broad group includes specific fields such as: health education, medical technology, radiology, occupational health, pharmaceutical-related fields, public health, and gerontology. Also included in this category are dental hygiene programs. Many respondents mentioned a strong technology focus to health programs.

- Information Technology: Information Technology includes fields requiring advanced computer skills—database/network administrators, IT support staff, programmers, software developers, gaming, and graphic/digital art.

- Education: Education includes general education careers, as well as early child development and health education.

- Business and Finance: Approximately 20 percent of respondents mentioned some type of program to specifically prepare students for business careers. This category includes business administration, management, finance and accounting. Several respondents mentioned programs with a small-business or entrepreneurial focus.

Other Degree Types, Fields and Areas of Focus

Apart from the traditional academic disciplines of History, Science, Sociology, Economics, Political Science, and Mathematics, the following groups of majors/fields were mentioned several times:

- Media & Entertainment: Specific emphasis on Journalism (several responses, focusing on both print and broadcast), Graphic Design/Computer Animation, and Film.

- Public Affairs Civic Government: Many respondents stated the need for programs to prepare students for government (city) jobs, public affairs, civil service, etc.

- Hospitality/Restaurant Management/Tourism: Reflecting the fact that New York City is a cultural/tourist hub.

Other notable categories with multiple responses include: legal studies (paralegal, criminal justice), forensics, engineering, architecture, urban planning, and environmental/sustainability-focused programs.

Several survey respondents stated the need for vocational and skilled trade programs (construction, plumbing, electrical, automotive). Apprenticeships and internships were also mentioned as ways to integrate work and study.

> "Technical and apprenticeship programs for skilled trades are sorely needed; there is a long-standing deficiency of workers in skilled trades."

> "Practical Degrees that allows the participants to relate academics to real world situations. Degree programs that incorporates both academics and hands-on, or work related experiences."

However, other respondents maintained that degree programs should be flexible and focus on providing students with a well-rounded education, incorporating multiple academic fields. Over ten percent stated that Liberal Arts-focused programs should be offered.

> "Associate degrees are a good beginning; if the programs are too geared towards only one kind of occupation or trade I'm afraid people will lose out on options in the future. They need flexibility, training and degrees upon which they can build."

> "I think a basic Liberal Art degree which includes a core literacy in literature, mathematics, science, history and philosophy serves students best--technologies change quickly, the abilities to read, write, think critically and speak well ensure that students can negotiate their way through modern occupations."

Many respondents who expressed support for a broad, Liberal Arts focused programs also mentioned the need to connect these academic disciplines to specific needs and situations of students.

> "As to other, more academic sequences offered to those who want to pursue higher degrees, to me the key issue is academically tailored, student's needs-focused curricula, at all levels of the program sequence, that try to connect as much as possible the learning in all the fields (including social sciences and

> humanities) with the big themes/conflicts/challenges of our contemporary world, including issues like globalization, international migration, and socio-economic polarization that touch directly the lives of so many of the students that end up applying at community colleges."

Finally, several respondents simply recommended that degree programs should be dependent on current and future urban job market expectations. Some suggested that more research be carried out to explore this issue.

> "Employability and what is needed in their communities should be considering when advising them on what to major."

Question 2: How can the academic and occupational majors be integrated?

Major Response Categories: Interdisciplinary Focus, Core Skills, Internships/Service Learning

Interdisciplinary Focus

Many responses addressed academic and occupational integration on a course level, and a significant number suggested that courses should have a strong interdisciplinary component. While some said existing courses should be linked with faculty coordinating instruction, others called for the creation of new types of courses that combined academic subjects with occupational components.

> "Especially important might be collaborative work between faculty across majors, integrative learning, and shared assignments."

> "Think 'out of the box' and develop new courses that will do this such as a literature course on the topic of disabilities, math for health professions, etc."

According to several responses, additional ways to integrate majors include: learning communities, team-teaching, using courses from other disciplines as electives, and offering occupational "concentrations" within traditional majors.

> "A worthy goal of any community college is to help students become effective self-directed learners. Linked courses, team-teaching, learning communities, courses that integrate the practical aspects of an occupation with a broader academic view should be developed."

> "If they [students] are allowed to take some of the other classes within the different majors given that they have met the appropriate requirements, this may satisfy their curiosity."

Core Skills

Even as recommendations for interdisciplinary approaches were common, approximately one-quarter of respondents who answered the question maintained

that reinforcing core skills, including critical thinking and communication, as well as traditional liberal arts is still the key.

> "All working professionals need a skill-set that includes creative thinking, writing, public speaking, interpersonal communication, and knowledge of the world around them."

> "Electronics/Electrical, technology jobs in health care, repair and maintenance workers in appliances/computers/autos etc will require mastering academic content at a more than just minimal level…core competencies in literacy (reading, writing, group work/interaction) are fundamental along with numeracy intelligence for specific occupations."

Internships/Service Learning

Apart from the above course-level suggestions, internships and service learning opportunities were among the most common responses. Sixteen respondents specifically mentioned internships as a way to integrate academic and occupational learning through hands-on experience representing the real world. Several others discussed service learning opportunities, while a few suggested a close relationship with employers in various facets of a student's academic program.

> "The key to integrating the two is through service learning. If every student holds a job/internship that is structured around their major and provides them with direction, learning and giving back then both academic and occupational majors will be moving together towards building our city and learning from it."

> "These students will learn how to deal with real world scenarios in their chosen professions, and it will also assist them in knowing if this is the right major for them."

> "It is not hard to imagine how different courses can collaborate on service-learning or community-based projects that are essentially integrative activities, pulling from both academic and occupational majors."

Question 3: How can developmental/remedial education be re-imagined as part of all introductory level curricula?

Major Response Categories: Contextual Skills Development, Academic Support Services, Communication Skills, Extra Preparation Needed, Additional Ways to Re-Imagine

Contextual Skills Development

> "By offering contextualized learning opportunities in the subject area and vocational area."

The above response by a senior faculty member from Kingsborough Community College reflects many respondents' viewpoints. In answering this question, many respondents focused on specific ways to conceptualize learning opportunities, either at the course

level or at the overall program/major level, making remedial education relevant to students' goals and interests. Specifics included:

- Linking developmental courses to content courses;
- Pairing developmental courses with credit courses;
- Making developmental courses relevant to a student's major;
- Assignments/coursework across disciplines;
- Combine remedial and introductory level instruction.

> "Pairing remedial courses with credit bearing content courses in a learning community and/or using content in students field of major interest will assist students in finding relevance and inspiration in remedial courses."
>
> "These courses should have a practical and relevant focus…"
>
> "Use extended course schedules to allow time for remediation and content within credit course; Use content based developmental courses linked to content courses."

Academic Support Services

Respondents also specified ways that students can be supported through various services and structures to help with this "re-imagining." Eight specifically mentioned learning communities as a way to address this issue, and several others mentioned tutoring and mentoring to support students' remediation and coursework. Specific suggestions include peer tutoring, online tutorials, regular meetings with faculty, workshops/seminars, and cohort education. Many respondents mentioned the use of technology (online learning, computer skills development, etc.) in these support services.

> "Learning Communities that pair remedial/developmental courses with content area courses."
>
> "What would be new is just-in-time or point-of-need instruction – not whole courses more or less applicable to certain skills "levels" but tutorial and individualized instruction to hone skills as they are brought to bear on course-based tasks or projects."
>
> "For writing/English courses, a workshop approach has been proven an effective way of facilitating learning and bringing students to the literacy level many colleges expect. This approach works best with smaller class sizes, extended meeting times, and writing tutors/consultants available to work with students at times that are convenient for the students."

Communication Skills

A large group of respondents said that reading, writing, and oral communication skills are central to developmental/remedial education. Workshops, tutoring, and collaboration to enforce these skills were all mentioned.

"They [communication skills] need to be seen as a total support system, supported by equipment, labs, technicians in speech language acquisition and given top status."

Extra Preparation Needed

According to several respondents, extra student preparation is needed. Among suggested approaches for the extra prep include: pre-course workshops, additional class hours for individual instruction, after-school programs, year-long or summer pre-college (before full college enrollment) programs, and extending introductory level courses. In addition, eight respondents specifically mentioned working with high schools to prepare students earlier:

"…all remedial courses should be done in high schools or alternative schools like EOCs in the City. College should develop partnerships with pre-college institutions as a career path. College should be able to focus on development of marketable job skills."

"…coordinating earlier in the high school experience would be preferable."

Additional Ways to Re-Imagine

Classroom-level changes (group projects, imaginative assignments, grouping students based on exam scores), improving assessment and communication of exam procedures, keeping students informed, and counting remediation/developmental courses as some form of credit were all mentioned in response to this question. In addition, some respondents viewed completing developmental courses as a requirement to register for credit courses, and some suggested moving developmental courses to a separate institution. And finally, a small group felt that no integration or "re-imagining" was necessary.

Question 4: How might the new college rethink placement and proficiency testing?

Major Response Categories: Communication Skills, Tailored to Student/Degree Needs, Rethink the Process

Respondents provided feedback on an extremely wide variety of ways to rethink placement and proficiency testing. A large portion of responses addresses the tests themselves, with specific suggestions for improvement.

Communication Skills

A focus on communications skills, including written and oral communication, was mentioned by several. Some focused on the need for writing skills assessments and better writing education, while others suggested that oral communication skills be tested through means such as personal interviews. Several respondents pointed out the need to take into consideration students' language background in placement and proficiency testing.

> "Placement and proficiency should be based on a careful evaluation of language proficiency, particularly for those students for whom English is a second language. There is much research linking reading disabilities, problems in learning a second language and academic problems. Identifying specific deficits in language processing would allow [us] to create appropriate remedial strategies."

Tailored to Student/Degree Needs

Along with taking into consideration students' language history, many respondents also suggested considering each students' specific needs and tailoring exams to personal and/or degree needs. Testing could reflect students' interests, target weak areas only, or reflect the actual skill level that students typically bring from high school. Testing could take into account multiple factors, or use a portfolio system.

> "All testing and assessing has to be more specific and nuanced so that the exact level of needs of the students can be determined."

> "Specific testing according to students declared interests."

> "Frequent online 'practice' sessions, study workshops offered at convenient times on how to pass…"

Rethink the Process

A large percentage of respondents addressed the overall proficiency and placement exam process, suggesting many areas for improvement:

- Increased Exam Preparation: Responses include pre-test workshops, practice tests, increased assistance for written parts, offering low-cost prep courses, online tutorials, pre-test meetings with counselors, and individual tutoring.

- Clearly Communicate Information about Testing: Many stated the need for transparency and the need for students to be informed of exam processes, consequences of failing, and realistic expectations.

  > "Placement and proficiency tests should be completely transparent – open to students and their faculty. These tests should foster individual student-driven benchmarking."

  > "Better organization is definitely needed. Deadlines for application/testing would help a lot."

- Include Others in the Process: Several respondents emphasized involving high schools in the process, as well as faculty and academic departments. One respondent even suggested including employers and alumni in the process.

  > "There should be more collaboration with the high schools on working to help students pass these tests…"

"There needs to be a different way of assessing exit from remediation that is more holistic and in the hands of faculty."

Question 5: What kinds of learning environments are most conducive to creating a college culture of learning?

Major Response Categories: Direct Interaction, Student Support Services, Physical Environment, Other Suggestions

Direct Interaction

One-third of responses specifically mentioned the use of small groups and/or small classrooms. A number of others focused on student-faculty interaction or ideal learning environments that would promote discussion, project-based learning, service learning, hands-on experiential learning, reciprocal teaching, and interaction among diverse students.

"Hands on assignments and approaches. A communicative approach to the curriculum. Integrated learning with technology. Small classes with personal attention."

"Learning environments where students interact with a wide cross section of students within their home college and across CUNY."

"A good learning environment is one where there is good interaction between the students, counselors and professors. Students should be encouraged to work together in their classes and help each other to succeed."

Student Support Services

Again, many respondents discussed specific student support services such as mentoring, cohort education, learning centers and workshops. "Learning communities" was a popular response. Others focused on promoting an atmosphere of support, encouragement, and recognition of accomplishments.

"Environments in which the students and faculty receive a lot of support."

"Departmental seminars, and efforts external to the classroom seem like an important element in broadening the sense of a campus that provides multi-faceted learning. Media and signage, community information boards (and information desks) provide a feeling of accessibility and immediacy."

"Stress models of student mentoring, both professional-student and student-student."

Physical Environment

Some respondents addressed the physical environment as a component to creating a college culture of learning. Several mentioned the use of computers and technology (computer labs, technology in libraries), while others discussed the need for a clean,

modern, beautiful campus. Other mentions include: study areas, seminar rooms, quality library, ample public space, and signage and information boards.

> "CC's have to work against their 'commuter' mentality. The campus culture has to be improved. Greater access to computers, relaxation (social) activities, campus lectures, films, programs that reflect the broadest goals of higher education."

> "Must contain varied settings and support systems – quiet space for reading, discussion/small group work, internet access for research, computer support for applications, space for interactions with other students and faculty and staff, opportunities to share opinions and ask questions."

Other Suggestions

Other responses to this question include the need for experienced full-time faculty and close connections to employers and career options.

> "…hiring and managing a faculty of good teachers who are dedicated and understand urban education."

> "experienced, prepared full time faculty cannot be underestimated…"

> "have folks from the field in regularly to speak about the trades/workplaces for health, auto, computers, etc…"

Question 6: How might administrative structures be designed to maximize student use of and satisfaction with college services and systems?

Major Response Categories: *Availability/Accessibility/Flexibility, Mentoring and Orientation, Clear Communication and Assessment, Other Suggestions*

Availability/Accessibility/Flexibility

In their responses to this question, over one-quarter of respondents discussed the need for increased availability, accessibility, and flexibility of services. Many specifically addressed the need to accommodate students' schedules and needs, many of which are non-traditional given the community college student demographic. Specific suggestions that fall into this category include the use of online services and computer technology by administrators, a one-stop central service center, and a customer-service approach.

> "Administrative structures have to be transparent, flexible and student friendly."

> "Administrative structure should be flexible to accommodate diverse student body."

> "Small units, accessible to students, rather than top-down traditional hierarchies; lots of faculty involvement in advising."

> "Those services need to be available when the students are available to utilize them."

Mentoring and Orientation

Many respondents suggested approaches that involved mentors and advisors to aid in navigating college services. Some suggested extended or ongoing orientation programs to specifically address college services and systems.

> "Extended or required orientation programs might help; assigning faculty mentors and having required meetings once or twice a semester might help. Faculty or administrators could be given a small cohort and serve as a contact for that small community."

> "Students should have peer mentors that help them navigate the system and inform them of the many services that are available to support them in their educational journey."

Clear Communication and Assessment

Many respondents pointed out the need for clear communication about procedures, as well as ongoing assessment to ensure that information is consistent and accurate. Keeping students informed, integrating office procedures, and staying organized were cited.

> "First off we must make the students aware of what is out there and available to them. Second we must then ask for their feedback and any suggestions of improvement."

> "Red tape and bureaucratic impediments should be regularly assessed and kept at a minimum. Furthermore, student satisfaction surveys should be distributed and reviewed annually in concert with an active student government."

The above quote also reflects an issue discussed by several respondents—the need to minimize bureaucracy and red tape. Creating a streamlined or seamless process would improve communication and consistency.

Other Suggestions

Other suggestions by multiple respondents include: "friendly" structures, easier procedures, experienced/dedicated administrators and faculty, and increased student involvement in providing services to other students. CUNY First was also mentioned as a model.

Question 7: How can academic and student affairs be integrated?

Major Response Categories: Collaboration, Focus on Advisement/Counseling, Communication, Other Suggestions

Collaboration

Despite a very wide variety of responses, a common theme of collaboration emerged. Respondents repeatedly mentioned collaborative approaches, such as academic personnel being directly involved in student events, joint councils/committees, academically-linked student clubs and joint workshops/seminars. Several other respondents mentioned integration of services across classes, departments, programs, and campuses.

> "The two groups can work collaboratively to develop programs to assist students—plan events, programs, and engagements that incorporate academic and creative elements that are scheduled to that students, staff, and faculty can actively participate."

> "College—learning in community—requires cooperation and active participation from both academic affairs and student affairs."

Focus on Advisement/Counseling

One in ten respondents specifically addressed counseling, mentoring, and advisement, through one-on-one interactions, as well as student services orientation and learning communities/groups.

> "A host of supported activities between staff and students must be developed, implemented and maintained. These activities should be carefully designed and reviewed to maximize social interaction between all parties involved. Student mentoring as well as peer mentoring should be strongly encouraged and supported."

> "Counselors should work closely with faculty and peer mentors and tutors."

Communication

Communication was a key word in many responses. Faculty can be more informed about and engaged in student affairs, and academic affairs can "stay abreast of student realities." Surveys and feedback should be a part of the communication between the two areas.

> "Professors need to be informed and engaged by student affairs. Student affairs needs to be highlighted as the valuable service career that it is."

> "It would be helpful if both areas – include the concerns of the other. For example in courses, the professor could share with the class – an event/conference that is happening in the CUNY/NYC community."

Other Suggestions

As stated earlier, an extremely wide variety of responses was given to this question. It was suggested that student voices drive academics:

> "Continue to bring students into the process of creating the curriculum and intellectual enrichment of the college."

Some addressed the issue of how to keep students involved in the college community:

> "You need people to connect with students one on one. Many of our students are commuter students. They don't join clubs, they have jobs and families. They come to class and get out of here as quickly as possible. Catch them while they re here in other activities. Get them to come back on weekends, bring the family, get them jobs that are close to the school or at the school or are integrated into their curriculum and you have a better chance with them."

Others emphasized teaching and involving student affairs in the classroom experience, while a few questioned the need for integration of student and academic affairs at all.

Question 8: What should be the relationship of the new community college to the existing community, comprehensive and senior colleges?

Major Response Categories: Transferability/Articulation/Transition, Types of Partnership, Surrounding Community

Transferability/Articulation/Transition

Many answers to this question focused on transferability, with over one-third making some specific reference to articulation or transferability. Others stressed the need for more education and open communication about issues of transferability.

> "It is very important the new community college programs have an articulation with comprehensive and senior colleges. Students who wish to continue on to a four-year degree should be able to transfer their credits from the community college."

> "If the opportunity to rethink and renew is really seized, a special challenge would be to work out articulation agreements with the senior colleges, especially for non-traditional majors. This could actually model effective articulation agreements for existing CCs and free them from trying to parrot and anticipate curricular structures at the seniors."

> "The community colleges should build an open pathway to the senior colleges."

Types of Partnership

It is important to note that while many suggestions discussed transferability or articulation, respondents did not necessarily recommend a close relationship or integration with a senior college. A sizeable group maintained that a new community college should have articulation agreements, but be independent and serve as a new unique model, separate from existing institutions.

> "I think a stand alone community college that articulated with the senior colleges would be best, especially if the college were truly interested in trying new (or at least more recent) approaches to teaching and learning."

> "It should supplement non-existing programs rather than compete with programs already being offered. It should be unique rather than just another community college."

Of course, others maintained that the new college should be closely aligned with all education levels and closely mirror the current structure.

One specific type of partnership that was frequently mentioned was an inter-college collaboration involving academic and student services/activities, a "college without walls."

> "There should be some way for those in the community college to take upper level courses in the other colleges while still attending the new college."

Surrounding Community

Interestingly, many respondents—about 15 percent of those who answered the question—specifically addressed the relationship between the new college and the surrounding community or neighborhood, as opposed to the existing CUNY colleges. This most likely has to do with the wording of the survey question. Most stressed the need for service-learning and integration of services and educational resources into the community.

> "Community colleges should be sensitive to the existing community, but should also articulate its goals and outcomes in accordance with senior colleges' expectations."

> "The community should have full access to the campus for educational and recreation purposes."

> "Colleges must be a part of the community, the neighborhood. They need to relate to the issues in the surrounding neighborhood."

Question 9: What college governance structures would be most conducive to achieving the goals of the new college?

Major Response Categories: Shared Governance, Communication, Existing Structures, Other Suggestions

Shared Governance

Responses to this question tended to include a reference to a shared or collaborative approach. Some respondents expressed the need for more faculty involvement, while others focused on student participation in governance. Many mentioned input and participation from many segments, including academic departments and local community business leaders. One respondent suggested a town hall approach, while another recommended that points of view from the private sector be considered when developing governance structures.

"Input from all segments of the cc, including students and part-time faculty in additional to full-time faculty, other professionals such as HEOs and CLTs, and the administration."

"…able to work collaboratively with existing schools."

"It would also be wonderful if, instead of the egregious compartmentalization and territorial gerrymandering of departments, the college could evolve a more integrative approach."

Communication

Communication—a common thread through responses to a number of questions—was mentioned by several respondents as a key approach to accountable governance.

"A structure which allows for accountability and frank discussions, and which prevents real forward motion by allowing everything to get bogged down in committees and subcommittees forever."

"The key should be openness, honesty, communication and direction."

"There should be regular opportunities for reviewing the overall goals, the strategies, and the effectiveness of the practices in place, so that modifications and corrections can be introduced as early as they seem necessary."

Existing Structures

Still, a significant group of respondents said that existing governance structures were adequate or preferred.

"From my perspective, I think that most of the governance structures stated in CUNY's philosophy are still viable if honestly carried out. There are avenues for the administration, faculty and students to express themselves."

Other Suggestions

A few respondents specifically addressed the need to minimize bureaucracy and red tap and be able to react quickly to change. Other responses included a department/discipline-based approach, a willingness to make changes, more student services, a focus on quality teaching and education, and what one respondent simply observed:

"Any structure that encompasses reality and respect."

Question 10: What are the elements of a comprehensive college accountability system?

Major Response Categories: Goal Oriented, Transparent/Open Communication, Flexibility and Adaptability, Feedback, Specific Measures

A large group of respondents provided broad overarching ideas for a successful, comprehensive college accountability system, while another large group listed specific system elements. Overall, a wide variety of responses was received for this question.

Goal-Oriented

Seven respondents specifically mentioned the need for established goals and evaluation based on those goals. Others stressed stated outcomes for courses, departments, and support administration.

> "Goals for departments and administrative support to meet those goals."

> "Strategic goals with specific action plans and outcome statements."

Transparent/Open Communication

Respondents stressed the need for a transparent process that presents clear accountability measures and communicates those measures effectively and honestly.

> "Fair, transparent and open systems. Its not just about the grade and student satisfaction, its also about the challenges presented to students to help them to learn."

> "A clear path to advancement in skill attainment and formal education."

Flexibility/Adaptability

This is closely tied to Transparent/Open Communication, but specifically includes ongoing assessment of accountability and timely, rapid decision-making.

> "Accountability is tough – once you develop an accountability system it cuts down on creativity and growth. You immediately begin working to satisfy whatever accountability system is set up. It is important however – but it must be reached by consensus and altered every so often so that it does not stagnate and become rote."

Feedback

Several respondents expressed the need for continual feedback and involvement by students, faculty, and staff. A system of checks-and-balances was also recommended.

> "Annual review of programs, departments, offices and services by third-party members of the institution, including student representatives, is essential. A review and assessment of the annual goals of each area must be addressed and recommendations put forth.

> "Involvement of faculty in creation and collection of metrics."

Specific Measures

Many respondents listed specific accountability measures.

> "Elements of comprehensive college accountability system should include both performance accountability and regulatory accountability. Some of the elements

should be: clear expectations of student achievement, student outcome assessments, accreditation and program review, report card based performance indicators, employee performance evaluations, efficient public and stakeholder information, appropriate use of federal and state regulations, and accountability for resources and budgetary practices."

Among the most commonly mentioned measures were: post-graduation tracking (including career entry measures), graduation rates, career standards and skills assessments, student satisfaction, course performance measures, attendance, faculty evaluations, retention, senior college placement and success rates, and student engagement/involvement. A multifaceted accountability system was mentioned by a few respondents, with some specifying both quantitative and qualitative approaches.

Question 11: If there is anything else that you think needs to be considered, please share your thoughts here.

Major Response Categories: Suggestions for Additional Input, Additional Considerations/Issues, Encouragement

In this final question, respondents were given an opportunity to express any other thoughts they had. Their responses ranged from specific suggestions for additional input to success stories and models from their own or other institutions.

"My understanding is that the Miami-Dade system has a very high transfer rate from CC to SC and baccalaureate attainment. Is this because they focus on a program of study that takes as the primary goal transfer. I think that this should be a primary focus of the new community college."

Some responses addressed issues not included in the survey, such as the need for an accessible college location, specific individualized curricula/teaching, and physical education classes.

"I am not sure whether or not physical education courses will be offered at the new community college but I do think that it is important. At the very least, providing a physical recreation center will help students study better, reduce stress, and be a place where students can feel a sense of community."

Still others took the opportunity to restate or summarize answers and viewpoints from previous questions:

"Consideration must always be given to the evolution of our student body. Technology must be an integral part of our academic programs."

There were respondents who supported the new community college effort and provided encouragement, as well as those who questioned the need for an additional college. Four respondents stated that existing schools should be supported or enhanced before developing a new college.

> "There is no need for a new community college. What there is a need for is sufficient resources for existing schools. Currently, labs are without equipment, buildings have not been renovated, windows are falling out, and many community colleges are in a state of disrepair. Fix what is broken first, before going on to create a new entity."

Many responses fit into three broad categories:

Suggestions for Additional Input

Several respondents suggested that more research be carried out and that additional input should be sought from students, faculty, administrators, and the surrounding community.

> "Undertaking a survey among current cc's of most effective past and present practices and policies (including evidence of such), with the goal of emulating the best of these in the new institution."

> "Speak to current and past students, faculty, and staff. Ensure that this college will not come at the detriment of the existing CUNY schools. Listen to the needs and desires of the community. Don't base this college solely on what others are doing."

Additional Considerations/Issues

Many respondents mentioned additional issues that should be considered in the development of the new community college. Suggestions touched on a variety of topics, including the physical environment and location of the college, faculty needs, student services, and teaching.

> "The college location needs to be located immediately at a large public transportation hub such as Hunter. It needs to be built large enough to handle existing populations and have immediate space now for future expansion.

> "Create a teaching option for faculty."

> "Career services [and] transfer services are incredibly important in this venue and must be built with best practice in mind. There should be some kind of board which includes employers to help guide new majors."

> "The new community college should be highly influenced by best practices in teaching and delivery of instruction, in student services (writing centers, tutoring, library services, academic advisement, counseling, student affairs, etc.), and become the standard to which other colleges aspire."

Encouragement

While some respondents expressed their doubts about the need for a new community college, several others included words of encouragement in their final responses.

"This is an exciting proposal. It is an opportunity to try new ideas, create a new vision."

"I applaud this initiative. High school students not academically oriented need a place (a higher ed setting if you will) to develop skill sets sorely needed in our city/society. Of limited time duration so the students can see the finish horizon but long enough to gain sufficient mastery in their fields."

"It is a wonderful opportunity. It is best to make the most of it; when in doubt, why not err on the side of venturesome, the different, even the radical?"

Appendix C

Professional Development Framework

Curriculum documents and the college's professional development framework will be designed based on the ideas of situated learning, cognitive apprenticeship, strategic reading and writing, and a scientist's approach to learning:

- Situated learning theorists suggest that learning occurs within specific historical, cultural and social contexts, in which knowledge is distributed among people, tools, activities and environments. Learners are acculturated into communities through an immersion process. "What does it mean to learn physics as a cultural process…? Much the same as what it meant to learn cooking as a cultural process. Masters (physicists) allow learners to collaborate with them on projects that the learners could not carry out on their own. Learners work in a smart environment filled with tools and technologies, and artifacts store knowledge and skills they can draw on when they do not personally have such knowledge and skills. Information is given 'just in time' when it can be put to use … and "on demand" when learners feel they need it and can follow it. … Learners see learning physics as not just 'getting a grade' or 'doing school,' but as part and parcel of taking an emerging identity of being a physicist." (Gee, 2004) The educational model – with the use of case studies and visits to worksites – is established on these principles and practices. The educational model—with the use of case studies and visits to worksites—is established on these principles and practices.
- Through cognitive apprenticeship, the tacit knowledge of experts can be made accessible to "novices" via modeling and coaching. Reading, writing and math taught through an apprenticeship approach requires experts to first become aware of the range of implicit skills and strategies they use within specific contexts, and once articulated, to teach these skills through providing models and time for students to practice them in real-world settings and situations (Brown, Collins, and Duguid, 1989).
- Effective reading and writing involves learners' ability to draw upon a repertoire of strategies that may be used in flexible combinations depending upon the type of text

they are reading or composing, with respect to its disciplinary or discourse content, and the reader's or writer's prior knowledge of the content (Schoenbach, Greenleaf, Cziko, and Hurwitz, 1999). Strategic reading and writing supports and strengthens students' ability to develop, become aware of and actively monitor the strategies they use before, during and after reading or writing texts, to deepen their comprehension and enable them to write with greater fluency.

- Traditional instruction in the areas of math and science, especially for students considered to be under-prepared, often consists of an instructor who presents rules, relationships, or understandings that students are then asked to apply to a series of examples or problems. In this way, acquiring new math and science tools is a very passive activity for students – students hopefully receive what the instructor is doing. The educational model will turn this approach on its head by adopting a "scientist's approach to learning." As much as possible when presented with data or other evidence, students will "do the work" of asking each other and themselves the questions that scientists and mathematicians ask themselves every day – "What is going on here?" "What patterns do I notice?" "Is this always true?" "What could explain what I am seeing?" "This is unexpected – what could have led to it?" By incorporating a mixture of inductive, deductive, and other types of reasoning in coursework, and by valuing questioning and communication as highly as any other academic activity, students will develop the inquisitiveness and other "habits of mind" that can be critically important for strengthening learner persistence, especially in solving non-routine problems.