LaGuardia Community College
Retention Committee Report
June, 2006

Committee Membership: Paul Arcario (Academic Affairs, Chair), Belkharraz Abderrazak (Mathematics), Deirdre Aherne (Academic Affairs), Barbara Astone (Institutional Research), Renee Butler (Enrollment Management & Student Development), Terry Cole (English), Steve Dauz (Academic Affairs), Wen Juan Fan (Education & Language Acquisition), Matthew Joffe (Enrollment Management & Student Development), Jean Buckley-Lockhart (Counseling), Robert Park (Enrollment Management & Student Development), Kenneth Schlesinger (Library), Angela Wu (Accounting & Managerial Studies)

Executive Summary

The overall retention rate at community colleges has remained at the same level for the past twenty years. A review of retention-related research studies in Section II indicates that while there exists a fairly consistent set of recommendations regarding interventions, at the same time there has been little rigorous research regarding the effectiveness of those approaches at the community college level.

Section III reviews what we know (and don't know) about factors affecting retention at LaGuardia and the efficacy of our current retention-related efforts. Section IV lists a number of practices at other CUNY colleges that may warrant further investigation.

Although the research is not conclusive, there is a sufficient empirical foundation to hypothesize a number of approaches and practices that may lead to greater effectiveness. These form the basis of a review (Section V) of how developed LaGuardia's efforts are in terms of these recommended approaches, as well as a series of recommendations in Section VI. Recommendations include broad-based approaches – such as expanding our research agenda; creating a structure to lead a college-wide retention effort; identifying sub-groups of at-risk students; developing interventions targeted to specific groups of students; improving tracking, monitoring, and outreach – as well as a number of more specific activities.

I. Charge

The Committee was charged with setting the stage for a college-wide effort to improve retention rates by reviewing the national literature on retention, examining College and CUNY data and practices, identifying future research, and developing a set of preliminary recommendations.

Based on the "Measures of Institutional Effectiveness" that the College has already identified (the six-year graduation rate, Fall-to-Fall retention rates, and Semester-to-Semester return rates), the Committee decided upon a working definition of retention as persistence to attainment of the associate degree or certificate. It must be acknowledged, however, that this definition omits some outcomes that could be considered successful. A recent retention study (*What Community College Policies and Practices are Effective in Promoting Student Success*) conducted by one of the most active organizations involved in community college research, the Community College Research Center at Teachers College, counts success as degree/certificate completion, early transfer, or persistence (still enrolled) over a specified time period (three years).

The Committee also wishes to point out that this report should be read in the context of LaGuardia's superior outcomes in regard to retention and graduation. LaGuardia's five-year graduation rate of 26% exceeds the national community college norm of 17.3%. LaGuardia's average one-year retention rate is 63.8%, exceeding the national average of 58%.[1] The question remains open as to how much improvement is possible. While we looked at studies that attempted to measure effective retention-related practices by comparing high-performing vs. low-performing colleges, we were not able to benchmark what the retention or completion rates actually are for other high-performing institutions around the country. The most relevant study, *"What Community College Policies and Practices are Effective in Promoting Student Success,"* which compared high- and low-performing community colleges, measured relative performance and did not indicate "absolute rates of student success." CUNY data were not helpful in this regard, as retention outcomes among the CUNY community colleges seem roughly comparable. The question of improving retention rates also must be considered in light of other real restraints: we serve students who are generally less academically prepared and from a lower socioeconomic status – two factors related to the likelihood of degree completion. While finances are a major issue for community college students, financial aid remains limited (in fact, the newest TAP regulations may make state aid even more difficult for students to obtain). Nevertheless, as Bailey, Jenkins, and Leinbach (2005) argue, even with such restraints, "some colleges have higher graduation rates than others and perform better on a variety of student outcome measures." As an institution clearly in the higher performing group, we should be proud of our accomplishments yet acknowledge that our success is relative and that in absolute numbers many of our students are not attaining their educational goals.

II. Literature Review

The Committee reviewed the following reports on retention:

"Creating the Conditions for Students to Succeed." CUNY Task Force on Retention report. February, 2006. Part II presents survey results from across CUNY colleges,

[1] Source for national data: U.S. Department of Education, National Center for Education Statistics (NCES).

identifying retention issues and practices. Part III contains a broad review of the national literature on retention.

"Paths to Persistence: An Analysis of Research on Program Effectiveness at Community Colleges." Community College Research Center, Teachers College, Columbia University. January 2005. This is a critical analysis on the state of research on practices designed to increase persistence and completion at community colleges.

"Raising the Graduation Rates of Low-Income College Students." The Pell Institute for the Study of Opportunity in Higher Education. December, 2004. This study compared institutional characteristics of ten colleges with higher-than-average graduation rates vs. ten colleges with lower-than-average graduation rates. All were four-year institutions.

"The Role of Academic and Non-Academic Factors in Improving College Retention." ACT Policy report, 2004. This is a meta-analysis combining statistical findings of more than 400 existing research studies.

"Shaping Our Future: President's Committee on Strategic Enrollment Management" (Subcommittee on Retention, Graduation, and Transfer), LaGuardia Community College, 2003. One subcommittee did address retention issues; a number of their recommendations have been incorporated into this report.

"The Toolbox Revisited: Paths to Degree Completion from High School Through College."U.S.Department of Education. February, 2006. This is a longitudinal study using data (interviews and transcript data) collected by the National Center for Education Statistics that began with a national sample of the high school class of 1992 followed through 2000.

"What Community College Policies and Practices are Effective in Promoting Student Success? A Study of High- and Low-Impact Institutions." Community College Research Center, Teachers College, Columbia University. May 2006. This study compared institutional practices and policies of three "high-impact" community colleges vs. three "low-impact" community colleges (impact being defined as the probability of persistence, graduation, or transfer), all in Florida. Since the sample size was small, the authors acknowledge that their results "should be considered suggestive."

"What Works in Student Retention? Two-Year Public Colleges." ACT report, 2004. This is a survey of two-year colleges; the results represent opinions not necessarily based on actual institutional outcomes data.

A number of factors influencing student retention have been posited over the years; these factors are fairly consistent across numerous reports. Similarly, there is no shortage of recommendations in regard to fostering student retention; a relatively consistent set of practices has been repeatedly recommended in a number of reports. However, it should be noted that the analysis of existing research undertaken in the *Paths*

to Persistence report shows that the research in regard to these factors and recommendations is at best mixed. And despite a long-standing body of recommended approaches (most going back at least to the mid 80's), retention at community colleges nationally has not improved over the years: ACT data on national two-year public college retention trends showed the freshman-to-sophomore retention rate at 53.1% in 1983 and 51.6% in 2005.[2] While this may be a comment on the efficacy of these recommendations, it may also reflect the fact that many approaches are difficult to implement at a scale extensive enough to have an impact on institutional outcomes. What also has to be considered is that most of the research behind these recommendations has been undertaken at four-year colleges – applicability to community colleges remains to be answered in many cases. In fact, *What Community College Practices Are Effective* observes that "there has been surprisingly little rigorous research on institutional effectiveness in community colleges."

The following sections – *Factors Influencing Retention* and *Retention Practices* - represent a summarizing and synthesizing of several of the above-listed reports; most of the individual studies cited below were contained in these reports.

A. Factors Influencing Retention

Academic Preparation. *The Toolbox Revisited* finds that a rigorous high school curriculum ("academic intensity") is one of the strongest predictors of persistence (defined as attaining a bachelor's degree). In general, as the *Pell Institute Report* notes, there is "considerable evidence that students who enter college with poorer high school records and lower SAT/ACT scores are more likely to leave before completing college."

Given the College's mission of open access, providing ways to improve academic skills for students entering with poor academic preparation thus remains important. Research indicates that for students who need developmental education (based on placement tests), requiring basic skills courses is better than not, as students placed in skills courses are more likely to persist than students with similar test scores who were not required to take such courses (Bettinger and Long, 2005).

When comparing the persistence of students who test into developmental courses vs. those not needing developmental work, the research is mixed. Some studies indicate that students who need developmental work have lower retention and graduation rates, with the more time spent in developmental courses, the less the likelihood of earning a degree (Muraskin and Wilner, 2004; Adelman, 1998). *The Toolbox Revisited*, however, found that having to do "remedial work" did not make a difference in degree completion. Also, Roueche et al. (2001) showed that community college students taking developmental classes graduated at the same rate as students who started in regular college classes. However, recent CUNY data show that students needing developmental mathematics have a lower retention rate (see Section III.A. below).

[2] Source: ACT National Retention/Completion Summary Tables, 2005. LaGuardia's own graduation and retention rates have remained relatively flat over the past five years.

Research on developmental education is not as conclusive as we would like regarding the effectiveness of various approaches. As *Paths to Persistence* summarizes, "given the pervasiveness of developmental education…it is surprising that there is still so much uncertainty about the most effective approaches to working with students with weak academic skills." This same report does add, however, that "among the practices and strategies that we have examined, existing research provides the most support for learning communities." The *Pell Institute* report mentions another effective approach, noting that "studies of summer bridge programs [often including developmental coursework] are almost unanimous in showing positive effects on college retention."

Academic Performance and Progress. Studies have shown that first-year academic progress and performance are strong indicators of degree attainment. Ishitani and DesJardins (2002) found that the higher a student's first-year GPA, the less likely that student was to drop out. *The Toolbox Revisited* reports that finishing the first year of college with at least twenty credits was a strong predictor of degree attainment; also, students who take college-level mathematics as early as possible are more likely to attain a degree. Maintaining full-time status is also critical; the *CUNY Task Force* report found that part-time students in associate degree programs were significantly less likely to re-enroll one year after entry.

Academic Direction. The *Pell Institute* report states that "students with clear academic and career goals are more likely to persist than those who have not articulated their goals." Early identification of a major and first-year seminars/orientations that help students clarify their academic and career plans are thus related to greater persistence. Bean and Metzner (1985) developed a model of attrition for nontraditional students that suggested "goal commitment" was important, though their theoretical framework has had less influence on community college research than the social and academic integration model (see Section B below).

Personal Characteristics. This category refers to students' qualities and skills, such as general self-concept (general level of self-confidence and self-esteem), motivation, and academic-related skills (time management skills, study skills, and study habits). In *What Works in Student Retention*, colleges were asked what student characteristics contributed the most to student attrition; lack of motivation and poor study skills were listed among the top five. In the *CUNY Task Force* report, most survey respondents also identified these same problems along with lack of self-confidence, emotional distress factors, low level of tolerance for frustration, limited problem-solving skills and lack of understanding of college expectations (e.g., amount of reading and other work required; need to be proactive about one's own learning process). The review of research in the *ACT Policy Report* found a weak connection between retention and both general self-concept and motivation, but a strong connection between retention and both academic-related skills and academic self-confidence.

Other issues frequently identified as related to retention fall into the category of "external demands." Respondents in the *What Works in Student Retention* survey cited

"too many job demands" and "too many family demands" as contributing highly to attrition – factors also cited in the *CUNY Task Force* survey. For example, at CUNY, part-time students are less likely to persist and they are more likely to work 35 hours or more a week (64%) than full-time students (36%). Of course, this doesn't isolate working as a factor in itself, as we don't know the persistence rates for the 36% of the full-time students who work over 35 hours.

Demographics. National data show that low-income students, students with lower socioeconomic status, first-generation college students, Latino students, and black students (particularly males) have lower degree completion rates. However, *The Toolbox Revisited* finds that including high school academic history in a multivariate analysis considerably reduces the role of demography in degree attainment (though this sidesteps the fact that demographic factors may indeed account for the quality of high school education to which one has access).

Institutional Factors. This category includes a broad range of institutional issues, such as course availability and scheduling, availability of majors, ease of registration and other processes, and academic policies. It seems that little, if any, research has been done regarding the actual effect of these factors on retention at community colleges. Nevertheless these issues are frequently cited in surveys such as those conducted by ACT and the CUNY Task Force.

Student satisfaction with and commitment to the institution have also been hypothesized as related to retention. The *ACT Policy Report* found a "moderate" relationship between institutional commitment and retention. Nationally-normed student satisfaction surveys (such as the ACT Opinion survey) have not been correlated with actual institutional retention rates, so it has not been possible to determine the precise relationship between satisfaction with institutional services and attrition.

B. Retention Practices

Quality of Instruction. The Pell Institute report found that at high-performing institutions students consistently rated the faculty as excellent, there was a higher percentage of full-time faculty, large lecture classes were not common, faculty were "supportive," faculty often interacted with students outside of class, and faculty had high expectations for student achievement. *What Community College Polices and Practices Are Effective* found that the majority of high-performing colleges placed a greater emphasis on faculty development than did the low-performing colleges.

Social and Academic Integration. This framework, developed by Vincent Tinto, argues that students who are better integrated into the social and intellectual life of the institution are more likely to persist, and thus implies that colleges should develop activities and processes that foster such integration. *Paths to Persistence* notes that while many studies do suggest that academic and social integration have positive effects on persistence at four-year (particularly residential) colleges, research on social integration at community colleges, and at commuter colleges, "is at best mixed." A recent review of the research

argues that the "explanatory power of Tinto's theory to account for student departure in two-year colleges remains undetermined and open to empirical treatment" (Braxton, Hirschy and McClendon, 2004).

Student Engagement. While this term has recently achieved widespread currency through CCSSE (Community College Survey of Student Engagement) and NSSE (National Survey of Student Engagement), the theoretical framework considerably overlaps the social and academic integration model. Interestingly, the CCSSE website states that "the research findings are unequivocal" that the more students are engaged "with college faculty and staff, with other students, with the subject matter being learned," the more likely they are to persist, citing Pascarella and Terenzini (1991) as one of four examples of the research supporting this contention. However, *Paths to Persistence* notes that the same authors (in that same 1991 publication) state that their integration/engagement model (including interaction with faculty and peers; extracurricular involvement) shows little if any positive relationship with persistence at commuter colleges. Thus, while engagement may indeed be of critical importance, the research behind it is not unequivocal. *What Community College Policies and Practices Are Effective* acknowledges that while the role of student engagement has "a solid empirical foundation in the literature on the effectiveness of four-year institutions [at least residential institutions], research on the impact of student engagement on success of community college students has produced much more mixed results." Also, to our knowledge, the CCSSE organization has not yet attempted to correlate their survey results with actual retention data. One study (Kuh et al., 2005) did use both NSSE scores and graduation rates as measures of institutional performance, but did not indicate whether student engagement outcomes were correlated with graduation rates.

The *Paths to Persistence* report does acknowledge that "the one place where the engagement model may be the most relevant at the community college is in the classroom. This, after all, is where even commuter students interact with faculty and potentially with other students." CCSSE does place particular emphasis on assessing educational practice in the classroom, including academic challenge, amount of reading and writing done, and the kind of mental activities their coursework requires.

Financial Aid. A number of studies show that financial aid results in increased persistence, including at least two community college studies (Hoyt, 1999; Cofer and Somers, 2000). In *What Works in Student Retention*, respondents listed "the amount of financial aid available to students" as the number one institutional factor having an impact on retention. The *Pell Institute* report cites several studies indicating that "on-campus work produces positive effects more consistently than other types of aid, most likely because students become more involved and attached to the campus and its staff." Another group of studies point to perceptions of finances as being important. One such study (Garcia, 2000) showed that persistence of students in basic skills classes could be predicted by perceptions of difficulties in financing their education.

Orientation Seminars/Programs, Advising, and Counseling. The *Paths to Persistence* report states that freshman-year programs have support in the literature (though in these

studies participation in such programs was usually voluntary, indicating that positive effects may be due to initial student characteristics rather than the programs themselves). Freshmen seminar courses are also supported in the literature; for example, a large majority of the high-performing colleges in the *Pell Institute* study offer a freshman seminar course, "in general taught by regular, full-time faculty whose disciplines range widely." Regarding shorter orientations, Pascarella and Terenzini (1991) concluded that such programs did not have a statistically significant effect on persistence.

Respondents in the *What Works in Student Retention* survey ranked academic advising as very important. *Paths to Persistence* concludes that the evidence for the effectiveness of counseling and advising is mixed, but nevertheless adds that "such programs can play an important role in retention and graduation."

Academic and Support Services. The *Paths to Persistence* report notes that research on support services at community colleges is relatively scarce. A major study (Muraskin, 1997) has been done on one of the most widespread student support services programs – Student Support Services (SSS), funded under the federal TRIO programs – though this study did not focus on community colleges. Peer tutoring was identified as a particularly effective component of this program; the *Pell Institute* study also identified the availability of peer tutoring as a characteristic of high-performing colleges. Colleges responding to the *What Works in Student Retention* survey identified "learning support" (including tutoring and skill centers/labs) as one of the practices responsible for the greatest contribution to retention, but no comprehensive data on the effectiveness of these types of tutoring seem available.

Learning Communities. As noted earlier, *Paths to Persistence* concludes that existing research does provide support for the effectiveness of learning communities in terms of both retention and improving learning outcomes, particularly for students still in basic skills classes.

Identifying and Tracking Student Progress. Two of the three high-performing colleges studied in *What Community College Policies and Practices Are Effective* had (to varying degrees) "established and widely used procedures for identifying students who are struggling and directing them to appropriate supports."

III. Review of Retention Factors and Practices at LaGuardia

The Committee reviewed LaGuardia data[3] as well as CUNY data from the recent CUNY Task Force on Retention report. Data on program effectiveness was collected from each Division. We have organized the data in terms of 1) factors hypothesized to affect retention, reviewing what we know vs. what we don't know, haven't yet asked, or need more information about; and 2) descriptions and outcomes of LaGuardia formal

[3] Sources: LaGuardia Leavers: A Profile (2001); ACT Withdrawing/Nonreturning Survey (Spring, 2002); individual data reports prepared by LaGuardia's Office of Institutional Research.

retention-related practices and activities. Possibilities for a future research agenda and/or for improving practices are also set forth in the "Discussion" sections.

A. Retention Factors

Academic Preparation

- LaGuardia Leavers were somewhat better prepared than the average student (i.e., compared to all entering freshman, more students among the Leavers were exempt from basic skills or had failed only one test).
- CUNY data for associate programs (Fall 2003 cohort) show that initial "basic skills proficiency status" in reading and writing has basically no effect on one-year retention rates. Students not needing any basic skills were retained at a 72.8% rate; students required to take basic reading were retained at a 74% rate; students who had to take basic writing were retained at a 71.4% rate; those who had to take both had a 74% retention rate. However, students needing math, either alone or in combination with reading/writing, did have a lower retention rate (5 to 10 percentage points lower).

Discussion: In general, we don't know the particulars of the relationship between academic preparedness and persistence at LaGuardia; as noted above, the Leavers study showed leavers were somewhat better prepared (but looking only at one measure, number of placement tests failed). Further, we haven't yet conducted finer analyses to correlate retention rates with specific cohorts of students at different levels of preparedness (such as cohorts based on high school performance/curriculum, or actual scores on placement tests). This would require tracking various groups of students over the course of their careers at the College. We might want to do this for groups we hypothesize may be particularly at-risk. For example, while mathematics is mentioned in numerous studies as a success indicator, we haven't examined retention rates for students placing in MAT095 vs. MAT096 vs. those not needing developmental math. Similarly, we haven't tracked students to see the possible effect of taking developmental math in the first semester vs. putting it off (which we know many students do). As another example, after three semesters at the College, only 23 out of 162 students (Fall 04 cohort) who initially received low scores (4 or less) on the ACT writing placement test have taken English 101. However, we don't know if those students are still persisting at the College. Finally, the research suggests that summer bridge programs can improve retention, but we haven't examined whether our USIP program increases persistence.

Academic Performance and Progress

- 54% of Leavers were in good academic standing when they left.
- 38% of Leavers completed all of their basic skills requirements before leaving.
- More than half of the Leavers left with less than 18 credits.
- The largest percentage of Leavers is in the first year (first-year Leavers accounted for 46% of all those who left).

- CUNY data also show the freshman year to be a vulnerable time for students; for both associate and baccalaureate students the drop out rate is highest in the first year. CUNY data show that students who are academically successful in their first semester and who accumulate credits towards the degree in the first term are more likely to remain enrolled.
- CUNY data indicate that part-time status is a strong predictor of attrition.

Discussion: Based on *The Toolbox Revisited* study, we should examine whether completing 20 credits in the first year is indeed an indicator of retention at the College (or whether some other number is more indicative). Also, we don't know the particulars as to how retention is affected by part-time status (e.g., changing status; number of courses taken while part-time) or by having to repeat of basic skills or gateway courses. In should also be noted that LaGuardia's retention data refers to first-time, full-time students (so that we can compare ourselves to other colleges on this nationally-used measure). We don't track part-time students or students who transfer in, which are increasingly large populations here at the College.

Academic Direction

We do not have any data at the College on the impact of students' having clear academic goals, clarity and understanding about the choice of a major, or articulated career plans. While the 2002 ACT Withdrawing Survey indicated that most Leavers (75%) expected to graduate from LaGuardia, it doesn't provide information about specificity of goals and depth of commitment. A qualitative research study may enable us to explore this factor.

Personal Characteristics

- The 2002 ACT Withdrawing survey indicated that less than half the leavers said they had put *very much* effort into their studies.
- The New Student Survey provides some general information about aspirations (e.g., the large majority of students want to pursue their education beyond the associate degree).

Discussion: We have very little qualitative data on issues such as motivation, aspirations, applied effort, or goal commitment. While the College does conduct periodic surveys (e.g., ACT Opinion, CCSSE), we have not correlated such survey data with individual student retention. Since the surveys do have student "identifiers" (though not for all respondents), we could attempt to correlate responses with actual persistence rates to see if certain issues are more salient than others, in terms of predicting who is more likely to leave.

Demographics

- The College's 2001 Leavers Study showed that the demographic profile of students who leave before completing their degree programs (not including early transfers) is

"slightly" different from that of the general student population (a two to six percentage point difference on any demographic characteristic).

- Recent data from the CUNY Task Force indicate that retention rates vary by age, gender, and race/ethnicity (varying as much as 13 percentage points across differing race/ethnicity groups).

Discussion: These group differences may warrant further examination to determine if targeted interventions for various sub-groups are appropriate.

Institutional Factors

- In the 2002 ACT Withdrawing survey, respondents were generally satisfied with most academic and general environmental characteristics of the college. However, at least a quarter of the leavers cited dissatisfaction with each of the following: parking, financial aid, availability of courses at convenient times, academic advising, registration, personal counseling, and availability of an advisor.
- It is not clear whether there are academic or other policies that hinder retention.

Discussion: Given that numerous procedures and services have been revamped at the College since 2002, the above results may be out of date. The College has conduced student satisfaction surveys (ACT Opinion; ACT Outcomes) since 2002, but results have not been correlated with retention rates for those respondents we can identify and track. Again, it is difficult to ascertain the relationship between satisfaction and retention. Our scores on the 2005 ACT Opinion survey were generally below the national average, yet at the same time our retention and graduation rates are higher than the national average.

B. Retention and Student Success Practices at LaGuardia

In this section, we map the various programs and activities hypothesized to have an effect on student retention at LaGuardia and review the available data documenting what that effect actually is. Two general points can be made: 1) regarding academic programs, there is considerable data demonstrating successful approaches in terms of improving student grades and pass rates (e.g., faculty development, learning communities, "Preps," supplemental instruction), but for the most part, we have not yet examined how such success correlates with retention; and 2) there are many promising pilot or small-scale programs (e.g., Early Alert, Leadership and Diversity, Mentoring) which will not have an impact on institutional outcome measures unless and until they can be offered on a much broader scale.

Quality of Instruction

- DFL courses (that is, technology-enhanced courses taught by faculty who participated in the DFL professional development program) show a reduction of nearly 20 percent in the rate at which LaGuardia students drop out of courses.

More than 250 courses have been revised to date to incorporate digital technologies.

- Students in DFL courses consistently show gains of over a half point on such indicators of student engagement as synthesizing information, building writing skills, learning to work effectively with others, and analytical thinking – as measured by the Community College Survey of Student Engagement.
- The pass rate on the University's College Proficiency Exam (CPE) for students who took writing-, reading-, or critical thinking-across-the-curriculum courses in Spring 2004 ranged from 85% to 91%, compared to the College's overall pass rate of 80%.

Discussion: DFL courses have shown improvements in terms of course retention; we haven't yet looked to see if this translates to longer-term persistence. We have not yet examined other professional development programs (e.g., Writing-in-the-Disciplines, Critical Thinking Across-the-Curriculum) in terms of their possible relation to persistence.

Academic Support Services and Other Academic Initiatives

- Ten years of data on supplemental instruction (peer tutoring) show that participating students receive an average of one full letter grade higher in high risk courses than students who have not participated. Similarly, students using the Science Study Hall receive, on average, almost one full letter grade higher in their biology courses than non-users. Data on most other forms of tutoring offered at the College are for the most part either preliminary or inclusive at this point.
- Two recently developed activities are "Preps" and "Review Sessions." Preps are attached to high-difficulty courses and provide a preparatory workshop *prior* to the course; initial outcomes show that 72% to 85% of the students who take Preps received a grade at or above the mean grade for that course. Review Sessions provide a structured study session for students during the semester. To date, we have only piloted this intervention with clinical nursing courses; preliminary data show an increase in the number of B grades in the classes and a mean score increase of 5 points on exams.
- Students who have developed an ePortfolio score higher than both the LaGuardia and national means on a number of key indicators on the Community College Survey of Student Engagement, including synthesizing ideas, writing, working effectively with others, and making judgments about the soundness of information, arguments or methods.
- Students who have developed their ePortfolios rank the College higher on a number of indicators on the ACT Opinion Survey, including quality of instruction, whether they would advise a friend to attend LaGuardia, and whether they would choose to attend LaGuardia if they could start college over.

Discussion: Most of the above academic interventions and programs have been examined in terms of effect on course pass rates and/or GPA, not persistence. We do not yet have a clear picture of the relationship between academic success and persistence; we

do know that many students in good academic standing leave, often to transfer early, or for reasons unrelated to academics.

Learning Communities

- A 1999 study showed that, of the 37 courses in Fall 1998 that included at least one section also taught in a learning community, 25 of those sections (68%) had higher pass rates than the pass rates for the other sections of that course. In Spring 1999, of 35 courses offered with at least one section taught as part of a learning community, 25 (or 71%) had pass rates higher than the pass rate for the other sections of that course.
- In 2004, the College conducted a massive quantitative study of over ten years of data on ESL learning communities, analyzing over 90,000 course sections. The data showed ESL students in pairs (in which students are "mainstreamed" into discipline-area courses earlier than usual in their academic careers) overall do as well as or better than non-ESL students and ESL students taking those discipline-area courses in a non-paired mode later in their academic careers. In addition to higher grades, there was a statistically significant relationship between passing and participating in a learning community course; that is to say, students were more likely to pass a particular course (whether a content, basic skills, or ESL course) when the course was in a learning community.
- Recent assessments of New Student House and Liberal Arts clusters, which analyzed data collected over an eight-year period, demonstrated improved outcomes in these communities. Students in New Student House passed the basic reading and basic writing courses at higher rates than students who took both courses in the same semester, but not in the House setting. Passing rates for Freshman Composition offered in Liberal Arts clusters were ten percent higher than in stand-alone sections. In addition, data collected since 1996 show that pass rates for the ESL course offered in ESL New Student House on average have exceeded those for the same level ESL course not offered in the House by 10%.
- Fall 2004 data showed that the new First Year Academy learning communities reduced the failure rate by 9%, the course attrition rate by 6%, and the semester-to-semester attrition rate by 6%. In addition, student ratings of their Academy experience on key questions from the Community College Survey of Student Engagement (CCSSE) exceeded both the LaGuardia and national means.

<u>Discussion.</u> Although it is clear that learning communities result in higher learning outcomes as measured by pass rates and grades, we have not yet collected sufficient data to determine if they also result in increased persistence. Only the new Academy learning communities have been examined to see their effect on retention; while encouraging, the data are still preliminary. We have not looked at ESL or Liberal Arts learning communities in terms of retention.

Social and Academic Integration/Engagement Activities

In this category we have grouped the following initiatives: First Year Experience, including New Student Seminar, the Black Male Empowerment and Cooperative Program, the Leadership and Diversity Program.

First Year Experience initiatives in this category include Opening Sessions for New Students, the Common Reading, and Mentoring.

- A study conducted on retention of students who participated in the College's Opening Sessions or Mentoring Program showed that year-to-year retention was approximately 8% higher for students who attended Opening Sessions and 5% for those mentored. Since the College administers the ACT Student Opinion Survey on a periodic basis, we also have been able to compare the responses of participating students on a number of questions to those of non-participating students, with the former consistently rating the college higher on these criteria: "assistance provided when entering the college," "concern for you as an individual," and "[quality of] the college in general."
- New Student Seminar is required for all new students, although not all students enroll for it. We do not have data on whether taking the course leads to improved persistence (the Counseling Department is currently examining this), though national data support this contention.

Black Male Empowerment & Cooperative Program (BMEC): The program is a comprehensive retention & recruitment program with a strong emphasis on academic success and student engagement. The retention program targets male students of color and reflects the objectives of the CUNY Black Male Initiative to successfully retain and graduate African American and Caribbean American men.

- The Black male retention rate for Fall 03 to Spring 04 rose 4.5% from 77.4% to 81.9%.
- The Spring 2004 Black male student (pilot) cohort (n=13) or 10% of new Black male students (n=121) has a 62% retention rate after one year compared to 56% for the total Black male student population.
- 46% of the Fall 2004 Black male student (pilot) cohort (n=24) achieved GPAs of 2.0 or better with the distribution being 25% with GPA greater than or equal to 2.6 – 3.0.
- Spring 05 semester had 65 active members or 10% of the total Black male student enrollment (606) with 38% of the students deemed at risk for failing one or more courses.

Leadership & Diversity Program: offers training in leadership skills and diversity awareness training. The workshops are designed to enhance the classroom and total college experience, while students complete their academic course work. They become part of a conversation with faculty, staff and peers that develops personal and professional skills.

- Of the 43 participants in the Fall 2004, 36 registered for the Spring 2005 semester yielding an 86% retention rate. Of the 66 participants in the Spring 2005, 56 registered for the Fall 2005 semester yielding and 86% retention rate. One student graduated in each cohort.

Discussion: We should explore whether we can solve the methodological problem of self-selection in regard to examining the effect of many of the above-listed voluntary activities (e.g., Opening Sessions, Mentoring, Leadership & Diversity); otherwise we may be measuring the effect of student characteristics rather than the interventions themselves. We have not yet attempted to measure the effect of having a Common Reading program. Pilot programs (e.g., BMEC) require additional data collection. Of course, there are many other "engagement" activities at the College, including Web Radio, the Bridge, the creative writing magazine, and student clubs. Data has not been collected regarding the relation of participation to retention, though the above-mentioned methodological problem holds for these activities as well. We also need to ascertain the numbers of students participating in these types of "extra-currricular" activities; it may turn out that the numbers are not big enough to have much of an impact on the College's overall retention and graduation rates.

Orientation, Advising, and Counseling

- New Student Orientation/Advising/Registration (NSOAR) provides specific appointments for new students to attend a complete Orientation, advising and registration program. This cohort has a 98% within-semester retention rate. Of the 3,247 new students registered by close of business on September 8, 2005 for the Fall I session of the Fall, 2005 semester, 3,193 remained enrolled at our final count on February 15, 2006.
- Programs offered by the Counseling Department include: walk-in, individual counseling, and workshops (dealing with educational planning, career counseling, personal counseling, and academic advisement). Outreach activities include an Academic Screening Day, Depression Screening Day, and Anxiety Screening Day. Other than numbers attended, outcomes data regarding persistence are not yet available for these activities. The Counseling Department is currently collecting such data as part of its program review process.
- The College's new Developmental Advisement Plan has not been fully implemented at this point; assessment data has not yet been collected.

Discussion: In general, the College needs to improve the assessment of orientation, advising, and counseling. As noted, for many of these interventions, no assessments have been undertaken. Admittedly, assessment in this arena can be a difficult challenge, particularly as causality is difficult to establish. For example, we don't really know that new student orientation was the reason for a strong first semester retention rate. Advising happens in so many venues, both formally and informally, that it is difficult to track and create measurements. Nevertheless the College should attempt to develop assessment protocols, both qualitative and quantitative, in this area.

Financial Aid

- Two of the most frequently-cited major reasons for leaving in the 2002 ACT Withdrawing Survey were financial: "prohibitively-high tuition and fees" and "the appearance of unexpected expenses."
- According to our 2005 CCSSE results, the likelihood that *lack of finances* would cause students to withdraw from class or from the College is *higher* at LaGuardia than among students at similar colleges.
- On-campus employment seems to result in higher retention. Student Technology Mentors (STMs) have a high completion rate (60% graduation rate over 5 years). Of the 10 participants employed in the Student Life on-campus employment program in the Spring 2005, 7 registered for the Fall 2005 semester yielding and 70% retention rate.

Discussion: More data measuring the impact of on-campus employment need to be collected. For example, no longitudinal studies of the effect of the College's Federal Work Study program or on-campus internships on persistence have been undertaken.

Identifying and Tracking Student Progress

- Probation Workshops are offered by the Counseling Department and are designed to assist students in improving their academic performance.
- The Early Alert Program is an early intervention program for students identified as at risk for failing one or more classes. This program does not yet operate "at scale." In the initial pilot, eight students were identified as at risk for failing at least one course. Of those eight, six were retained into the subsequent semester.

Discussion: We don't know the effect of tracking students that are on probation and offering them probation workshops; overall attendance at the workshops is extremely low; we do not know whether persistence is improved for those who do attend. The Early Alert program is still in pilot stages and will need to continue to collect data.

Programs for Special Populations

Students with Disabilities. Activities include ACT and CPE Exam Preparation workshops for students with disabilities; individual tutoring sessions for students with disabilities; monitoring of student progress; individualized advisement and registration for students with disabilities including certification for part-time TAP; academic, career and personal Counseling for students with disabilities; direct student intervention with Financial Services and Bursar.

- The six-year graduation rate is 35%, higher than the college average.

International Students. Activities include: caseload advising model; new and continuing student orientations; establishing cohorts and tracking fall to fall retention and attrition numbers; session-based outreach efforts.

- 91% of the 208 students which commenced their studies with us during the Fall 2005 semester show registration for Spring 06.

College Discovery. The CD program offers comprehensive counseling and academic support services for qualifying students.

- CUNY data (for five cohorts starting with the Fall 1996 group) show that the five-year graduation rate for LaGuardia's CD population has consistently exceeded the rate for the "regular" population (varying from 2 to 10 percentage points higher).

COPE. The College Opportunity to Prepare for Employment (COPE) program provides a variety of services to students receiving public assistance.

- Longitudinal retention and degree completion data have not been collected.

Discussion: While some of these programs have higher persistence rates, the College has not systematically explored whether any practices could be adapted for the population at-large or for other sub-groups at the College.

Other Institutional Programs That May Affect Retention

Student Information Center: Various populations of students are contacted with specific goals in mind (e.g., continuing students not registered are called to support them in registering). The populations are categorized as Inquiries/Prospects (after initial contact), New students (once admitted), Continuing Students (already attending LaGCC), New & Continuing Students (after Semester starts) and VATEA/Grant Activities specifically designed to foster retention.

- Of the 12,652 contacted by the SIC in the Fall 2004, 8,928 or 71% registered for the Spring 2005. 6,382 or 50% of the Fall 2004 cohort were registered for Fall 2005.
- Of the 12,794 contacted by the SIC in the Spring 2005, 8,227 or 64% registered for the Fall 2005. 6,159 or 48% of the Spring 2005 cohort were registered for Fall 2005.
- Of the 12,516 contacted by the SIC in the Fall 2005, 8,464 or 68% registered for the Spring 2006.

Student Advocacy & Discipline - Students are counseled on college expectations pertaining to discipline and academic integrity violations. Students become knowledgeable about their rights and responsibilities. The counseling sessions aid in the prevention of sanctions (i.e. suspension, dismissal). The outcome in almost 100% of the cases is that the offense is not repeated. Faculty workshops and individual consultations with college personnel are also offered to increase the pool of individuals that are able to educate students about college and classroom expectations.

Child Care: The on campus childcare program provides student parents with opportunity, options and support through its curriculum for the children, parent education programs, flexible registration, and access to childcare services 81 hours a week.

- In the Fall 2005 semester, 176 children were registered representing 171 student parents. Of the 171 student parents, 121 or 71% registered for the Spring 2006 semester. Of the 171 student parents, 15 or 8.7% have filed an intent to graduate in the Spring 2006 semester.

Discussion: As in the case of many interventions, causality is difficult to establish in regard to the effects of the above activities on retention. Longitudinal data for these programs are not available. Regarding child care, there is a growing need for infant/toddler childcare. Currently the wait list is 63 parents for a capacity space of 30; however, these numbers do not seem sufficient to have an impact on the overall college retention rate (unless there is a greater, unidentified need).

IV. Review of CUNY Practices

The Committee reviewed existing retention practices CUNY-wide (relying on the survey of such practices conducted by the CUNY Task Force on Retention). Many of these practices are already in place at LaGuardia. While the available descriptions of programs at other colleges were sketchy (and for the most part did not include outcomes data), Committee members found the following practices might warrant further examination (through site visits) for possible adoption at LaGuardia.

Baruch: Mid-semester assessment of all first-year students; Student Academic Consulting Center (a center for peer tutoring); Career Development Center.

Bronx: Student Assistance Center (probation support groups, tutoring)

City College: Weekly tutorial workshops for specific courses (e.g., chemistry); targeted interventions for students on probation; Personal and Academic Success Strategies Workshop (six sessions).

CSI: Audits are conducted of students' registration and advisement; students required to attend four events as part of new student seminar course.

Hunter: Alumni mentoring program; Center for Student Achievement (conducts workshops on study skills, time management, test taking strategies); Scholarship Tracking and Reporting System (online scholarship application database); Director of Retention position.

Medgar Evers: Online assessment used to create an early warning system that automatically identifies and flags potential attrition candidates.

Queens: Pathways to Success (students are given academic targets/objectives for each year).

V. Current Approaches and Future Directions

Based on our review of literature and practices - and acknowledging that the research is by no means conclusive - we have established a working list of general approaches that we can hypothesize will have an effect on retention. For the most part, the list below is based on general approaches recommended in the literature and summarized in the ***Appendix***.

For each approach or practice, we have ranked LaGuardia as "more developed" or "less developed," with comments as appropriate. The purpose of this exercise was to provide a "snapshot" of the current state of retention efforts at the College, help the College decide on the areas needing greater attention, and guide the Committee in formulating recommendations.

Approach/Practice	More Developed	Less Developed	Comments
Institutional Focus on Retention		X	Plus: Retention declared a priority in next year's Strategic Plan. Minus: No standing committee or administrative structure responsible for promoting and monitoring efforts to improve retention; current initiatives not well coordinated.
Use of Institutional Research to assess student outcomes	X		Plus: Strong commitment to data collection and analysis; extensive data collection systems in place, including nationally-normed instruments such as CCSSE. Minus: Not all groups are tracked (e.g., part-time, students transferring in).

Use of Institutional Research to develop targeted retention strategies		X	Minus: More work needs to be done to diagnose gaps in achievement/persistence among different groups of students including longitudinal tracking; no mechanisms to predict which incoming students will be at-risk; lack of qualitative research regarding why students stay or leave.
Provide targeted interventions to different groups of students		X	Minus: Different groups haven't been fully identified; many interventions are "broadcast" to all students; those groups who do receive targeted interventions are small (e.g., CD) or part of small-scale pilots (which we often have been unable to bring to scale).
Identify, track, and support at-risk students		X	Plus: Some programs for repeating students in basic skills. Minus: probation processes need to be improved; Early Alert only exists as a pilot program.
Identify Critical Junctures to Monitor/Track Student Progress and Provide Interventions		X	Plus: Milestones have already been identified. Minus: Data has not been collected regarding how various groups of student progress through the milestones (i.e., who has difficulty at what point); milestones not yet coordinated with monitoring, advising and other interventions.
Focus on the First Year (period of greatest attrition)	X		Plus: First Year Experience; First Year Academies; learning communities; New Student Seminar; FPA course. Minus: Many programs do not reach all students; significant numbers of students not passing basic skills; difficulty filling first-year learning

			communities.
Programs for "Second Year"/Advanced Students		X	Plus: Honors Program; PTK. Minus: Very few programs specifically designed for students beyond the first year.
Faculty Development Focused on Improving Learning Outcomes	X		Plus: Extensive faculty development coordinated by the Center for Teaching and Learning.
Focus on High-Risk Courses		X	Plus: Supplemental instruction; Prep workshops. Minus: Interventions not extensive enough and not mandated.
Educational Innovation: Experiment with Ways to Improve Effectiveness	X		Plus: Numerous pilot programs are underway, most with assessment plans. Minus: Pilot programs with promising results are seldom expanded enough to impact institutional outcomes.
Advisement		X	Plus: Developmental Advising Plan; Advisement Clearing-house (next year); refocusing of Counseling Dept. on at-risk students. Minus: Plans not yet fully implemented; coordination needs improvement; unclear if resources are sufficient; students unclear as to how to navigate the system;
Student Engagement and Integration	X		Plus: Array of programs in place; high CCSSE scores. Minus: Limited numbers of students participate, mostly on self-selected basis. Insufficient opportunities for contact with faculty outside the classroom – lowest CCSSE scores on "student-faculty interaction"
Focus on Student Aspirations, Expectations, Behaviors, Goal Commitment		X	Minus: Little data has been collected; no systematic effort to work/communicate with students in this regard.

Academic and Support Services	X		Plus: Extensive array of support services exist.
Academic and Support Services are well-aligned, coordinated, and assessed		X	Minus: Services not well coordinated; many programs have not been assessed.
Instruction in "Intentional Learning" and College Success Skills		X	Minus: We have not systematically identified ways to help students learn how to learn; don't know extent to which students receive such instruction; no coordination among many venues in which such instruction is offered.
Institutional Services	X		Plus: Numerous improvements in services, e.g., Student Information Center; Degree Works, web registration. Minus: scores below national average on ACT Opinion survey
Financial Support Other than Existing State/Federal Aid		X	Plus: foundation scholarships Minus: Not enough on-campus opportunities to earn money, esp. with academic component (STMs, paid internships, peer advising and tutoring); no experimenting with financial incentives (e.g., free courses at critical points or to help students reach a specified milestone).

VI. Recommendations

The Committee's recommendations fall into two broad categories: "Measures and Research" and "Practices." It should also be noted that some of the Committee's recommendations are not new suggestions, but were made to add support to initiatives already underway (such as improving advisement through implementation of the Developmental Advising Plan). The Committee has also reiterated a few of the recommendations made by the Strategic Enrollment Management (SEM) Subcommittee on Retention, Graduation, and Transfer. A number of other strategies are not mentioned below as they are already well underway, as indicated in the College's Strategic Plan: pedagogical improvements through ongoing faculty development, review of policies,

creating new programs and expanding seats in popular programs such as Nursing, improving services, and review of course scheduling.

Measures and Research

1. Utilize and promote an "institutional success" measurement. The Community College Research Center's 2006 study, *"What Community College Policies and Practices are Effective in Promoting Student Success,"* defined institutional success as the total percentage of students completing a degree/certificate, transferring (to a senior college) prior to completion, or persisting (still enrolled) over a specified time period. While LaGuardia actually collects this data, it is not included as one of our own key measures of institutional effectiveness. We should not only include it as a key indicator for ourselves, but as a national leader in the areas of student success and retention, we should consider promoting widespread acceptance of this more complete measure of student success.

2. Track success rates for multiple student cohorts. Currently, LaGuardia's data used for measures of institutional effectiveness (e.g., graduation rates, year-to-year retention rates) only includes first-time, full-time students. Separate measures should be developed for transfer and part-time students, as these represent increasingly large cohorts at the College.

3. Develop a model to predict which students will be most at-risk for attrition. The College should develop and pilot a statistical model, using information hypothesized to affect retention (based on studies such as The Toolbox Revisited), to "flag" incoming students. In addition, the College should experiment with existing protocols designed to predict attrition, such as the Noel-Levitz Inventory. Since most Noel-Levitz data relate to four-year schools, we may even be able to obtain the materials for free or at a discount for a pilot program. Finally, "predictive modeling" (statistical and otherwise) in realms outside of higher education might be explored to see whether work from other fields (e.g., John Gottman's research predicting with over 90% accuracy whether a couple will end up divorcing based on viewing fifteen-minute interactions)[4] can yield insights or adaptable models.

It should be kept in mind, however, that predictive modeling may make most sense at four-year colleges that have a relatively small cohort of at-risk students. At a community college such as LaGuardia, there is the very real possibility that using predictive criteria such as high school preparation will yield very high numbers of at-risk students. If almost everyone is at risk, predictive modeling becomes less useful – unless the model can differentiate different kinds of risk and we are able to develop different types of interventions (See 4 below).

4. Attempt to identify sub-populations of at-risk students. Identifying and examining sub-populations of at-risk students (e.g., low score on entering basic skills tests; students who repeat courses a certain number of times; late-phase direct admits) may possibly allow us to create targeted interventions for different cohorts.

[4] As described in Malcolm Gladwell's *Blink*. NY: Little, Brown 2005.

5. Create a cross-divisional Research Team under the leadership of the Office of Institutional Research and possibly in partnership with external researchers (such as the Community College Research Center at Teachers College). Some of our data needs to be updated and expanded. The last Leavers study was five years ago and the 2002 ACT Withdrawing Survey had low response rate, leading to results that were only suggestive. Section III of this report identified a number of unanswered questions about 1) factors affecting retention at the College (such as the effects of "goal commitment, " satisfaction with particular services, and even academic success) and 2) the efficacy of a number of our interventions – many of which could be examined as part of an expanded research agenda.

In particular, more qualitative research should be undertaken in an attempt to understand why students leave and to help us interpret quantitative and survey findings. While we have compiled a list of individual factors hypothesized to affect retention, causes are, of course, not easy to isolate. Students' reasons for leaving are often multiple and cumulative. A reason for leaving stated on a survey may not tell us the whole story. We know, for example, that finances play a big role in retention, but we don't know why one student with financial difficulties will persist, while another in similar circumstances won't. A student may indicate an area of dissatisfaction on the leaver survey, but we do not know whether leaving was "caused" by that particular dissatisfaction, or if it was just a post hoc assessment.

In addition, a particular focus should be on exploring the nature of (and how we might influence) student expectations, concepts of learning, behavior, and goal commitment. Committee discussions underscored the fact that many students (particularly in first-year classes) don't seem to understand that they have to do the required reading and other work; that there tends to be a prevailing passiveness, in the sense of not taking responsibility for one's own learning; and a belief that simply sitting in the seat is enough, i.e., that learning is something transmitted by the teacher rather than actively acquired by the learner. This is not about "blaming" the students, but about helping us to discover how to support students in developing the habits of mind they need to succeed.

In this regard, we might also take advantage of the growing body of data regarding students' goals, commitments, and personal characteristics now available in their ePortfolios. This is potentially a rich source of qualitative data that may generate insights that could help guide future retention efforts.

Finally, we should not only conduct qualitative research in regard to the "leavers" and groups we know are particularly at-risk (e.g., part-time students), but also regarding successful students (recent graduates, transfers, including those who transfer before graduation, Exploring Transfer students, etc.) to ascertain what worked for these students while they were here, possible reasons for their success, etc.

While such research will require a long-term commitment of time and resources – and most likely partnership with outside organizations, due to the magnitude of the task

without it we may be condemned to repeat the history of the last twenty years of community college retention efforts.

Practices

Although much of the research on retention is not conclusive, there is a sufficient evidence to hypothesize a number of approaches and practices that may lead to greater institutional effectiveness. While the Committee is making a number of recommendations regarding activities/interventions, as charged, we are also expecting that new or revised recommendations will be developed as the research agenda outlined above is implemented. In the meantime, there are a number of approaches that can be put into place and evaluated as we move forward.

6. Create an administrative structure to lead the institution-wide focus on retention. As part of the new Strategic Plan focus on retention next year, a Retention Working Group should be established to "drive" the College's efforts, including working with IR on setting the research and assessment agenda, coordinating existing practices, developing new practices in line with the research results, and conducting site visits at other colleges with promising retention practices. Though the current Retention Committee has no charge for next year, a number of members have expressed a willingness to assume this role.

7. Improve systems to identify, track and reach out to at-risk students. As the research suggested above begins to identify groups of at-risk students, the Retention Working Group should begin the process of working with various college constituents to decide upon referral protocols, figure out how to improve coordination among services, devise processes to monitor whether students are following up on the recommended interventions, and assess the effectiveness of those interventions.

8. Identify critical junctures and align appropriate interventions. Collect data as to how various groups of student progress through the milestones that we have already identified (i.e., who has difficulty at what point); monitor progression rates through those points; implement mechanisms to communicate with students at those points; develop and/or coordinate advising and other interventions.

9. Develop targeted interventions for specific sub-groups. As different groups of at-risk students are identified, develop and assess interventions designed specifically for each group. The College should also explore the effects of making certain interventions mandatory. For example, supplemental instruction could be required for certain high-risk courses (rather than voluntary participation in SI). Another strategy could be to assign at-risk students to courses that have a study skills workshop attached to them.

10. Conduct more extensive screening for learning issues. As part of the effort to identify at-risk students (including learning disabilities; language acquisition problems), screening

mechanisms should be developed. For example, the Office of Student Disabilities has a fifteen-minute screening instrument that could be much more widely used.

11. Create faculty and staff teams to work with separate sub-groups of at-risk students or to work on developing particular interventions. Some faculty and staff have expressed an interest in working with particular groups of students, similar to how faculty are now working with students as mentors in the Black Male Empowerment and Cooperative program.

12. Help more students achieve and maintain full-time status. As CUNY data show that part-time students are significantly less likely to persist, the College should endeavor to help more students achieve full-time status. A consistent message should be delivered to students to enroll in the six-week sessions (currently, the College seems to engage in sporadic campaigns to fill these sessions, rather than a year-to-year ongoing effort). The College should pilot the offering of 2 three-week sessions in Session II in addition to the one six-week session now offered; these shorter sessions may attract students who might not otherwise come for the entire six weeks (as they may also want time for vacation, work, or a visit back to their home countries). Or students may choose to come for both three-week sessions, facilitating faster progress toward the degree. Also, more online courses might help resolve scheduling difficulties that hinder full-time status.

Since most first-time freshmen start out as full-time students, we suggest an information campaign be initiated part-way through the first semester explaining why a student should maintain full-time status whenever possible and offering tips on how to maintain such status, such as by taking advantage of Session II. (Also see #25 below regarding using financial incentives to encourage full-time status).

13. Track students who "stop out." We need to get a clearer picture of the extent of stopping out at the College. An information campaign should be initiated to ensure that students understand the ramifications of stopping out as well as the process of returning; this will allow students to leave "legally" and have fewer problems being reinstated.

14. Create a Student Success Center. Similar to the "one-stop" enrollment services center, academic support and advising services should be housed in a proximate space. Academic Affairs' Office of Student Support Services and new Advising Clearinghouse should be adjacent to the Counseling Department. It may also be appropriate to house EMSD programs dealing with student success and retention close by. The Center should be made a priority on the College's construction agenda; without a more centralized space, it will remain difficult to institute a systematic intake/referral process or solve the problem of students not knowing where to go or who to see first. Supplemental instruction, peer advising, and workshops (e.g., study skills, probation, problem-solving) should also be offered in this space.

15. Foster "intentional learning" by focusing on students' habits of mind, expectations, and understanding of their own learning process. A systematic effort should be made to cultivate habits of mind, behaviors, expectations, and understandings among students that

will help them become intentional learners; this can be carried out through workshops, New Student Seminar, communications to students, and other venues. Developing students' ability to reflect upon, monitor, and self-evaluate their learning (using ePortfolios and other approaches) should become a priority. Attention should be paid to student success skills; for example, study skills workshops, now offered in many venues, should be assessed and better coordinated.

In addition, students should not merely be taught skills, but should know something of the theory and science of learning; it may be possible that helping students understand principles such the "generation effect" (that producing information, such as through writing and speaking, leads to better learning than being presented with information) will lead to productive changes in behavior and work/study habits. We should also support intentionality by helping students stay focused on their goals: becoming more disciplined, learning from mistakes, developing the emotional resiliency to deal with stress and frustration, etc. Intentionality can also be supported by having students engage more deeply in thinking about their academic and life plans. Students in a few classes are doing personal "five-year strategic plans" for their ePortfolios that go well beyond the traditional two-year course of study plan. This and other models should be reviewed and synthesized to come up with uniform guidelines (or a template) for all students to follow in developing such plans (as part of the "eCareer" planning tool that has been under development). New Student Seminar and Fundamentals of Professional Advancement would be logical places for such work to be initiated. We also suggest a full-scale student awareness campaign on how to be a successful student, including "marketing" the concept, e.g., several key principals ("Take Charge of Your Learning," "Get Connected," "Make a Plan," etc.) communicated on bookmarks, plasma screens, the college website, etc.

16. Continue to improve advising. Implementation of the Developmental Advisement Plan should be made a priority in the Strategic Plan, in particular those aspects of the plan that call for greater faculty involvement in the process. Create protocols for assessing advising services, as this is one of the areas most in need of evaluation.

17. Strengthen the probation process. Students are often informed that they are on probation more than one semester after the fact; many students are simply not informed; the requirement to attend a probation workshop is not enforced; attendance at workshops is low; and the effectiveness of probation workshops is not assessed. All of these problems need to be remedied. If the current format of probation workshops turns out not to be effective, new interventions should be developed and mandated. The College should also consider developing "tiers" of probation, as well as tracking and monitoring all students who were ever on probation until graduation.

18. The College should prioritize bringing promising practices to scale. A number of projects in various stages of implementation have the potential to improve retention rates; examples include the First Year Academies, ePortfolios, and the Early Alert program. Other programs, while no longer pilots, have remained at too small a scale to have much impact on overall institutional outcomes (e.g., Mentoring, Leadership & Diversity).

Many programs at the College are, in effect, "add-ons" and do not really alter the prevailing forms of practice at the campus. In particular, this has been the case with learning communities. Our outcomes data for learning communities are strong; in addition, learning communities incorporating basic skills classes help meet the twin goals of ensuring that students do not put off basic skills while simultaneously accumulating credits in their first semester. Yet learning communities are far from the prevailing form of practice in the first year at LaGuardia; it is thus recommended that the College consider formulating policies that will help expand this approach (including mandating learning communities for students requiring basic skills).

19. Create a Second-Year (and Beyond) Program. The College should develop a set of experiences especially for second-year students similar to its successful First Year Experience programs.

20. Offer more support for High-Risk Courses. There are currently two primary supports for high-risk courses (not including basic skills courses): supplemental instruction and "Preps." We should expand these programs to cover more sections of high-risk courses and consider mandating such interventions by building them into the curriculum and schedule whenever possible.

21. Explore whether strategies employed in special programs (e.g., CD, OSD, ET) can be adapted for other groups. While it may be the case that a program such as CD has a higher retention rate precisely because it operates on a relatively small scale, we nevertheless should examine what works about the program and what might be adapted either for the larger college population or other sub-groups of students. For example, the Exploring Transfer program sets a high level of academic challenge through reading primary source material; we should explore if this approach can be adapted for groups here (e.g., high performing students thinking about transferring before graduation).

22. *Continue to improve student engagement, particularly through on-campus employment and contact with faculty outside of the classroom.* While many programs currently exist, and the College receives high marks on the CCSSE, there is room for improvement. We should ascertain the numbers of students currently participating in various student engagement programs and explore how to involve more students. We think it is particularly important to develop more programs that *fund* students to be engaged on campus (especially in activities with an academic component, such as the STM and supplemental instruction programs); the peer advising program to be initiated next year is a good start. Additional opportunities to connect with faculty outside of the classroom should also be fostered, such as participation in faculty research. One example would be to institute special issues of *In Transit* for which faculty writing about classroom-based research would choose one or two of their students to become co-authors. This would allow for mentoring and close interaction beyond time in the classroom; some students might receive internship credit for the project as well.

23. Encourage academic departments and other college units to initiate and assess "local" activities to promote retention. Each department should constitute a local Retention Committee concerned with maximizing retention in that department's programs. As an example of the kind of work that can be done at the program/department level, the Library proposes to lend laptops to at-risk students (COPE and BMEC) and provide training workshops. Library faculty would design and implement a research study evaluating whether laptop distribution to at-risk student populations positively impacts their retention and whether supplementary library instruction fostering information literacy skills affects student academic success, thereby promoting retention.

24. Offer professional development designed to help faculty and staff recognize and assist at-risk students. Faculty and staff need to know the services available to students, policies potentially affecting retention (e.g., probation, suspension), how to talk about potentially sensitive issues (e.g., learning disabilities), and to whom referrals should be made. As the College implements systematic identification of at-risk students, faculty and staff need to be informed and educated as well, as they are frequently the primary referral source, especially when students are hesitant to self-identify.

25. Offer financial support other than federal and state financial aid. As the College continues to be more successful at raising funds through its foundation, *strategic* ways to distribute money to students should be explored. In addition to scholarships and emergency loans, this might include incentives such as a free course (or free books) to help students become full-time or meet a particular milestone that we believe will help them persist (such as earning 20 credits by the end of the first year).

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APPENDIX

General Recommendations from the Literature

A number of the reports we examined not only reviewed existing research on retention practices, but also made recommendations regarding either general approaches or specific activities designed to improve retention. In this appendix, we summarize these recommendations.

1. "What Works in Student Retention? Two-Year Public Colleges." ACT report, 2004. Note again that this is survey data that may or may not reflect the existence of actual outcomes data at these institutions that would support the opinions expressed in the survey.

General practices responsible for the greatest contribution to retention in two-year public colleges:

- Academic Advising: including advising interventions with selected student populations, integration of advising with first-year programs, and increased advising staff.
- Learning Support: including a comprehensive learning assistance center/lab; required remedial/developmental coursework; tutoring program; and math, writing, and reading centers/labs.
- Assessment: including mandated course placement testing.

Practices that differentiate high-performing (retention and degree completion) two-year public colleges from low-performing two-year public colleges:

- mathematics center/lab
- writing center/lab
- reading center/lab
- advising interventions with selected student populations
- learning communities
- foreign language center/lab
- programs for racial/ethnic minorities

Practices identified by respondents as having the greatest impact on student retention:

- mandated course placement testing (20.7%)
- tutoring program (19.3%)
- required remedial/developmental coursework (19.2%)
- comprehensive learning assistance center/lab (19.2%)

The report makes the following general recommendations:

- Designate a visible individual to coordinate a campus-wide planning team.
- Conduct a systematic analysis of the characteristics of your students.
- Focus on the nexus of student characteristics and institutional characteristics.
- Carefully review the high impact strategies identified in the survey.
- Do not make first to second year retention strategies the sole focus of planning team efforts.
- Establish realistic short-term and long-term retention, progression, and completion goals.
- Orchestrate the change process.
- Implement, measure, improve!

2. *"What Community College Policies and Practices are Effective in Promoting Student Success? A Study of High- and Low-Impact Institutions." Community College Research Center, Teachers College, Columbia University. May 2006.* The following recommendations were generally supported by the data, but note again, since the sample size was small, the authors acknowledge that their results "should be considered suggestive."

Community colleges will be more effective if they:

- Have an institutional focus on student retention and outcomes, not just enrollment.
- Have targeted support for underperforming students (includes identifying gaps between the outcomes of different student groups).
- Have well-designed, well-aligned, and proactive student support services (includes proactively identifying and reaching out to students who are struggling or at risk).
- Have support for faculty development focused on improving teaching (including support for adjunct faculty).
- Experiment with ways to improve the effectiveness of instruction and support services (with a particular focus on developmental instruction since so many community college students are required to take such courses).
- Use institutional research to track student outcomes and improve program impact.
- Manage the institution in ways that promote systemic improvement in student success (including program review, strategic planning, and budgeting guided by evidence of what works to promote student success).

3. *Carey, K. (2005). One Step from the Finish Line: Higher Graduation Rates are Within Our Reach. Washington, DC: The Education Trust.* This study examined baccalaureate-granting institutions with higher graduation rate; administrators were interviewed about what they think accounts for their superior performance.

The following practices were identified at higher-performing institutions:

- Investment of resources into data analysis to better understand patterns of student progression and identify barriers to completion.
- Emphasis on engaging students, particularly in the first year.
- Emphasis on innovation in teaching and alignment of rewards and other incentives for faculty with academic needs of students.
- Constant evaluation and reform with a focus on student success.

4. "Raising the Graduation Rates of Low-Income College Students." The Pell Institute for the Study of Opportunity in Higher Education. December, 2004. Many of these recommendations are not applicable (e.g., selectivity in admissions, residential halls) as this study was conducted at four-year colleges.

Commonalities among high-performing four-year colleges include:

- Intentional academic planning (for students): through intrusive advising, freshman seminars, academic reviews for students in trouble.
- Small classes: in this study, refers to having few large lectures (typical class size information for these institutions was not collected; however, at one state university in the study, "small" was reported as 39 students).
- Special Programs: mostly for students at academic risk, providing advising and academic support.
- A dedicated faculty: most of whom teach full-time and are easily accessible to students.
- Educational innovation: including academic support through tutoring, group study, supplemental instruction.
- Developmental Education
- Geographic isolation and a residential orientation.
- Shared values: at many of the colleges students share rural and small-town backgrounds.
- Modest selectivity, with admissions requirements.
- Financial aid for high achievers.
- Focus on retention and graduation rates.

5. "Creating the Conditions for Students to Succeed." CUNY Task Force on Retention report. February, 2006

The listed recommendations include:

- Focus on teaching excellence and pedagogical innovation.
- Increase course and program-of-choice availability.
- Review policies that have an impact on students' progression toward the degree.
- Contextualize basic skills and ESL courses within the disciplines.
- Require students with developmental needs to enroll in basic skills courses in the first semester and continue straight through the sequence until completion.
- Require summer programs for students with developmental needs.

- Monitor student progress; identify and provide support for at-risk students.
- Design multiple approaches to advising.
- Link together aspects of students' academic experiences; create a coherent general education program.
- Focus on mathematics and high-risk courses.
- Expand learning communities for first year; institute second-yea r communities (and beyond).
- Develop a long-term college retention plan.

6. "The Role of Academic and Non-Academic Factors in Improving College Retention." ACT Policy report, 2004.

This report recommends that colleges:

- Determine their student characteristics and needs, set priorities among these areas of need, identify available resources, evaluate a variety of successful programs, and implement a formal, comprehensive retention program that best meets their institutional needs.
- Take an integrated approach in their retention efforts that incorporates both academic and non-academic factors into the design and development of programs to create a socially inclusive and supportive academic environment that addresses the social, emotional, and academic needs of students.
- Implement an early alert, assessment, and monitoring system; build comprehensive profiles of students at risk of dropping out.
- Determine the economic impact of their college retention programs and their time to degree completion rates through a cost-benefit analysis of student dropout, persistence, assessment procedures, and intervention strategies to enable informed decision-making with respect to types of interventions required—academic and non-academic, including remediation and financial support.