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ABSTRACT

This paper examines the particular problems involved in analyzing the costs of bilingual education and suggests that cost analysis of bilingual education requires a fundamentally different approach than that followed in other recent school finance studies. Focus of the discussion is the Intercultural Development Research Association's (IDRA) effort to analyze bilingual education using the weighted-pupil technique. IDRA found that the typical weighted-pupil approach was inadequate because it requires identification of "best practice" school districts. Since bilingual education is an evolving area, identification of such lighthouse districts proved to be impossible. Therefore IDRA instead developed a hypothetical model of bilingual education that could serve both as a curriculum development model for bilingual education programs and as a basis for later cost analysis studies. Much of the paper describes and discusses IDRA's "exemplary model" for bilingual education. (JG)

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**ANALYZING BILINGUAL EDUCATION COSTS**

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## ANALYZING BILINGUAL EDUCATION COSTS

Although Rodriguez<sup>1</sup> was turned back by the U.S. Supreme Court in 1973, the earlier favorable ruling by the federal three-judge panel<sup>2</sup> in San Antonio triggered a relook at Texas school financing. Texas political and educational leaders began to seek new allocation standards designed to accommodate the varying educational needs among individual pupils<sup>3</sup> a reform similar to that which many other states were undertaking. This first Texas study in the area of establishing program cost differentials was conducted in 1972 at the request of the State Board of Education. It was followed by a 1974 study<sup>4</sup> requested by the Governor's Office

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<sup>1</sup>Rodriguez v. San Antonio Independent School District, 93 S. Ct. 1278 (1973).

<sup>2</sup>U.S. District Court, Texas (Western District), Demetrio P. Rodriguez, et al. v. San Antonio Independent School District, et al., (San Antonio, 1971).

<sup>3</sup>Committee on the State Board of Education on School Finance, Report of the Committee, A Weighted Pupil Approach to Public School Finance: One Alternative (Austin, Texas: Texas Education Agency, September, 1972).

<sup>4</sup>Governor's Office of Educational Research and Planning and Senate Education Committee, Report of the Governor's Office and Senate Education Committee, Educational Program Cost Differentials In Texas (Austin, Texas: Texas Education Agency, February, 1975).

and the Senate Education Committee. A resulting 1974 report included a recommendation to the Governor from the Governor's Office of Educational Research and Planning that "...a quality comprehensive foundation program, utilizing a weighted-pupil approach, be established..."<sup>5</sup> The Governor then proceeded to endorse a weighted-pupil approach through a legislative bill<sup>6</sup> submitted to the 1975 legislature.

Most bilingual education programs on the other hand had begun in Texas through Title VII grants, immediately following the enactment of the U.S. Bilingual Education Act in 1968.<sup>7</sup> The two weighted-pupil studies mentioned previously had not included weights for bilingual education. "Although we knew that bilingual education was an emerging program we did not touch it," states Richard Hooker who heads the Governor's Office of Educational Research and Planning. "Some schools

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<sup>5</sup>The Restructuring of Public Elementary and Secondary School Finance; Tentative Recommendations to Governor Dolph Briscoe, The Governor's Office of Educational Research and Planning, November, 1974, p. 7.

<sup>6</sup>House Bill 1083, Regular Session, 64th Texas Legislation, filed February 26, 1975.

<sup>7</sup>Bilingual Education Act, 20 U.S.C., 880b, 1968, P.L. 90-247.

were teaching bilingually 15 minutes a day and calling it bilingual education, while others were using bilingual education all day. We just took the ball and punted," Hooker humorously relates.<sup>8</sup> He did however recommend weights ranging from 1.15 to 1.40 for bilingual education included as part of the "parity" compensatory programs.<sup>9</sup> Further, he was perceptive enough to note in the 1974 recommendations that the term compensatory had been "...inappropriately applied to many programs for the culturally and/or linguistically different students..."<sup>10</sup>

Bilingual Education seems to be emerging "quietly" in the literature on costing for it is hardly mentioned by school finance experts--although it fits into any of the three areas of finance reform mentioned by Benson, Goldfinger,

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<sup>8</sup>Personal interview with Richard Hooker, March 9, 1976.

<sup>9</sup>The Restructuring of Public Elementary and Secondary School Finance, pp. 8-9. The 1.00 weight assigned to grades 1 through 3 for 1975-76 was \$650 - - the bilingual weight was \$748. Parity programs included compensatory, bilingual, and migrant programs.

<sup>10</sup>Ibid., p. 10. Hooker further states that there is no deficiency or "handicap" for which the child must compensate. The need is for temporary assistance in developing the skills necessary to have full access to and benefit from the program of regular instruction. Bilingual advocates support the concept that bilingual education is an enrichment program.

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Hoachlander, and Pers.<sup>11</sup> Those areas include (1) reduction of fiscal inequity, (2) amelioration of racial and social class segregation, and (3) expansion of educational alternatives. Johns and Morphet, in discussing different target populations come as close to discussing bilingual education as their reference to those who are "culturally disadvantaged."<sup>12</sup> The Florida NEFP Cost Index Scale for Weighting Pupils by Program area<sup>13</sup> makes no mention of bilingual education, although the initial bilingual education programming in Florida pre-dated the U.S. Bilingual Education Act by five years.<sup>14</sup>

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<sup>11</sup>Charles Benson, Paul M. Goldfinger, E. Gareth Hoachlander, and Jessica S. Pers, Planning for Education Reform - - Financial and Social Alternatives, Dodd, Mead and Company, New York, 1974.

<sup>12</sup>Roe L. Johns and Edgar L. Morphet, The Economics and Financing of Education - - A Systems Approach, (Englewood Cliffs, New Jersey: Prentice-Hale, Inc., 1975), p. 233.

<sup>13</sup>Cost Factors of Education Program in Florida, prepared for the Florida Department of Education, April 1974, p. 15.

<sup>14</sup>Josue M. Gonzalez, "Coming of Age in Bilingual/Bicultural Education: A Historical Perspective, Inequality in Education, Center for Law and Education, (Harvard University, No. 19, February 1979). By 1963 Dade County (Miami) had initiated a bilingual education program.

The Intercultural Development Research Association's (IDRA) effort then is to look at bilingual education through the widely used method of comparing the differences in cost through the so-called weighted pupil technique. When this weighting procedure is used, the weight of 1.00 is assigned to the least expensive program which includes the nonexceptional, nonvocational students. This weight of 1.00 is usually assigned to "regular" students in grades 1-6.<sup>15</sup>

Rather than simply giving a review of the work IDRA is doing on the bilingual education cost analysis project, I would like to focus my remarks today on the particular problems involved in costing bilingual education and how this particular area requires an approach which differs fundamentally from that followed in other recent school finance studies.

The IDRA bilingual/bicultural cost study project is attempting to fill the void which exists in previously published studies on Public School Finance. In approaching this task, the most logical thing to do might be to follow the general

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<sup>15</sup> Cost Factors of Education Programs in Florida, p. 15. Roe L. Johns and Kern Alexander, Alternative Programs for Financing Education (Gainesville, Florida: National Educational Finance Project, 1971), p. 272.

study model outlines of the NEFP series, a procedure followed by both Texas and Florida in their recent studies, however, we found that, for our purposes, such an approach had serious limitations.

The major weakness in the NEFP model is the procedure used to identify programs to be costed and the assumptions made concerning this selection. In summary form, the procedure used is to consult a panel of experts to find the program elements which need to be costed and to identify "best practice" districts: those districts where the panel feels that the program appears in its best form. It is assumed that this is the form to be emulated and that the costs are relevant indicators of what program costs should be. As Busselle points out:

Quality programs, as identified and costed in both the NEFP prototype and Texas studies, were chosen on the basis of consideration of what exists rather than what ought to exist. To a large extent, what exists presently is more a function of the present system rather than a rational determination of what should exist.<sup>16</sup>

This criticism can be leveled even more strongly at the most recent Texas study, which arrived at its determination of

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<sup>16</sup>Tish Newman Busselle, The Texas Weighted Pupil Study, Report to the U.S. Office of Education, July 1973 (Washington D.C.: Government Printing Office 1973).

"best practice" districts by consulting precisely those people who had the most vested interest in the status quo in Texas education.

For the purposes of the IDRA bilingual/bicultural cost study project, the NEFP model is clearly inadequate. Bilingual/bicultural education is evolving, therefore a costing of "best practice" programs would yield results which, while perhaps indicating costs at a certain evolutionary stage, would be of little use for several reasons:

1. Granting that "what is" is a reflection of system constraints such as present Texas law (or the laws in other states) and levels of funding from local, state, and federal sources, programs now in existence probably do not represent developments which could take place under different constraints.
2. Granting that bilingual education is evolving, present "best practice" programs, while perhaps containing elements which should be emulated over a wider area, probably should not be emulated in their entirety.
3. Since bilingual programs have undergone a rapid expansion in recent years, the costing of present programs would include start-up costs at both the district and state levels which would not necessarily persist through time.

It becomes necessary, then, to construct a hypothetical model of what "should be," and the model, unlike the myriad of models for bilingual education which exist in literature, would have to be one which could be reduced to specific resources for the purpose of costing. This comprehensive model includes qualitative aspects, such as goals, but the quantitative, costable elements of the model are of special interest to our project. These would generally include staffing, instructional materials and assessment.

In brief, the project is looking at a set of underlying general beliefs and two sets of goals--(1) Costing goals and (2) Model goals.

Without going into an extensive list of underlying beliefs or assumptions, the following are examples of what should be included:<sup>17</sup>

- 1) Every person has inherent worth and dignity which must be recognized and supported by all institutions.
- (2) The survival, maintenance, and progress of a pluralistic society requires increased understanding, acceptance, interaction among people of all cultures, and cooperation among these people.

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<sup>17</sup>For a more complete discussion see the "School Curriculum Design for the 1980's," a report developed by the Texas Association for Supervisors and Curriculum Development, Governor's Office of Educational Research and Planning; September, 1974, Austin, Texas, p. 8. See also Edgar L. Morphet, Roe L. Johns, and Theodore L. Reller, Educational Organization and Administration, 3rd. Edition, (Englewood Cliffs, N.J.: Prentice-Hall, 1974).



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- (3) Throughout each state, provisions should be made for adequate programs of education designed, insofar as possible, to meet the needs of every person.

IDRA also holds to an emerging concept which may, or may not be generally accepted: that in order to provide for quality education, we must find better ways to ensure that language minorities (including Mexican Americans, Puerto Ricans, Native Americans, and Asian Americans) who have been subject to discrimination and limited opportunity<sup>18</sup> be provided an education wherein they may be better able to fulfill their needs in significantly different ways and to different degrees. At the same time, IDRA recognizes that all people are more alike than different in their basic needs for growth and development. IDRA further holds that, although learning English is essential to economic and social mobility in this nation's monolingual English speaking society, a bilingual/bicultural approach to education should be used by language minorities as a basis for learning subjects until second language skills have been developed sufficiently. However, while a bilingual/bicultural education is an effective educational approach for increasing the opportunity of language minority students, it can also enrich the education of all socioeconomic and racial/ethnic groups through learning other languages and other cultures.

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<sup>18</sup>U.S. Commission On Civil Rights, Clearinghouse Publication 51, A Better Chance to Learn: Bilingual-Bicultural Education (Washington D.C.: Government Printing Office, May, 1975).

## THE MODEL

The "exemplary model" is understandably one that does not seek total approval - - for, in developing such a model, we realize we are entering upon a highly debatable area - - curriculum development. Curriculum development is an area of competing objectives and approaches. To many, it is an end onto itself, rather than a means to an end. Many feel curriculum should respond to individual needs while others feel equally strong that it should respond to societal needs. Finally, curriculum is an area where traditional measurement of student learning is done by achievement tests - - tests that tell little about the pupils' enjoyment of learning, his creativity, how thoughtful he may be of others, or how well he thinks of himself. Our exemplary model therefore, reflects that written goals, compatible with our assumptions, are important to the process of learning. After writing down specific goals it is essential that these goals be validated in each locale, involving meaningful participation by educators, parents, and students. The following are examples of such goals:

### Curriculum goals

- A. To capitalize upon the advantage of the dominant language background the child brings to school,
- B. to promote successful living in two cultures,
- C. to provide for learning content concepts from two academic disciplines in two languages,
- D. to promote the attainment of a healthy self-concept by bilinugal children, and
- E. to maintain the advantage of dual language acquisition by providing materials and learning situations in both languages.

### Curriculum outputs

- A. Increase personal satisfaction in the growing association with persons of different culture and language background,
- B. create an awareness of number of jobs available where two languages are important,
- C. increase awareness of the communication needed between countries in order to survive on this globe and to sustain a quality life, and
- D. increase awareness and understanding of the historical development, the fine arts, and the industrial arts of the Spanish-speaking.

Beyond the stating of goals other Model variables may include:

- A. Variated programs
  - 1. Transitional
  - 2. Bilingual/bicultural
  - 3. Multilingual/multicultural

B. Target Population

1. What is

- a. Total enrollment
- b. Native language (other than English) enrollment
- c. Identifying limited English speaking ability (LESAs) children
- d. LESAs enrolled

2. What needs to be

- a. Comprehensive programs for all children in need of bilingual education
- b. Include English-speakers

C. Staffing

D. Instructional

E. Assessment

F. Community Involvement

From the above variables, C, D, and E can be broken out into elements that should be costed out. They are as follows:

C. Staffing

- 1. Teacher/pupil ratio
- 2. Instructional
  - a. Teacher
  - b. Curriculum specialist
  - c. Paraprofessional

3. Support
  - a. Administration
  - b. Secretarial/clerical
  - c. Home/school liaison
4. Pre-service training
5. In-service training

D. Instructional

1. Textbooks
2. Supplemental

	Reading (1)	Math (2)	Science (3)	Social Stud. (4)	Arts (5)	Music (6)
a. Workbooks	a(1)					
b. Audio-visual		b(2)				
c. Expendable			c(3)			
d. Library				d(4)		

**E. Assessment**

1. Language determination
  - a. Instrumentation
  - b. Survey
  - c. Validation
  - d. Analysis
  - e. Application
2. Language dominance
  - a. Instrumentation
  - b. Administration
  - c. Scoring
  - d. Interpretation
  - e. Utilization
3. Process evaluation
  - a. Monitoring
  - b. Feedback
  - c. Restructuring
4. Product evaluation
  - a. Baseline data

b. Retesting

- (1) Instrumentation
- (2) Administration
- (3) Scoring
- (4) Interpretation
- (5) Utilization

c. Community involvement

COSTING GOALS

Finally, the costing of a bilingual program may include the following objectives:

1. To determine the cost of implementing a model bilingual education program.
2. To determine the influence of variables such as size of program, size of district, year of implementation, etc., on the cost of implementing a bilingual education program.
3. To develop a formula which will reflect the cost of implementing a bilingual education program.
4. To develop a pupil weight or range of weights reflecting the relationship between model bilingual program costs and regular program costs

5. To develop estimates of the total costs for implementing the model statewide.
6. To validate the formula developed in this project in each of six additional states with large non-English-speaking populations.
7. To validate the formula nationwide.

As it has become obvious to IDRA staff, that school finance people have not taken a good, solid look at bilingual education, it is equally lamentable that as we have searched for "exemplary" bilingual education programs, there has also been an obvious vacuum. Cardenas points out that no school to his knowledge has yet developed a bilingual education program that meets the needs of a child who comes to school knowing little or no English. "What we must do" he continues, "is to speak to the question of what needs to be and not what is."<sup>19</sup> Limited research in the area of bilingual schooling seems to agree with Cardenas' views.

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<sup>19</sup>Personal interview with Jose C. Cardenas. Dr. Cardenas is Executive Director of IDRA. He is noted for his contributions to improving the education of Spanish Speaking Students through his involvement in teaching, research, administration, and for providing expert testimony before legislators and before the Courts.

A most recent research study, the AIR Project,<sup>20</sup> which set out to find exemplary bilingual educational programs, looked at 175 programs and finally had its Panel approve a mere four for dissemination. Although the study based its definition of "exemplary" as those programs that measured learning gains in native language, English language, and content learning in both languages, it did not speak to gains relative to the child's positive self-concept nor to his cultural heritage.<sup>21</sup> The study further states that it was not possible to do "extensive reanalysis of raw data" meaning that much of the program evaluation was done internally.

Bernal, and Edmonston, in their efforts to develop varied bilingual schooling models, stated that after "an exhaustive review of Title VII programs for Mexican Americans makes it apparent that truly comprehensive program models for

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<sup>20</sup>"The Identification and Description of Exemplary Bilingual Education Programs," American Institutes for Research, Palo Alto California, August, 1975.

<sup>21</sup>For most bilingual education programs, three major goals are identified: (1) Content learning, (2) Proficiency in native and English language, and (3) Develop positive self-concepts. For further elaboration see p. 123, A Better Chance to Learn.

integrated schools exist neither in theory nor in the real world."<sup>22</sup>

The U.S. Civil Rights 1975 report on bilingual education underscores the "lack of even the most basic data on students served" by many programs.<sup>23</sup> It should also be assumed in any bilingual education programming that language dominance should be assessed, yet that basic effort also seems to be neglected by most programs.<sup>24</sup>

To search for "lighthouse" or "exemplary" programs then seems to be a futile endeavor.

Our IDRA efforts to cost out a hypothetical exemplary model may well serve as a challenge to school finance experts, examining other program areas to go beyond what is and begin looking at what ought to be. If we are truly interested in educational reform, isn't such a perspective essential? ¿Que me dice, si o no?

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<sup>22</sup>Ernest M. Bernal, Jr. and Leon P. Edmonston, "Design for a Planned Variation Study of Bilingual-Multicultural Education," Southwest Education Development Laboratory, Austin, Texas, 1974, p. 50.

<sup>23</sup>A Better Chance to Learn, pp. 243-244.

<sup>24</sup>Ibid., p. 104..