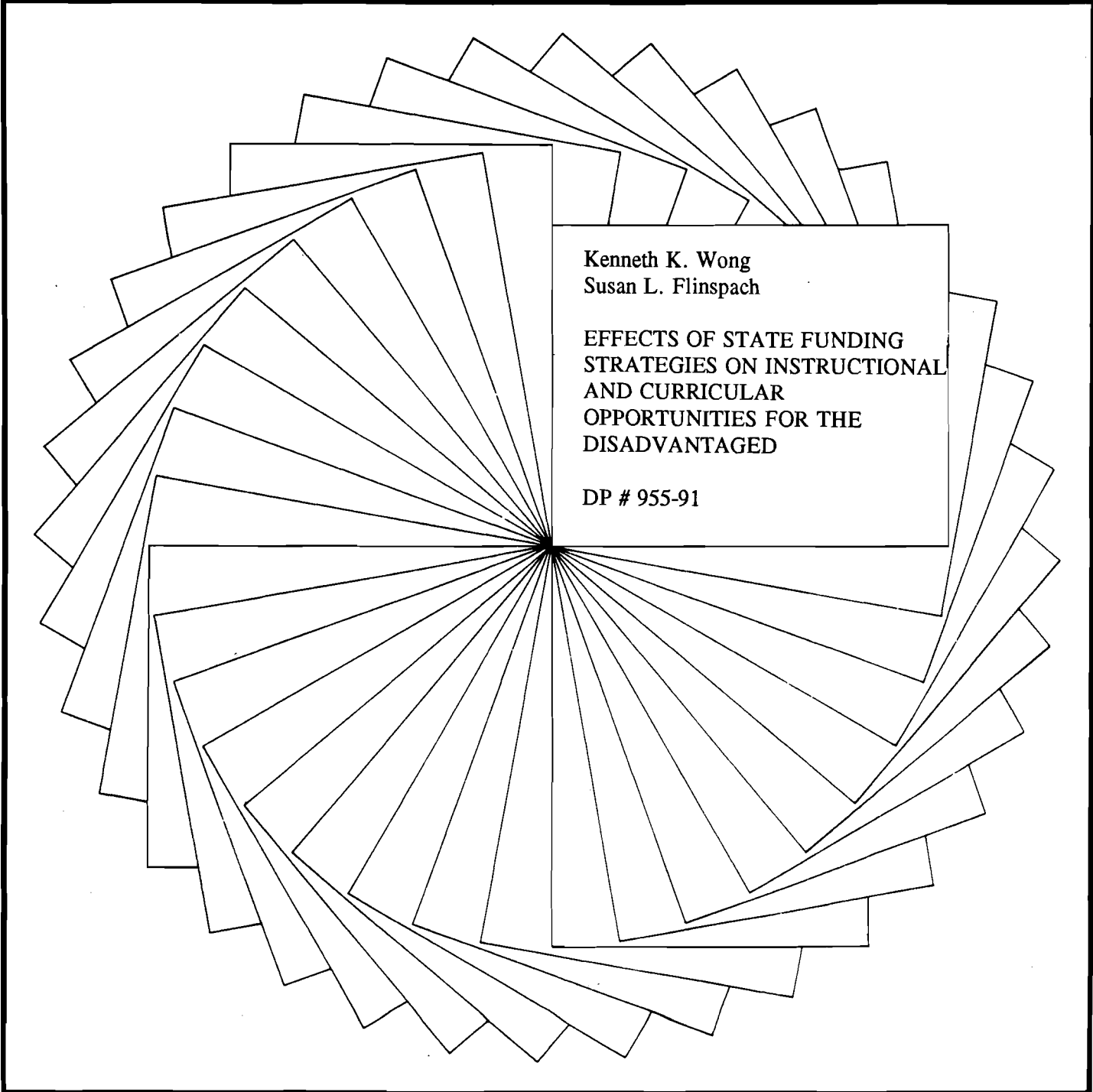




# Institute for Research on Poverty

## Discussion Papers



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EFFECTS OF STATE FUNDING  
STRATEGIES ON INSTRUCTIONAL  
AND CURRICULAR  
OPPORTUNITIES FOR THE  
DISADVANTAGED

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**Effects of State Funding Strategies on  
Instructional and Curricular Opportunities for the Disadvantaged**

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## Abstract

Compensatory and bilingual education programs are designed to meet the special needs of economically and academically disadvantaged elementary school students. How well these special-needs programs are funded by the states and whether or not their funds are targeted help determine the organization of the instruction they provide. Using case studies of elementary schools in California, Michigan, Illinois, Oklahoma, and New Mexico, the authors examine four hypotheses that link funding and targeting to classroom instruction. Programs whose funding is high and targeted tend to be structurally distinct (e.g., classes are self-contained); those whose funding is either low and targeted or high and untargeted tend to have transitional arrangements (e.g., disadvantaged students may be pulled out of regular classes for special instruction); and programs whose funding is low and untargeted tend to be structurally diffuse (e.g., aides may tutor small groups of disadvantaged students in the regular classroom). The authors conclude that state funding of special-needs programs has an impact on the organization of classroom instruction.

## **Effects of State Funding Strategies on Instructional and Curricular Opportunities for the Disadvantaged**

Schools can provide a "social buffer" (Wilson 1987) from the deleterious effects of poverty, family disorganization, and cultural isolation. State funding for special-needs programs in urban districts represents one strategy for helping disadvantaged children overcome their poverty status. This study examines how state funding can affect the instructional opportunities for special-needs students at the classroom level. We will compare information collected at schools in several states to propose a framework linking state policies to classroom organization. We hope that this information will generate further discussion on state policy intervention in schools with a high concentration of disadvantaged pupils.

### **OBJECTIVES OF THE STUDY**

Most state aid is allocated to compensate for two kinds of educational inequities: (1) interdistrict or territorial disparities in taxable wealth; and (2) inequalities arising from the special needs of disadvantaged and minority students, or social inequalities (Wong 1990; 1991). Our research focuses on the effects of state educational funding appropriated to redress social inequities. We explore the ways in which such state funding influences the organization of instruction for students in special-needs programs.

Accordingly, this study examines the impact that state-funded programs have on the education of two groups of students: (1) pupils meeting state-specified criteria of economic or academic disadvantagedness; and (2) pupils identified as having limited English proficiency (LEP). State compensatory and bilingual programs, as special-needs programs are commonly called, are fiscally and administratively distinct at the state level. In school districts and in schools themselves, these programs are often amalgamated with their federal and local counterparts to produce one set of

services. Our task is to identify and document those services that state funds have purchased for the disadvantaged at selected program sites. In this report, we have made a preliminary attempt to link state policy to classroom instructional arrangements. By comparing aspects of the funding of state programs, we have generated hypotheses about the organization of instruction in schools having one or both programs. The objective of this study, then, is to evaluate this set of policy-based hypotheses about program instruction through case studies of urban elementary schools in five states: California, Illinois, Michigan, New Mexico, and Oklahoma.

### Significance of the Research

Three concerns motivate our study of these state social equity programs. First, we want to recognize the states' own contributions to social equity. Researchers who are interested in redistributive issues have paid attention almost exclusively to federally funded programs (see Peterson, Rabe, and Wong 1986), even though state funding for these purposes has become important in recent years. The 1987 National Assessment of Chapter 1 reported that over 10 percent of the poorest schools did not receive federal aid and so were heavily dependent on state-funded compensatory programs. Similarly, federal grants for bilingual education (Title VII) are awarded competitively; thus, many districts and schools with LEP students go without federal bilingual assistance. In both instances, state programs can make a great difference in the number of eligible students served and in the nature of the service. This fact, however, has not received much attention from researchers or public policy analysts.

The second concern underlying our study is that school finance litigation has directed the attention of policymakers and the public almost exclusively to territorial inequalities. The courts use a territorially defined standard of equality (Franklin and Hickrod 1990) and a uniform set of measures to assess the interdistrict equity of state aid. Remedies are designed to reduce the gap in property tax yields between affluent and poor districts. For evaluating state spending for social equity, however,

no single standard or set of commonly accepted measures exists (Flinspach 1990). With the notable exception of the 1990 Abbott v. Burke decision in New Jersey, court rulings on school funding issues seldom pay primary attention to social inequities (Wong 1991).

And third, there is a dearth of systematic studies about the instructional effects of state aid--especially with respect to special-needs programs--on the school and the classroom (see review by Kirst 1983). In evaluations of state compensatory programs in Connecticut (Carroll 1987), Georgia (Georgia Department of Education 1983), Louisiana (Rachal and Hoffman 1984), and South Carolina (South Carolina Department of Education 1987; 1989), the distribution of services and student achievement are the major concerns. Three of these studies describe instructional arrangement options and class size, but none provides further classroom information. School district evaluations in Austin, Texas (Defino and Jenkins 1985), Dade County, Florida (Baker 1986), New York City (New York City Board of Education 1987), Portland, Oregon (Yagi 1985), and Saginaw, Michigan (Claus and Quimper 1988; 1989) also minimize discussion of classroom variables. Instructional practices fall outside the boundaries of most of the current work on state-funded programs. Therefore the linkages between state policy and the classroom remain obscure.

Our study, consequently, has two objectives. We hope to generate discussion about the importance of state bilingual and compensatory policies (as distinguished from their federal counterparts), and we want to provide some evidence for a set of macro-micro (from state policy to classrooms) linkages.

## CONCEPTUAL FRAMEWORK

Over the past twenty-five years, many state special-needs programs have diverged from the federal models in order to accommodate state-specific clientele and politics (see Moore, Goertz, and Hartle 1983). In particular, the divergence has occurred along two fronts: participant selection and

fiscal strategy. In the climate of Reagan's New Federalism, states assumed greater autonomy over policy decisions, and more states defined their own participant selection mechanisms for special-needs programs. Many state compensatory education programs now use performance-based criteria, rather than criteria based on economic disadvantagedness, to allocate funds for special-needs students (Funkhouser and Moore 1985).

The second innovation due to state assertiveness was a change in fiscal strategies. During the 1960s and 1970s, state policies for redressing social inequity, in imitation of the federal programs, called for categorical grants. A categorical grant almost always targets resources, that is, it distributes funds according to the number of students identified as having special needs. Beginning in the mid-1970s, however, a growing number of states adopted an allocative system that weights special-needs students more heavily than others in the general-aid formula. Funding compensatory and bilingual programs through general aid gave policymakers a wide range of targeting options (Milne and Moskowitz 1983). At one extreme they could make no targeting provisions at all, and at the other, they could target the general aid to serve only a particular category of students. The general-aid arrangement was used by just five states during the mid-1970s (Leppert et al. 1976). A little more than a decade later, though, half of the states funding compensatory education and one-third of those supporting bilingual programs relied on general-aid funding for those programs (School Finance Collaborative 1988). Divergence from the federal models has encouraged greater variety in state programs, and this diversity provides a basis for our conceptual framework linking state special-needs policies to classroom practices.

We use two policy strategies to characterize state programs. The first is program targeting. In order to dichotomize the spectrum of targeted programs, we endorse a narrow definition of the term: a targeted program is one in which specific resources are distributed for the benefit of identified and eligible students only. All other programs are nontargeted. Our definition is consistent

with the literature. Funkhouser and Moore (1985) rely on the same criterion to distinguish their set of state compensatory education programs from others that weight students in general-aid formulas without "attaching strings to the use of the funds generated by the additional weight." This distinction is also drawn by McDonnell and McLaughlin (1982) and by Fuhrman (1987).

Second, states appropriate quite different amounts for their special-needs programs. Many states do not fund such programs at all. The School Finance Collaborative (1988) reports that twenty-eight states have state compensatory education and another set of twenty-one states support bilingual education (including both states that support the teaching of English as a second language [ESL] only, and those that also encourage native-language instruction). Among those states that do supply compensatory or bilingual programs, student need influences spending levels (Flinspach 1990).

### Key Propositions

Our study links these two policy strategies to the organization of instruction for compensatory and bilingual students. We hold that the interaction of a state's funding and targeting provisions for special-needs programs contributes predictably to instructional arrangements for the disadvantaged (see Figure 1). These arrangements differ in the degree of organizational discreteness of the service structure. We recognize three types of instructional arrangements: distinct (e.g., self-contained classrooms), transitional (e.g., pullout classes), and diffuse (e.g., in-class assistance). The variation in classroom organization is in response to two conditions that are made available by the state policy. First, through targeting provisions, the state establishes accountability mechanisms that govern the use of program resources. The tighter the targeting provision, the greater the likelihood that eligible students are identified (and perhaps, grouped accordingly) so that they alone receive the program resources in the classroom. Second, in appropriating supplemental funding, the state program absorbs the cost (e.g., salaries) in providing additional educational services for needy students. Compensatory services, for example, are estimated to cost 1.6 to 2.4 times more than regular classroom instruction



**Figure 1.** Expected Patterns of Instructional Arrangements for Special-Needs Programs under Varying State Funding Strategies

LEVEL OF STATE FUNDING	STATE FUNDING MECHANISMS	
	Targeted Programs	Untargeted Programs
HIGH	(A) Structurally Distinct	(B) Transitional Arrangements
LOW	(C) Transitional Arrangements	(D) Structurally Diffuse

(Johns and Morphet 1975; Murphy and Hack 1983). Given these cost differentials, we expect to find that disadvantaged pupils receive additional instructional attention as state programs receive higher levels of funding. Our framework, then, relates two aspects of state policy--targeting and funding level--to instructional arrangements for special-needs students.

We predict that state programs enjoying a high level of targeted funding (cell A in Figure 1) are likely to evolve into stable, distinct structures that parallel mainstream organization. For instance, self-contained instructional programs, sometimes referred to as "replacement" programs, have their own chain of command, with project managers at the district level, resource specialists at the district offices and in the schools, and teachers and aides in the classroom. For compensatory programs, a high level of targeted state funds may result in self-contained classrooms through augmented staffing. For bilingual programs, these policy strategies are likely to provide a "maintenance" curriculum that develops both the students' native language and English language skills. A language-maintenance program may consist of a separate track of self-contained classrooms for LEP students.

In sharp contrast, we foresee that diffuse instructional forms will be common in states with limited resources for special-needs students and without targeting provisions on the funding (cell D in Figure 1). Schools receiving this sort of aid may provide students with special assistance on a limited basis within the mainstream setting. For example, an instructional aide may be assigned to tutor a small group of low-achieving, low-income students. Similarly, schools can hire bilingual staff members (teachers and aides) to teach in the mainstream program so that they help LEP students in their classes informally (not in organizationally distinct ways). For LEP and low-achieving, disadvantaged students in mainstream classrooms, however, teacher decisions about ability grouping and utilizing differential curricula according to groups may restrict or advance their learning (Dreeben and Barr 1988; Oakes 1985).

In states where either modest amounts of targeted revenues (cell C in Figure 1) or rather large amounts of nontargeted funding (cell B in Figure 1) characterize special-needs policies, we expect instructional services to be provided through transitional structures. The most commonly used transitional structure is the pullout class; others include after-school programs and summer school. In pullouts, resource teachers take small groups of students out of their regular classrooms for a period and give them specialized instruction. Compensatory students are usually pulled out for extra reading or math (Carter 1984; Rowan and Guthrie 1989). LEP students often have pullout classes in English as a second language (Paulston 1980). A different form of transitional structure is the instructional service center, where special instruction is provided to disadvantaged pupils coming from different schools during part of the day. Service centers are seen as a less expensive way to instruct special-needs pupils when the latter are scattered throughout the district.

Thus, our framework sets up four hypotheses about the instructional organization of special-needs programs (Figure 1), based on two state fiscal policies--the state program's funding level and its targeting provisions. If our hypotheses are consistent with evidence from the case studies, then we have a tentative model, albeit one awaiting quantitative examination, that predicts a set of linkages from state policy to the classroom.

## RESEARCH DESIGN

Our study employs the comparative case study approach to program implementation from the state to the classroom. After finding states with programs matching our funding and targeting criteria, we focused our research on one or two schools in a major urban district of the state. We selected program sites in five states. These include one school in a district we are calling the "California District," two schools in Chicago, Illinois, two schools and one instructional service

center in Lansing, Michigan, one school in Albuquerque, New Mexico, and two schools in Oklahoma City, Oklahoma (see Figure 2).

### Selection of State Programs

We began our investigation by identifying state special-needs programs with the four combinations of funding levels and funding mechanisms specified in Figure 1: highly funded and targeted programs; poorly funded and targeted programs; highly funded and nontargeted programs; and poorly funded and nontargeted programs. School Finance at a Glance (School Finance Collaborative 1988) provided clues about the targeting issue. Data from the Education Commission of the States on both the 1987-88 appropriations for state bilingual and compensatory programs and the number of students with either bilingual or compensatory instruction in the state gave us a preliminary per-pupil funding ratio. To adjust for variations in state educational support and service costs, we then divided our per-pupil figure for the program by the 1987-88 average per-pupil expenditure of the state. These procedures resulted in a set of candidates for our study.

Next, we talked with state administrators of the candidate programs to verify that the targeting provisions and funding levels we had used were accurate. The major difficulty at this stage was reassigning the varying degrees of "targeting" according to our definition. After narrowing our list in this way, we made our final selection (see Figure 2): Illinois bilingual education is targeted and has high funding; Michigan bilingual education and compensatory education and California compensatory and bilingual education are targeted but have modest funding; Illinois compensatory education is nontargeted and has high funding; and New Mexico bilingual education and Oklahoma bilingual education are nontargeted at lower support levels. Table 1 summarizes the funding characteristics of these programs.

**Figure 2.** State Special-Needs Programs and Program Sites Included in the Study

LEVEL OF STATE FUNDING	STATE FUNDING MECHANISMS	
	Targeted Programs	Untargeted Programs
HIGH	Illinois Bilingual [Chicago School 1] [Chicago School 2]	Illinois Compensatory [Chicago School 1] [Chicago School 2]
LOW	Michigan Bilingual [Lansing School 1] [Lansing School 2]  Michigan Compensatory [Lansing School 3]  California Compensatory & Bilingual [CA District School 1]	Oklahoma Bilingual [Oklahoma City School 1] [Oklahoma City School 2]  New Mexico Bilingual [Albuquerque School 1]

TABLE 1

## Characteristics of Selected State Programs, 1990-1991

	Statewide			Selected Districts <sup>a</sup>		
	Funding <sup>b</sup>	Students Served <sup>c</sup>	Per-Pupil Funding	Funding <sup>b</sup>	Students Served <sup>c</sup>	Per-Pupil Funding
<u>High funding, targeted</u>						
Illinois bilingual program	\$50.8	63,568	\$798.71	\$28.0	41,751	\$670.64
<u>High funding, untargeted</u>						
Illinois compensatory program	\$445.2	343,871	\$1,294.84	\$264.0	282,269	\$935.23
<u>Low funding, targeted</u>						
Michigan bilingual program	\$4.2	18,369	\$229.30	\$0.1	569	\$229.30
Michigan compensatory program	\$23.5	74,783	\$314.51	\$0.4	1,032	\$349.96
California bilingual and compensatory program	\$78.2	1,123,494	\$69.60	\$0.7	4,800	\$156.25
<u>Low funding, untargeted</u>						
Oklahoma bilingual program	\$3.6	7,546	\$477.07	\$0.6	1,735	\$345.82
New Mexico bilingual program	\$17.9	71,302	\$250.80	\$6.9	23,623	\$290.52

Note: See text for explanation of data collection.

<sup>a</sup>See Table 2 for a listing of districts.

<sup>b</sup>In millions of dollars; figures are rounded.

<sup>c</sup>Due to differences in accounting, the number of students served is not necessarily comparable from state to state.

### Targeted and Highly Funded

Illinois' bilingual program is funded at a high level and targets eligible LEP students. After being identified as a child whose English proficiency is below average for his age or grade level, a bilingual student must be enrolled in one of two programs: (1) a transitional bilingual education program using both the native language and English, in attendance centers with twenty or more bilingual students of one native language; and (2) a transitional program of instruction in English, in attendance centers with fewer than twenty bilingual students of one native language. When a district has fewer than twenty LEP children, it may establish either a transitional bilingual program or a transitional program of instruction for them; the students must not, however, go unserved. Student proficiency in speaking, comprehension, reading, and writing skills is tested annually. The expected length of program participation is three years. Subject to district discretion and parental approval, though, those students whose skills are still not approaching grade-level fluency after three years may continue in the program for up to a maximum of six years. Program regulations are rigid and targeting provisions are very clear. In Chicago, programs are monitored frequently by both state and district administrators.

Due to a recent increase in state income taxes, the level of reimbursement for Illinois bilingual programs grew from 30 percent of excess costs in fiscal year 1989 to almost 90 percent in fiscal year 1990. As Table 1 shows, state funding amounted to \$670 for each eligible student in Chicago, and about \$800 per pupil statewide. Funding for Illinois' bilingual education is high and targeted.

### Targeted and Poorly Funded

Compensatory education and bilingual education in California are targeted, but receive limited state funds. Both are funded by Economic Impact Aid, the state's second largest categorical program. The state compensatory program complements the federal Chapter 1. It serves students who come

from AFDC families and who score at or below the fortieth percentile on the statewide test of basic skills. Schools in which at least 75 percent of their students are from AFDC families or qualify for the reduced-price lunch program become schoolwide compensatory sites, where the entire student population may receive services. According to state regulations, teachers in compensatory education are screened and certified by a district committee consisting of program administrators and teachers. Districts receiving state bilingual funds have to comply with fourteen compliance items from the state. These include the use of the Home Language Survey to determine the primary language for each LEP student, the use of one of the six state-approved instruments testing English proficiency, the establishment of LEP parent councils, and the hiring of qualified bilingual instructors. These items are checked in a compliance review once every two years. As Table 1 suggests, Economic Impact Aid provides only about \$70 per eligible student statewide in the two programs combined.

State bilingual education in Michigan is also targeted with low funding. Identified LEP students who are receiving bilingual instruction commensurate with their English skills and grade level qualify for the state program, and they can be funded for up to three years. Districts with fewer than twenty LEP students are not required to have a program. Districts receiving state bilingual funds must provide native-language assistance, especially in cases where the child cannot understand content-area instruction in English. The extent of native-language and English programming is not specified by state legislation, however. Program monitoring is light; the Report on Bilingual Education for the 1987-88 School Year, noting the many responsibilities of the Office of Bilingual Education staff, states that staff members made thirty school visits that year. The per-pupil funding for Michigan's bilingual education this past fiscal year was about \$230.

Like the bilingual program, state compensatory education in Michigan is also targeted and funded at relatively low levels. It is designed to work in conjunction with the federal Chapter 1 program to supplement the instruction of low-achieving students. The state guidelines specify that



student eligibility depends solely on performance measures, rather than on indices of poverty. The Michigan program is funded for districts in which at least 12 percent of the kindergarten through tenth-grade enrollment demonstrates a need for substantial improvement in basic cognitive skills. Students in those grades who show extraordinary need for special assistance, usually through their low performances on a statewide assessment battery or other standardized tests, are eligible to participate. Since the Michigan program complements Chapter 1, the two compensatory programs are often administered together in larger districts. Consequently, district monitoring is ongoing and ideally schools are monitored once every three years.

For the last few years, the Michigan legislature has capped appropriations for this program at \$300 per eligible student. Because of this low ceiling, a district may choose to concentrate its services by selecting a subset of participants from among the eligible students. Consequently, the actual per-pupil expenditures for Michigan's compensatory education program for the 1990-91 school year was about \$315.

#### Untargeted and Highly Funded

Compensatory education in Illinois is an example of nontargeted aid provided at a high funding level. Although part of the compensatory funding is distributed to schools in accordance with the federal free and reduced-price lunch counts, none of it is identified with the needs of particular students, nor designated exclusively for their instruction. Often all the students in a school are the beneficiaries of Illinois' compensatory program. Districts are required to submit an annual plan for the proposed use of the funds. There is a great deal of latitude with respect to acceptable program expenditures, though, and program monitoring in the schools is infrequent (about once every seven years in Chicago). Using federal Chapter 1 eligibles as the count of "students served," Illinois state compensatory funding stood at almost \$1,300 per pupil (\$935 in Chicago) for this past fiscal year--a very high level of nontargeted assistance.

### Untargeted and Poorly Funded

New Mexico's bilingual education has been expanded from grades K through six to K through twelve since 1987. In part because of the larger eligible population, the program has provided a moderately low level of state funding for each bilingual student statewide (\$251 during 1990-91). In Albuquerque, the state aid is \$291 per bilingual pupil. The state aid formula assigns an additional .35 weight to each bilingual student, who is defined as "culturally and linguistically different" (i.e., his home language is not English). This definition has also enlarged the eligible population, since all students with a home language other than English are included, regardless of need. The state program, which began in the aftermath of Lau v. Nichols in 1977, has three broadly defined instructional components that are designed to address the multicultural needs of linguistically diverse schools. The "home language component" enables a school with predominantly native Spanish speakers to use Spanish in content-area instruction. The English as a Second Language component provides assistance to LEPs in achieving English proficiency. The state also supports multicultural activities that promote understanding and acceptance of cultural differences among students. Teachers in the bilingual program are required by the state to receive the bilingual endorsement, which includes twenty-four hours of bilingual education coursework and a passing grade on a Spanish proficiency test. Within these state guidelines, districts are given a lot of discretion in program design and operation. To be eligible for funds, each school must prepare a bilingual program proposal. This proposal, which must comply with state guidelines, is approved by the district before going to the state for approval. The state allocates bilingual funds to the district, who in turn decides how the money is allocated. In Albuquerque between 70 and 90 percent of the bilingual fund goes directly to the schools. Evaluation is not extensive and the state tries to visit program sites once every year. Because of the size of the district, Albuquerque schools are visited once every three years. In

Albuquerque, where school-based management has been in place since 1986, schools exercise substantial autonomy over the use of state bilingual resources.

Finally, Oklahoma's bilingual program does not specify targeted services and is funded at a low level. This past fiscal year the state allotted \$477 per bilingual student, and districts received that money, without any targeting strings, as part of their general aid. State administrators admit that no regulations specify that all of the state funds generated from the counts of bilingual students must be spent on bilingual services, and that, indeed, they are not all spent that way. State bilingual funds may subsidize other school programs. In response to Lau v. Nichols, a 1975 decision was rendered by the attorney general of Oklahoma that the schools must meet the linguistic needs of students unable to speak or understand English. A State Board of Education policy (approved July 24, 1986) gives each district the authority to establish its own bilingual program under the broad guidelines listed in a three-page document. The instructional arrangements of bilingual programs are not specified. Oklahoma City now has in-class programs and language centers. Smaller districts, such as Tulsa and suburban Putnam City, use language centers and pullout classes. The nontargeted regulations on Oklahoma's bilingual program give districts a great deal of freedom in providing bilingual instruction.

#### Data Collection: States, Districts, and Program Sites

In order to study one or both special-needs programs in a state, we selected an urban district where we could examine the program(s) in operation. In general, we tried to carry out the project in the state's largest city. Where that was not possible, we turned to other urban districts.

Having chosen the district, we then consulted administrators about school selection. Because of the nature of social equity policies, schools offering one or both of these state programs often have a higher concentration of minority and poor students than the district as a whole (see Table 2).

For each state program, data collection proceeded in three steps. First, through brief interviews with state program and finance officers, requests for materials, and follow-up questions,

TABLE 2

## Characteristics of Selected Districts and Program Sites, 1990-1991

	Enrollment	% Low Income	% LEP	% Asian	% Black	% Hispanic	% Native American	% White	Grades
<u>Albuquerque</u>									
District	88,112	28.7 <sup>a</sup>	26.8 <sup>b</sup>	1.8	3.1	43.2	3.3	48.3	
School 1	562	88.1 <sup>a</sup>	95.2 <sup>b</sup>	0.1	0.9	92.1	1.8	4.8	K-5
<u>California</u>									
District	46,454	12.4 <sup>c</sup>	2.8	4.1 <sup>c</sup>	3.6 <sup>c</sup>	5.1 <sup>c</sup>	1.0 <sup>c</sup>	86.2 <sup>c</sup>	
School 1	395	90.0	37.2	14.6	7.4	16.3	3.6	58.1	K-6
<u>Chicago</u>									
District <sup>a</sup>	403,584	80.1	9.2	2.9	59.6	25.0	0.2	12.3	
School 1 <sup>a</sup>	450	100.0	23.2	35.7	63.3	0.8	0.0	0.2	K-8
School 2 <sup>a</sup>	280	92.4	20.6	0.4	15.2	75.8	0.0	8.7	K-8
<u>Lansing</u>									
District	21,441	20.5 <sup>c</sup>	7.3	3.0	29.0	11.0	1.0	55.0	
School 1	369	31.3 <sup>c</sup>	10.0	11.0	9.0	18.0	4.0	58.0	K-5
School 2 <sup>d</sup>	190	NA	100.0	NA	NA	NA	NA	NA	K-8
School 3	394	2.1 <sup>c</sup>	NA	3.7	53.2	7.0	1.5	34.5	K-5
<u>Oklahoma City</u>									
District	37,735	54.0 <sup>c</sup>	4.6	2.4	40.0	8.1	4.8	44.7	
School 1	558	92.0 <sup>c</sup>	43.0	1.0	12.0	40.0	9.0	39.0	K-4
School 2	832	63.8 <sup>c</sup>	14.6	4.3	46.5	9.1	4.3	35.8	5

Note: See text for explanation of data collection.

<sup>a</sup>These figures are from 1989-1990.

<sup>b</sup>Includes all culturally and linguistically different students.

<sup>c</sup>Based on AFDC counts, not on free or reduced-price lunches.

<sup>d</sup>Other figures for School 2 are not calculated because Lansing counts all students attending this instructional center as students of their home schools.

<sup>e</sup>District-level for K-6 population in 1988-1989.

we were able to position the state special-needs programs according to current levels of support and degrees of targeting. We also learned about the mechanisms for funding the state program and the legislative mandates governing the use of program funds.

Second, we interviewed and requested materials from district administrators about programmatic and budgetary aspects of the state programs in their schools. On the programmatic side, we sought the following district information: program goals and history; implementation guidelines; program organization and descriptions; monitoring procedures; and evaluation reports. Program officers often advised us about school selection as well. On the budgetary side, we inquired about sources and amounts of program revenues; numbers of students served by the state program; numbers of students served by the total district program; distribution of program revenues to schools; and district summaries of student, teacher, and school characteristics.

Third, at the selected schools or program sites, we interviewed the principal and key program staff members and conducted classroom observations in program instructional settings. We asked the principal about general school characteristics, the use of program resources, program participants and personnel, and measures of achievement for the program's students and for the school as a whole. If the school had a program coordinator, then they usually informed us about the details of program organization and operation and about the program's history in the school. We talked less formally to other program personnel about their role in the school and about points of interest arising from the interviews or from classroom observations. When questions remained after the main research effort (usually a one-week visit to a district between December 1990 and May 1991), we tried to get answers and clarification through our district contacts.

## LINKING SCHOOLING OPPORTUNITIES TO STATE FUNDING STRATEGIES

In general, we find that the information gathered from the program sites supports our hypotheses. The variation in instructional arrangements in case-study schools is usually consistent with our predictions based on state fiscal policies. At the same time, site-level factors such as the size and stability of the target population at the school can affect those arrangements in ways that are not fully accounted for in our propositions. In this section, we examine the evidence linking the state's funding strategies to classroom practices.

### Targeted, High-Level Funding

We predicted that a targeted approach, together with high levels of state funding for a program, would produce discrete instructional arrangements such as self-contained classes. State bilingual education in Illinois is both targeted and funded at high levels. To examine our hypotheses, we selected two elementary schools in Chicago for an in-depth study.

Bilingual Education in Chicago. The Chicago Public Schools received \$880 per bilingual student from the state program during 1990-91. The state bilingual funding has significantly increased as a result of the passage of a temporary income tax surtax in 1989. These funds, which constitute the primary source supporting bilingual education in Chicago, are used to provide for the Transitional Bilingual Education (TBE) programs and Transitional Programs of Instruction (TPI) in over three hundred schools. Since 1975, TBE programs have been offered in schools where there are twenty or more LEP students of the same language background. These programs usually operate in self-contained classrooms and enroll 90 percent of the district's LEPs. Beginning in 1986, TPI programs have been offered in schools where there are nineteen or fewer LEP students of the same or different language backgrounds. TPI students are often pulled out of mainstream classes to receive

either bilingual or ESL instruction. The TPI programs are made possible by the state income tax surcharge just as all the bilingual teachers in these programs are funded by the extra state revenues.

To make sure that schools comply with the state targeting requirements, the district operates a technical unit to provide assistance to schools that have been unable to comply. A 120-page implementation handbook is distributed to the school staff. The district's Office of Internal Audit also regularly reviews school information about the number of students served, number of state-funded instructional positions, and staff qualifications. Despite these internal monitoring activities, the state has found numerous implementation problems and demanded a refund of \$350,000 for noncompliance in staff qualification, student assessment and placement, and programmatic goals. Thus, a high level of state funding is coupled with rigid guidelines in Illinois' bilingual education programs.

We located two Chicago elementary schools (grades K through eight) to serve as case studies for our investigation. School 1 has approximately 450 students, all of whom are low income (i.e., they qualify for free or reduced-price lunches). About 65 percent of the students are black and most of the rest are Asian. With few exceptions, the LEP students at this school speak one language. At the end of the case study (February 1), eighty students were full-time participants in the bilingual program (grades one through eight), and thirty-two more were part-time program students. Their numbers grew almost daily during the fieldwork period (late December through February 1) because some of the immigrant families who were rapidly filling U.S. immigration quotas for the new calendar year took up residence in the neighborhood of School 1.

The bilingual classes are organized into a "walking bilingual program" in which five teachers and three assistants teach all subjects from first to eighth grade. Bilingual students change classes, moving among the classrooms of the five teachers. For most subjects, students of all ages are grouped into classes of basically one ability level. A third grader, for instance, may attend the first-grade English class, the fourth-grade native-language arts class, and the third-grade science class.

Consequently, each bilingual student has an individualized schedule, and part-time students can take advantage of one or two bilingual classes while spending most of the day in their mainstream classroom.

As expected, the bilingual program is a discrete part of the school's organization. More than just a track of "walking bilingual" classrooms (not self-contained classes, however), the bilingual program operates like a separate school within the school. There are numerous differences between the bilingual and the mainstream programs. Bilingual classes have smaller class sizes, with observably fewer students than mainstream classes. As a whole, the school has a heterogeneous grouping philosophy, but the bilingual teachers determine the membership of almost all of their classes by homogeneous criteria. Aides in both mainstream and bilingual classrooms facilitate instruction, but bilingual aides also impart lessons (not just review or provide individualized attention) to small groups. The bilingual students change classes every period, while mainstream students rarely leave their homerooms. Primary students in the mainstream program attend a computer "writing to read" lab, and those in the middle and upper grades have departmentalized science instruction. Bilingual students do not benefit from either of these programs. In sum, bilingual classrooms differ from nonprogram classrooms on the following points: (1) faculty; (2) students; (3) class size; (4) grouping practices; (5) roles of the paraprofessional staff; (6) scheduling of the school day; and (7) student access to specialized faculty and facilities.

The Illinois bilingual program funds several staff members at School 1 and is the major source of regulations about the curriculum, testing, etc. An observer at the school cannot separate the state program from the school's overall bilingual program. Rather, it works in conjunction with other sources of support to forge a very discrete instructional setting for School 1's bilingual students.

School 2 also has a discrete bilingual program, but with different instructional arrangements. This school is smaller than the first. It has about 280 students, of whom 90 percent qualify for free



or reduced-price lunches. Between 80 and 85 percent of the children are Hispanic and almost all of the rest are black. The school's bilingual program serves 78 Spanish-speaking students, including the bilingual kindergartners.

The organization of the school's bilingual program is conditioned by both the low bilingual enrollment at each grade level and the belief of several key staff members that ESL meets their students' needs better than native-language instruction. The afternoon kindergarten is a bilingual class, and there is another self-contained bilingual class with twelve first graders, four second graders, and seven third graders. The rest of the bilingual program in this school consists of transitional structures, however. Primary students who are approaching grade-level English proficiency are pulled out of their mainstream classrooms for small-group instruction in ESL. Similarly, all bilingual students in the middle and upper grades are pulled out for ESL, and a few also have grade-level pullout classes in Spanish language arts and content areas taught in Spanish (often reviewing or coordinated with what is being taught in their mainstream classes).

The self-contained primary classes in School 2 fit our predictions based on Illinois' bilingual funding, but the numerous pullouts do not. The state bilingual program funds only one teacher; her duties include providing ESL and native-language instruction to the middle and upper grades, as well as coordinating the school's bilingual program. This school relies as much on informally extended bilingual services with Spanish-speaking teachers and aides working in mainstream classes, as on elaborated bilingual instructional arrangements. Because of the small bilingual enrollment and the preference of some staff members for an all-English program, only students in grades K through three attend self-contained bilingual classes in this school.

The two case studies in Chicago conditionally bear out our predictions about the structural impact of high, targeted funding for special-needs programs. We hypothesized that discrete instructional arrangements would result from such programs. This is definitely the case at School 1

where the bilingual program functions much as a school within a school. School 2 also shows this pattern for the primary grades. Bilingual instruction for the middle and upper grades, however, is transitional (pullout classes). School size--or at least the size of the school's target population--and educator attitudes about bilingual instruction at School 2 work to counter the funding/targeting attributes that encourage discrete service provision. These two cases, then, support our contention that a targeted special-needs program funded at a high level tends to produce isolable instructional settings, but they also show that other factors can influence the program's structure in the school.

#### Nontargeted, Low-Level Funding

Bilingual Education in Albuquerque. Albuquerque's bilingual program is supported by a moderately low level of state funding. The state allocation to the district--\$291 per bilingual student--is based on both the student count and the amount of language instruction given to each LEP. For example, a 1½-hour program generates \$192 for each student; thus, each student in a 3-hour language program received \$384 during 1990-91. Not all of the state allocation goes to the classroom. Using a needs-based formula for schools with students identified as "culturally and linguistically different," the district channels somewhere between 70 and 90 percent of the state aid to the school. The rest covers expenses at the district level.

The untargeted character of the state program has allowed the district to exercise control over program operation. First, following the 1987 state legislation that began funding the LEPs in grades K through twelve, the Albuquerque district expanded the program according to its own pace. In 1987 the district added the seventh and eighth grades to the program and started to include the eleventh and twelfth grades in 1990-91. The district serves twenty-four thousand LEPs, 90 percent of whom speak Spanish. Most of these students are in one of the four regions of the district. Second, the district determines how state aid is used and allocated to the schools. In Albuquerque, budget allocations for bilingual programs are school based. The district used extra state aid to hire 133 teachers, ninety-

eight assistants, and twenty-five part-time tutors in the forty-eight schools that operate bilingual/multicultural programs. Teacher allocation is based on LEP counts at the school level. Currently, 1 teacher is assigned to forty-five identified LEPs. Schools with twenty bilingual students share 1 teacher, and schools with fewer needy pupils receive tutoring services. Third, school-based management that began in 1986 has affected program operation. District program guidelines are primarily based on recommendations from a committee that consists of eight school principals and two central-office program administrators. At the site level, according to district administrators, the principal plays the key role in deciding who participates in decision making, program planning, and budgeting. In some schools, the bilingual program is highly participatory, with teachers and principal working together. At others, it is dominated by the principal.

The school that we visited has 562 students in grades K through five. Over 90 percent of the students are classified as "culturally and linguistically different." The instruction of bilingual students involves both pullout and in-class strategies, thus providing partial support for our hypothesis. Pullout classes are primarily for the 179 ESL students, who receive single or mixed grade-level English instruction for forty-five minutes to 1½ hours each day. An ESL class averages 12 students, and the students are not grouped according to language ability. However, the ESL teacher that we interviewed planned classroom activities on an individual level. For example, she would introduce harder concepts to those students who had demonstrated better reading ability. Pullout classes are also provided to teach Spanish language arts to 15 students with no or limited English. Spanish is taught in the classroom and is usually team taught using the bilingual resource teacher. Each classroom teacher is responsible for the cultural component of the program.

The bilingual program instruction in this school allows for teacher discretion and depends on the skills of the teacher and needs of the students. Much of the bilingual instruction is done within class in this school because many teachers are proficient in Spanish. In a second-grade classroom, the

regular teacher, who is bilingual herself, teaches content areas in both English and Spanish without using a bilingual aide. Sometimes, she separates the twenty-four students into groups that are based on language ability--three are monolingual English, seven are English dominant with limited Spanish proficiency, nine are fully bilingual, and five are monolingual Spanish. To help the monolingual Spanish pupils learn, the teacher uses lots of manipulatives until they no longer need them. In this classroom, English-proficient students also learn Spanish through formal Spanish instruction, by speaking and assisting each other in Spanish and as the teacher uses both languages throughout the day. In another classroom, most of the students are bilingual and handle both languages fairly well. Spanish is team taught, using the in-class strategy with ability grouping. By and large, the case study in Albuquerque supports our proposition that low state funding facilitates a more "diffuse" organizational structure.

Bilingual Education in Oklahoma City. Oklahoma City has also received limited state funding for nontargeted bilingual instruction (\$346 per student). Since the funds are not targeted at bilingual students, the district does not use a per-pupil allocation method. It budgets expenses for the Language Acquisition Office and its programs, which provide most of the district's bilingual services, and for Asian Student Services, an auxiliary program serving Asian bilingual students.

In Oklahoma City, from 1979 to 1988, students attended language centers for bilingual services. In 1988, the district superintendent decided those instructional settings were not effective. The district found that too much instructional time was wasted when students rode the bus to and from the language centers, and that they were still unable to understand the lessons once they returned to the regular classroom. Consequently, the superintendent established a task force charged with the goal of eliminating the bilingual centers. He urged schools to adopt a within-class program, and most of the elementary schools (grades K through four) have complied. Only one primary school continues as a language center where LEP students receive two hours of ESL instruction a day. To meet

integration goals, fifth graders attend their own instructional centers. One fifth-grade center receives all the bilingual students, and it also employs the in-class instructional approach. Some Oklahoma City middle schools and all of the high schools still rely on language centers, but their transition to an in-class organization is planned.

The bilingual program operates under the district's Language Acquisition Office. Because the state guidelines are so broad, the district has been responsible for developing its own bilingual program. Two key programmatic regulations of the program are (1) a recommended maximum classroom ratio of 60 percent LEP to 40 percent non-LEP students; and (2) careful screening of potential bilingual assistants. The district identifies potential bilingual assistants and tests them on their ability to do two-way written translations, and on their cultural knowledge. A school can hire a half-time assistant for five or more identified bilingual students.

School 1 is a primary school in Oklahoma City. It has an enrollment of 600, of whom about 240 are Hispanic LEP students from economically deprived backgrounds. Many are recent immigrants from Mexico. Overall, the school is not well funded. According to the staff, it runs out of soap and paper towels, and it is given "substandard" classroom furniture by the district. Teachers often seek outside support for purchasing bilingual supplementary texts.

The in-class instructional arrangement is used in School 1, that is, a bilingual aide is assigned to classrooms with LEP students. The district has allocated twenty-five bilingual assistants to School 1 to work with the LEP students. Assistants provide individual tutoring for all the bilingual students in a class, but they work more intensively with the less proficient students. They are trained to use the "preview-review" approach. The bilingual assistant previews the lesson in Spanish, instruction is then given in English by the regular teacher, and the assistant reviews the lesson in Spanish. The bilingual assistant also teaches Spanish to the entire class. This instructional arrangement is designed to reduce the isolation of LEP students and to maintain their content-area instruction at grade level.

At School 2, a fifth-grade instructional center, all the LEP students are placed in three bilingual classes. The school has a total student population of 830, including 75 LEP students who represent the recent waves of immigrants to the United States. They speak Vietnamese, Lao, Spanish, and Malaysian. Teachers have moved some of the English speakers out of these classes, thus abandoning the 60-40 ratio recommendation, because of the rapid growth in the LEP population.

The fifth-grade bilingual program is similar to that at School 1, except no native-language arts are taught. The LEP students represent a diverse group. For example, one classroom of twenty-five students is composed of twelve Hispanics, one Malaysian, six Vietnamese, two Laotians, one white, one American Indian, and two blacks. The bilingual assistants teach ESL skills and use both languages for preview-review with the speakers of their other language. School 2 has three Hispanic and two Asian assistants. According to the teachers in the program, parents are interested in placing their children in these classes because the students leave with "survival English."

The in-class bilingual organization used in School 1 and School 2 fits our predicted "diffuse" structure. The organization of bilingual education in Oklahoma City, therefore, supports our hypothesis about nontargeted state programs with low levels of funding.

#### Nontargeted, High-Level Funding

Compensatory Education in Chicago. Special-needs programs that receive substantial state support without targeting constraints allow for either district or school discretion over the use of resources. Illinois has this type of compensatory funding, and in Chicago, spending decisions about the state program rest largely with the school. During 1990-91 Chicago received \$935 per eligible pupil from the state program. About 80 percent of these funds were distributed to schools based on poverty count and the remaining 20 percent on school membership. Schools can use the state funds in a number of broad educational areas, including early childhood programs, the reduction in class

size, enrichment programs, attendance improvement, remedial assistance, and other supplemental instructional activities.

The untargeted nature of the state program does not require the district to closely monitor program implementation. Indeed, as a result of the Chicago school decentralization legislation enacted in 1988, locally elected school councils enjoy substantial discretion over the use of these funds. Neither the district's central office nor the state vigorously monitors program implementation. The central office has only four staff to monitor the programs in over five hundred schools. There is not enough staff to respond to requests from the local school councils on implementation and budgetary issues. In essence, the school runs its own program and conducts its own evaluations.

The two Chicago schools discussed earlier in reference to their bilingual programs also benefit from the state compensatory money. The state uses the free and reduced-price lunch counts as a poverty measure (although some of the funds are currently distributed without reference to poverty). Accordingly, the levels of poverty at the two schools, 100 percent at School 1 and 92 percent at School 2, ensure that they are recipients of Illinois' compensatory funds. Our hypothesis about nontargeted, well-funded programs suggests that the state compensatory program in these schools will provide transitional instructional services, such as pullout classes. This is not supported by the two cases.

At School 1, the state compensatory program provides the following: an assistant principal freed from her half-time instructional responsibilities; a departmentalized science teacher for the upper grades; three aides at the primary level; and some extra supplies for the science lab and for other classrooms. The school uses the funds to strengthen its early childhood program and its science curriculum at the upper grades. Interestingly, these state funds complement the Illinois bilingual funds. The state bilingual program serves only the LEP students, and the state compensatory funds

supplement programs available only to mainstream students. This division of resources reinforces the conceptualization of this school as two structurally distinct units under one administration.

At School 2, the Illinois compensatory program supports two Spanish-speaking aides--one for the primary grades and the other for the upper grades--and it also provides half-time positions for the following full-time staff: the assistant principal; the gym teacher; the ESL and fine arts teacher; and the bilingually certified librarian. Unlike the division of state resources characterizing School 1, the compensatory funding helps to augment the second school's bilingual program by supporting four Spanish-speaking staff members. Since School 2's greatest need is to help its Hispanic students, the state compensatory funds informally supplement the structurally discrete bilingual instructional program.

In these two case-study schools, the state compensatory money neither provides for nor is used to expand traditional "compensatory" classrooms. At odds with our hypothesis, this program pays for no transitional or other compensatory structures. Instead, the schools have elected to expand programs of their choice to meet students' needs better. The virtual absence of student targeting restrictions at the school level turns the Illinois compensatory program into general school aid for supplementary purposes.

### Targeted, Low-Level Funding

We predicted that targeted programs funded at low levels would foster transitional structures such as pullout classes. In California and Michigan, the selected states with these funding strategies, we find that the programs result in a combination of instructional arrangements in classrooms. These include both transitional and self-contained structures, providing some support for our framework.

Compensatory and Bilingual Education in California. The implementation of compensatory and bilingual programs in a suburban district in a major metropolitan area in northern California provides an example of these mixed strategies. Both programs draw from the same state funding



source (Economic Impact Aid). During 1990-91 an eligible student in the two programs in the district received \$156.25 from the state programs. The district enrolls over forty-five thousand pupils and operates fifty-one elementary schools. Its population is presently in transition, with a growing number of minority and economically disadvantaged students.

We selected a school with a high concentration of low-income students (see Table 2). It enrolls about 400 students in grades K through six from a fairly poor neighborhood. Forty percent of the students are minorities and almost 60 percent come from AFDC families. About 40 percent of the students are LEPs. There is a considerable amount of turnover. During 1989-90, 334 students moved into the school population, replacing the 246 students who moved out. The school receives students from a large number of motels serving a transient population. The principal reports many students enter the sixth grade having never attended school before. This was especially true for the 40 to 50 students who arrived from Eastern Europe and the Soviet Union in the 1989-90 school year, many from rural backgrounds.

Compensatory education in the school receives support from Economic Impact Aid. Together with federal revenues, the state program supports one full-time teacher and a number of instructional aides in compensatory education. The latter have to be hired from within the school attendance area. Because of its high concentration of low-income students, the school receives additional state funding to implement the schoolwide project, which allows compensatory services to be provided to all students. According to the school staff, the Schoolwide Project has improved communication between regular teachers and the special-project staff and has facilitated the utilization of program resources. For example, computers and other materials purchased with program monies may be shared by all. Greater instructional coordination is seen in the classroom. The instructional focus of compensatory education has changed from remediation to preteaching and extending strategies. The goal is to prepare students for the curriculum they receive in the regular classroom setting. This change has

been facilitated by modifications in federal regulations governing Chapter 1. Until 1988 the "supplement, not supplant" rule was interpreted to prohibit the use of the regular grade-level curriculum in the compensatory education classroom. Now the curriculum of compensatory education may more closely reflect the content of the regular program. The impact of these changes is unknown at this time. Since the major programmatic changes went into effect in 1988, not enough time has elapsed for a study of their impact on student achievement.

The bilingual program in the California district is both centralized and decentralized. The district's central office has complete control over the hiring and placement of the twenty-one bilingual teachers and the thirty-two bilingual assistants who teach the district's thirteen hundred LEP students. However, teachers and principals enjoy discretion over instructional strategies and student placement.

The program site that we visited is one of the six district bilingual schools/centers. Throughout the district, students with limited English proficiency are bused to these centers for instructional services. The remaining forty-five elementary schools do not provide bilingual programs. This school, however, has five bilingual teachers and thirteen bilingual aides whose salaries are partly supported by state funds. It has six self-contained (sheltered) bilingual classes, one per grade level (though most of these are multiple-grade classes). These serve 147 students who speak twenty-six different native languages. Students practice speaking, reading, and writing skills in the sheltered classes, but they are mainstreamed for reading and math. When mainstreamed, their bilingual teachers go with them to provide individual help. In addition, there are two transitional classes, one serving grades four, five, and six, and the other serving grades two and three. These classes are designed to support LEP students who do not have the skills to function in the regular classrooms. Students enter and exit the transitional classes based on test scores and teacher recommendations. Students who have been successful in the sheltered bilingual classes move into the transitional classes before entering the regular classes. Four students were moved from the bilingual

classes to the transitional classes in February 1991. A student study team (counselor, five or six teachers, and the principal) meets every Friday morning to consider the placement of individual students. A site-level committee, composed of eleven people (the principal, nine teachers, and one parent) meets on the first Tuesday of each month to monitor the entire program. The principal does not chair the committee. Currently, the school is making an effort to provide a third transitional class and to produce sufficient bilingual curricular materials to meet the increasing needs of LEP students.

Bilingual Education in Lansing. State bilingual education in Michigan offers a second example of a targeted special-needs program funded at low levels. In Lansing, our case-study district, the state bilingual allotment has not changed since the program began in the mid-1970s. With its growing refugee and immigrant populations and its fixed state bilingual aid, the district supplies the bulk of the revenues for bilingual education. The state supplements the district's program with both bilingual (about 13 percent of the district's bilingual budget) and migrant funding (together totalling about 31 percent of the bilingual budget), but Lansing received no federal bilingual assistance this school year. Most of the state bilingual money is used to pay the salaries of program administrators and teachers.

Under the guidance of a few administrators committed to improving the education of LEP students, Lansing's bilingual program has changed structurally and programmatically during the last decade. The district has centralized English services for LEP children at six bilingual instructional centers. Three are located in the high schools and serve high school students, two are in middle schools and serve the middle-school students on the northern side of the city, and the sixth center serves elementary students (grades K through five) and the middle-school students from the southern half of the city. One administrator handles the coordination, promotion, and budgeting for all of the district's bilingual instructional centers and effectively serves as principal for the elementary center.

In addition, four bilingual teachers (3½ positions) and one aide work with bilingual children in mainstream programs at several schools.

School 1 is a Lansing elementary school that enrolls 369 students. It has a poverty rate considerably above the district average (see Table 2), and the principal cites the rise in student mobility as one of the school's major challenges. The student body is diverse; many of the school's bilinguals are Hispanic and about 11 percent are Asians who speak one or more of the following: Hmong, Lao, or Vietnamese. About 19 percent of the students are bilingual, and of these, 10 percent are classified as LEPs and receive ESL services.

Bilingual children attending School 1 benefit from three additional instructional programs. First, School 1 has a well-developed reading program which gives special attention to students who score below the fortieth percentile on the reading section of the Stanford Achievement Test (SAT)--including the LEP students. The reading resource teacher and four paraprofessionals instruct identified students in small-to-medium-sized pullout classes. In addition, the reading resource teacher presents demonstration reading lessons in every classroom. About 9 percent of her pullout students are bilingual, and half of her first-grade class is not yet proficient in English. This program, which helps many of the School 1 bilingual students improve their English skills, is funded through local revenues and Chapter 1.

Second, those School 1 students who know virtually no English, usually kindergartners and first graders, attend the elementary bilingual center for half of the school day. (We also visited the bilingual center, School 2, and its program will be discussed below.)

Third, a state-funded bilingual teacher spends two days per week at School 1. She is the only bilingual staff member at School 1. She teaches a total of thirty-five bilingual students, most of whom scored below the fortieth percentile on the reading SAT. All of her classes are small, half-hour pullouts, during which time she gives grade-level instruction in English. She usually focuses on

writing, but she also presents certain lessons in math or other content areas when teachers discuss them with her. In addition to teaching, she assists with the identification and placement of LEP students, coordinates bilingual/multicultural activities at the school, and serves as a liaison between students' homes and the school.

School 2 is Lansing's elementary bilingual instructional center. It enrolls about 190 students, all of whom are categorized as LEPs by (1) the use of another language at home, especially for students in grades K through two who have not taken the SAT; (2) a score at or below the nineteenth percentile on the SAT reading scale; or (3) a score at or below the tenth percentile on the Language Assessment Battery. School 2's students come from twenty-six different home schools. They spend half the school day in their class at School 2 and the other half at their home school. Buses transport the students between their homes, their home schools, and School 2.

School 2 has a bilingual curriculum specialist, five classroom teachers with bilingual endorsements in Spanish and English, and five bilingual or trilingual paraprofessionals: a Spanish-speaker; an Arabic-speaker; a Vietnamese-speaker; a speaker of Hmong and Lao; and a speaker of Lao and Vietnamese. The paraprofessionals take on different classroom roles to fulfill the teacher's needs and requests, including the instruction of individuals or small groups. They change classrooms according to a daily schedule, but they are also on call during and after the school day for translation. One paraprofessional said that she speaks English regularly to all the children and tries to facilitate their using it with each other. All lessons are presented in English at School 2. In general, a child's native language is used only to clarify concepts which are problematic for the student in English. For example, the home-school teacher may ask for School 2 personnel to reteach a difficult mathematical concept in the student's native language.

Students are placed in classes by grade and English proficiency. In an effort to minimize some of the problems inherent in the pullout instructional arrangement, School 2's administrator has

decided that students should remain in one class with one teacher during their half day at School 2. Moreover, she asks School 2 teachers to use the same basal curriculum as the home-school teachers in order to improve the articulation of instruction between schools. School 2 teachers integrate both ESL and whole-language reading techniques into their classes. In the middle grades (three through five), they also teach a content area--either science, math, or social studies. Although there was a problem with overcrowding at the beginning of the school year, the average class size currently is around twenty students. During the morning session, School 2 offers a kindergarten class; two beginning English classes--one for first and second graders, and the other for third through fifth graders (with a few middle-school students also); an intermediate class of first and second graders; and an advanced first-and-second-grade class. After lunch, they teach an intermediate class and an advanced class for third, fourth, and fifth graders, and three kindergarten classes.

The exit test for the bilingual instructional centers is the Language Assessment Battery, which measures all four English skills (speaking, comprehension, reading, and writing). It is administered in the spring. Ideally, it informs both the student's School 2 and home-school teachers, who then make a joint decision about the student's progress. On average, students attend School 2 for two to three years before being mainstreamed at their home school.

Federal and state revenues created and shaped the bilingual program at Lansing during the 1970s and early 1980s, but today local money maintains it. The Michigan bilingual program provides only about 13 percent of the district's bilingual budget, and most of those funds are spent on administration and teachers' salaries; the bilingual pullout teacher at School 1 and the administrator in charge of School 2 are both funded by the state bilingual program. In sum, the pullout classes at School 1 and the bilingual instructional centers, such as School 2, fit our hypotheses about the organization of instruction for targeted state programs with low funding.

Compensatory Education in Lansing. Michigan's compensatory program provides a third example of a low-funded state program that is targeted. In Lansing, this program is growing even more modest owing to the success of their students. District allocations are based upon student performance on a statewide assessment battery, and in Lansing, students' scores have been rising. Consequently, in each of the last two school years, the district has taken a 20 percent cut in its state compensatory allocation. If the students perform well again next fall, Lansing runs the risk of losing this state support altogether.

This past school year 1,032 Lansing students were eligible for the Michigan compensatory funding, and the district received about \$361,000 in revenues from the program (see Table 1). In contrast, Lansing's federal Chapter 1 aid, based on the district's AFDC count, totalled almost three million dollars. Hence the state compensatory program provided only about 11 percent of the district's compensatory funds.

About half of the 1990-91 state compensatory funding was applied to central costs, including program administration, program monitoring and evaluation, one centrally funded media teacher, and a contribution to the maintenance of a districtwide Teaching Resource Room with educational materials for the use of parents and teachers of low-income children. In addition, approximately \$10,000 was reserved for ninth and tenth graders identified as at-risk of dropping out. Supplemented by a \$35,000 carryover from the 1989-90 program budget, the remaining funds were distributed to schools for the instruction of eligible low achievers. A few years earlier, Lansing program administrators had decided to dichotomize their compensatory funding by distributing Chapter 1 funds only to schools with higher rates of low-income students than the district average and Michigan compensatory funds only to those schools under the district average on this indicator. Accordingly, in 1990-91, program participants at twelve elementary schools, two middle schools, and all three high schools held a claim to the state compensatory money. A few schools chose to fund part-time

positions for resource teachers or to buy computer hardware or software, but most hired instructional assistants to work in the classrooms or to teach remedial pullout classes.

Hiring a paraprofessional to give pullout math classes is exactly how School 3 elected to spend its state compensatory funds for this year. School 3 has the lowest AFDC rate of any Lansing elementary school--just 2 percent--and so it receives state-funded compensatory services, not Chapter 1. Three hundred ninety-four students were enrolled at School 3 this past year. The neighborhood is middle class, but the principal reports that a housing project near the school accounts for 15 to 17 percent of School 3's enrollment. Fifty-three percent of the students are black, about one-third are white, and the rest include Hispanics, Asians, and a few American Indians (see Table 2).

In 1989-90, the state compensatory program served forty-three children at School 3 through additional classes in reading and math. This past school year, because of cuts resulting from Lansing's students' higher achievement, only twenty-nine targeted students received program-funded benefits. Since so few children can participate, teachers at School 3 decided to give priority to serving poor achievers in the lower grades. One instructional assistant, teaching at School 3 just in the mornings, uses calculators, innovative manipulatives, and games to work on math concepts. She elicits student participation in creating their own math games and problems, and she says that they enjoy this approach. She meets with, on the average, four students at a time, for twenty to twenty-five minutes. Her students come from K through four classrooms. She pulls out most of her students on a daily basis, but the third-and-fourth-grade group meets every other day.

In addition to the math services, last year the state compensatory program funded a part-time reading teacher at School 3. This became a full-time resource teacher position this year, although no longer funded by state compensatory monies, and a reading specialist on a year's leave from the state compensatory program office accepted the position. Working with School 3's principal, she has



developed a portfolio approach to evaluating student reading and writing and has fostered better parent involvement with student learning at School 3 through the portfolios. Although not a formally funded service from the Michigan compensatory program, her work at School 3 this year has been a valuable indirect program contribution to the students.

As hypothesized, the targeted, modestly funded Michigan compensatory program fosters transitional instructional arrangements in Lansing schools. Often instructional assistants are trained to provide remedial pullout classes in math and reading. The district's policy of dichotomizing compensatory monies according to the school's rate of low-income students, plus its current situation of being so successful at improving student achievement that it receives less and less state program funding, both intensify the tendency of the state resources to be spent in small, supplemental ways in Lansing schools. These forces also promote a transitional organization of instruction for the modestly funded, targeted Michigan compensatory program.

## CONCLUSIONS: POLICY AND RESEARCH IMPLICATIONS

The case studies give rise to three conclusions. First, the information from state and district offices confirms that some of the differences in special-needs instruction can be attributed to state policy decisions. States have sufficient autonomy to produce significant variations on the federal program models. This variation, in turn, fosters dissimilar instructional programs, proving that some macro-micro linkages exist. Thus, differing state policies result in nonuniform schooling opportunities for the disadvantaged.

Second, the program site visits offer some evidence that the state policies we have focused on tend to influence instruction as expected, also proving that our proposed macro-micro linkages actually exist. The structural settings we predicted are most closely approximated in the two "extreme" cases of our framework--targeted programs funded at high levels and nontargeted programs

funded at low levels (cells A and D in Figure 1). Both Chicago schools have discrete forms of bilingual instruction (highly funded, targeted). In Oklahoma City, teachers at School 1 and School 2 rely on bilingual aides in the classroom (poorly funded, nontargeted). Albuquerque's bilingual education program (except for its ESL classes) uses mostly in-class instruction. Furthermore, the cases provide partial support for our propositions on the "in-between" situations. Lansing's schools (poorly funded, targeted) meet the expected transitional pattern with pullout ESL classes and pullout math classes. The school selected in California tends to depart from our expectation--it has discrete instructional arrangements for its bilingual programs and uses an in-class strategy for compensatory education. The Illinois compensatory program is a "compensatory program" in name only and instead serves as general, supplementary aid to the two Chicago schools. In short, the case studies support our hypotheses about the microlevel effects of targeting with high funding and nontargeting with low funding, but show greater variability than expected from the other combinations of funding strategies.

Our claim is that the organizational consequences of targeting vary predictably with level of funding. A comparison between the structures of bilingual instruction in Lansing and Chicago demonstrates that targeting alone does not determine policy outcomes. Similarly, the vast organizational differences between state-funded bilingual and compensatory education in Chicago schools show that, when considered by itself, level of funding cannot predict these outcomes either. The match between expected instructional arrangements and the structures described by district program officers and, for the most part, found in the case-study schools indicates that the level of funding can restrict or expand the organizational possibilities of both targeted and nontargeted state programs.

Third, the case studies also suggest the importance of district- and school-level factors in shaping instructional arrangements. Three of these seem to be particularly prominent in our cases.

First, the beliefs of professional staff can influence program organization. The superintendent in Oklahoma City decided that language centers for bilingual students are not effective, and so has almost succeeded in phasing them out of the elementary schools. Taking the opposite stance, the bilingual teachers at School 1 in Chicago have developed their program so that the bilingual students are essentially in a separate school from the mainstream children. Second, the size and stability of the program population in a school can also affect instructional arrangements. There is an insufficient number of LEP students at School 2 in Chicago to staff a bilingual track, unlike at School 1. School 2 has a self-contained kindergarten and a combined first-, second-, and third-grade classroom, but only pullout services for older LEP students. Finally, school governance reform in Albuquerque (school-based management) and in Chicago (a locally elected school council) has substantially shaped program implementation. Clearly, then, district-level and school factors can affect organizational structures set up by state fiscal policies.

Our study has suggested specific macro-micro linkages between state support for special-needs programs and classroom instruction for the disadvantaged. This information may serve as a basis for reconceptualizing state funding strategies and as an impetus to further research.

We will discuss two implications of our study. First, as a policy option, the targeting of a special-needs program can affect the instructional opportunities of disadvantaged children. We have defined "targeting" as the distribution of specific resources for the benefit of identified and eligible students only. Thus defined, targeting provisions have some recognized impact on instructional arrangement (see Glass and Smith 1977 about the "supplement, not supplant" controversy in federal compensatory education). Moreover, the absence of targeting creates the potential for the absence of a program.

The fieldwork in the two Chicago schools underscores this point. The nontargeted state compensatory funds do not constitute an instructional "program." Rather, the schools use the funds

as general aid to supplement any "educationally beneficial" aspect of their regular program. In other words, the "compensatory" label associated with these funds is somewhat misleading; the disadvantaged do not necessarily receive more instructional services than their nondisadvantaged peers.

Second, the level of state support can strongly influence the instruction available to special-needs students. Inadequate resources in Oklahoma City have contributed to LEP overcrowding in the three bilingual classes in the fifth-grade center. At least in one class, the number of LEP students far exceeds the guideline of maintaining 60 percent LEP to 40 percent non-LEP students. Increases in funding generally translate into the extension of services to more eligible students, as suggested in our study of the bilingual program in Illinois. In addition, our study indicates that a higher funding level tends to produce more discrete instructional arrangements where the state has targeting provisions. At the school in Lansing, for example, more-proficient LEP students have a pullout ESL class twice a week, and less-proficient LEP children must go to the district's bilingual center for half their school day. In Chicago, on the other hand, bilingual children have instructional services at their own school. School 1 has a bilingual track, and School 2 has two self-contained classrooms and daily pullout classes for the older students. With respect to state special-needs programs that are subject to targeting requirements, more money can purchase more services.

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