DOCUMENT RESUME

ED 271 867 EA 018 656

AUTHOR Nowak, Jon; Hiatt, Diana Buell
TITLE Effects of State Legislation on Selected Curriculum Offerings.
PUB DATE Apr 86
NOTE 39p.; Paper presented at the Annual Meeting of the American Educational Research Association (67th, San Francisco, CA, April 16-20, 1986).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Back to Basics; Curriculum Development; *Educational Change; *Educational Trends; Research Needs; School Districts; School District Spending; Secondary Education; *State Legislation; State School District Relationship; Student Needs; *Vocational Education; Vocational Education Teachers
IDENTIFIERS *California

ABSTRACT

This study focuses on vocational education curriculum and staffing changes among California school districts as a result of 1983 state back-to-basics educational reform legislation (Hughes-Hart Educational Reform Act of 1983). Data were gathered from 1981-86, beginning with baseline data two years prior to, during, and two years after legislation. Research methods include a mailed questionnaire and a telephone survey. Tables summarize data results. Legislation is found to have affected vocational education curricula in terms of decrease in academic offerings and in the loss of teachers. Regionally, southern districts altered their curriculum more because of the new graduation requirements than did northern districts. Business education lost considerably fewer teachers and less enrollment than did home economics and industrical education. Only those vocational education courses seen as relevant and preparatory for jobs survived the change. More vocational instructors were teaching in nonvocational areas. Respondents indicated that students would be better prepared for college as a result of reform but that more students may drop out. More students would be unprepared for the work world because of the decrease in vocational options, according to respondents. Study recommendations address concerns for student preparation. (CJH)

Effects of State Legislation on Selected Curriculum Offerings

Jon Nowak
Long Beach Unified School District, CA

Diana Buell Hiatt
Graduate School of Education and Psychology
Pepperdine University

Paper presented at Annual Meeting of American Educational Research Association, April 16 - 20, 1986, San Francisco, California.

TABLE OF CONTENTS

INTRODUCTION

On July 23, 1983, California Governor George Deukmejian signed into law Senate Bill 813, probably one of the most massive pieces of educational reform legislation in recent California history. The legislation is known as the Hughes-Hart Educational Reform Act of 1983 (Hughes-Hart Educational Reform Act of 1983, P. 1).

The legislation dictated more than 400 changes in California Education and Government Code sections. There were almost 200 specific elements that required the attention of educators. Many of these elements were permissive or optional; some were mandated. The implementation of SB 813 was not viewed as a separate reform package, but as part of a district's ongoing, comprehensive, long-term plan for improving schools (Hughes-Hart Educational Reform Act of 1983, P. 1).

In all, 167 sections of the California Education Code were amended or added. Most of these amendments/additions were substantive, not minor or technical changes (Information Packet for the Seminar for Business Administrators, 1983, P. 1). One of the substantive changes was that graduation requirements were added for students who would graduate from high school in 1987 and thereafter. School districts were faced with the mandate to implement SB 813 immediately regardless of its impact on electives, especially vocational education which is the major group of electives (Information Packet for the Seminar for Business Administrators, 1983, P. 2).

Districts would have to comply with mandates of SB 813 or face loss of funding. Section two of the bill assured that pupils must achieve academic proficiency in the essential areas of skill and knowledge and at the same time provided appropriate and meaningful instruction to meet the variety of future and career goals of students. How could career goals be met if fewer opportunities become available for vocational pursuits? It appears that the conflict between

education for liberal mind and education for specific skills goes on. This dichotmy among various educational thrusts has been recorded throughout the history of American education. Creative approaches to curriculum modification and development in the non-required areas must be used to allow vocational education to survive during this swing toward emphasis on liberal arts (Silberman, 1984)

PURPOSE OF THE STUDY

Specifically, this study determined if size and location of California secondary school districts and the increase in the number of required courses had any affect on the following: number of vocational teachers; vocational education budget allocations; vocational education curriculum offerings; vocational education enrollment; ability to maintain a 95% vocational education effort; the number of vocational education classes which also satisfied course requirements in the core academic area; the particular course offerings within vocational education after back-to-basics legislation had been implemented, the ratio of vocational education courses to academic courses, and how curriculum directors perceived the effects of SB 813 on student offerings in vocational education after back-to-basics legislation had been passed.

Data was gathered for five consecutive school years beginning with 1981-82. These years were chosen in order to gather baseline data two years prior to, during, and two years after the enactment of SB 813. This span of time was selected to determine if changes in vocational education staffing and course offerings were related to the passage of SB 813. The school year 1985-86 was chosen to determine if projections made by school districts allowed for more, less, or the same number of vocational education courses.

RATIONALE

Has there been a dichotomy among various educational thrusts throughout the history of American education? Has there been a concerted effort to separate students into two distinct categories of preparing some students for education (liberal arts) and others only for work (vocational education)? The following rationale gives a brief history of this dichotomy.

The early colonial period was an era in which the colonists copied European schools as closely as American conditions permitted. The schools were gradually adapted to the needs and circumstances of the frontier. In the South, children were educated by the parish clergy or in schools maintained on the plantations. There were few Latin grammar schools with even fewer English schools (Good, 1966, P. 372).

Four main types of educational endeavor characterized the seventeenth century: apprenticeship to the manual vocations; reading and religious instruction directed by churches and missionary societies, or obtained in dame schools, and field schools; the formal secondary and higher education of the Latin schools and colleges; and practical schooling in mathematics and its application to accounting, navigation, and surveying together with supplementary work in English (Good, 1966, P. 374).

In the laws and the practices of apprenticeship training, English legislation and precedent were directly followed. The laws in England provided for the compulsory apprenticeship of children at public expense and made it the obligation of the local government to supply the necessary materials and facilities. Those were copied by the colonies. Apprenticeship was one of the most widespread forms of education in colonial America and all the colonies passed laws to facilitate it (Good, 1966, P. 374).

The first general education law in New England, that of Massachusetts in 1642, was in part an apprenticeship law. The law was passed to "remedy the neglect of many parents and masters in training children in learning and labor (Good, 1966, P. 375)."

A Massachusetts law in 1642 instituted compulsory education but not compulsory attendance. Throughout the colonies, schools were supported by income from lands or other endowments, local taxes, rates, appropriations, contributions, tuition fees, lotteries, liquor license fees, and bank and theater taxes. It was widely recognized that education was becoming too elitist. The schools were made tuition-free about the time of the Civil War (Good, 1966, P. 384).

A Virginia statute in 1631 required the clergy to instruct the youth in the Catechism and the Book of Common Prayer. It also laid an obligation on the parents and all those who had charge of children that they should send them to church to receive this instruction (Good, 1966, P. 376).

In an historical move, The Committee of Ten in 1892 agreed that each school subject was to be considered equivalent to any other that was pursued successfully for the same length of time. Sample curricula in which the academic subjects were strongly emphasized were suggested. Hence, such a program did not encourage high schools to experiment with nonpreparatory kinds of work and services. The Committee of Ten advocated the same curriculum for everyone (Good, 1966, P. 511).

When this nation was founded and for many decades thereafter, the training of workers was done predominately in the form of apprenticeship. Specific jobs skills were learned and refined by parents and relatives and passed through observation and practice or by arrangements under which a beginner worked as a helper to a journeyman or master craftsman. Vocational education as such has

been generally regarded as less worthy than other aspects of learning and not appropriate as a classroom enterprise (Parker, 1984, P. 2).

According to Brubacher, this attitude was a remnant from Athenian culture. The Greeks did not include vocational education in their curriculum because of its connection with the ancient institutions of slavery. Education and work were seen as being totally unrelated--a point of view that has persisted to some extent over the centuries (Parker, 1984, P. 2). Advocates of liberal education claimed that vocational education was too specific and, therefore, denied students an opportunity to become more familiar with the total environment (Parker, 1984, P. 2).

However, an examination of many goals of California school districts indicated that public schools in elitist and low class communities desired that vocational education must be a fundamental part of everyone's education and a specific task of public schools. The task of providing vocational skills commensurate with the rapidly changing needs of business and industry had become a serious problem for secondary schools, particularly with the limiting of vocational funds (Parker, 1984, P. 2).

The national unemployment rate in 1983, although improving, was still quite high. Youth unemployment was triple that of adults and six times as high for non-white youth. The national dropout rate still exceeded 25 percent (Hoyt, 1982, P. 37). With increased high school graduation requirements sweeping the country, there was little wonder why elective programs were being threatened. This caused youth unemployment to rise even more as students from slums and barrios became discouraged with stiffer requirements that left little time for vocational courses.

Academic periodicals were imbued with articles advocating a return to basics. This emphasis had become central to the educational arena. According

to Bosna (1984), ninth grade California high school students who will graduate in June of 1987 were already feeling the impact of the new graduation requirements as advocated by Senate Bill 813.

Is a liberal arts education enough for the commonplace student? Unless the school day is lengthened when the number of courses required for graduation are increased, elective choices are automatically reduced. Currently vocational education comprises most of the elective area; therefore, vocational education programs and courses will be reduced or altered under SB 813. Also , as academic electives are added to the curriculum, vocational choices will again be reduced.

School districts in California were having to study the feasibility of lengthening the school day to six periods, increasing English requirements from two or three to four years, science from one to two years, fine arts from zero to one year, and mathematics from one to two years (Hughes-Hart Educational Reform Act of 1983, P. 1). All of these could have an adverse effect on vocational education as little time is left for elective choices.

RESEARCH METHODS AND PROCEDURES

Both a mailed questionnaire and a telephone survey were used to gather data relative to the effect of back-to-basics legislation on vocational education in California. The questionnaire was sent to 62 stratified randomly selected grades 9-12 California public school districts. See Table 1 in Appendix A. Baseline data was to be gathered for the five-year period beginning with 1981-82 through projections for the 1985-86 school year. As relatively few districts were able to provide this needed baseline information, no statistical test could be applied to the data.

In order to account for all districts chosen, a telephone survey was conducted among the districts not responding to either the first or second mailing of the questionnaire. The telephone survey elicited responses mainly regarding the percentage increase or decrease of courses offered during 1984-85 compared with projections for the 198-86 school year.

As baseline information was not provided by many of the districts, the results were reported in graphic form. These graphic representations showed percentage increases or decreases for the second, third, fourth, and fifth years compared to the base year 1981-82. See Figure 1 in Appendix B.

FINDINGS--Reported in Order Stated on Questionnaire

The following outcomes resulted with respect to the questionnaire and telephone survey:

1. There was only a 1.2% increase in attendance across the state (Question 1).
2. Smallest (2.9%) districts increased more in attendance than largest (0.8%) districts (Question 1).
3. Approximately 75% of the respondents requested results of the survey with 66.7% of the largest districts, 76.9% of the medium districts, and 81.8% of the smallest.
4. No administrators in the north delegated responsibility for completing the questionnaire while 31.8% of the administrators in the south did (Question 2).
5. Most questionnaires were answered by administrators with over twenty years of experience in education (Question 3).
6. Just over a third (36%) of the questionnaires were completed by persons with over twenty years of experience in their districts (Question 4).

7. Most respondents (62%) completed the questionnaire without help from another person with 26% asking for help from another administrator (Question 5).

8. Question 6 indicated that the number of business education teachers fell 8% during the five-year period with largest districts losing 13.3% and districts in the north losing slightly more (-8.0%) than districts in the north (-7.6%).

9. The number of home economics teachers fell consistently over 13% during the period with the trend established in 1981-82 except for southern districts which began their decline during 1983-84. The largest districts lost 18.2% the medium lost 8.0%, and the smallest lost 4.0%.

10. Most districts began losing industrial education teachers after the 1983-84 school year. Districts in the south lost 14.9% and those in the north lost only 3.3%. The largest districts lost 17.8%, the smallest 14.9% and the medium 12.7%. The average loss was 15.8% (Question 8).

11. The number of business education sections dropped by 17.7% with smallest districts increasing by 7.1%, largest districts dropping by 13.4%, and medium districts dropping by 28.1%. Northern districts lost 13.6% and southern districts lost 19.4% (Question 9). See Figures 2 and 3 in Appendix B.

12. The number of home economics sections fell over 22% during the five-year period. Largest districts lost 30.1%, medium 20.5%, and smallest 0.0%. Southern districts lost 28.1% and northern ones lost 8.5% (Question 10). See Figure 4 in Appendix B.

13 Smallest districts have added industrial education sections (12.0%) with largest and medium districts decreasing by 14.0% and 28.0%

respectively. Southern districts lost 25.8% with northern districts losing 3.4%. The average decrease was 19.0% (Question 11). See Figure 5 in Appendix B.

14. The number of mathematics sections rose continuously over the period to an increase of 24.1% over 1981-82. Northern districts added 31.2%, medium 13.1%, and smallest 11.7%. Souther districts added 15.7% while northern districts added 12.7% (Question 12). See Figure 6 in Appendix B.

15. The number of social studies sections also increased continuously over the period to an increase of 14.6% over 1981-82. Largest districts added 18.0%, medium 9.3%, and smallest 15.1%. Location had little effect on social studies sections (Question 13). See Figure 7 in Appendix B.

16. The number of fine arts sections increased by 10.7%. Largest districts increased 16.4%, medium 2.1%, and smallest 9.7%. Districts in the south increased 15.3% as northern districts decreased by 5.3% (Question 14). See Figure 8 in Appendix B.

17. The size and location of districts had a marked impact on English offerings. Medium districts (5.1%) increased less than largest (13.4%) and smallest (11.6%). Northern districts increased by 2.9% and southern districts by 12.9% (Question 15). See Figure 9 in Appendix B.

18. After 1983-84 there was a significant increase in the number of science sections. Largest districts (28.2%) and southern districts (25.6%) showed the largest increases (Question 16). See Figure 10 in Appendix B.

19. The number of business education students decreased by 3.2% over the period. Medium districts lost 13.1%, smallest 1.1%, with the largest

districts increasing 0.9%. Districts in the south lost 4.0% and those in the north lost only 0.5% (Question 17).

20. The number of home economics students fell by 23.6% with the largest districts losing 30.1%. Smallest districts decreased by only 8.7%. The location of districts had little effect on home economics enrollment (Question 18).

21. The number of industrial education students fell by 19.7%. Smallest districts decreased by 29.6% with medium districts losing 16.6%. There was little difference according to location (Question 19).

22. The number of business education teachers decreased by 8.0%, the number of sections dropped by 17.7%, while the number of students decreased by only 3.2% (Questions 6, 9, and 17).

23. Sections in mathematics, social studies, fine arts, English, and science increased from 8-24% while courses in business education, home economics, and industrial education decreased from 15-24% (Questions 9-16).

24. The number of districts requesting VEA funding for business education was over 90% during the first four years. Projections for 1985-86 indicated that only 86% would be requesting these funds. Location had little effect but 100% of the smallest and only 75% of the largest requested the funds (Question 20).

25. The number of districts requesting VEA funding for home economics was steady over the period at about 84%. The smallest districts had the highest percentage (100%) with 69% of the medium districts requesting funds. Location had little effect (Question 21).

26. The percentage of districts requesting VEA funding for industrial education was consistently in the low 80s. All of the northern districts

and 69% of the medium districts requested the funds (Question 22).

27. Business mathematics received credit for mathematics in 27.5% of the districts, 22.6% of the districts granted English credit for business English, and 18.9% for the districts granted science credit for agriculture (Questions 23 and 24). See Table 2 in Appendix A.

28. Industrial education accounted for 41.9% of the courses deleted during 1984-85. The major reasons stated for the deletion of courses were too many required classes (41.9%) and low enrollment (29.0%). Largest districts accounted for only 12.9% of the districts dropping classes with medium districts accounting for 45.1% (Question 25).

29. The most beneficial aspects of the new graduation requirements (Question 26) were "students would carry a full load through their senior year" (44.2%) and "students will be more qualified to enter college" (32.7%). See Table 3 in Appendix A.

30. The least beneficial aspects of the new graduation requirements (Question 27) were that there would be less time for vocational education courses (50.0%) and more students would drop out (48.1% = 38.5% + 9.6%). See Table 4 in Appendix A.

31. Increased science (55.5%), mathematics (47.2%), English (30.6%), social studies (22.2%), and fine arts (13.9%) offerings accounted for changes in academic offerings. Most of the changes in vocational education offerings had to do with reducing these courses (33.3%). Over a fifth (22.2%) of the districts had to hire teachers in the required areas (Question 28).

CONCLUSIONS

As there was only a 1.2% increase in ADA across the state during the period, the slight increase in attendance had little effect on increases or decreases of sections offered within various subject matter areas.

Table 5 summarizes the effect of size and location of school districts and the increase in the number of required courses on the vocational education curriculum. Districts in the north increased academic courses by 4.8% as districts in the south increased by 18.9%. Conversely, districts in the north decreased vocational education courses by 9.8% as districts in the south decreased by 17.6%. Based on data obtained from this study, it can be said that southern districts have altered their curriculum more because of the new graduation requirements than have northern districts.

The largest districts according to Table 5 increased academic offerings by 21.4%, the medium by 7.4%, and the smallest by 16.9%. The largest districts decreased vocational offerings by 19.1%, the medium by 14.5%, and the smallest by only 3.2%. Based on data obtained from this study, it can be said that the largest and medium districts have altered their curriculum more because of the new graduation requirements than have the smallest districts.

The average increase in academic offerings was 15.4% and the average decrease in vocational offerings was 15.9%. It can be summarized from the data obtained from this study that the effect of the new graduation requirements on the number of academic courses (+15.4%) had almost an exact opposite proportional effect on the number of vocational education sections (-15.9%).

Business education lost considerably less teachers (8.0%) than either home economics (13.4%) and industrial education (15.8%). Business education lost considerably less enrollment (3.2%) than either industrial education (19.7%) or home economics (23.8%). Based on the data obtained from this study, it can be

said that business education had a far better chance of surviving the pendulum move than did home economics and industrial education.

The number of districts granting mathematics credit for business math was 15 (of 62 districts). Business English received English credit in 12 districts and agriculture received science credit in 10 districts. The percentage of districts considering granting required credit for some vocational courses has increased.

The number of districts which requested VEA funding for business education, home economics, and industrial education was relatively constant (82%) over the five-year period. The same percentages of districts would maintain a 95% vocational education effort.

Limited enrollment classes in the academic, vocational education, or other elective areas have been virtually eliminated because of the new graduation requirements. Non-required courses have been forced to compete in the limited marketplace of students. Only the courses seen as relevant, interesting, and preparing students for jobs have survived.

Alternative methods of preparing students for the world of work included sending more students to regional occupational centers/programs, community college occupational programs, and to new training programs developed under the Job Training Partnership Act.

According to respondents, more and more vocational instructors were teaching in on-vocational areas with few new vocational teachers hired. Teachers of mathematics and science were found to be in short supply. Districts have been forced to retrain some vocational instructors to teach in the required areas.

Positive effects of SB 813 according to the respondents were that students will be required to take more courses between their freshman and senior years and that these students will probably be better prepared to enter college.

Negative effects of the bill according to the respondents were that more students may be dropouts and that more students will be unprepared for the world of work because of the decrease in vocational options.

In conclusion, Senate Bill 813 did have a profound effect on the vocational education curriculum. Business education will probably lose the least enrollment of the three areas of vocational education covered in this study during this pendulum shift. This is partly due to the fact that computer users need correct keyboarding skills and computer application skills. It is also due to a shift in our society from an industrial base to a services industry base.

RECOMMENDATIONS

The following recommendations were based upon the summary and conclusions of this study and were divided into further research, policy, and general categories:

FURTHER RESEARCH

1. A follow-up study replicating the mailed survey be conducted. Statistical information can be validated using the California Basic Educational Data Systems (CBEDS) data bank.
2. The results of this survey be analyzed in conjunction with an opinionnaire circulated in 1984 by the California State Department of Education.

POLICY

1. Districts consider alternative methods of offering courses in the required areas such as English credit for business English, science credit for electronics, and mathematics credit for business mathematics in order to meet the needs of all students. Districts could also consider having some classes meet three times per week while others meet two times.
2. A comprehensive state policy for vocational education be established.
3. Vocational education standards of student achievement and promotion be developed.
4. Industry/business advisory committees be created to help with policy and standards development and implementation.
5. Summer programs not be limited to offerings in the core academic areas.
6. Each high school should assess the vocational education and training needs of each pupil.
7. Districts consider a two-year applied arts requirement to be taken during grades 9-12.
8. Districts be encouraged to increase the number of periods per day by one so that students can learn an entry-level skill.

GENERAL

1. Courses in California high schools be designed for more than the college bound. The current approach ignores the increasing dropout problem and provides little for students entering the world of work upon graduation. The possible future increase of those on welfare who lack minimum vocational skills makes this recommendation imperative. It must be recognized that California is composed of a diverse population with various abilities and needs.

2. Regional hearings be held soliciting information on the dropout problem and the alarm caused by the decreasing number of students prepared for entry-level positions.
3. Vocational education departments of secondary schools, regional occupational centers, adult education, and community colleges work together to provide quality vocatirn education delivery systems.
4. Consideration be given to preparing students for occupations which will be in high demand according to the U.S. Department of Labor during the '80s and '90s. These include secretaries (700,000), nurse' aides and orderlies (508,000), salesclerks (470,000), cashiers (452,000), food service workers (400.000), and general office clerks (388,000).
5. Districts be encouraged to work with local Private Industry Councils (PIC) to develop sound training programs.

REFERENCES

Bosna, Jack. (1984, May). Long Beach, California. Personal interview.

Boyce, Betrty L. (1982). Computer Literacy Guide for Business Education. Sacramento, California: California State Department of Education.

Evans, Rupert (1982, September). "Why Vocational Education Belongs in the Comprehensive High School." VOCED, pp. 24-26.

Good, H.G. (1966). History of Western Education. New York: The MacMillan Company.

Herman, James (1975). California Industrial Arts Education Program Guide. Sacramento, California: California State Department of Education.

Honig, Bill (1983, August 3). Letter to county and districts superintendents in California.

Hoyt, Kenneth (1982). Career Education Contribution to an Evolving Concept. Salt Lake City, Utah: Olympus Publications.

The Hughes-Hart Educational Reform Act of 1983 (1983). Downey, California: Office of the Los Angeles County Superintendent of Schools.

Information Packet for the Seminar for Business Administrators (1983, August). Downey, California: Office of the Los Angeles County Superintendent of Schools.

Minear, Leon P. (1970, January). Role of Business Education in National Manpower Program. Business Education Forum, pp. 3-6.

National Research Council. (1983, September 23). Education for Tomorrow's Jobs. Education USA, p. 1.

Parker, Berlin (1984). A Study of the Effect of Vocatonal Technical Education on the Employability of Selected High School Graduates. Unpublished doctoral dissertation, Pepperdine University, Los Angeles.

Olivers, Albert I. (1977). Curriculum Improvement: A Guide to Problems, Principles, and Procedures. New York: Dodd Mead ar Company.

Silberman, Harry (1984), July). Los Angeles, California. Interview.

APPENDIX A

Table 1

Questionnaire and Telephone Survey Response

	Large	Medium	Small	Total
Mailed Surveys	22 (8N*,14S*)	20 (8N,12S)	20 (12N,8S)	62 (28N,34S)
Returned	12 (3N,9S)	13 (4N,9S)	11 (7N,4S)	36 (14N,22S)
% Returned	54.5%	65.0%	55.0%	58.1%
Telephone Survey	6 (2N,4S)	5 (3N,2S)	5 (2N,3S)	16 (7N,9S)
% Telephone Survey	27.3%	25.0%	25.0%	25.7%
No Staff to Complete	2 (1N,1S)	1 (1N,0S)	2 (1N,1S)	5 (4N,1S)
% No Staff to Complete	9.1%	5.0%	10.0%	8.1%
Did Not Wish to Participate	2 (1N,1S)	1 (0N,1S)	2 (2N,0S)	5 (3N,2S)
% Not Participating	9.1%	5.0%	10.0%	8.1%
Total %	100.0%	100.0%	100.0%	100.0%

* Key

N = North S = South

Table 2

Courses Receiving Credit in Both a Required and Vocational Education Area

	Required Area	Vocational Education Area
Large--North (4 of 7 Districts)		
District A	Math	Industrial Math
	Science	Auto
	Math	Business Math
	Science	Agriculture
District B	Science	Nutrition
	Science	Agriculture
	Math	Business Math
District C	Social Studies	Banking
	English	Word Processing
	Math	Computers
	Math	Business Math
District D	English	Business English
Large--South (7 of 11 Districts)		
District A	English	Business English
District B	English	Business English
	Math	Business Math
District C	Math	Business Math
	Fine Arts	Architecture
	Math	Industrial Math
District D	Social Studies	Consumer Skills
District E	English	Business English
	Math	Industrial Math
	Math	Computer Math
District F	Science	Landscape
	Science	Health
District G	Fine Arts	Woodshop

Medium--North (4 of 6)

District A	Math	Business Math
	Fine Arts	Metals
	Fine Arts	Woods
	English	Business English
	Science	Agriculture
District B	Science	Foods
	English	Business English
	Science	Electronics
	Science	Auto
	Science	Metals
	Science	Drawing
	Science	Child Development
District C	Math	Business Math
District D	Math	Business Math
	Fine Arts	Metals
	English	Business English
	Science	Agriculture

Medium--South (8 of 12)

District A	Math	Business Math
	English	Business English
	Science	Agriculture
District B	Math	Business Math
	English	Business English
District C	Science	Agriculture
District D	Math	Business Math
District E	Science	Agriculture
District F	Math	Business Math
	English	Business English
District G	Math	Business Math
	English	Business English
District H	English	Business English

Small--North (5 of 10)

District A	Science	Agriculture
District B	Fine Arts	Photography
District C	Math	Business Math
District D	Science	Agriculture
District E	Math	Business Math
	Science	Agriculture

Small--South (1 of 6)

District A	Math English	Accounting Office Occupations

Summary

15 Districts	Math	Business Math
12 Districts	English	Business English
10 Districts	Science	Agriculture
3 Districts	Math	Industrial Math
2 Districts	Science	Auto
2 Districts	Fine Arts	Metals
2 Districts	Fine Arts	Architecture
2 Districts	Fine Arts	Woods
1 District	Fine Arts	Photography
1 District	Math	Computer Math
1 District	Math	Computers
1 District	Math	Accounting
1 District	Science	Metals
1 District	Science	Child Development
1 District	Science	Nutrition
1 District	Science	Landscape
1 District	Science	Health
1 District	Science	Electronics
1 District	English	Office Occupations
1 District	English	Word Processing
1 District	Social Studies	Banking
1 District	Social Studies	Consumer Skills

Table 3

Most* Beneficial Aspects of New Graduation Requirements

Rank	Aspect	#	%
1	Students will carry a full load through senior year	23	44.2%
2	Better qualified to enter college	17	32.7
3	School will be more challenging	15	29.8
4	More students will pass district's proficiency test	14	27.0
5	Increased achievement scores	13	25.0
6	Increased SAT Scores	11	21.2
7	Changes in attitude**	2	3.8
8	Same skills for all students**	2	3.8
9	Better discipline**	1	1.9
10	Only bright students will benefit**	1	1.9
11	Standards for graduation**	1	1.9

Key

*Respondents could check more than one choice

**Respondents listed these under "other" category--not on original questionnaire

N = 52

Table 4

Least Beneficial Aspects of New Graduation Requirements

Rank	Aspect	#	%
1	Less time for vocational education courses	26	50.0
2	Students will be less vocationally employable	21	40.1
3	Fewer students will be graduating from high school	20	38.5
4	Fewer students can work part-time during high school	19	36.5
5	Number of remedial students will increase	18	34.6
6	More students will be taking the high school equivalency exam	8	15.4
7	More dropouts**	5	9.6

Key

*Respondents could check more than one choice

**Respondents listed these under "other" category--not on original questionnaire

N = 52

Table 5

Summary of Size and Location of Districts In Various Subject Matter Areas

1981-82 vs. Projections for 1985-86

Area	North	South	Total	Large	Medium	Small
Business Education Teachers	- 8.5%	- 7.6%	- 8.0%	-13.2%	- 4.2%	+ 2.1%
Home Economics Teachers	-15.9	-12.1	-13.4	-18.2	- 8.0	+ 4.0
Industrial Education Teachers	-11.2	-18.[illegible]	-15.8	-17.8	-12.7	-14.9
Business Education Sections	-13.6	-19.4	-17.7	-13.4	-28.1	+ 7.1
Home Economics Sections	- 8.5	-28.1	-22.4	-30.1	-20.5	+ 0.0
Industrial Eduction Sections	- 3.4	-25.8	-19.0	-28.8	-14.4	+12.5
Mathematics Sections	+12.5	+25.7	+24.1	+31.2	+13.1	+11.7
Social Studies Sections	+12.9	+14.8	+14.6	+18.0	+ 9.3	+15.1
Fine Arts Sections	- 5.7	+15.3	+10.[illegible]	+16.4	+ 2.1	+ 9.7
English Sections	+ 2.2	+12.9	+ 9.9	+13.4	+ 5.1	+11.6
Science Sections	+ 1.7	+25.6	+17.5	+28.2	+ 7.2	+23.7
Business Education Enrollment	- 0.5	- 4.0	- 3.2	+ 0.9	-13.1	- 1.1
Home Economics Enrollment	-26.7	-22.8	-23.8	-30.1	-12.5	- 8.7
Industrial Education Enrollment	-17.0	-20.5	-19.7	-19.5	-16.6	-29.6
Average Academic	+ 4.8	+18.9	+15.4	+21.4	+ 7.4	+16.9
Average Vocational Education	- 9.8	-17.6	-15.9	-19.1	-14.5	- 3.2

APPENDIX B

Figure 1

Number of Sections in Selected Subject Matter Areas

Reported in Percentage (1981-82 = 100%)

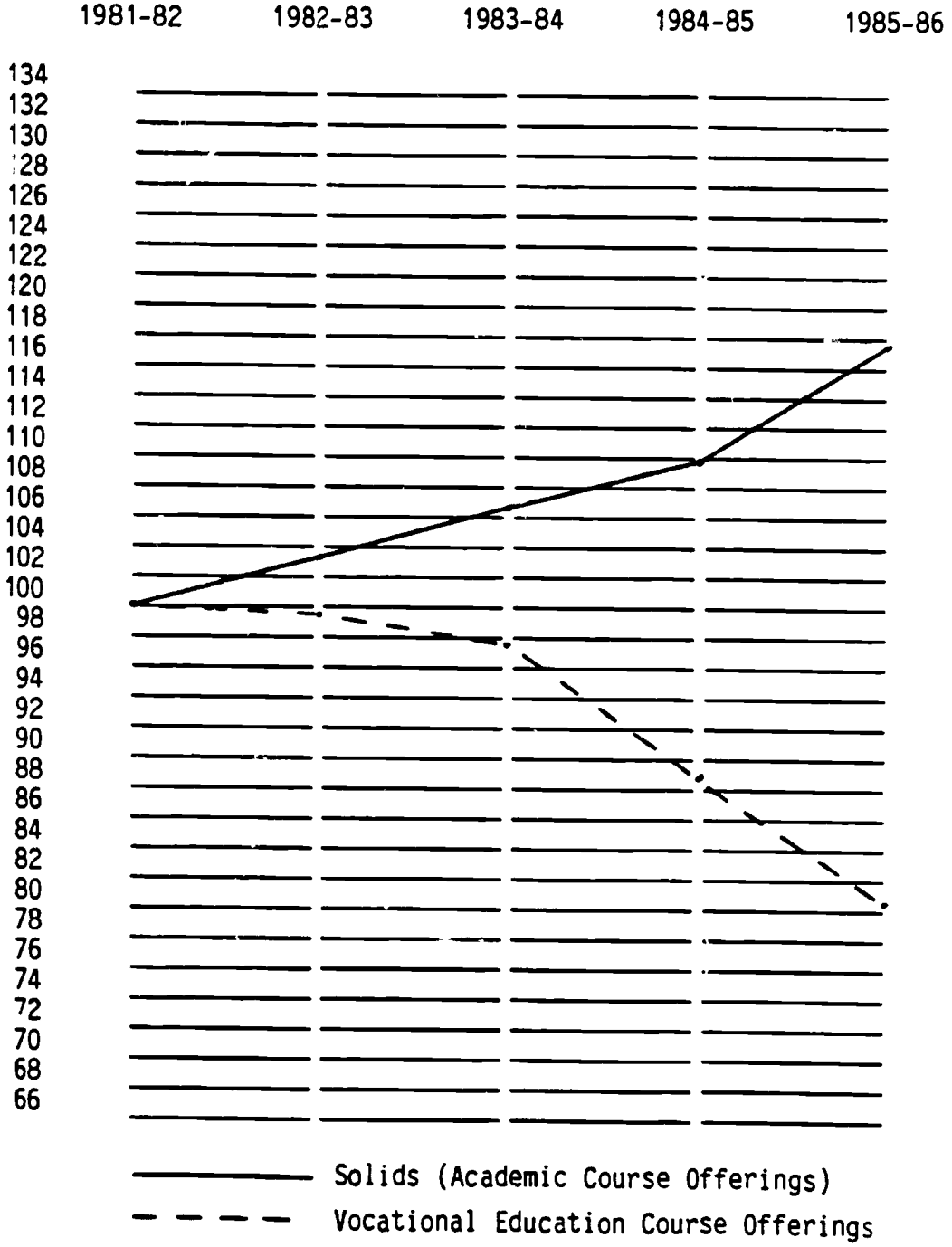

Figure 2

Number of Business Education Sections According to Size

Reported in Percentage (1981-82 = 100%)

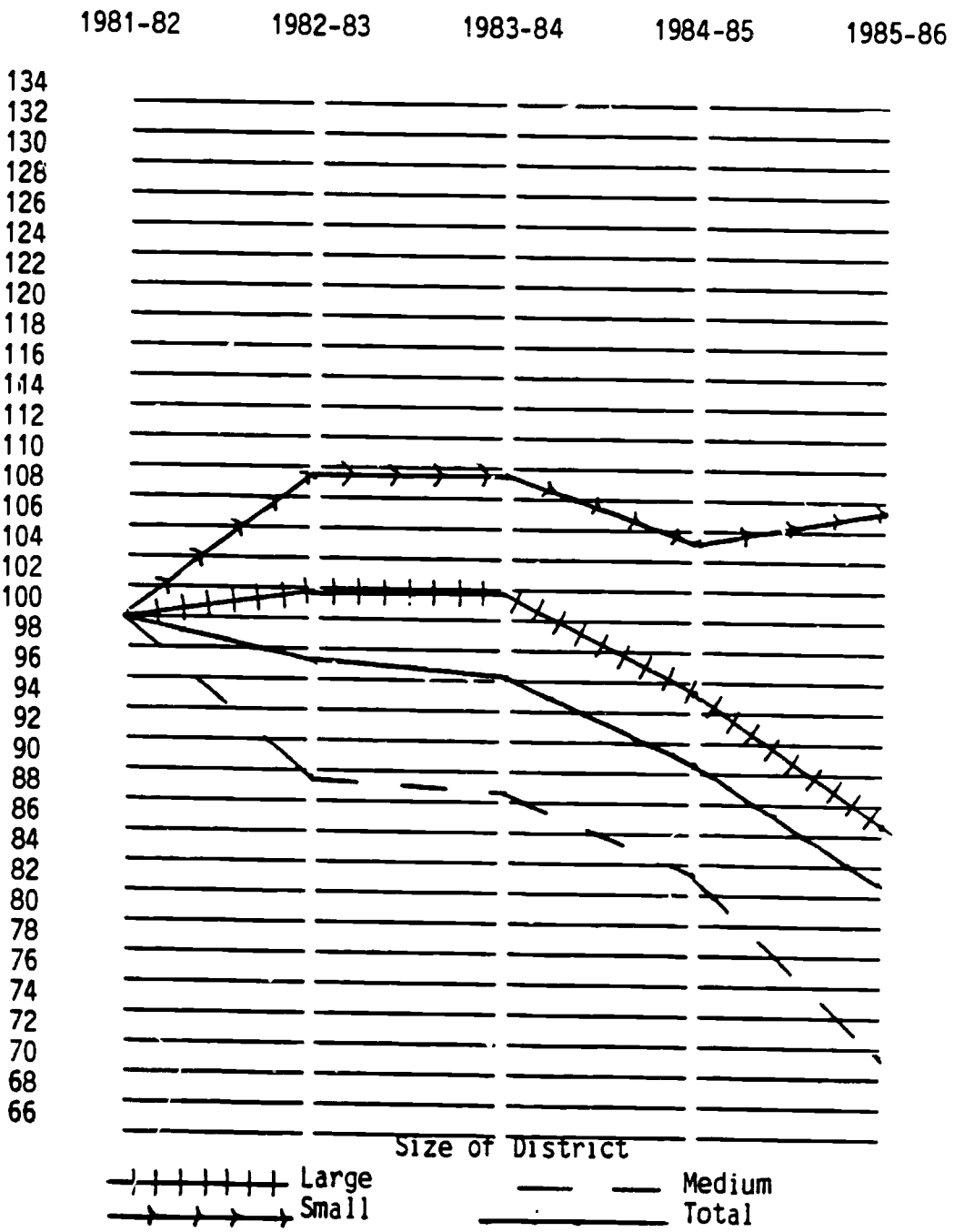

Figure 3

Number of Business Education Sections According to Location Reported in Percentage (1981-82 = 100%)

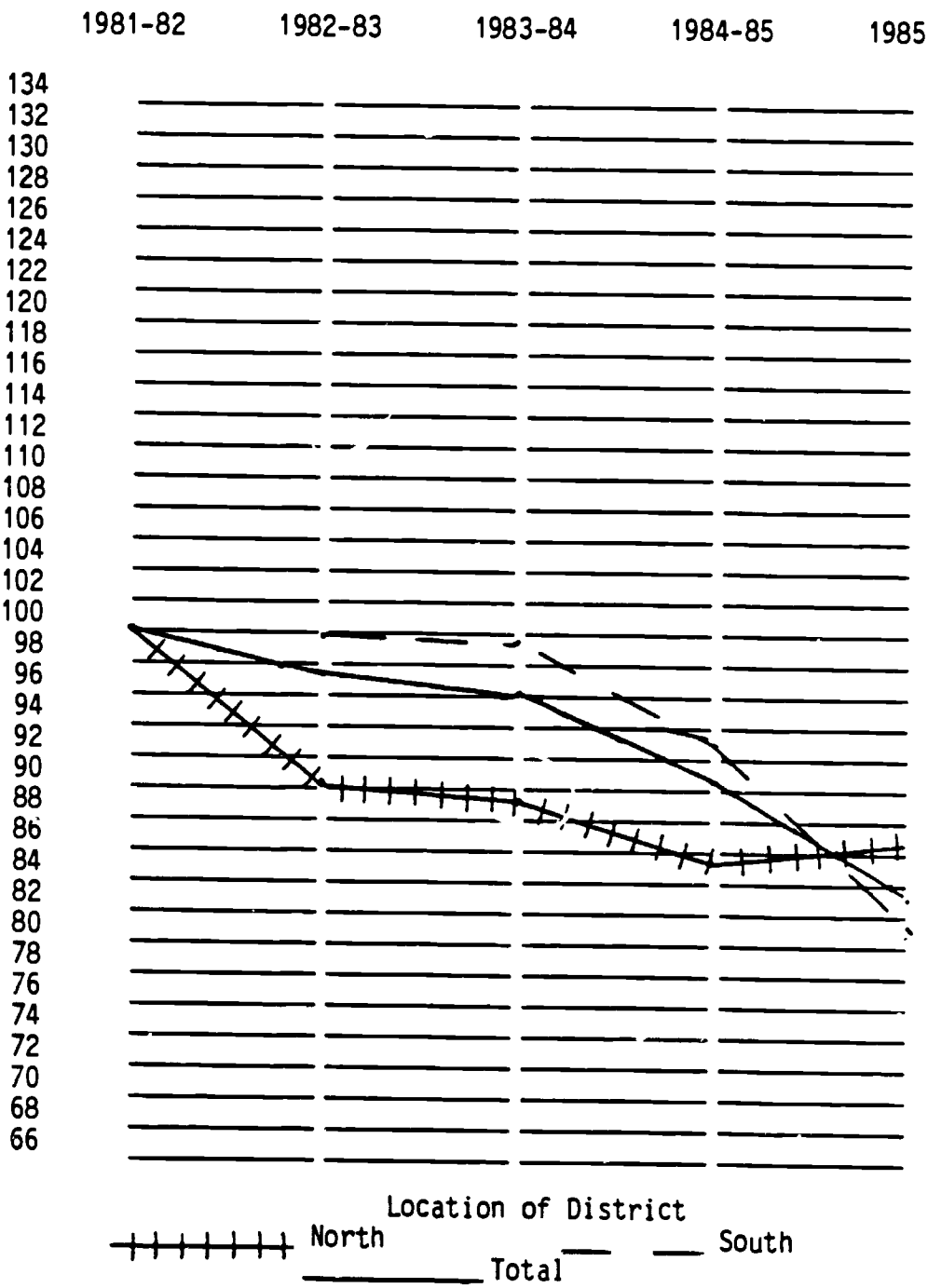

Figure 4

Number of Home Economics Sections According to Size

Reported in Percentage (1981-82 = 100%)

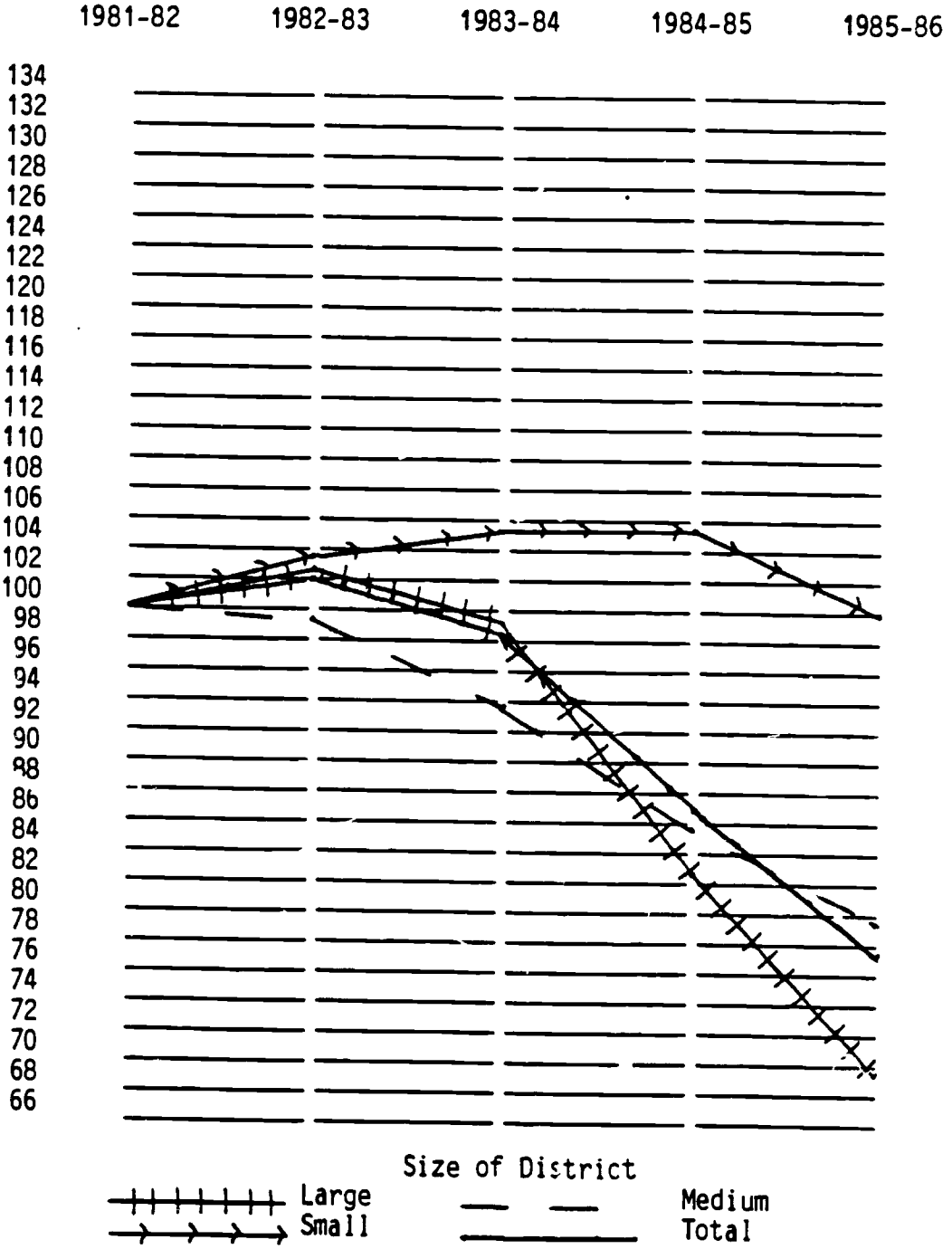

Figure 5

Number of Industrial Education Sections According to Size Reported in Percentage (1981-82 = 100%)

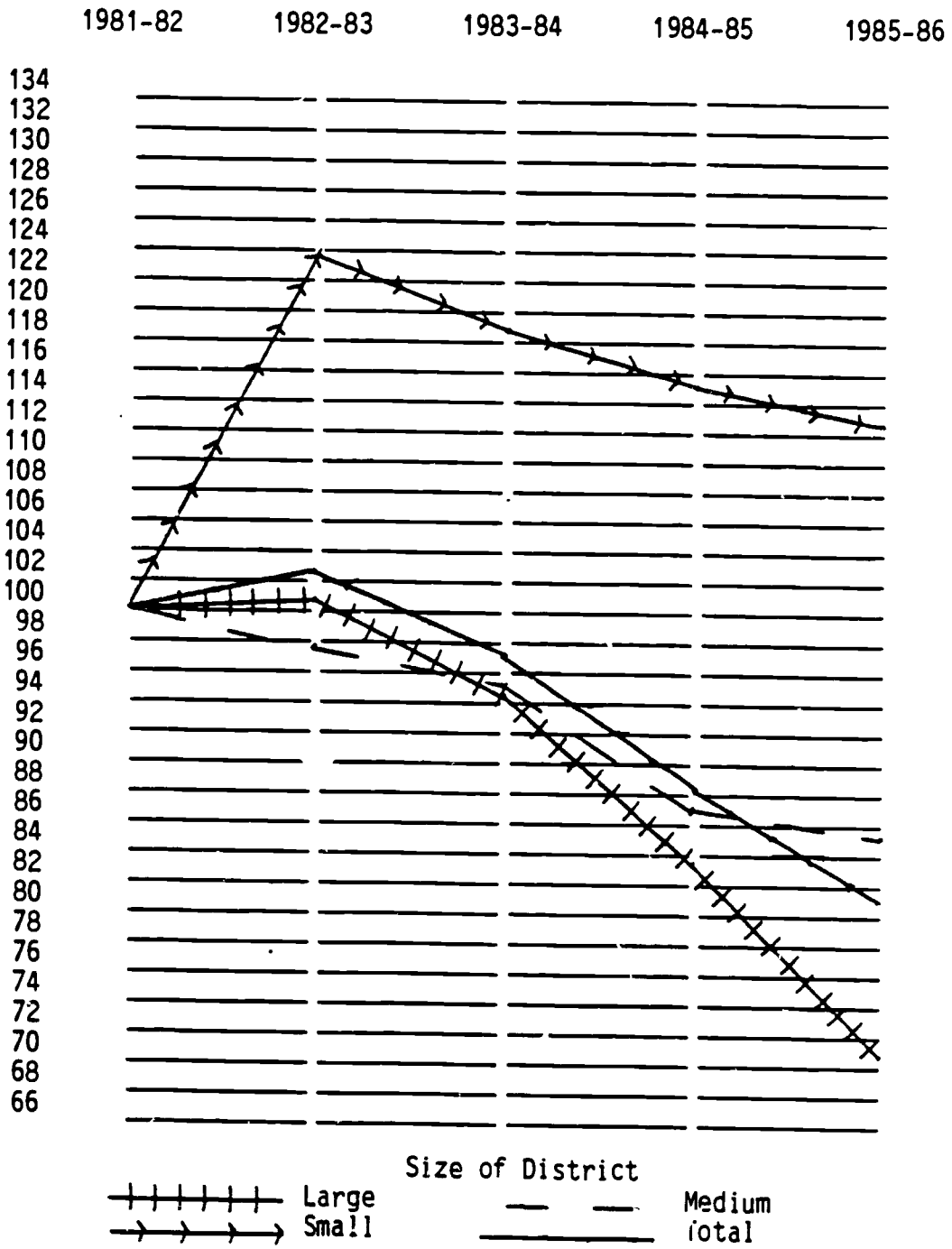

Figure 6

Number of Mathematics Sections According to Size

Reported in Percentage (1981-82 = 100%)

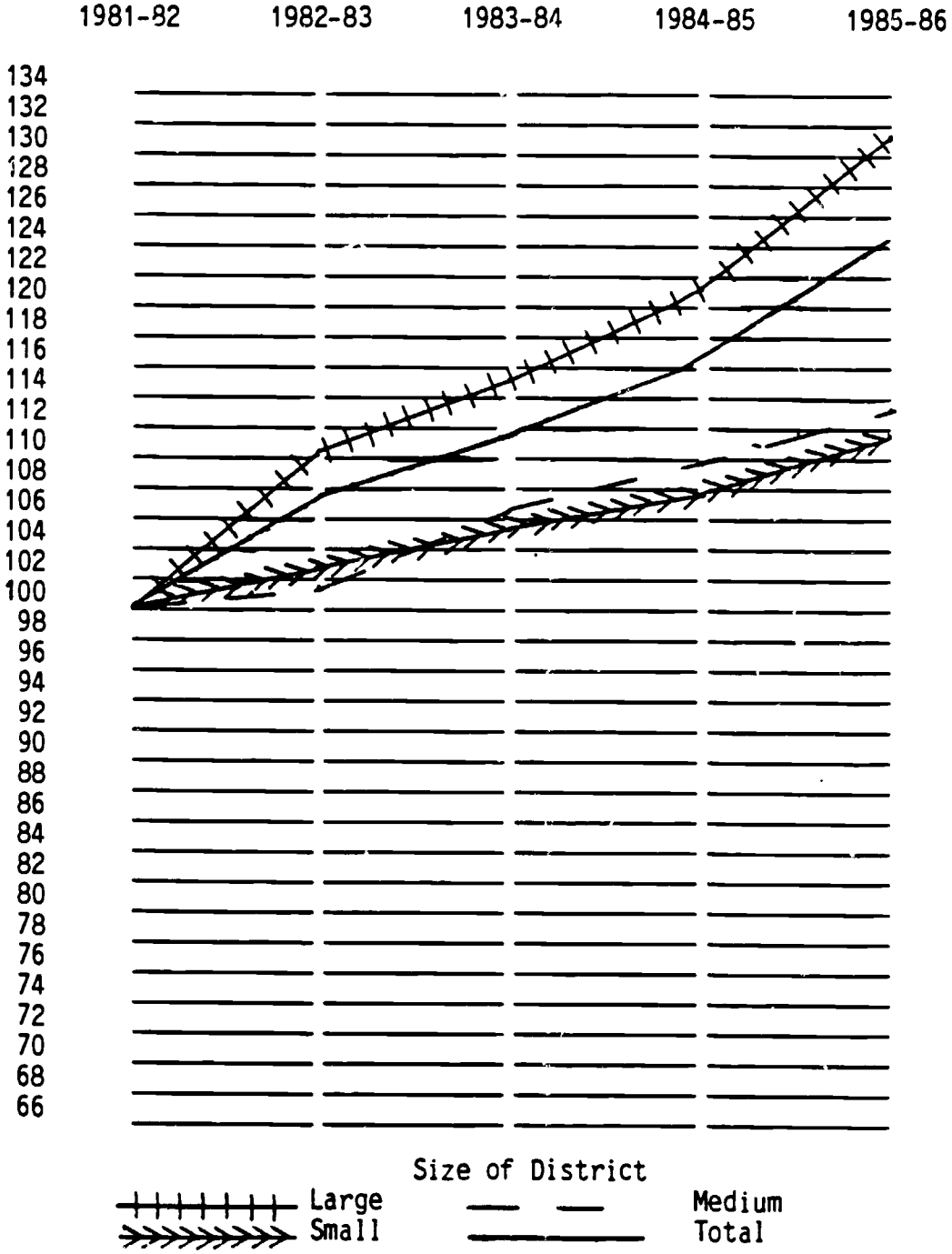

Figure 7

Number of Social Studies Sections According to Size
Reported in Percentage (1981-82 = 100%)

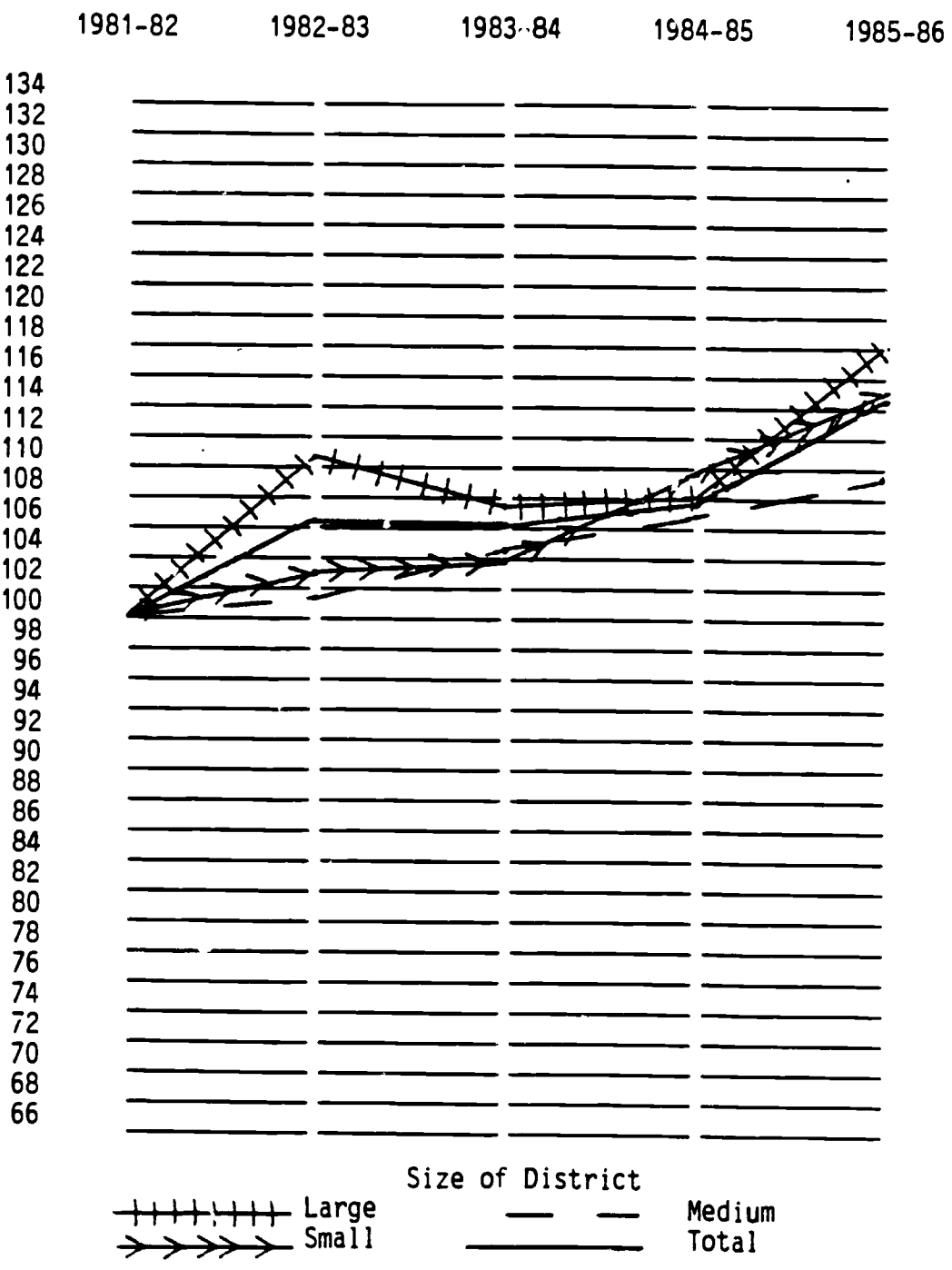

Figure 8

Number of Fine Arts Sections According to Size

Reported in Percentage (1981-82 = 100%)

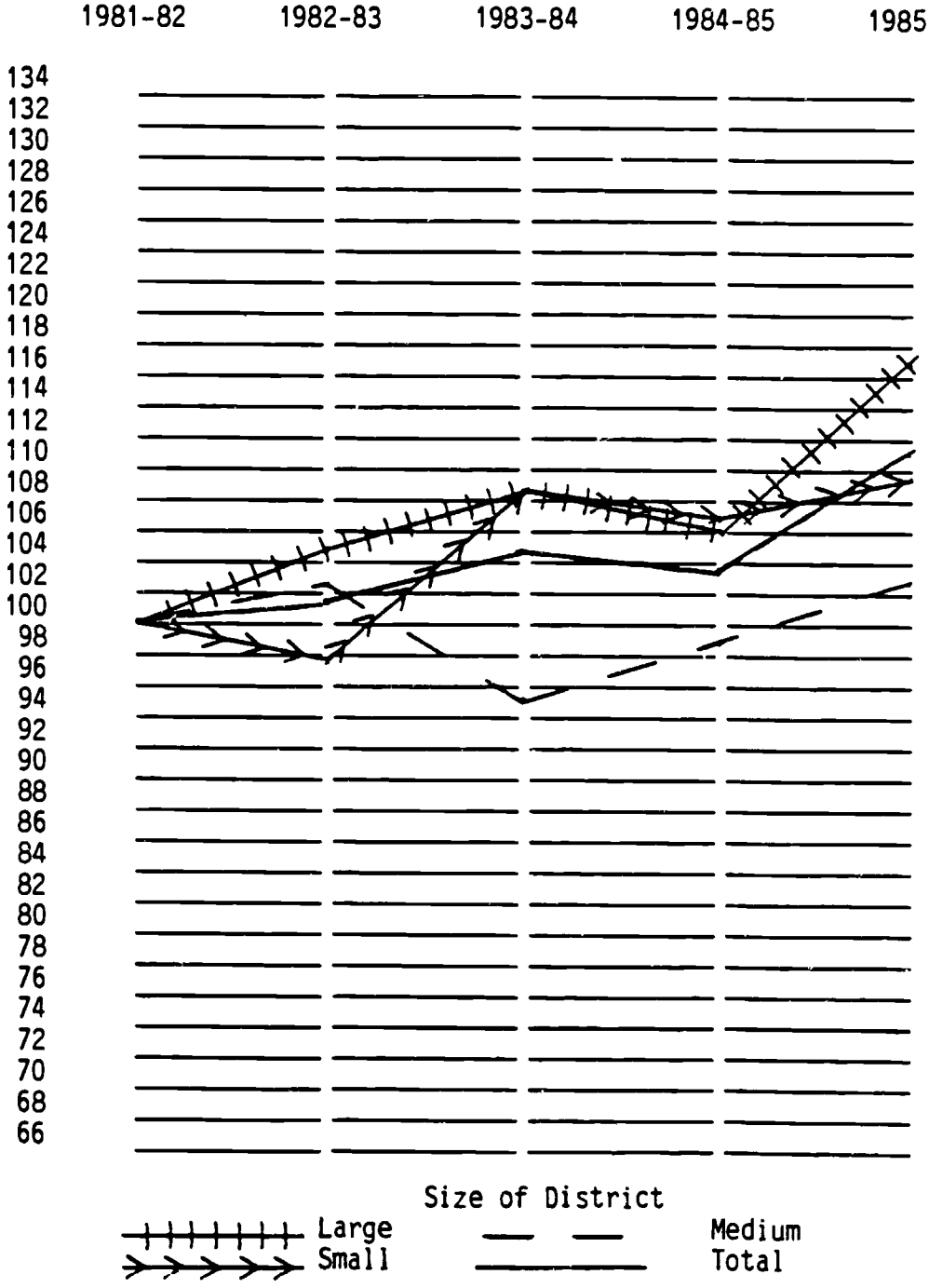

Figure 9

Number of English Sections According to Size

Reported in Percentage (1981-82 = 100%)

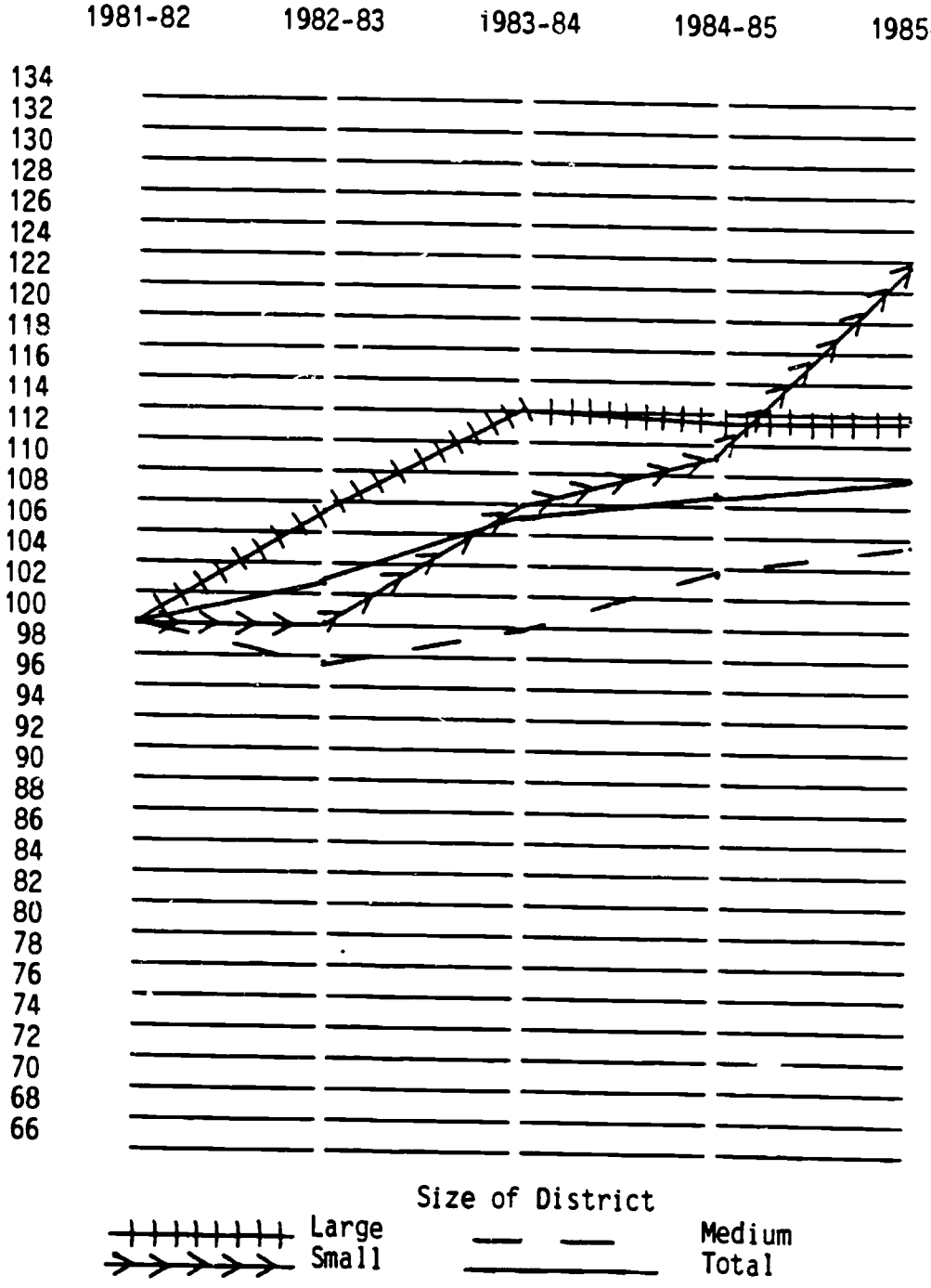

Figure 10

Number of Science Sections According to Size

Reported in Percentage (1981-82 = 100%)