

I. THE STUDY

A. *The Executive Order and the Research Question*

The Task Force staff prepared this document in response to Mayor’s Executive Order No. 41 to “make recommendations regarding...the best means of arranging for third parties to provide remediation services to ensure that prospective CUNY students can perform college-level work prior to their admission to CUNY.” We interpreted the terms of the order as follows:

- “third parties” are for-profit and not-for-profit organizations and public institutions, other than CUNY, that can enter into outsourcing relationships;
- “remediation services” are the package of curriculum and instruction in the basic skills of reading, writing, mathematics and English as a second language (ESL); and
- “best means” are proven methods of increasing student performance.

To satisfy the executive order, we formulated a research project to answer the following question: Can for-profit and not-for-profit organizations and public institutions offer curriculum and instruction in basic skills that will successfully prepare students for college-level work?

Our analysis covers educational issues and the capacity of potential providers. It does not address financial, administrative and legal issues.

B. *Summary of Conclusions*

Potential providers include for-profit education companies and such non-profit and public entities as local independent colleges and universities and the New York City Adult Literacy Initiative (NYCALI). To varying degrees, they offer:

- assessment policies centered on norm- and criterion-referenced instruments that can objectively quantify student achievement;
- curricula adhering to the principle of mastery learning that systematically enable students to build foundations in basic skills;
- instructional methods that support mastery learning; and
- improved productivity by delivering efficiency as well as excellence.

However, a lack of data on student performance prohibits concluding that third parties can successfully remediate prospective CUNY students.

Given the strength and cost-efficiency of some third parties' programs, we recommend that the City run an experiment that would generate conclusive evidence of their positive impact on student achievement and, in expectation of affirmative results, take steps to create an outsourcing model of managed competition.

C. Research Criteria

Our research criteria were assessment, curriculum, instruction and productivity. The criteria were culled from the new accreditation standards outlined by the Middle States Association of Colleges and Schools, Commission on Higher Education (CHE); promising reforms implemented by California, Florida, Massachusetts and Texas¹; and recommendations of the League for Innovation in the Community College, a subsidiary of The College Board. As these sources reflect high standards for public education, they offer the most appropriate criteria for investigating potential alternatives to remediation sponsored by CUNY.²

1. Assessment

In evaluating potential providers, we looked for policies of pre- and post-testing on standardized norm- or criterion-referenced instruments. Pre-testing discerns students' highest level of mastery and can be used to assign them to appropriate programs and courses. In the ideal, pre-testing has a diagnostic component to pinpoint weaknesses and a prescriptive component to link weaknesses to individualized study plans. Post-testing indicates students' progress after receiving instruction.

¹ The reforms undertaken by these states are considered among the best in the nation (Joshua Smith, Center for Urban Community College Leadership, New York University, October 7, 1998).

² There is a precedent for outsourcing the remediation of college students. A bill passed by the Florida legislature last spring (Fla. H.R. 4259 (1998), amending FLA. STAT. 240.321) directs community colleges to compile lists of third-party providers of remediation and, without evaluation or recommendation, disseminate the lists to students. Third parties may include other academic institutions, adult education programs and private providers. The new language strengthens a bill passed two years ago that had the same purpose but was vague and ignored by the community colleges.

Driving the legislation was a desire to generate opportunity and cost savings for students (Klabacha, October 29, 1998). The FL Department of Education (DOE) puts time and resource limits on remediation. Students get three attempts to pass each remedial course for which they qualify. They pay the regular tuition rate for the first attempt and, after one failure, the full cost of course delivery (about four times tuition) for subsequent attempts. Now, with information provided by the colleges, students may shop for less expensive instruction alternatives and prove their subject mastery by passing college assessment exams. Note: H.R. 4259 makes no provision for applying financial aid to instruction delivered by private companies.

As the legislation was implemented the semester that began in September 1998, the DOE is only now starting to collect information on how colleges identify providers and disseminate information to students. Soliciting student performance data is premature.

Differences in pre- and post-test scores quantify achievement. When testing occurs on standardized instruments, measurements are technically valid and reliable and credible with many audiences (National Center for Postsecondary Teaching, Learning and Assessment, 1998).³

The criterion of comprehensive testing came from CHE's *Characteristics of Excellence in Higher Education: Standards for Accreditation* (1994), to which CUNY is subject. Although CHE believes institutions must determine how to implement assessment, it sets parameters. For example, CHE advocates that assessment of remedial programs should include assurances that remedial students are advancing toward degree programs and says:

Meaningful appraisals of performance by students in developmental classes should assess their progress relative to carefully articulated exit proficiencies, the achievement of which certifies that a student is ready for college-level work. It is necessary therefore to establish the congruence between exit proficiencies for developmental courses and entrance criteria for credit classes.... The use of standardized test instruments to assess progress also may be appropriate, given the wide range of coordinated placement, diagnostic, and value-added proficiency instruments available at the college level. (CHE, July 1996, page 44)

2. Curriculum

We looked for providers who offered basic skills curricula⁴ built on the mastery learning model. We defined basic skills as reading, writing, mathematics and, at institutions like CUNY that serve immigrant populations, English as a second language (NCES, 1996). Mastery learning holds that students must acquire skills at one level before moving up to the next level. The theory is operationalized by finding students' highest level of competency and, from there, building new competencies through sequences of increasingly difficult tasks and periodic evaluation.⁵

³ We looked for: diagnostic tests like the Stanford Achievement Test (commonly known as the Stanford 9), California Achievement Test (CAT), Nelson-Denny and the Diagnostic Test of Language Skills (DTLS) series; assessment tests like the Test of Adult Basic Skills (TABE), Comprehensive Test of Basic Skills (CBTS) and the Test of English as a Foreign Language (TOEFL); and placement tests like the ASSET, COMPASS or Accuplacer.

⁴ A curriculum is the content or what is being taught in the classroom.

⁵ Elements of mastery learning have been practiced, to a limited extent, at CUNY and found effective. York College's remedial math curriculum comprises courses that build sequentially upon one another. The College's remedial faculty contrast their approach with New York State's high school math curriculum, which, they say, leaves gaps in students knowledge by cursorily "spiraling" through such subjects as algebra, geometry, trigonometry and pre-calculus rather than ensuring that students master one subject before moving on to the next (Renfro and Armour-Garb campus visit, July 27, 1998). Queensborough Community College's Department of Basic skills publishes a list of competencies that remedial students must master at each level in their reading, writing and ESL sequences (*Basic Education Performance Standards*, submitted to Task Force by Jerrold Nudelman, Chair, Department of Basic Skills, July 14, 1998).

The criterion of mastery learning came from the League for Innovation's *Developmental Education: A Twenty-First Century Social and Economic Imperative* (McCabe and Day, June 1998). The League says that the model's systematic nature helps remedial students build a solid foundation in basic skills before moving on to college courses. Furthermore, by focusing on achievement, the model provides positive reinforcement and thereby fosters intrinsic motivation among remedial students. In citing mastery learning, the League invokes a pedagogical model that was articulated in the 1970s (Bloom, 1968, 1971, and 1978) and widely practiced and evaluated in the 1980s (see meta-analyses by Guskey and Pigott (March/April, 1988) and Kulik, Kulik and Bangert-Drowns (1990)).

We are aware that, since the 1970s, the process of remediation has expanded beyond delivering academic skills to delivering a holistic program of learning assistance and personal growth (Baker, 1994, McGrath and Spear, 1991; Grubb, 1998; and Boylan, 1998) and that typical remedial programs may feature tutoring, counseling, child care, transportation and other social services (Grubb, 1998). As the Mayor's Executive Order addressed preparation for college-level work, we focused on academic programs and only noted elements of developmental and adult learning theory.

3. Instruction

We looked for providers who offered instruction⁶ practices that support the mastery learning model by addressing students' individual learning needs. These practices include small-group instruction for introducing new concepts and giving feedback and computer-based instruction for reinforcing learning through "time on task" repetition. In the ideal, the instruction is available in formats that allow open entry and exit and immersion, so students can optimize their time in remediation.

The criterion of delivering direct and computer-based remedial instruction in flexible formats came from best practices identified by other educators. The American Association of Higher Education (AAHE) says that exemplary practice, in part, entails accommodating individual learners, emphasizing time on task and giving prompt feedback (Chickering and Gamson, 1987) and that computer technology can leverage such practice (Chickering and Ehrmann, 1996).⁷ In addition, the League for Innovation advocates a "high-tech, high touch approach" that uses electronic media to support learning (McCabe and Day, 1998). The League says that an ancillary benefit of bringing electronic media into remedial classrooms is students' development of computer facility, which, the League says, is a new

⁶ Instruction is the delivery of curriculum.

⁷ Arthur Chickering and Zelda Gamson first published their "Seven Principles for Good Practice in Undergraduate Education," a distillation of research over decades, in the March 1987 *AAHE Bulletin* and followed up with applying the principles to faculty, institutions and students in the following years. More Recently, Chickering and Stephen Ehrmann, of the AAHE's Teaching and Learning Technology (TLT) Group, outlined how technology can support good practice in "Implementing the Seven Principles: Technology as Lever," *AAHE Bulletin*, (October, 1996).

basic skill of the 21st century (Milliron, August 5, 1998).⁸ These theories are already manifesting in public policy. As part of its five-year plan for reforming public education, the Massachusetts Board of Higher Education is incorporating tutoring, computer-based instruction and open entry/exit and immersion formats into its remedial programs (*Implementation Guidelines for Massachusetts Board of Higher Education Developmental Education Policy for the Commonwealth's Public Colleges and Universities*, 1996).

4. Productivity

We looked for out-sourcing opportunities that offer efficiency as well as excellence. That is to say, we noted programs with tuition prices that are lower than CUNY's delivery cost. As CHE says,

The costs of higher education constitute an enormous national investment. No longer is it sufficient to demonstrate only student success. In light of consumer demands for accountability due to increasing tuition and shrinking state and federal contributions to higher education, colleges and universities additionally must demonstrate that teaching, research, and service programs are conducted cost-effectively. (CHE, July 1996, page 5)

5. Integrating the Criteria

Programs that integrate assessment, curriculum and instruction have strong potential for remediating prospective college students. Diagnostic pre-testing on standardized instruments identifies skill deficits and assigns students to appropriate programs. The mastery learning model of curriculum and instruction helps ensure that students get just the help they need – no more, no less. Post-testing on the same instrument (different form) determines when – and if – a student has the ability to move on to college-level work.

Our review of state education policies revealed that states with substantial remedial challenges, like California, Florida, Massachusetts and Texas, view integrated programs as key to education reform and take this tack at the elementary, secondary and post-secondary levels. These states mandate a continuum of curriculum standards that build from kindergarten upward and link requirements for high school graduation and college admission. These states also mandate a continuum of standardized testing, even administering college assessment tests to high school students for early detection of remedial problems. Furthermore, these states advocate best practices for classroom instruction and take steps to ensure that teachers can deliver them. (California Department of Education, September 4, 1998;

⁸ The League says that computer technology should be eased gradually into remedial instruction. For the weakest students, who need the personal attention and encouragement of an instructor, computer technology should not be the primary method. As the students advance, computer-based instruction can become an equal or even the dominant method. When students are nearly college-ready, mediated instruction on integrated learning systems can supplant direct instruction (Milliron, August 5, 1998).

California Education Code sections 60603 and 60605; California Assembly Bill AB 649; California Higher Education Policy Center, Spring, 1997; California State University, January 1996; Florida Department of Education August 17 and 31, 1998; Florida Postsecondary Education Planning Commission, December 27, 1997; Massachusetts Board of Higher Education, January and June 1998 and 1996; Massachusetts Department of Education, 1995; Texas Education Agency September 4, 1998, and 1995; Texas Higher Education Coordinating Board, August 17, 1998 and July and October, 1996). New York City may wish to address remediation not just at CUNY but throughout the public education system. Therefore, as we researched alternatives to remediation at CUNY, we looked for programs that can serve students anywhere on the education continuum.

D. List of Potential Providers

Potential providers include for-profit education companies, local independent colleges and universities, and the New York City Adult Literacy Initiative (NYCALI).⁹ To varying degrees, the organizations meet our research criteria and, therefore, could possibly remediate prospective CUNY students.

1. For-profit Education Companies

Based on our research, the following for-profit companies are potential providers of remediation services: Berlitz International, Inc.; Huntington Learning Centers, Inc.; Kaplan Educational Centers; Kumon Math and Reading Centers; Sylvan Learning Systems, Inc.; and The Princeton Review (TPR).¹⁰ These companies distribute supplemental instruction on a retail model through learning centers and, in the last three years or so, have begun distributing such instruction through elementary, secondary and post-secondary schools. They can deliver a full package of remediation services to students anywhere on the education continuum.¹¹

⁹ We investigated, but ultimately dismissed, other potential providers. We cannot consider parochial schools potential providers because the Archdiocese of New York does not and does not plan to offer remedial instruction to individuals who are not students in the parochial school system (Sister Eileen Clifford, Vicar for Education, September 14, 1998). In addition, we cannot consider the Board of Education of the City of New York (BOE) as a potential provider because it barely has capacity to meet the remedial needs of elementary, middle and secondary school students. Currently, as the BOE implements new curriculum standards, embraces new Regents requirements and contemplates limiting social promotion, the BOE plans to offer extensive instruction through in-school, extended-day and summer school programs. Even so, BOE officials believe that these efforts will not meet all students' needs (Rodriguez and Gurr, November 4, 1998).

¹⁰ In an article entitled "The Test Under Stress" that described the burgeoning industry of private tutoring, especially for the SAT, *The New York Times Magazine* quoted John Katzman, President of TPR, as saying "we're not going to raise your basic skills set. We're not going to make you better at going to college" (Schwartz, January 10, 1999). Andy Lutz, Assistant Vice President and Managing Director of TPR's high school programs, says that Katzman was misquoted and that TPR does indeed teach basic skills (March 24, 1999).

¹¹ We identified the companies through a broad review of the education industry, including such sectors as tutoring, supplemental education, workforce development, integrated learning systems and proprietary higher education. To narrow the field, we consulted John McLaughlin, publisher of *The Education Industry Report*, and Gerald Odening, education industry analyst at

We expect that for-profit companies would be very interested in entering partnerships for remediating prospective CUNY students. Our investigation revealed that education companies are already marketing their products to New York's public elementary, secondary and post-secondary schools. Kaplan has been the most active. In 1995, the company delivered workshops that prepared incoming freshmen for CUNY's Freshman Skills Assessment Tests (FSATs).¹² In addition, since November 1997, Kaplan has been delivering supplemental language arts instruction to a cohort at George Washington High School in Manhattan in preparation for the Regents Exams. Currently, Kaplan and CUNY's Lehman College are exploring a partnership for providing ESL instruction (Stone, August 5, 1998). Sylvan has also been active. In 1996 and 1997, the company unsuccessfully pursued partnerships for delivering remedial instruction to CUNY's central administration, Lehman College and Medgar Evers College (Sylvan, August 17, 1998). Currently, Sylvan has a proposal before the Board of Education of the City of New York (BOE) to deliver supplemental instruction to the lowest-performing 10th graders at Morris High School in the Bronx. A third company, Voyager Expanded Learning, Inc., has a proposal before the BOE to implement experiential learning programs and to train teachers in the technique.¹³

The central administration of the BOE recently took steps to explore entering into outsourcing relationships with for-profit education companies (Blake-Reed, March 25, 1999). Through its Office of Funded Programs, the BOE approached Sylvan, Kaplan, The Princeton Review and Huntington about possibly delivering instruction in reading, writing and math to 30,000-40,000 children through summer school. According to officials, the BOE is at the "information-gathering stage."

Salomon Smith Barney. Our list of companies excludes those in the businesses of workforce development, integrated learning systems, and for-profit higher education. Workforce development companies (*e.g.*, Apollo Group, Gartner Group and ITT Educational Services) primarily certify information technology professionals and handle remediation by referring students to private, individual tutors (Odening, July 27, 1998). Integrated learning systems (*e.g.*, Andersen Consulting, LLP, Invest Learning, Academic Systems and TRO Learning) provide curricula for remedial learners, but do not provide instruction. Proprietary colleges (*e.g.* University of Phoenix, Strayer College) do not offer remediation outside of their degree programs; they want to construct long and predictable revenue streams (Cashman, July 29, 1998; Hlavinka, July 29, 1998).

¹² We could not obtain FSAT scores for Kaplan workshop participants. CUNY said it has no record of which students participated (Hassett, October 23, 1998); and Kaplan said it never received FSAT scores from CUNY (Stone, August 5, 1998).

¹³ Voyager does not teach basic skills. Its experiential learning programs feature simulations, field trips and educational games (Nichols, August 4, 1998).

2. Local Independent Colleges and Universities

Our investigation revealed that the following local independent post-secondary schools are potential providers of remediation services to prospective CUNY students: Fordham University (ESL only); Iona College; Manhattan College; Marymount Manhattan College; New York Institute of Technology (NYIT); the continuing education operation of New York University (NYU); Pace University; and St. John's University. We correctly hypothesized that many institutions with campuses in New York City could accommodate CUNY students, along with their own, in their remedial reading, writing, math and ESL courses. Some institutions say they could serve junior and senior high school students and returning adult students. Others say they would stipulate the level of students' skills and number of participants to avoid strain on capacity.

The list of potential providers represents only half of the post-secondary institutions in New York City. Although St. Francis College in Brooklyn accommodated our request for information, the college said it would not extend its remediation services to prospective CUNY students.¹⁴ Audrey Cohen College refused to share any information. Adelphi University shared insufficient information. Of the remaining institutions, Berkeley College, College of Mount Saint Vincent, College of New Rochelle, Hofstra University and Long Island University, did not respond to our request at all, and Columbia University, Parsons School of Design, Pratt Institute and Polytechnic University do not offer remediation services that could address the needs of students who are under-prepared for college-level work at CUNY.

3. New York City Adult Literacy Initiative

NYCALI can potentially provide remediation services to prospective CUNY students through the 299 adult literacy programs it sponsors via the Department of Youth and Community Development (DYCD), the Office of Adult and Continuing Education (OACE),¹⁵ and the City's public library system.¹⁶ Community-based organizations (CBOs) are the delivery mechanisms.

¹⁴We regret that St. Francis College said it would not open its remediation services to prospective CUNY students. They are among the best we encountered, satisfying nearly all our research criteria. The college offers a sound assessment policy that comprises diagnostic-prescriptive pre-testing and post-testing on standardized instruments (Nelson-Denny reading and writing exams and the math version of the Descriptive Test of Language Skills (DTLS)) and produces individualized study plans for each freshman. In addition, St. Francis presented four years of student performance data in connection with its summer immersion program. As a result of this program, St. Francis students eliminated one level of remediation before matriculation. We included a profile of St. Francis in Section II.

¹⁵ Although the OACE is formally part of the Board of Education of the City of New York, its programs and day-to-day functioning is dictated by NYCALI.

¹⁶ NYCALI also distributes basic skills programs through CUNY's continuing education operation. This activity is addressed in *Open Admissions and Remedial Education at the City University of New York* (Renfro and Armour-Garb, May 1999).

NYCALI was established in 1983 as a joint venture of the New York City Mayor's Office of Adult Literacy and the New York State Department of Education (SED). The venture's purpose is to teach basic skills to adults who want to get better jobs, earn General Equivalency Diplomas (GEDs) and participate in their children's education. The City supports NYCALI through the tax levy and the Begin Employ Gain Independence Now (BEGIN) and Education for Gainful Employment (EDGE) programs. The State contributes funds from the Employment Preparation Education (EPE), Adult Literacy Education (ALE) and Welfare Education Program. In addition, the Federal government funds NYCALI through the Adult Education Act (AEA).

E. Summary of Research Process

Our primary method for collecting data was interviewing. We spoke with high-level managers of each potential provider, in person wherever possible, and their clients, where appropriate. In each meeting, we presented research questions designed to determine if and how programs satisfied our research criteria. Our questions appear in Table 1. Many providers prepared written responses and supplemented them with marketing materials, internal reports and other documents. We gathered some additional information from organizations' world wide web sites and from newspaper and trade press articles.

We are somewhat concerned that most of our information was self-reported by the very organizations we were investigating. To put the best face on their programs, organizations might have over-stated their assets and successes. We would have more confidence in the data if it were confirmed through original research. This is one reason why an experiment to test third parties' impact on student achievement would be useful to CUNY and to the Task Force.

Table 1. Research Questions for Potential Providers

<p>Please describe each program.</p> <ul style="list-style-type: none"> • What is the purpose of the program? • What is the goal of the program? • Where and when does the program occur? • How many students are served? • How are students assigned to the program?
<p>Please share assessment information.</p> <ul style="list-style-type: none"> • Are students pre-tested? • On what instrument(s)? Are the instruments norm- or criterion-referenced? Are they nationally normed? • Is the assessment program diagnostic and prescriptive? • Are students post-tested?
<p>Please describe program curriculum.</p> <ul style="list-style-type: none"> • What subjects are taught? • Is the curriculum tied to results of the assessment test(s)? • Is there a philosophy of curriculum? Mastery learning? Adult learning theory? Developmental learning theory?
<p>Please describe method(s) of instruction.</p> <ul style="list-style-type: none"> • Is direct instruction used? • Is small group instruction used? • Is computer-based instruction used?
<p>Please share student performance data.</p> <ul style="list-style-type: none"> • What are the results of the pre-tests? • What are the results of the post-tests?

F. Summary of Findings

We found no hard evidence that third parties can successfully remediate prospective CUNY students. Some organizations, particularly for-profit companies, are quite promising. They integrate comprehensive assessment policies, mastery learning curricula in all basic skills, and small-group and computer-based instruction in flexible formats. Furthermore, some for-profit companies offer tuition prices that undercut CUNY's direct instruction and delivery cost. Hence, by outsourcing to third parties, CUNY could potentially increase student performance and decrease its remediation expense. However, third parties offer little data on student achievement as measured by national standardized tests: NYCALI offers summary data for its programs; three for-profit companies offer data from only five partnerships between them; and none of the other organizations presented any data at all. Based on this information, we cannot conclude that third parties can remediate prospective CUNY freshmen.

Our findings and citations appear in Section IV. PRESENTATION OF DATA. They are summarized below and tabulated in Table 4 at the end of this section. Note: Where we compare third parties to CUNY, we refer to information presented in *Open Admissions and Remedial Education at*

the City University of New York, the Task Force remediation report (Renfro and Armour-Garb, May, 1999).

1. Assessment

The quality of third parties' assessment policies is uneven. Only a handful of policies comprise pre-and post-testing on a standardized instrument. Many include pre-testing but do not follow through with post-testing. Some do not include standardized instruments at all. Instead, they feature tests created in-house that may be invalid or unreliable, like CUNY's FSATs (RAND, September 21, 1998). Individualized study plans are largely confined to the for-profit sector.

The absence of valid, reliable assessment and clearly articulated entrance criteria for college-level work at CUNY makes it difficult to predict whether a given provider can raise students to that bar. The best we can do is to comment on the quality of policies, the quality of results and the measures of improvement. Our comments on policies follow.

Use of standardized instruments. For-profit companies and NYCALI use nationally standardized instruments more widely than any other type of potential provider. To test reading, writing and math skills, Kaplan, Huntington and Sylvan use such tests as the California Achievement Test (CAT) and the Stanford Achievement Test (commonly known as the Stanford 9), among others, in their partnerships with elementary, secondary and post-secondary schools, and they use the Test of Adult Basic Education (TABE) in their partnerships with post-secondary schools. The tests' strengths, the firms say, is their national credibility and familiarity among students of many ages. NYCALI is considering using the CAT, but right now its affiliates use the TABE, as well as instruments designed and normed for the State of New York. Local independent colleges and universities do not generally use standardized instruments and instead use instruments created in-house. The exception is NYU, which uses the Comprehensive Test of Basic Skills (CTBS).

To test English proficiency, only The Princeton Review (TPR) relies on a national standardized instrument. TPR pre- and post-tests on the Test of English as a Foreign Language (TOEFL) and, moreover, builds its entire ESL curriculum on the exam. The other organizations, except NYCALI, regard the TOEFL as an inadequate measure of nuanced understanding. Instead, they use instruments created in-house and supplement them with oral evaluation (conversation that gradually grows more grammatically and conceptually complex) and written evaluation (an essay test with a menu of topics). Berlitz, which is world-renowned for language instruction, also administers a computer-adaptive test that provides additional insight into students' command of grammar and usage.

Renfro and Armour-Garb reported CUNY has difficulty distinguishing lack of English skills from lack of reading and writing ability (May 1999). NYCALI's solution to this problem is administering two different tests. To assess a student's proficiency in English, the organization administers the NYSPLACE, which was created by SED and normed for the State. To test a student's reading and writing ability, NYCALI administers a test in the student's native language. Here, NYCALI uses the

Spanish Assessment of Basic Education (SABE), the Spanish version of the CTBS or assessment instruments created by the SED that are written in Haitian-Creole, French, Vietnamese, Russian, Polish, Arabic, Italian, Korean and Chinese. Berlitz offers a twist on the solution. The company proposes using software wherever possible and offers its propriety line called *CD-ROM Placement Evaluation*. The English version could be used to test proficiency in this language, and other versions, in Spanish and French for example, could be used to test students' reading and writing ability in their first languages. Berlitz says that, because software programs can score students' performance immediately, the use of software would be more efficient.

Diagnostic-prescriptive pre-testing and individualized study plans. Only the for-profit companies offer diagnostic-prescriptive testing and individualized study plans. Each analyzes students' pre-test scores, often along with information from interviews or high school transcripts, to prescribe study plans that link to specific curricular remedies. While not all potential providers currently offer individualized study plans, any organization that uses a test like the CAT, Stanford 9 or CTBS, like NYU, has diagnostic capacity and could create study plans for each student.

Post-testing. Only the for-profit companies and NYCALI pre- and post-test. Fordham, Iona, Marymount, Pace and St. John's forgo such measurement and rely on instructors' subjective evaluations to chart student achievement.

In sum, the for-profit companies and, to a lesser extent, NYCALI and NYU satisfy our research criterion of having a comprehensive assessment program.

2. Curriculum

With several exceptions, third parties of all types can teach the basic skills of reading, writing, math and ESL. Iona provides no reading instruction. Berlitz and Fordham provide only ESL instruction, while Huntington, Kumon and Manhattan provide none at all. Adding up all the programs by curricular subject indicates that third parties could open an extra 12 reading programs, 13 writing programs, 13 math programs and 12 ESL programs to CUNY students. Details appear in Table 2.

Note: According to NYCALI's director, very few affiliates, perhaps 10 out of the 299, currently deliver curricula sophisticated enough to prepare students for college-level work. However, the director says, the programs could be upgraded.

Table 2. Summary of Basic Skills Curricula Offered by Third Parties

ORGANIZATION	READING	WRITING	MATH	ESL
For-Profit Companies				
Berlitz International, Inc.				•
Kaplan Educational Centers	•	•	•	•
Huntington Learning Centers, Inc.	•	•	•	
Kumon Math & Reading Centers	•	•	•	
Sylvan Learning Systems	•	•	•	•
The Princeton Review	•	•	•	•
Colleges and Universities				
Fordham University				•
Iona College		•	•	•
Manhattan College	•	•	•	
Marymount Manhattan College	•	•	•	•
New York Institute of Technology	•	•	•	•
New York University	•	•	•	•
Pace University	•	•	•	•
St. John's University	•	•	•	•
New York Adult Literacy Initiative	•	•	•	•

Mastery learning. Very few of the 51 programs feature mastery learning, and the ones that do are sponsored by for-profit companies. Kumon uses the model in the extreme. Its curricula are built on hundreds of carefully sequenced worksheets that can advance students 27 levels in math from counting numbers through differential equations, and 17 levels in language arts from tracing letters to writing persuasive essays and character analyses. Students must complete each worksheet with complete accuracy before moving on to the next, more challenging worksheet. In addition, Berlitz's and Fordham's ESL programs incorporate some aspects of mastery learning. Their curricula adhere to hierarchies of language proficiency and benchmark students' performance against them.

Developmental and adult learning theory. The local independent colleges and universities often incorporate the developmental technique of pairing remedial and even college-level courses with tutorials and other academic support. Sylvan and Kaplan say that, in keeping with the tenets of the National Association of Developmental Educators (NADE), they deliberately included group work in their curricula to accommodate the cognitive style of adults.

Despite the large number of remediation services covering all basic skills, only the services provided by for-profit companies and Fordham offer curricula built on mastery learning theory. Therefore, only these organizations satisfy the mastery learning criterion.

3. Instruction

Only the for-profit companies satisfy our criterion of delivering small-group and computer-based instruction in flexible formats. The companies maintain a ratio of as few as three and no more than eight students to each instructor. All but TPR deliver instruction via computer. For each project, they create computer labs with enough work stations for each student. All offer immersion courses and all but Berlitz offer courses in an open entry/exit format. Of the rest of the organizations, all but Manhattan College, Pace and Marymount offer small-group instruction and immersion courses and none offers computer-based instruction or the open entry/exit format. In terms of instruction methods, local independent colleges and universities are similar to CUNY.

4. Productivity

Outsourcing remediation to third parties is potentially more cost-effective for CUNY than delivering such instruction on its own.¹⁷ As Table 3 indicates, Sylvan, Kaplan and Kumon each offer a per-student tuition price for one basic skills course that is lower than CUNY's per-student cost of \$350 for one remediation course.¹⁸ Sylvan and Kaplan offer a savings margin of 36%. Assuming that each year 26,000 CUNY students need one remedial course and assuming that they could all be served at the same price point, Sylvan's and Kaplan's margin becomes an annual dollar savings of \$3.28 million. Kumon offers a savings margin of 3%. Using the preceding algorithm, Kumon's margin becomes a dollar savings of \$312,000. In sum, Sylvan, Kaplan and Kumon satisfy our research criterion of increased productivity.

¹⁷ The outsourcing scenario described here addresses direct instruction only and does not address counseling and other student support services. The demand for and cost of support services would still need to be addressed.

¹⁸ PricewaterhouseCoopers determined that CUNY's direct instructional cost on a full-time equivalent basis is \$1,754 (August 14, 1998). This figure represents the expense of delivering 15 credits or five three-credit courses. Assuming that expense does not vary by course, CUNY's cost of delivering one remediation course to one student is approximately \$350.

Table 3. Summary of Potential Savings Offered by Third Parties

THIRD PARTY	TUITION PER COURSE AND PER SEMESTER	POTENTIAL SAVINGS IN PERCENTAGE	POTENTIAL SAVINGS IN DOLLARS
For-Profit Companies			
Berlitz International, Inc.	\$1,350		
Huntington Learning Centers, Inc.	\$893		
Kaplan Educational Centers ¹⁹	\$224	36%	\$3.28 million
Kumon Math and Reading Centers	\$338	3%	\$312,000
Sylvan Learning Systems, Inc. ²⁰	\$224	36%	\$3.28 million
The Princeton Review	\$1,102		
Colleges and Universities			
Fordham University (ESL only)	\$1,000		
Iona College	\$1,370		
Manhattan College	\$1,875		
Marymount Manhattan College	\$1,950		
New York Institute of Technology	\$1,035		
New York University (ESL only)	\$1,820		
Pace University ²¹	\$1,350		
St. John's University	\$1,320		
New York Adult Literacy Initiative ²²	\$472		

5. Track Record of Student Achievement

As we noted at the beginning of this section, the absence of valid, reliable assessment and clear entrance criteria at CUNY undermines our analysis of third parties. CUNY maintains no benchmarks, as measured in percentiles, grade level equivalents (GLEs) or normal curve equivalents (NCEs) on standardized tests. So, even if we had substantial data, we could not establish that third parties can remediate prospective freshmen. Hence, we can only comment on the quantity and quality of their data.

¹⁹ The figure contained in the tuition column is the per-pupil expense for the partnership with the Los Angeles Unified School District (LAUSD) divided by semester of service.

²⁰ The figure contained in the tuition column is the per-pupil expense for the partnership with LAUSD divided by semester of service.

²¹ The figure contained in the cost/FTE column is the cost of a three-credit course in remedial reading, writing or math and the cost of 80 hour of ESL instruction, approximately one semester.

²² The figure contained in the tuition column is the average of NYCALI's high and low extremes of NYCALI's per-pupil expense. If NYCALI upgrades its programs to prepare students for college-level work, presumably its costs will climb. We use the average as a proxy.

Quantity of data. There is not enough data to conclude that third parties can remediate prospective CUNY students. Local independent colleges and universities offer no data at all. NYCALI offers data from its OACE subsidiary.²³ However, since this data represents programs that, by NYCALI's own estimate, most likely cannot prepare students for college work, the data is excluded from consideration. As a result, data generated by for-profit companies emerge as the indicator of third parties' abilities. This is problematic. Together, they report on only 34 out of nearly 190 institutional partnerships.

The first partnerships were formed only about three years ago and are not mature enough to generate substantial data. This is particularly true of Huntington, which established its first partnership last winter and added another one only this year. In addition, Kaplan's post-secondary operation is about two years old and its school operation is only about 18 months old. Out of its 48 partnerships, 17 have generated some data. Although Sylvan appears to be an older, larger operation, most of its girth comes from recent corporate acquisitions of special education providers, which are not relevant to CUNY.

The youth of the business compromises the companies' data in other ways, too. As their institutional business grew out of a retail model, the companies did not realize early on how important a quantifiable track record would be to the public policy sector. Berlitz, Kumon and TPR did not formulate collection strategies from the beginning and now do not have data on their 100 or so institutional partnerships archived in a usable way. In addition, when Sylvan and Kaplan have partnered with post-secondary institutions, they have not pre- and post-tested students. One possible explanation is that they compromised their standard practices in their eagerness to generate revenue quickly. Company management says, however, that they were merely acceding to clients' assessment policies. Considering the lack of assessment rigor we see among local post-secondary institutions, we accept the latter explanation.

Quality of data. Data generated by for-profit companies is not very informative. All the data conclusively says is that in several urban settings and among students who share many socio-economic characteristics with CUNY students, for-profit companies positively impacted student achievement.

In some ways, Sylvan offers the most credible data. The company presents CAT reading results in NCEs of all elementary, middle and high school students participating in 15 district partnerships during the 1997-98 school year – a total of 10,878 students. On average, as Table 4 indicates, these students started their programs at 24 NCEs and advanced seven NCEs. Elementary students showed the greatest progress, advancing eight NCEs. In addition, as Table 5 indicates, Sylvan presents average gains in reading vocabulary and comprehension separately by district. Students in Chicago, Detroit, Newark and Washington DC gained two to six NCEs in vocabulary and five to eight NCEs in comprehension.

²³ NYCALI's data appear in its profile in Section IV. Although the data confirms NYCALI's sound assessment policy, it raises questions about its practices. We note that the distribution of post-test scores for all students who started programs at GLEs of 3-6.9 are nearly identical, varying only about 1% in round numbers. The likelihood of this happening must be small and makes us wonder if the data was influenced by some outside factor.

The breadth of Sylvan's data on its K-12 reading programs is not matched by data on its K-12 math programs and college partnerships. The balance is as follows:

- Since February 1996, Sylvan has delivered instruction in math, as well as reading and writing, to 450 high school students in the Newark NJ public schools who previously failed state's High School Proficiency Test (HSPT). Participants have gone on to pass the HSPT at a rate 12.1% higher than non-participants.
- In Spring 1998, Sylvan delivered up to 50 hours of small-group and computer-based instruction in math, as well as reading, to high school students in Washington DC. CAT results in NCEs indicate that participants narrowed the gap between their actual skill level and the levels benchmarked for their grades.
- In Spring and Fall 1997, Sylvan delivered 40 hours of remedial math and reading instruction to freshmen at Columbia College, Chicago IL, functioning below the 9th grade level. TABE results in GLEs indicated that participants advanced about three grade levels.

Kaplan's data is not as robust as Sylvan's. Kaplan presents data on two programs, as follows:

- In Spring 1998, Kaplan delivered 55 hours of small-group and computer-based instruction in reading comprehension and vocabulary to 9th graders at George Washington High School in Manhattan. CAT results in GLEs indicate that the portion of student with skills at the high school level increased about 16%.
- In Summer 1998, each week, Kaplan delivered six hours of small-group and computer-based instruction in reading and math at 25 public elementary and high schools in the Los Angeles Unified School District. The company pre- and post-tested students on the CAT and Stanford 9. CAT results in GLEs in reading for 16 locations indicate that elementary school students advanced an average of 0.5-0.6 GLEs and high school students an average of 0.4-3.7 GLEs. Kaplan reports no data on student performance in math.

Huntington offers data on one partnership. In Spring 1998, Huntington delivered 40 hours of small-group and computer-based instruction to 112 8th graders in the Washington DC public schools. CAT results in GLEs indicate that the portion of students at grade level in vocabulary rose 16% and in comprehension rose 4%.

Table 4. Sylvan Nationwide Cohort of K-12 Students, 1997-98 School Year: Pre- and Post-Test Results on CAT Reading, in NCEs

POPULATION	N	PRE-TEST NCE	POST-TEST NCE	NCE GAIN
Total	5,439	24	31	7
Elementary School	2,479	25	33	8
Middle School	2,416	24	29	5
High School	544	20	26	6

Table 5. Sylvan District Cohorts of K-12 Students, 1997-98 School Year: Average NCE Gains on CAT Reading, by Test Section

DISTRICT	VOCABULARY	COMPREHENSION	TOTAL
Baltimore County	9	12	11
Baltimore	7	8	8
Broward (FL)	2	4	4
Chicago	2	7	5
Detroit	4	7	6
Minneapolis	7	10	9
New Orleans	2	7	5
Newark	6	10	8
Oklahoma	4	5	4
Pasadena	6	15	10
Philadelphia	5	12	9
Richmond	5	7	6
St. Paul	7	13	10
St. Louis	4	6	5
Washington DC	6	6	6

6. Potential Advantages of Out-Sourcing Remediation

By outsourcing remediation in all subjects, CUNY could potentially increase student performance and decrease its direct instruction expense. As Table 6 indicates, third parties offer superior assessment programs that incorporate diagnostic-prescriptive testing and individualized study plans; and effective curricula and instruction. Furthermore, the best candidates for outsourcing are for-profit companies. They meet nearly all our research criteria, including increased productivity. Outsourcing could be a short-cut way to providing superior learning opportunities to prospective CUNY students. If we had more hard data supporting third parties' positive impact on student achievement, we would recommend that CUNY immediately outsource some or all of its remediation services.

Table 6. Summary of Third Parties' Academic and Assessment Programs

CRITERIA	CUNY	FOR-PROFITS	COLLEGES & UNIV.	NYCALI
Subject Areas Reading Writing Math English as a Second Language (ESL)	• • • •	• • • •	• • • •	• •
Assessment Standardized norm/criterion testing Diagnostic-prescriptive pre-testing Individualized instructional plans Standardized post-testing		• • • •	•	• •
Curriculum Mastery learning Adult learning theory Developmental learning theory	• •	• • •	• •	• •
Instruction Flexibility of time and location Lecture format Small-group format Computer-based format	Immersion •	• • • •	• •	• •
Results Standardized test results		•		
Productivity Per-pupil cost information Per-pupil cost < CUNY		• •	•	•

G. Recommendations

In light of our research, we recommend that New York City experiment with outsourcing remediation services to for-profit and non-profit organizations. The experiment should observe the effect of services delivered by third parties on the skills of students who wish to matriculate at CUNY. The goal would be to generate conclusive evidence of third parties' ability to remediate students. If the experiment yields positive data, then the viability of outsourcing remediation would be confirmed and a plan for doing so should be pursued aggressively.

1. Conduct Experiment to Confirm Positive Impact of Third-Party Remediation Providers

All third parties cited in this document – private companies, local independent colleges and universities, and the New York City Adult Literacy Initiative subsidiaries – should be invited to participate. They all have experience teaching basic skills to under-prepared students and, to various degrees, satisfy our research criteria. Ideally, CUNY would join the experiment as a provider and assist psychometricians in defining performance benchmarks and standards for exiting remediation that are congruent with college-level work.

In addition to performance data, the experiment would generate insight into the unique strengths of the diverse participants. Some organizations might be most effective teaching English as a second language. Some might be most effective in teaching math. Others might excel at teaching students with particularly weak skills. The insight could be turned into a broad taxonomy indicating the best organizations for delivering certain services to certain populations.

Student participants should be drawn randomly from the population of prospective CUNY students. This includes older adults, recent immigrants, high school students and even their younger antecedents in junior high school. If we control for socio-economic characteristics, we can generate insight into how the remediation providers serve various types of students. This insight could enhance the taxonomy described above.

The experiment must be scientifically sound. It should comprise test and control groups. Students in both groups should be pre-tested on a standardized instrument and then assigned randomly to remediation programs sponsored by CUNY and the other organizations. After the test group receives remedial treatment, the test and control groups should be tested once again on the pre-test instrument. Given their national credibility and strength as diagnostic tools, the California Achievement Test or the Stanford Achievement Test are probably good choices. If the Task Force decides to mandate the SAT as an entrance exam, the SAT could be added as another post-test. In this way, the City can determine if successful remediation can raise SAT scores. Data analysis would entail comparing differences in pre- and post-test scores among the test and control groups and sorting data by organization and student characteristics. With the foregoing parameters in mind, psychometricians should craft the experimental design.

The implementation of the experiment should be in the hands of professionals, too. Given its sensitivity, the experiment should have strong leadership. We recommend that the experiment be sponsored by the Mayor's Office. Given its potential impact on how remediation is delivered in New York City and elsewhere, the experiment should be managed by experienced educators. We recommend enlisting education policy makers from Columbia or New York University. Given the volume of data and need for careful measurement, the analysis should be performed by independent consultants. We recommend companies like Pricewaterhouse-Coopers, KPMG and Andersen Consulting that have extensive experience working with elementary, secondary and post-secondary schools. Working expeditiously, this team of leaders, educators and consultants could complete the experiment in six to nine months.

The experiment could probably be executed for only the cost of managing the process. The third parties would probably participate free of charge, as they would find the experiment a good opportunity to showcase ability and a reasonable investment for the expected value of future tuition revenue streams.

2. Outsource College-Level Remediation through Managed Competition

Given the promise of third parties' remediation services, we expect the outsourcing experiment to yield positive results. Therefore, as the City conducts the experiment, it should take the necessary administrative and legal steps toward outsourcing remedial education of prospective CUNY students.

The appropriate model for outsourcing remediation is managed competition, which simulates the efficiency and effectiveness of a free market. We note that the most promising services come from private companies compelled by market forces to devise services that are superior to public services and to innovate competitive advantages of quality and price over one another. Through managed competition, the City would harness the market forces for the direct benefit of prospective CUNY students.

Accordingly, the City would construct its own market of suppliers and consumers of remediation services. The City would admit suppliers to the market mix based on their strategic fit with the taxonomy developed through the outsourcing experiment. Asserting their own competitive advantages, third parties would declare the services they intend to provide. For example, Berlitz International and Fordham University English Language Institute would surely declare themselves as ESL providers and Kumon Math and Reading Centers, which has no ESL expertise, would not. The City could confidently rely on self-identification, because, in the managed competition model, the burden of proving results rests on third-party providers. The revenue they would generate would depend on the student performance results they produce.

The City would admit consumers to the marketplace based on their intention to attend CUNY. Students would demonstrate their intention by holding conditional admission, meaning they meet some minimal standard but must improve their basic skills before enrolling in college-level courses. The City would under-write the cost of students' remedial studies and, to ensure that the benefits of effective remediation accrue to CUNY, would require students to attend at least one semester of college-level study there. If a fully remediated student chooses to attend another institution over CUNY, then she would be obligated to refund the cost of her remediation to the City.

The City would once again refer to the taxonomy, which will indicate the best ways for delivering certain services to certain populations, to match students with appropriate service providers. In this way, the City could ensure that students receive the remedial help they need. The first step would be assessing students' skill sets. An independent testing consultant or team of consultants would administer a uniform protocol of credible diagnostic instruments, much like the protocol used in the outsourcing experiment, and then produce individualized study plans linking skill deficits to a menu of

remedial providers. The team of consultants should have the capacity to administer tests on and near CUNY campuses. The team might also be tapped to administer progress-testing, as students undergo remediation. Good candidates for providing the diagnostic-prescriptive analysis include The College Board, the education schools of Columbia and New York University and the State Education Department.

Equipped with study plans and lists of recommended providers, students would matriculate into suitable programs. We propose two alternative courses of action. They would both give rise to effectiveness and efficiency but would require different degrees of oversight by the City. The first course would entail close monitoring of service delivery and paying third parties strictly on value-added performance. In this scheme, a student would enter a basic skills program, triggering an upfront payment to the provider, and would be tested for progress, perhaps by independent consultants, at regular intervals or as needed to gauge quick advancement. The student would trigger additional payments each time she hits a milestone toward the goal of achieving college-level skills and a bonus payment when, and if, she passes out of remediation entirely. To encourage efficiency, the City could peg the size of payments to the student's remediation time horizon, compensating more for speedy progress. The size of the initial payment should be large enough to induce third parties to participate.

The second course of action would entail less oversight by the City and paying third parties through a voucher system. In this scheme, a student would receive a highly detailed individualized study plan that charts her optimal path toward achieving college-level skills and a voucher that represents the estimated cost of her complete remediation and, with these things, would shop for her own City-approved provider. The third parties would compete freely for students' voucher dollars, using all means of marketing. At the end of each year, perhaps with the assistance of independent consultants, the City would evaluate each provider and either re-authorize or dismiss it without delay. Providers who innovate on quality or cost and pass the benefit on to the student consumers should receive special rewards. This model would encourage efficiency, too, but would place more responsibility on the students. Students who pass out of remediation before depleting their vouchers could use the remainder as scholarship money redeemable in college-level courses at CUNY.

No matter which course of action the City might take, the cost of sponsoring the remediation of some or all CUNY freshmen would run tens of millions of dollars each year. Table 3 of this document indicates possible per-student, per-course tuition rates. To under-write the cost, the City could divert funds it sends to the Board of Education of the City of New York (BOE) and CUNY. After all, CUNY and the BOE are jointly responsible for the education from kindergarten through college of most of the learners in New York City.

Given the City's substantial fiscal commitment in sponsoring the remediation program, the Mayor's Office should operate the program, at least in the short term. While the Office is conducting the outsourcing experiment, it could directly apply its learning and insight into constructing the managed competition model and, thereby, hasten implementation. Furthermore, the Mayor's Office has ready access to the legal and financial advice that will be essential to a successful launch. Where the Office lacks expertise, likely in the areas of standardized testing and evaluating educational programs, it should

seek assistance from expert consultants. In the longer term, the City should consider establishing a central office for educational services, much like Texas's Higher Education Coordinating Board, to handle the remediation operation and potentially other public-private initiatives.

After it undergoes key programmatic and governance reforms, CUNY may be in line to oversee the outsourcing of remediation. However, once it enjoys some freedom from remediating nearly its whole freshman class and begins to attract better students, CUNY may wish to concentrate on further enhancing its college-level programs. Indeed, CUNY may wish to pull out of the remediation business entirely.