An evaluation was done of New York City Public Schools' Chinese Opportunities in Career Education Program (Project CHOICE), which served economically disadvantaged Chinese American high school students of limited English proficiency. The project operated at two Manhattan high schools and served 523 students, of whom 94.6 percent were eligible for the Free Lunch Program. The Project was a comprehensive Chinese bilingual program, which incorporated business and vocational education with academic components. Participants took a full range of bilingual career education courses; bilingual content area classes in mathematics, science, and social studies; English as a Second Language (ESL); and native language arts. Resource specialists developed Chinese bilingual materials, provided classroom teachers with information on bilingual and ESL teaching methodologies, gave demonstration lessons, held workshops, and served as tutors. The family worker helped the guidance counselor and contacted parents. Evaluation of the program was based on demographic data, citywide student test scores, and interviews with and surveys of the program director. Project CHOICE was fully implemented, and it met all objectives. Program strengths included its effectiveness as a liaison among school staff, students, and parents as well as excellent curriculum design for promoting students' academic achievement. One appendix summarizes the data collection and analysis procedures. (JB)
Chinese Opportunities in Career Education
(Project CHOICE)
Grant Number: T003A0022
1990-91

FINAL EVALUATION PROFILE
Chinese Opportunities in Career Education
(Project CHOICE)
Grant Number: T003A0022
1990-91

FINAL EVALUATION PROFILE
It is the policy of the New York City Board of Education not to discriminate on the basis of race, color, creed, religion, national origin, age, handicapping condition, marital status, sexual orientation, or sex in its educational programs, activities, and employment policies, as required by law. Inquiries regarding compliance with appropriate laws may be directed to Mercedes A. Neufeld, Director, Office of Equal Opportunity, 110 Livingston Street, Brooklyn, New York 11201; or to Director, Office for Civil Rights, Department of Education, 26 Federal Plaza, Room 33-10, New York, New York 10278.
ACKNOWLEDGMENTS

This report has been prepared by the Bilingual, Multicultural, and Early Childhood Evaluation Unit of the Office of Research, Evaluation, and Assessment.

Additional copies of this report are available from:

Dr. Tomi Deutsch Berney
Office of Research, Evaluation, and Assessment
New York City Public Schools
110 Livingston Street, Room 732
Brooklyn, NY 11201
(718) 935-3790
FOREWORD

The body of this report is preceded by an Extract which presents an overview of salient points of the project: funding cycle; enrollment figures; background of students served; admission criteria; and programming features, strengths, and limitations, including the outcome of all objectives. The extract also presents the conclusions drawn by the Office of Research, Evaluation, and Assessment (OREA) about the program and its recommendations for program improvement.

The extract is followed by the body of the report, titled Program Assessment. This includes such information as staffing, program implementation, and outcome and implementation objectives. Instructional objectives are presented first, followed by noninstructional objectives. The report then addresses those aspects of programming mandated by Title VII regulations that do not have specifically stated objectives. This may be information on attendance and dropout rate, grade retention, mainstreaming, referrals out of the program to meet special needs of the students, and withdrawals. A case history concludes the report.

Data for this profile were collected and analyzed using a variety of procedures, which are described in Appendix A following the text.
E.S.E.A. Title VII Evaluation Profile

Chinese Opportunities in Career Education
(Project CHOICE)
Grant Number: T003A80022
1990-91

.EXTRACT

PROJECT DIRECTOR: Katherine Sid

FUNDING CYCLE: Year 3 of 3

SITES

<table>
<thead>
<tr>
<th>High School</th>
<th>Borough</th>
<th>Grade Levels</th>
<th>Enrollment*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seward Park</td>
<td>Manhattan</td>
<td>9-12</td>
<td>(fall) 405</td>
</tr>
<tr>
<td>Norman Thomas</td>
<td>Manhattan</td>
<td>9-12</td>
<td>(spring) 422</td>
</tr>
</tbody>
</table>

*The project enrolled 523 students (97 less than in the previous year), serving 437 in the fall and 454 in the spring.

STUDENT BACKGROUND

<table>
<thead>
<tr>
<th>Native Language</th>
<th>Number of Students</th>
<th>Countries of Origin</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese</td>
<td>509</td>
<td>China</td>
<td>460</td>
</tr>
<tr>
<td>Mandarin</td>
<td>66</td>
<td>Hong Kong</td>
<td>32</td>
</tr>
<tr>
<td>Cantonese</td>
<td>402</td>
<td>Taiwan</td>
<td>8</td>
</tr>
<tr>
<td>Fukinese and</td>
<td>41</td>
<td>Vietnam</td>
<td>4</td>
</tr>
<tr>
<td>Toishanese</td>
<td></td>
<td>Other countries</td>
<td>6</td>
</tr>
<tr>
<td>Unreported</td>
<td>14</td>
<td>Unreported</td>
<td>13</td>
</tr>
</tbody>
</table>

Mean Years of Education in Native Country: 7.3; the United States: 2.2
Percentage of Students Eligible for Free Lunch Program: 94.6

ADMISSION CRITERIA

Program admission was based upon students' scores at or below the 40th percentile on the Language Assessment Battery (LAB), interviews by project director and staff, and placement tests in English as a Second Language (E.S.L.) and Native Language Arts (N.L.A.).

PROGRAMMING

Features

Funding for Project CHOICE activities was supplemented by tax-levy and other state and local funds. Project CHOICE was a comprehensive Chinese bilingual program which incorporated business and vocational education with academic components. Program students had the opportunity to take a full range of bilingual career education courses; bilingual content area classes in mathematics, science, social studies, E.S.L.; and N.L.A. Resource specialists developed Chinese bilingual materials, provided classroom teachers with information on bilingual and E.S.L. teaching methodologies, gave demonstration lessons, held workshops, and served as tutors. The family worker helped the guidance counselor and contacted parents.
Strengths and Limitations

The project's strengths included its effectiveness as liaison between school staff, students, and parents, as well as the excellent curriculum design for promoting students' academic achievement. Participating students had high attendance and a high graduation rate. The project provided services for staff and parents and was the co-sponsor of the citywide Chinese parents conference. The project established a strong materials development component and shared its curriculum materials citywide. Project CHOICE made active outreach efforts to the community and other schools and districts and organized a variety of cultural activities for students and parents. The project provided parents with E.S.L. classes and staff with Chinese (Mandarin) classes.

CONCLUSIONS AND RECOMMENDATIONS

Project CHOICE was fully implemented. It met all its objectives for E.S.L., N.L.A., content area subjects, career education, attendance, staff and curriculum development, and parent involvement.

The conclusions, based on the findings of this evaluation, lead to the following recommendations:

- If funds permit, the project should establish a follow-up program for students who have graduated and entered college.

- If funds permit, the project should add a bilingual guidance counselor to its staff.
PROGRAM ASSESSMENT

STAFFING

Project director was paid with tax-levy funds.

Title VII Staff (Total 6)

<table>
<thead>
<tr>
<th>Title</th>
<th>Degree</th>
<th>Language Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bil. Resource Specialist</td>
<td>Ph.D.</td>
<td>Chinese</td>
</tr>
<tr>
<td>Bil. Resource Specialist</td>
<td>M.A.</td>
<td>Chinese</td>
</tr>
<tr>
<td>Bil. Family Worker</td>
<td>B.A.</td>
<td>Chinese</td>
</tr>
<tr>
<td>Bil. Educational Assistant</td>
<td>B.A.</td>
<td>Chinese</td>
</tr>
<tr>
<td>Bil. Educational Assistant</td>
<td>B.A.</td>
<td>Chinese</td>
</tr>
<tr>
<td>Bil. Educational Assistant</td>
<td>College credits</td>
<td>Chinese</td>
</tr>
</tbody>
</table>

Other Staff Working with Project Students

The project reported only partial information about staff working with project students at the participating schools. Of 74 teachers at Seward Park High School, all were certified in the subjects they taught. They all held bachelor’s degrees, and more than half of them had advanced degrees (i.e., master’s and doctorate). Approximately 30 percent of them were proficient in teaching in Chinese. The project did not provide data for Norman Thomas High School staff.

IMPLEMENTATION AND OUTCOMES (Objectives prefaced by *)

English as a Second Language (E.S.L.)

<table>
<thead>
<tr>
<th>Level</th>
<th>Periods Weekly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>15</td>
</tr>
<tr>
<td>Beginning</td>
<td>15</td>
</tr>
<tr>
<td>Intermediate</td>
<td>15</td>
</tr>
<tr>
<td>Advanced</td>
<td>10</td>
</tr>
<tr>
<td>Transitional</td>
<td>10</td>
</tr>
</tbody>
</table>

E.S.L. classes used Phonics for Chinese Students.

* Program students will make statistically significant gains in English language proficiency.

Evaluation Instrument: Language Assessment Battery (LAB)*


*OREA used a gap reduction design to evaluate the effect of supplementary instruction on project students' performance on the LAB. Since all LEP students in New York City are entitled to such instruction, no valid comparison group exists among these students, and OREA used instead the group on which the LAB was normed. Test scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.06. It is assumed that the norm group has a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains are attributable to project services.
Number of students for whom pre- and posttest data were reported: 280

Mean gain: 4.3 N.C.E.s (s.d. = 7.4)

Mean gain is statistically significant (t= 9.72, p<.05).

Project met objective.

Native Language Arts (N.L.A.)

The project offered five periods weekly of Chinese language arts classes (beginning, intermediate, and advanced) based upon students’ proficiency. One school was in the process of establishing an advanced placement (AP) Chinese language class, which would allow participating students to earn college credits.

- Seventy percent of the participating students will achieve a final grade of 65 or higher.

Evaluation Indicator: Final course grades.

There were 318 students enrolled in the fall, and 87.4 percent of these passed. In the spring, 276 students were enrolled, and 88.0 percent passed.

Project met objective.

Content Area Subjects

Project students took courses in mathematics, science, and social studies, which were taught in English supplemented by Chinese. Teachers used the Subject Glossaries (e.g., biology, global and American history). Various Chinese supplementary texts were used to help students with mainstream content area curricula, including:

- Chinese Supplementary Text for Biology (A.B.C.)
- Chinese Supplementary Text for Understanding the World
- Chinese Bilingual American History Supplementary Text
- Chinese Supplementary Text for United States History and Government

At Seward Park High School, new courses were added to meet students’ special needs. For instance, four bilingual Chinese Introduction to Technology courses were added to the industrial arts curriculum. Seward Park High School provided 90 Chinese bilingual classes daily in mathematics, social studies, science, business, and performing and visual arts. The project did not report data for Norman Thomas High School.

- Seventy percent of the participating students will achieve a final grade of 65 or higher.

Evaluation Indicator: Final course grades.

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>381</td>
<td>355</td>
</tr>
<tr>
<td>Science</td>
<td>363</td>
<td>321</td>
</tr>
<tr>
<td>Social studies</td>
<td>322</td>
<td>309</td>
</tr>
<tr>
<td>Percent Passing</td>
<td>81.6</td>
<td>84.2</td>
</tr>
<tr>
<td></td>
<td>75.2</td>
<td>83.5</td>
</tr>
<tr>
<td></td>
<td>84.8</td>
<td>84.1</td>
</tr>
</tbody>
</table>

Project met objective in all subject areas both semesters.
Attendance

- Seventy-five percent of participating students will maintain an attendance rate of above 90 percent. By the end of the three-year project period, project students' attendance rate will surpass the rate of attendance for each of the two schools as a whole.

### Attendance Rates

<table>
<thead>
<tr>
<th>High School</th>
<th>Project Students' Rate</th>
<th>Mainstream Students' Rate</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seward Park</td>
<td>96.6</td>
<td>83.2</td>
<td>13.4*</td>
</tr>
<tr>
<td>Norman Thomas</td>
<td>93.9</td>
<td>78.6</td>
<td>15.3*</td>
</tr>
</tbody>
</table>

* p<.05

Project met objective.

Dropout Rate

Project did not propose an objective for dropout rate. Nineteen, or 3.6 percent, of the project students dropped out. However, the rate was lower at both sites than the mainstream students' rate.

Support Services

Project CHOICE provided academic and personal counseling, college advisement, placement in training programs, and career orientation. The staff members contacted families by telephone and mail.

The project did not propose an objective in this area.

Staff Development

- By the end of the project year, staff members will have attended a total of ten workshops and in-service training sessions.

Staff members attended routine staff development activities in schools (monthly faculty conferences, staff development days, and monthly department meetings) as well as 18 professional activities at different levels (city, state, national).

Project met objective.

- Five staff members and/or tax-levy instructional staff serving Project CHOICE students will have taken credits in bilingual education, career education, computer education, or other subject areas related to the goals and objectives of the project.

During both semesters, eight staff members took 14 different courses in special education, educational administration, science, and engineering.

Project met objective.
By the end of the project year, staff members will have conducted four in-service workshops related to the goals and objectives of the project.

In-service workshops included:

- Materials Simplification for the LEP Students
- Chinatown: Its History and the Community Today
- Chinese Dance
- In-house workshops on a variety of topics for all Chinese bilingual teachers and paraprofessionals

Project met objective.

**Curriculum Development**

- By the end of the three-year project period, a set of Chinese-English bilingual tape glossaries and accompanying booklets will have been developed for all career and technical education courses covered by the project.

  The project developed glossaries with tapes in occupations, mathematics, global history, computers, and biology. The project also prepared a booklet to accompany each tape for students to study at home.

  Project met objective.

- By the end of the three-year project period, a Chinese bilingual curriculum will have been developed for introduction to occupations; business education courses such as reading through keyboarding, word processing, accounting, etc.; technical education courses such as electronics, drafting, and computer education; and American history.

  The project completed bilingual materials for American history and compiled materials for new courses in occupation education. A new curriculum for pre-engineering was being prepared. In addition, various instructional materials were developed in all content areas.

  Project met objective.

- By the end of the school year, Chinese/English informational materials for students, parents, and staff will have been developed.

  The Student Handbook and The Parent Handbook were revised. The project's curriculum development staff constructed parent and teacher questionnaires and translated school information as needed by students and parents.

  Project met objective.

**Parental Involvement**

- By the end of the project year, more than 150 parents will have attended the project's fall and spring parent-teacher meetings.

- By the end of the project year, 90 percent of the parents who participate in the parents' E.S.L. workshop will indicate that they have improved their English a great deal.

- By the end of the three-year project period, parents will have participated in the Parents' Advisory Committee and will have taken an active role in policy decisions regarding planning, organization, and implementation of program activities.
A total of 155 parents attended two parent-teacher meetings in the fall. Despite severe weather, the annual Sunday Project CHOICE on April 21 attracted 50 parents. Approximately 60 parents of participating students attended each of the four parent-teacher conferences. These meetings provided parents with information about the school system, graduation requirements, and their rights as parents. Participants also discussed differences between the cultural and educational systems of the United States and those of their native countries.

The project staff conducted a large-scale needs assessment survey among the parents of 1,000 Chinese bilingual students. Parents completed a questionnaire at the end of the spring semester and indicated that they had improved in English after attending the parent E.S.L. workshops. The adult education classes provided parents with opportunities for literacy instruction in English and an effective forum for discussing roles and responsibilities in their children's education.

Parents were on the Assistant Principal Selection Committee and the schoolwide Parents Executive Board. Nine parents participated in the New York State Bilingual Education Conference (SABE) Parents Institute on March 9, 1991.

Project met objective.

STUDENTS WITH SPECIAL ACADEMIC NEEDS

<table>
<thead>
<tr>
<th>Number of Students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referred to special education:</td>
<td>1</td>
</tr>
<tr>
<td>Referred to remedial programs:</td>
<td>0</td>
</tr>
<tr>
<td>Referred to gifted and talented programs:</td>
<td>0</td>
</tr>
<tr>
<td>Retained in grade:</td>
<td>0</td>
</tr>
</tbody>
</table>

Teachers and project staff initiated recommendations and referred students who seemed to have special needs to a Chinese bilingual guidance counselor. With parents' permission, they also referred students to the School-Based Support Team (S.B.S.T.) for further testing to identify their needs for special education. The project itself, however, did not provide services to handicapped students or those considered gifted and talented.

MAINSTREAMING

No students were fully mainstreamed this year.

Academic Achievement of Former Project Students in Mainstream

The project did not provide data on former program participants.
CASE HISTORIES

1. Zhe Z. came to the United States from Canton, China in 1988, when he was 16 years old. His parents had enjoyed a relatively stable life in China; his father, a graphics designer, and mother, an elementary school teacher, did not need to leave their native country for economic reasons. Yet, like many Chinese immigrants, they decided to come to the United States for the future of their children.

Zhe had finished the ninth grade in China. He was only a fair student. When he arrived in this country, he barely knew English. However, in three years, with the encouragement of his parents and the help of the bilingual education program, Zhe achieved an overall average of 95. He has received numerous honors from the school and from outside agencies, both for service and for academic achievement, particularly in mathematics. His name was placed on the New York City Public School's "Chancellor's Honor Roll." Most recently, he won a first-place scholarship given by the New York State Association for Bilingual Education.

Besides being an academically superior student, Zhe is very active in the school's extracurricular activities, such as the Chinese Culture Club, the Math Team, the Computer Team, the Ham Radio Club, and the French Club.

2. Qiang Z. was born in southern China, in the area of Toishan, in 1971. Her schooling in China had stopped after the fifth grade. She came to the United States in 1987 when she was 16 years old. Her parents did not speak any English. Her father worked in a restaurant and her mother worked in a factory.

When Qiang was admitted to Seward Park High School, she was placed in the Native Language Arts program for students who were not literate in their native language and also did not know any English. Four and one-half years later, she graduated. Her average of 77.8 has earned her a rank of 182 in a graduating class of 405 students. She also participated in the Executive Internship Program, demonstrating her business ability while improving her English. She planned to attend Brooklyn College and major in accounting.
APPENDIX A
DATA COLLECTION AND ANALYSIS

Student Data Form

This one-page form is filled out by staff for each participating and mainstreamed student. OREA gathers data from this form on backgrounds, demographics, academic outcomes, attendance, referrals, and exit from the program.

Project Director’s Questionnaire

The Project Director’s Questionnaire includes questions on staff qualifications, program implementation, periods of instruction, and instructional materials and techniques.

Project Director’s Interview

The interview gathers information on program and student or staff characteristics not supplied by the Project Director’s Questionnaire. The interview also allows project staff to offer qualitative data or amplify responses to the Questionnaire.

Citywide Test Scores

OREA retrieves scores centrally from the Language Assessment Battery (LAB) and other citywide tests. For evaluation purposes, these test scores are reported in Normal Curve Equivalents (N.C.E.s). N.C.E.s are normalized standard scores with a mean of 50 and a standard deviation (s.d.) of 21.06. They constitute an equal-interval scale in which the distance is the same between any two adjacent scores. A gain of 5 N.C.E.s is the same whether it is at the lower or the higher end of the scale. N.C.E.s can be used in arithmetic computations to indicate group progress. (Percentile scales, although more familiar to many, are unsuitable for such computations since they are not equal-interval.)

Likert-Type Surveys

Likert-type surveys, in which respondents mark their opinions on a scale from one to five, are used in a variety of ways. They examine student attitudes (i.e., toward school and career, native language use, and native and mainstream cultures). They also assess staff and parent attitude and reactions to workshops and other activities.

Gap Reduction Evaluation Design

OREA uses a gap reduction design for measuring changes in standardized tests. Since no appropriate non-project comparison group is available in New York City, where all students of limited English proficiency (LEP) are entitled to receive supplementary services, OREA compares the progress of participating students with that of the group on which the test was normed. It is assumed that the norm group would show a zero gain in the absence of instruction, and gains made by project students could be attributed to project services. (See “Citywide Test Scores” above.)

To test whether pre/posttest gains are greater than could be expected by chance alone, OREA uses a $t$-test. To determine whether a difference between two proportions (e.g., program and mainstream attendance rates) is greater than could be expected by chance, OREA uses a $z$-test. The level of significance is set at .05 for all tests.