

MAGNET SCHOOLS AS VOLUNTARY DESEGREGATION EFFORTS:  
A THREE-YEAR EVALUATION PERSPECTIVE

Nancy K. Atwood  
Marvin C. Alkin

CSE Report No. 230  
1984

CENTER FOR THE STUDY OF EVALUATION  
Graduate School of Education  
University of California, Los Angeles

## TABLE OF CONTENTS

	PAGE
Introduction . . . . .	1
History of Magnet Programs in the LAUSD. . . . .	1
Evaluation Methodology . . . . .	4
Major Findings . . . . .	7
Summary. . . . .	13
Appendices . . . . .	15

## INTRODUCTION

This paper describes evaluation studies of the Los Angeles Unified School District (LAUSD) Magnet Schools Program conducted during the 1980-81, 1981-82, and 1982-83 school years. These studies were part of a broader effort to evaluate voluntary desegregation programs in the District. The first year study was undertaken in Spring, 1981 after the District underwent a shift from mandatory to voluntary desegregation programs. The second and third year studies represented a coordinated, two-year effort to provide the Superior Court with a full report of "the measures taken and results achieved under the voluntary integration plan." Thus, the studies focused on both the nature of the programs and their implementation as well as the outcomes of program participation for students.

In this paper, we will outline the history of the Magnet Program and the methodology used to conduct the evaluation studies. Then we will focus on the findings that emerged over the three years, with particular attention to ongoing themes and evidence of programmatic shifts occurring over the course of the studies.

### **History of Magnet Programs in the LAUSD**

Magnet school programs were established by the District in 1977 as part of its voluntary integration effort. The magnets were intended to provide specialized curricular offerings that would draw students of various ethnic backgrounds, thereby creating desegregated learning environments.

Magnet programs are organized as either full school magnets or as smaller magnet centers located on the campuses of regular schools.

Each magnet program is developed around one of three approaches: a specialized curricular offering such as math/science, performing arts, or business; or a specialized instructional approach such as fundamental or alternative schools; or an orientation toward students with particular needs such as the gifted or the highly gifted. In all cases, students receive instruction in the basic subjects required for promotion or graduation.

The District began with three magnet programs at the elementary level in 1977-78. Since that time, the program has expanded steadily. Over the past five years, LAUSD has established a variety of programs at the elementary and junior high school level. Substantial program expansion occurred in 1981 when 20 new programs were established at the senior high school level.

By 1982-83, the Magnet programs included 86 schools and centers (43 elementary and extended, 19 junior high, and 24 senior high school). During this year, elementary magnets represented 9% of the total elementary school programs in the District, junior high magnets represented 24% of the total junior high school programs, and senior high magnets represented 32% of the total senior high school programs.

Magnet programs drew almost 20,000 students during 1982-83. Taken together, these students represented approximately 3.5% of the total District enrollment. Thus, while the program has grown to include a substantial number of schools and centers, it served a relatively small proportion of students in the District at large.

A wide variety of educational offerings are provided under the sponsorship of the Magnet programs. In order to provide a sense of the range of educational offerings provided by magnets, brief descriptions of selected programs are provided below. The descriptions are not comprehensive; they are intended to illustrate the diversity of programmatic offerings.

**Animal and Biological Science Center (Grades 10-12):** This magnet is located at the Los Angeles Zoo in Griffith Park. Students may choose one of two study tracks: one leading to possible employment as an animal technician after high school and the other leading to university animal study programs, such as veterinary or biological science.

**Cinema/Performing Arts (Grades 7-9):** This magnet offers a program of instruction in dance, drama, TV, and music. It has been adopted by Francis Ford Coppola and his Zoetrope Studios, as part of the Adopt-A-School program. Each year students who demonstrate aptitude and motivation are chosen by Mr. Coppola for an after-school apprenticeship program. The apprentices, supervised by interns from USC and UCLA, learn to make films using current methods and technology.

**Unified Science School (Grades 1-6):** Learning experiences are designed to help students understand the significance of science in daily life and to apply the scientific method to problem solving. Oceanography and physical science laboratories are used to promote science learning.

**Fundamental School (Grades vary):** Fundamental schools stress strict standards for academic achievement, homework, behavior, dress, and personal appearance. Reading, math, language, social studies, and other subjects are taught in a traditional style emphasizing drill, reinforcement, and enrichment. Parents and students must sign a contract agreeing to school-established standards.

**Open School (Grades 1-6):** This magnet provides an individualized instructional program in a humanistic and multicultural setting. Teaching methods are based on students' needs and include multi-age and interest groupings, cross-age tutoring, and team teaching. Parent participation and involvement of community resources are stressed in the program.

**Gifted and High Ability Centers (Grades 1-6 or 7-9):** In these magnet centers, gifted and high ability students are grouped for enriched academic experiences. To qualify, students must be identified as gifted/talented, be achieving two years above grade level in most academic areas, or earn stanine scores of 7, 8, or 9 on standardized achievement tests.

### **Evaluation Methodology**

Areas of Inquiry. As noted previously, the primary purposes of the evaluations were to provide information on the processes involved in the implementation of the program and on the progress made in reducing the harms of racial isolation. In defining the "processes" and "harms" to be examined, the evaluation team relied on the stated purpose of the programs, previous findings and formulations, and directions from the Court and District personnel.

Table 1 shows the evaluation issues addressed over the three years. Section I identifies ongoing issues that were examined over all three years. Section II outlines issues examined in special studies conducted in specific years.

The special studies conducted addressed issues that arose in the course of our work or were of particular policy concern to the District. Studies conducted during 1980-81 and 1981-82 examined the special interest offerings of selected magnets to determine their fidelity to program plans. In addition, a special study during 1981-82 inquired into parent and student understandings of the program and the reasons underlying their decision to participate.

Sampling. Stratified random sampling procedures were used to select programs for study. While the sample was expanded over time to obtain broader representation, previously studied programs were

**Table 1**  
**Evaluation Issues**

**I. Ongoing Issues**

**A. Process Evaluation**

**1. Mechanism(s)**

- a. What are the mechanisms for explaining program options to parents and students?
- b. What are the characteristics of students chosen to participate?
- c. Do program mechanisms result in students being enrolled in desegregated schools?

**2. Integration/Desegregation**

- a. How do policies and procedures inhibit or contribute to integration?
  1. administration
  2. classroom
  3. extracurricular
- b. What types of services are delivered as part of the program?
- c. What are the perceptions and attitudes of school personnel toward the program?
- d. What additional arrangements have been undertaken to address particular areas of concern?

**B. Outcome Evaluation**

1. What progress appears to have been made in reducing the harms set forth in the Crawford decision?
  - a. Achievement
  - b. Attitudes
  - c. Post-secondary opportunities
  - d. Social interaction

**II. Special Studies**

**A. Process Evaluation**

**1. Program Fidelity (1980-81, 1981-82)**

- a. To what extent do programs implemented at selected sites correspond to the special interest programs outlined in their respective plans?

**2. Parent/Student Understandings (1981-82)**

- a. What are parent and student understanding of the options offered?
- b. Is participation elected by parents, students, or jointly?
- c. For what reasons is the decision to participate made?
- d. What efforts are made to retain currently enrolled students from one year to the next?

maintained from year to year in order to develop a longitudinal profile of programs.

In 1980-81, the sample was limited to desegregated programs (between 40-60% Hispanic, Black, Asian, or other). A total of nineteen elementary and junior high programs were selected after stratification on type of special interest offering, that is, curricular specialty (content-oriented), instructional specialty (process-oriented), or student specialty (special population).

In 1981-82 and 1982-83, all magnet programs were included in a census of demographic characteristics. In addition, the previous sample was augmented to include racially impacted programs and newly established senior high programs. Thus, the sampling strategy was based on three dimensions: type of special interest offering, racial/ethnic composition, and grade level configuration. This procedure yielded a sample of 25 elementary, 10 junior high, and 9 senior high programs.

Teachers within magnets were also sampled for study based on grade level and, at the secondary level, subject matter. Grades 5, 6, 8, and 10 were selected for study during all three years with grade 12 added in 1982-83 when the frequency of seniors had increased sufficiently to make their inclusion useful. Secondary teachers of English and physical education were selected to provide representation across both academic and non-academic subject matters.

Instrumentation. Evaluation study instruments were selected or developed based on the evaluation issues to be addressed (see Table



2). The following instruments were used to address evaluation issues:

- Document Abstracts
- Site Administrator Questionnaire
- Teacher Questionnaire
- College Advisor Questionnaire
- Student Post-Secondary Expectation Questionnaire
- Social Interaction Observation Form
- Published measures for students:
  - Comprehensive Tests of Basic Skills (CTBS)
  - Survey of Essential Skills (SES)
  - District Competency Tests
  - School Attitude Measure (SAM)
- Open-ended Interviews (Special Studies)
- Open-ended Observation Forms (Special Studies)

Data Collection and Analysis. Data collection was managed by the Los Angeles Unified School District Research and Evaluation Branch staff and monitored by the evaluation team. Quality control was directed by the evaluation team and maintained with regard to all phases of data gathering.

The data analysis was largely descriptive and relied on frequencies, cross-tabulations, measures of central tendency and dispersion. Measures of association were used to help identify factors related to program success. Techniques such as a t-test or analysis of variance were used where appropriate. In reporting the findings, every effort was made to provide concise and easily understandable information.

### **Major Findings**

The major findings of the three-year study of magnet programs can be organized around the three primary sets of evaluation issues that guided the ongoing inquiry: program mechanism, integration/desegregation, and program outcomes, as well as the two sets of issues that guided the special studies: program fidelity and parent/student

Table 2  
Instrumentation Specifications

Evaluation Issues Addressed	Variables	Measures	Data Source
<b>I. Ongoing Issues</b>			
<b>A. Process Evaluation</b>			
1. <u>Mechanism(s)</u>			
a. What are the mechanisms for explaining program options to parents and students?	Content and media of program information dissemination	District documents Interview	District administrators
b. What are the characteristics of students chosen to participate?	Race/ethnicity Sex Grade level	Abstract	District documents
c. Do program mechanisms result in students being enrolled in desegregated schools?	Race/ethnicity Sex Grade level	Abstract	District documents
<b>2. <u>Integration/Desegregation</u></b>			
a. How do policies and procedures inhibit or contribute to integration?	Administrative policies/procedures Classroom practices Extra-classroom practices	Questionnaire	Site administrators Teachers
b. What types of services are delivered as part of the program?	Nature of services Intensity Duration	Questionnaire	Site administrators Teachers
c. What are the perceptions and attitudes of school personnel toward the program?	Attitudes toward program	Questionnaire	Site administrators Teachers

# Instrumentation Specifications

Evaluation Issues Addressed	Variables	Measures	Data Source
<p>d. What additional arrangements have been undertaken to address particular areas of concern?</p> <p>B. Outcome Evaluation</p> <p>1. What progress appears to have been made in reducing the harms set forth in the Crawford decision?</p> <p>a. Achievement</p> <p>b. Attitudes</p> <p>c. Post-secondary opportunities</p> <p>d. Social behavior of students toward other ethnic groups</p>	<p>Areas of concern Action undertaken</p> <p>Basic skills (reading and math)</p> <p>Student attitudes</p> <p>Academic preparation Post-secondary eligibility</p> <p>Post-secondary expectation</p> <p>Student intergroup relations</p>	<p>Questionnaire</p> <p>SES, CTBS</p> <p>SAM</p> <p>Competency tests Questionnaire</p> <p>Questionnaire</p> <p>Observation form</p>	<p>Site administrators Teachers</p> <p>Students</p> <p>Students Students Students</p> <p>Students</p> <p>Schools</p>
<p>II. Special Studies</p> <p>A. Program Fidelity (1980-81, 1982-83)</p> <p>a. To what extent do programs implemented at selected sites correspond to the special interest programs outlined in their respective plans?</p> <p>b. Is participation elected by parents, students, or jointly?</p> <p>c. For what reasons is the decision to participate made?</p> <p>d. What efforts are made to retain currently enrolled students from one year to the next?</p>	<p>Pupil population programs and services Resources</p> <p>Perceived options</p> <p>Reasons for participation</p> <p>Reported retention efforts</p>	<p>Interviews Observation</p> <p>Interviews</p> <p>Interviews</p> <p>Interviews</p>	<p>Administrators, Teachers Schools</p> <p>Parents, students</p> <p>Parents, students</p> <p>Parents, students</p>

understandings of the program. Specific yearly findings for each set of evaluation issues are presented in Appendices 1-4. For the purposes of this paper, we will summarize the themes that emerged.

Program Mechanism. Several themes emerged across the three years:

- ° Written materials continued to be the primary sources of programmatic information for parents and students over all three years;
- ° In an effort to enhance parent/student understandings about all voluntary integration programs, a shift was made to a combined Magnet/Permits with Transfer (PWT) brochure. However, the combined brochure was actually more complex with a higher readability level and a confusing format.
- ° Distribution of programmatic brochures was broadened in number and scope over time.
- ° Overall student enrollment and the number of participants from each racial/ethnic group increased over the three year period.
- ° Blacks and Whites continued to be over-represented in the program (about 1/3 each of the magnet population), and Hispanics under-represented (about 1/5 of the Magnet population) relative to their overall representation in the District at large.
- ° By 1982-83, about 1/2 of the elementary programs met the desegregation criterion of the District (40-60% Black, Hispanic, Asian, Other). About 1/3 of the junior highs, senior highs, and extended grade programs met this criterion. Most

secondary magnets were centers located on campuses of predominantly Hispanic, Black, Asian, Other Campuses.

Integration/Desegregation. Generally the following patterns emerged over the three years:

- ° Magnets were seen as providing a wide range of effective services.
- ° Efforts to encourage participation in after-school activities were consistently noted as less successful over the three years in elementary and extended programs. Additional transportation was less frequent at these levels than at the secondary level.
- ° Efforts to secure parental participation in junior high, senior high, and extended programs were viewed as less successful in 1981-82 but were seen as improved in 1982-83.
- ° Integrated interaction among students was actively encouraged through a variety of means such as organized student activities and staff development for teachers. However, inservice training was less frequent in 1982-83 compared to previous years.

Program Outcomes. Each year a broader range of program outcomes was examined. For 1980-81, the inquiry was limited to intergroup relations. The 1981-82 study looked at achievement, attitudes, and intergroup interaction. In 1982-83, post-secondary opportunities were also added. The following trends emerged:

- ° Intergroup interaction among elementary students was frequent and friendly. At other levels, such interaction was less frequent but friendly when it did occur. This pattern is at

least partly explained by the reduced opportunities for intergroup interaction at the secondary level due to program configuration (i.e., centers on predominantly Hispanic, Black, Asian, Other campuses).

- ° The average achievement of sampled magnet students was consistently at or above average for the District at large and for a sample of comparison schools.
- ° The attitudes of magnet students were generally positive and consistently above the 50th percentile on national norms. However, students in alternative school programs tended to score consistently lower during both years. It was not clear whether these attitudes were a reaction to the program itself or a function of the type of students drawn to this type of program.
- ° Limited data on post-secondary opportunities suggested that the majority of magnet students expected to receive a high school diploma and pursue some type of post-secondary education.

Special Studies. The results of the special studies of program fidelity and parent/student understandings conducted in 1980-81 and 1981-82 suggested that:

- ° Magnet programs showed a high degree of program fidelity. Deviations from plans were generally made in response to reduced resources, facilities, or materials.
- ° Teachers and administrators were enthusiastic about the magnet programs in which they were working.
- ° Parents and students generally chose a magnet program because they viewed it as high in educational quality.

- ° Parents and students were generally satisfied with the program.

**Summary**

The evaluation studies of LAUSD's Magnet program generally paint a positive picture. School staffs, parents, and students are supportive of the program and view it as a quality educational program. Consistently identified areas for improvement concern mechanisms for disseminating programmatic information, encouraging participation of Hispanic students, providing additional resources to meet specific needs, and monitoring student attitudes in alternative schools and the post-secondary eligibility of high school students. Specific recommendations in these areas are listed in Table 3.

Table 3

Recommendations for Action

1. Simplify the prose in the brochure describing program "choices" to lower the readability level to at least the 8th grade level.
2. Reformat the "Choices" brochure to more clearly distinguish sections related to the PWT and Magnet programs.
3. Develop separate applications for the PWT and Magnet programs with a simplified format.
4. Provide additional personnel and/or pre-recorded informational tape recordings to handle parent questions and inquiries during the application submission period.
5. Distribute the "Choices" brochure to all students in the District.
6. Move up the time period for distribution of brochures and submission of applications. Extend the amount of time for the processing of applications.
7. Examine in greater depth barriers to participation of Hispanic students in the Magnet programs and take actions to encourage their participation.
8. Consider providing additional transportation to elementary and extended magnets to encourage participation of students in after-school activities.
9. Provide inservice training for administrators, particularly at the secondary school level, on policies and techniques for promoting positive intergroup relations and fostering communication among students of different racial/ethnic groups.
10. Develop and implement a plan for identifying, prioritizing, and alleviating deficiencies in resources and equipment required to support the specialized educational offerings of Magnet programs.
11. Investigate further the attitudes of students enrolled in alternative programs and provide appropriate interventions to improve their attitudes.
12. Monitor the post-secondary preparation and eligibility of high school Magnet students and take actions as appropriate.



Appendix 1

Major Findings: Program Mechanism

1980-81

1. Information about the Magnet Programs appeared to be widely disseminated and a variety of media used to encourage participation.
2. The largest proportion of minority students in sampled Magnet Programs was Black; participation of Hispanic and LES/NES students was relatively low.

1981-82

1. The primary source of information about voluntary integration program options used by parents and students were two written documents (one for Magnet and one for Permits With Transportation (PWT) program) prepared by the District and distributed by the schools. The readability level of the English version of these materials was ninth to tenth grade.
2. Brochures were distributed to all students in overcrowded schools. All other schools in the District received 100 copies of the brochure in addition to a one-page flyer distributed to all students.
3. Black and White students were equally represented in the Magnet School Programs (approximately 36% each), but the representation of Hispanic students in the program was substantially lower (about 17%).

1982 - 83

1. While the district disseminated information about the program using a variety of media (e.g., brochures, television, posters), written materials distributed at school for students to share with their parents continued to be the primary source of programmatic information for both students and parents.
2. A combined brochure and application for both the Magnet and PWT programs was prepared, with one page of the brochure devoted to the PWT program and 15 pages to the Magnet programs. These materials, again available in both English and Spanish, were written at the 11th to 12th grade reading level. District administrators felt that the combined format was confusing to parents.

Appendix 1 (continued)

3. All students in overcrowded and predominantly Hispanic, Black, Asian, and Other non-Anglo (PHBAO) schools received the combined brochure. All other schools received 200 copies of the brochure and flyers for all students.
4. Efficient and timely processing of program applications and parent inquiries was hampered by cutbacks in District and region personnel assigned to the Magnet programs and the relatively short timeline for application submission and processing.
5. The overall student enrollment and the number of participants from each racial/ethnic group has increased over time.
6. Black students and White students represented about one-third each of the population of magnet students, while Hispanic students accounted for about one-fifth of the enrollment. Given the representation of these groups in the District-at-large, Black and White students are over-represented in the program while Hispanic students are under-represented.
7. When enrollments were examined program by program, slightly more than half of the elementary programs met the District-established desegregation criterion (40 - 60% PHBAO). About one-third of the junior high, senior high, and extended grade programs met this criterion. The majority of the secondary magnets were centers located on PHBAO campuses.

## Appendix 2

### Major Findings: Integration/Desegregation

#### 1980 - 81

1. Administrators and teachers viewed students in Magnet programs as experiencing considerable success in a variety of experiences, with one exception. Participation in organized activities scheduled after the regular school day was seen as limited.
2. Interaction among students appeared to be encouraged by physical features of the site setting and influenced by school/center personnel.

#### 1982 - 82

1. A wide variety of services was provided for students, staffs, and parents at sampled sites. Services were viewed as moderate to very effective with two exceptions. At the elementary and extended school levels, services were viewed as somewhat less effective in encouraging student participation in after-school activities. At the junior high, senior high, and extended school levels, services were seen as somewhat less effective in encouraging parent participation.
2. Integrated interaction among students was encouraged through active recruitment for organized activities and inservice training at the majority of sites sampled.

#### 1982 - 83

1. Magnet programs provided a wide variety of programmatic services for students, staff, and parents. Most of these services were viewed as moderate to very effective. However, teachers and administrators in elementary and extended programs noted less success in encouraging student participation in after-school activities. Additional transportation arrangements for after-school activities were less frequent at these levels as compared to secondary programs. Securing parental participation was viewed by teachers in junior high, senior high, and extended programs as much more successful than the previous year.
2. A variety of college counseling services, such as individual counseling, meetings on college requirements, and financial aid, was provided for students. However, there was considerable variability in the number of students and parents participating in these activities across programs.

Appendix 2 (continued)

3. The need for additional resources and equipment was frequently noted by teachers and administrators.
4. Teachers and administrators also noted the need to improve the match, in some cases, between the interests of students and programmatic offerings in the selection process.
5. Active efforts were taken in Magnet programs to encourage interaction among students of different racial/ethnic groups, through such techniques as student assignment to games and activities, active recruitment for organized activities, and inservice training. However, the incidence of inservice training for high school teachers was considerably lower during 1982-83 as compared to the previous year.
6. Administrators of elementary programs tended to report a strong influence of school policies on interaction among students. Administrators of secondary and extended programs saw student interaction as influenced to a greater extent by school personnel and by the students themselves.

### Appendix 3

#### Major Findings: Program Outcomes

##### 1980 - 81

1. The interaction of White and minority students appeared to be extensive and friendly. There was somewhat less intergroup interaction at the junior high level as compared to elementary and extended grade sites.

##### 1981 - 82

1. Students in sampled magnet schools performed equally or better on achievement measures than students at the same grade levels in the sample of comparison schools.
2. Student attitudes toward school in sampled magnet programs were consistently above the 50th percentile on published national norms and consistently more positive than students in the sample of comparison schools.
3. There were some differences in attitudes among students enrolled in different types of magnet programs. Students in alternative schools performed consistently lower on motivation for schooling. At grade eight, students in gifted and highly gifted programs scored higher on both academic self-concept scales while students in fundamental programs scored consistently lower on these scales.
4. Intergroup interaction appeared to be frequent and friendly. This pattern was particularly marked at the elementary level.

##### 1982 - 83

1. The average achievement of magnet students in grades 5, 6, and 8 in sampled Magnet programs was consistently above that of students in the District-at-large. Furthermore, when the average performance of students in different types of programs was examined, these averages surpassed the District-established mastery criteria on the SES for all program types at both grades 5 and 6. At grade 8, the average performance of students in different types of programs exceeded District averages with two exceptions. Thus, the consistently higher performance of students in Magnet programs is not accounted for solely by students in highly-gifted and gifted programs but can be seen in other types of programs as well.

Appendix 3 (continued)

2. The attitudes of students toward school in elementary, junior high, and senior high Magnet programs were generally positive, and their performance was above the 50th percentile on published national norms. However, students enrolled in extended or alternative school programs tended to score consistently below their counterparts in the same grade levels on all sub-scales of the attitude measures.
3. While limited information was available on post-secondary opportunities due to the recent establishment of most senior high programs and the limited number of 12th grade students, the majority of seniors sampled reported that they expected to receive a high school diploma. Further, about 70% expected to pursue some type of post-secondary education. However, due to missing data it was not possible to assess their preparation or eligibility for these pursuits.
4. Social interaction among students of various ethnic backgrounds was frequent and friendly in elementary programs. In junior high, senior high, and extended programs, intergroup interaction was somewhat less frequent; however, it tended to be positive when it occurred. The less extensive intergroup interaction in junior and senior high programs is due, at least in part, to the reduced opportunities for such interactions. Many of these programs operate as centers on PHBAO campuses so that, to some extent, opportunities for interaction are diminished.

Appendix 4

Major Findings: Special Studies

PROGRAM FIDELITY

1980 - 81

1. A special study indicated that planned program principles and intentions were met by site operations. The programs also appeared to foster integrated learning settings.

1981 - 82

1. The newly implemented senior high magnets showed a strong correspondence between their programs as planned and as implemented. Most deviations from plans occurred because resources were unavailable to support specialized facilities or materials. Teachers and administrators were generally enthusiastic about these new programs.

PARENT/STUDENT UNDERSTANDINGS

1981 - 82

1. Parents and students reported choosing a Magnet program because of their perceptions of the good educational quality of the program. Less than half of the parents interviewed were aware of other voluntary integration options available to them in the District.
2. Parents and students appeared to be generally satisfied with the program and the vast majority chose to re-enroll for the subsequent year.