

COOPERATIVE PURCHASING PRACTICES AND PROCEDURES
IN THE PUBLIC SCHOOL DIVISIONS OF VIRGINIA
AND THEIR RELATIONSHIP TO THE
VIRGINIA PUBLIC PROCUREMENT ACT

by

Robert Allan Cowden

Dissertation submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of
DOCTOR OF EDUCATION
in
Educational Administration

APPROVED:

~~_____~~
Glen I. Earthman, Chairman

~~_____~~
Jim C. Fortune

~~_____~~
Robert R. Richards

~~_____~~
Richard G. Salmon

~~_____~~
Donald J. Shoemaker

~~_____~~
Wayne M. Worner

November 20, 1987

Blacksburg, Virginia

COOPERATIVE PURCHASING PRACTICES AND PROCEDURES
IN THE PUBLIC SCHOOL DIVISIONS OF VIRGINIA
AND THEIR RELATIONSHIP TO THE
VIRGINIA PUBLIC PROCUREMENT ACT

by

Robert Allan Cowden

Chairman: Dr. Glen I. Earthman

(ABSTRACT)

The purpose of this study was to provide a descriptive analysis of cooperative purchasing in the public schools in the Commonwealth of Virginia with attention to any effects brought about by enactment of the Virginia Public Procurement Act. Questionnaires were sent to each division superintendent of public schools in Virginia with follow-up done on those public school divisions who have or are utilizing cooperative purchasing.

The majority (63 percent) of public school divisions in the Commonwealth of Virginia do not utilize cooperative purchasing. Public school divisions utilizing cooperative purchasing are almost universally involved with their local governmental body rather than other school divisions. Saving money is the rationale given for utilizing cooperative purchasing and it is the factor most often named as the major success attained in such an agreement.

The bidding requirements and attendant need for specifications enumerated in the Virginia Public Procurement Act resulted in a minority of school divisions

electing to employ cooperative purchasing and utilize the State Department of Purchasing and Supply as two means of insuring compliance with the law. Enactment of the Virginia Public Procurement Act has had a marginal effect on procurement practices by public school divisions in Virginia.

Public school superintendents reported that a concern about a potential loss in autonomy was the major reason for not purchasing cooperatively. This was consistent with other studies done on this topic.

School divisions most likely to utilize cooperative purchasing are characterized by large enrollments and budgets, the employment of professional full-time purchasing agents, and a superintendent who has had prior experience with cooperative purchasing agreements as well as perceiving enactment of the Virginia Public Procurement Act as a concern. School divisions are utilizing cooperative purchasing despite the absence of the above characteristics cited in the literature as standard requirements.

ACKNOWLEDGEMENTS

Many have assisted in this study and to those a special thanks is given.

To my chairman, Dr. Glen I. Earthman, for his guidance, assistance, and time throughout the doctoral program.

To Committee members, Dr. Jim C. Fortune, Dr. Robert R. Richards, Dr. Richard G. Salmon, Dr. Donald J. Shoemaker, and Dr. Wayne M. Worner for their understanding, encouragement and advice.

To my wife, , and my children, , and , for their support and patience.

To the cooperating superintendents who responded to this study.

To and for their encouragement and advice.

To my indefatigable research assistants and typists, and .

TABLE OF CONTENTS

	<u>Page</u>
List of Tables	x
Chapter	
1. THE OVERVIEW	1
Introduction	1
Statement of the Problem	6
Purpose of the Study	7
Significance of the Study	7
Limitations of the Study	8
Definition of Key Terms	9
Organization of the Study	11
2. THE LITERATURE	12
Introduction	12
Extent of Utilization	14
Management Concerns of Smaller School Districts	16
Disadvantages of Cooperative Purchasing	18
Advantages of Cooperative Purchasing	26
The Practice of Cooperative Purchasing	28
Summary	33
3. METHODOLOGY	35
Introduction	35
The Population	36
The Data	37

The Instrument	39
Data Gathering Procedures	43
Data Analysis	45
4. RESULTS	48
Data Collection with Questionnaire I	48
Analysis of Questionnaire I Data	52
Section I - Cooperative Purchasing	52
Section II - Utilization of the State Department of Purchasing and Supply	62
Section III - Governing Bodies	74
Section IV - Demographic Data	84
Tenure	85
Superintendent's Involvement with Purchasing	87
Prior Business Management Experience	90
Prior Experience with Cooperative Purchasing	94
Formal Exposure to Cooperative Purchasing	96
Employment of Purchasing Agents	101
Number of Purchasing Agents Employed	104
Ability to Warehouse and Deliver Goods	107
Bulk Purchasing	112
Amount Purchased Outside School Division Boundaries	115
Section V - The Superintendent's Views on Cooperative Purchasing	120

Operational Budget, Enrollment, and Regional Study Groups	125
Operational Budget	126
Enrollment	129
Region	133
Establishment of a Profile Distinguishing School Divisions Engaged in Cooperative Purchasing	137
Enrollment Size	140
Operational Budget Size	140
The Superintendent's Prior Experience with Cooperative Purchasing	140
Employment of Professional Full-time Purchasing Agents	140
Number of Professional Full-time Purchasing Agents Employed	141
Effect of the Virginia Public Procurement Act on Cooperative Purchasing	141
Data Collection with Questionnaire II	141
Analysis of Questionnaire II Data	145
The Cooperative Purchasing Agreement	145
Successes, Failures, and Problem Resolution	151
Vendors as an Aspect of Cooperative Purchasing	154
Practitioners Advice on Cooperative Purchasing	158
Factors Affecting the Future of Cooperative Purchasing	159

Factors Associated with the Cessation and Resumption of Cooperative Purchasing	163
Summary	164
5. CONCLUSIONS, IMPLICATIONS FOR PRACTICE, AND A RECOMMENDATION FOR FURTHER RESEARCH.	168
Conclusions	168
The Effect of the Virginia Public Procurement Act on Cooperative Purchasing	168
The Effect of the Virginia Public Procurement Act on Utilization of the State Department of Purchasing and Supply	169
The Effect of the Virginia Public Procurement Act on the Exercise of Section 15.1-127 of the Code of Virginia	169
Rationale for Exercising or Foregoing Cooperative Purchasing	170
Establishment of a Profile that Distinguishes School Divisions Engaged in Cooperative Purchasing	170
Recommendations to Improve Services and Utilization of Services Offered by the State Department of Purchasing and Supply	171
Implications for Practice	172
Practitioner's Guide to Cooperative Purchasing	172
Self Evaluation Phase	172
Approach Phase	173
Commitment Phase	174
Planning Phase	174
Implementation Phase	175

Evaluation Phase - Continuous	177
The Leadership Function	177
A Recommendation for Further Research	179
BIBLIOGRAPHY	180
References Cited	180
References Consulted	185
APPENDICES	
A. QUESTIONNAIRE FOR DIVISION SUPERINTENDENTS	187
B. FOLLOW-UP QUESTIONNAIRE FOR DIVISION SUPERINTENDENTS	193
C. FOLLOW-UP QUESTIONNAIRE FOR DIVISION SUPERINTENDENTS	196
D. COVER LETTER FOR INITIAL QUESTIONNAIRE	197
E. FOLLOW-UP LETTER	198
F. FOLLOW-UP QUESTIONNAIRE COVER LETTER	199
G. COVER LETTER FOR VALIDATION FORMS	200
H. VALIDATION FORM FOR INSTRUMENTS/ LETTERS	201

LIST OF TABLES

Table

1.	Response Rate to Questionnaire I	51
2.	The Experience of Virginia School Divisions With Cooperative Purchasing as Reported by Division Superintendents (N=113)	54
3.	Has Enactment of the Virginia Public Procurement Act Affected the Decision of Your School Division to Engage in Cooperative Purchasing (N=113)	55
4.	The Effect of the Virginia Public Procurement Act on the Decision to Engage in Cooperative Purchasing Compared With the Cooperative Experience (N=113)	57
5.	Major Reasons for Engaging in Cooperative Purchasing (N=49)	59
6.	Major Reasons for Not Engaging in Cooperative Purchasing (N=64)	61
7.	A Comparison of the Amount Purchased From the State Department of Purchasing and Supply Prior To and After January 1, 1983 (N=113)	63
8.	History of Purchasing From the State Department of Purchasing and Supply (N=113)	66
9.	The Effect of the Virginia Public Procurement Act on Utilization of the State Department of Purchasing and Supply (N=113)	67
10.	Means by Which the State Department of Purchasing and Supply Might Increase Utilization of Their Services by School Divisions (N=113)	70
11.	Approximate Percentage Representing the Amount of Purchases for Goods, Materials, and Supplies Acquired Through the State Department of Purchasing and Supply (N=113)	72

Table

12.	School Divisions Compelled to Join With the Governing Body in Joint Centralized Purchasing (N=113)	76
13.	Rationale Given for Joining with the Governing Body in Joint Centralized Purchasing (N=15) . .	78
14.	Is Your School Division Involved in Discussions Designed to Explore the Establishment of a Cooperative Purchasing Agreement with Another School Division and/or Public Body (N=113) . .	80
15.	Major Points Being Advanced During Discussions For and Against Establishing a Cooperative Purchasing Agreement	82
16.	Tenure of Division Superintendents in Current Position (N=113)	86
17.	Tenure of Division Superintendents Compared to Division Experience With Cooperative Purchasing (N=113)	88
18.	Personal Involvement of the Superintendent in Attending to the Majority of the Purchasing Operations (N=113)	89
19.	Personal Involvement of the Superintendent in Attending to the Majority of the Purchasing Operations Compared with the Cooperative Purchasing Experience (N=113)	91
20.	Prior Experience in Managing the Major Business Affairs of a School Division as Reported by Division Superintendents (N=113)	92
21.	Prior Experience in Managing the Major Business Affairs of a School Division Compared with the Cooperative Purchasing Experience (N=113).	95
22.	Prior Experience with Cooperative Purchasing as Reported by Division Superintendents (N=113) .	97
23.	Prior Experience with Cooperative Purchasing by the Superintendent as Compared to the Cooperative Purchasing Experience (N=113) . .	98
24.	Formal Exposure to the Policies and Procedures of Cooperative Purchasing as Reported by Division Superintendents (N=113)	100

Table

25.	Formal Exposure of the Superintendent to the Policies and Procedures of Cooperative Purchasing as Compared to the Cooperative Purchasing Experience (N=113)	102
26.	Number of School Divisions Reporting the Employment of Professional, Full-Time Purchasing Personnel (N=113)	103
27.	School Divisions Reporting Employment of Full-time Professional Purchasing Agents as Compared to the Cooperative Purchasing Experience (N=113)	105
28.	Number of Staff Members Employed by School Divisions to Serve as Full-Time Purchasing Agents (N=34)	106
29.	Number of Full-time Professional Purchasing Agents Employed as Compared to the Cooperative Purchasing Experience (N=34) . . .	108
30.	Capability For Warehousing and Delivery of Goods, Materials, and Supplies (N=113)	110
31.	Capability for Warehousing and Delivery of Goods, Materials, and Supplies as Compared to the Cooperative Purchasing Experience (N=113).	111
32.	Budget Construction Allowing for the Bulk Purchase of Goods, Materials, and Supplies at One or More Times During the Year (N=113) . .	113
33.	Budget Construction Allowing for Bulk Purchasing as Compared to the Cooperative Purchasing Experience (N=113)	114
34.	Percentage of Purchases Including Goods, Materials, and Supplies Obtained from Vendors Outside the Geographical Boundaries of the School Division (N=113)	116
35.	Percentage of Purchases Made Outside the Geographical Boundaries of the School Division as Compared to the Cooperative Purchasing Experience (N=104)	118
36.	Reasons Given by Superintendents for Not Utilizing Cooperative Purchasing to the Degree That Might Be Expected (N=113)	123

Table

37.	Analysis of School Divisions' Operational Budgets 1984-85 (N=113)	127
38.	Size of the Operational Budget Compared With the Cooperative Purchasing Experience (N=113).	128
39.	Enrollment of School Divisions as of 1984-85 (N=113)	130
40.	Enrollment Size Compared With the Cooperative Purchasing Experience (N=113)	132
41.	Region Study Groups Analyzed by Response to Experience With Cooperative Purchasing (N=113)	134
42.	Relationship Between Selected Variables and the Cooperative Purchasing Experience (N=113).	138
43.	Response Rate to Questionnaire II	144
44.	Types of Agreements Utilized to Conduct Cooperative Purchasing (N=42)	146
45.	Parties With Whom School Divisions Joined in a Cooperative Purchasing Agreement (N=42) . . .	149
46.	Categories of Goods, Material, and Supplies That Were Or Are Being Purchased Cooperatively (N=42)	150
47.	Factors Contributing to the Establishment of Cooperative Purchasing Agreements (N=42) . . .	152
48.	Major Successes of the Cooperative Purchasing Agreements (N=42)	153
49.	Major Problems and Means of Resolution Encountered With Cooperative Purchasing Agreements	
	Major Problems (N=42)	155
	Means of Resolution (N=21)	155
50.	Comparison of Purchases Made From Vendors Inside the Geographical Boundaries of Their School Division Under Cooperative Purchasing as Opposed to No Cooperative Purchasing Agreement (N=40)	157

Table

51. Advice For School Divisions Interested in Exploring Cooperative Purchasing as Reported by Division Superintendents (N=42)	160
52. Foreseeable Factors Likely to Result in the Cessation of Cooperative Purchasing (N=36) . .	162

Chapter 1

THE OVERVIEW

Introduction

Cooperative purchasing is a joint effort between two or more public bodies to prepare specifications and proposals, collectively receive bids, and make an award to the lowest responsible bidder.¹ In practice, cooperative purchasing is collective action designed to enhance the individual gain in terms of a greater voice in the marketplace and achieve a reduction in purchase costs by virtue of volume buying.²

Danser reported three examples of public school districts translating the practices and procedures of cooperative purchasing into substantial savings. An eastern school district cooperative reported annual savings of one-half million dollars or a 15 percent reduction in purchasing costs. Twenty-seven rather small mid-western school districts achieved reported

1

Aljian, George W. Purchasing Handbook. New York: McGraw-Hill Book Company, 1973, (third edition) pp. 20-46.

2

Holloway, William H., & Clark, Wayne H., "Cooperative Purchasing in the Public Schools: A Status Report with Comparisons," Planning and Changing, Summer-Fall, 1977, 8 (2-3), pp.97-107.

annual savings of 11 percent. Thirty cooperating school districts in the western United States reported a 21 percent annual savings in the purchase of supplies plus substantial savings indirectly in terms of time and bookkeeping.³

Although cooperative purchasing has been established as an acceptable and viable method of cost reduction by many school business officials and government entities, it is not a panacea that automatically meets the needs of every school district. Certain categories of equipment and supplies lend themselves to substantial savings that overshadow drawbacks inherent in the process. Conversely, other product and service categories are sometimes unsuccessful because factors other than price enter into the process.⁴

Cooperative purchasing agreements vary in complexity ranging from two local school districts combining for the purchase of a single item to a multiple school district-government agency agreement requiring a formal contractual

3

Danser, Harold W., "Cut 10 Percent from Your Supply Budget," School Business Affairs, January 1977, 43, pp. 8-9.

4

Sanders, Frank, & Knapp, Herbert. Cooperative Purchasing Guidelines (No. 2). Park Ridge, IL: Research Corporation of the Association of School Business Officials of the United States and Canada, 1979. p.4.

relationship. Regional education agencies initially formed for other purposes have added cooperative purchasing services to participating school districts for an administrative fee. In some instances, the state or local governing body acts as either statutory or volitional purchasing agents for school districts. Purchasing by local school district is, under statutory conditions, made from an approved contract price list. When volitional, the local school district may opt to make purchases from another source if it is deemed in their best interest.⁵

The assumption of a leadership role in cooperative purchasing by state and local governments is advocated by O'Shea and Piper on the premise that sufficient expertise and administrative machinery are generally lacking on the local school district level. Participation would be voluntary so as to avoid the perception that local autonomy is endangered.⁶ Hall interviewed a Sacramento,

⁵
Munsterman, Richard E. Purchasing and Supply Management Handbook for School Business Officials. (revised) Association of School Business Officials. Chicago, Illinois: 1978, p. 213.

⁶
O'Shea, Daniel R. & Piper, Donald L. (1976) Saving Money Through Group Bidding by North Dakota School Districts. Grand Forks: North Dakota University, Bureau of Educational Research and Services, pp. 28-29.

California, school business official who asserted that a catalyst such as school board action or an initiative by someone in a strong leadership position was necessary for a school district to overcome inertia and seriously investigate cooperative purchasing opportunities.⁷

Purchasing by public bodies, including school divisions, was codified in the Commonwealth of Virginia upon passage on January 1, 1983, of the Virginia Public Procurement Act.⁸ Cooperative purchasing was specifically addressed under Article 1, Section 11-40 of this Act. The stated purpose of Section 11-40 was the combining of requirements (needs) to increase efficiency or reduce administrative costs. Cooperative purchasing is recognized by the General Assembly of Virginia as one means of reducing costs.

Chapter 2, Article 8, Section 15.1-127 of the Code of Virginia permits county boards of supervisors to compel the local school board to join in joint centralized purchasing. Joint centralized purchasing is non-volitional cooperative purchasing.

⁷ Hall, Calvin W. Different Approaches to Shared Services. Conference paper, October, 1980, p.101.

⁸ Virginia Public Procurement Act of 1982. Code of Virginia, Chapter 7, Articles 1-4.

The Commonwealth of Virginia maintains a Department of Purchasing and Supply that, among other duties, promulgates specifications for certain items, accepts and evaluates bids on such items from interested vendors, and compiles a list of the lowest prices meeting specifications. These results and the attendant prices are available to public bodies in the Commonwealth to use as they see fit.

Statutory permission to engage in cooperative purchasing agreements with other public bodies and/or government agencies coupled with the existence of a State Department of Purchasing and Supply would appear to fulfill several of the leadership initiatives cited earlier that are necessary to overcome the inertia present in many school divisions.⁹ The dearth of citations in the literature reviewed makes it impossible to ascertain what, if any, impact the Virginia Public Procurement Act and the availability of state purchasing services has had upon cooperative purchasing practices and procedures as employed by public school divisions in Virginia currently or in the past. The past and current status of cooperative purchasing in the public schools of Virginia is unknown.

9

Hall, op cit., p.101.

Statement of the Problem

Has enactment of the Virginia Public Procurement Act altered the practices and procedures of cooperative purchasing as employed by the public school divisions in the Commonwealth of Virginia?

Specifically, this study answered the question posed through investigation of the following:

1. Has enactment of the Virginia Public Procurement Act affected the extent, type, and/or purpose of cooperative purchasing agreements involving public school divisions in the Commonwealth of Virginia that existed prior to January 1, 1983, as compared to post January 1, 1983, agreements?

2. Has enactment of the Virginia Public Procurement Act affected the extent and/or type of services requested and provided by the Virginia State Department of Purchasing and Supply when compared on the basis of pre and post January 1, 1983, conditions?

3. Has enactment of the Virginia Public Procurement Act produced a discernible pattern in terms of counties electing to exercise their option to compel certain school divisions to engage in joint centralized purchasing as authorized under Chapter 2, Article 8, Section 15.1-127 of the Code of Virginia based on pre and post January 1, 1983, conditions?

4. What are the stated reasons given by school division superintendents for exercising or foregoing the practices and procedures of cooperative purchasing?

5. Does a discernible pattern or profile emerge that will characterize those public school divisions in the Commonwealth of Virginia utilizing cooperative purchasing?

Purpose of the Study

This study examined the relationship between enactment of the Virginia Public Procurement Act and the practices and procedures of cooperative purchasing as employed (a) between public school divisions in the Commonwealth of Virginia, and (b) between public school divisions in the Commonwealth of Virginia, other public bodies of the Commonwealth, and government agencies empowered by statute to engage in cooperative purchasing agreements. The extent and nature of past and current agreements was examined and recorded in a comprehensive manner. Additionally, it was the purpose of this study to determine the rationale given by school division superintendents for: (a) utilization and improvement of the services provided by the State Department of Purchasing and Supply, and (b) utilizing or foregoing the practices and procedures of cooperative purchasing.

Significance of the Study

The results of this study contributed to increased understanding of the cooperative purchasing process

involving public school divisions in the Commonwealth of Virginia particularly in the absence of past investigation and documentation. Participation in this study afforded local school division superintendents the opportunity to provide information that may lead to improved cost saving practices that will benefit instruction and increase the perception by the public that the prudent expenditure of tax dollars is a concern that is being responsibly pursued. State legislators will better be able to evaluate the impact of the Virginia Public Procurement Act on cooperative purchasing. The State Department of Purchasing and Supply received information that will enable an assessment to be made of the services provided to public school divisions in the Commonwealth.

Limitations of the Study

This study was confined to public school divisions in the Commonwealth of Virginia and such public bodies or government agencies with which the public schools have or are currently engaged with in cooperative purchasing agreements. Only those cooperative purchasing agreements involving goods, material, and/or supplies were included in this study. Construction and contracted services present legal entanglements and complications beyond the scope of this study. Tentative or proposed agreements were not treated as hard data. Past cooperative purchasing agreements pre-dating current school division

superintendents were pursued as far as records and practicality allowed.

Definition of Key Terms

For the purposes of this study, key terms are defined as follows:

1. Cooperative Purchasing: The joining together of two or more public bodies for the purpose of preparing specifications and proposals, collectively receiving bids, and making an award to the lowest responsible bidder.

2. Public Body: Any legislative or executive body, agency, office, department, authority, post, commission, committee, institution, board, or political subdivision created by law to perform some governmental activity and empowered by law to undertake purchasing agreements.

3. Goods, Materials, and Supplies: Those items necessary to maintain the functioning of a school district exclusive of contracted services and construction projects.

4. Dual Divisions Served by One Superintendent: There are six division superintendents who administer two school divisions jointly. For the purposes of this study, each of these school divisions is counted as one respectively.

5. School Districts/School Divisions: Virginia uses the term school division as opposed to the majority of the United States which entitles their local

educational agencies as school districts. The term school district will refer to local educational agencies outside the Commonwealth of Virginia. The use of the term school division is restricted to those entities within the Commonwealth of Virginia.

6. Virginia Public Procurement Act (Chapter 7 of the Code of Virginia): The Virginia Public Procurement Act enunciates statutory requirements for all public bodies in the Commonwealth of Virginia as regards procurement of goods, materials, supplies, and services. Prior to enactment of this statute, public school divisions were subject to few structured public laws on the state level relative to purchasing. The intention of this statute is to insure that procurement is conducted in a fair and impartial manner so that all qualified vendors have equal access to public business. Competition is the cornerstone. Although school divisions and other public bodies have rather broad flexibility in adopting local policies for amounts under ten thousand dollars, the writing of specifications, promulgation of bid documents, and awarding bids is an integral part of each school division's responsibility.

7. Joint Centralized Purchasing: County Boards of Supervisors may, if so inclined, invoke Section 15.1-127 of the Code of Virginia which compels the local school division to join purchasing functions with that of the

county. The county, however, must have a purchasing agent in place prior to execution of this prerogative. This combining of purchasing functions is not volitional but otherwise meets the definition of cooperative purchasing. Joint centralized purchasing is treated as cooperative purchasing per se for the purposes of this study but receives special treatment when reported in Chapters 4 and 5.

Organization of the Study

Chapter 1 introduces the problem, states the purposes and significance of the study, defines terms and limitations, and outlines the organization of the study. Chapter 2 includes a review of the literature on cooperative purchasing and closes with a summary of major points. Chapter 3 details the methodology used. It includes an introduction, the type of research employed, the population surveyed, the instrument utilized, the method of collecting the data, and the method by which the data were treated. Chapter 4 presents the data accumulated by means of appropriate tables, analyzes the data, and concludes with a summary placing the findings in perspective. Chapter 5 re-summarizes the findings so as to lead to the conclusions. Implications for practice and recommendations for further research conclude the study. A bibliography, appendix, and vita follows Chapter 5.

Chapter 2

THE LITERATURE

Introduction

Financial constraints and declining public satisfaction with the management of the public schools in the last decade have also been characterized by the adoption of cooperative purchasing as one means of reducing expenditures for supplies. Periods of adversity have spawned cooperatives throughout our history. In the private sector, the Journeyman Cordwarmer's Union of Baltimore, Maryland, was formed in 1794 to improve its members' economic position in the production and marketing of boots and shoes.¹⁰ The Grange was a creation of farmers formed, in the early 1900's, to give members a greater voice and more power in the market place.¹¹ Education was not a pioneer in the adoption of cooperative purchasing. A significant number of school districts have still not endorsed collective action as a means of dealing

10

Perky, Cheves W., Cooperation in the United States. Cooperative League of the United States. New York, NY: 1917, p. 3.

11

Comish, Newal H. Cooperative Marketing of Agricultural Products. New York: D. Appleton & Company, 1929.

with economic issues.¹² The public schools face adversity today both financially and in terms of power in the market place.¹³

Credibility is a critical element in a democratic society where institutions must depend on public confidence and support. Public schools are often the largest enterprise in a community. The size alone translates into a highly visible presence. The expenditure of significant portions of the budget for necessary supplies and equipment cannot be administered in a manner other than that which gives embodiment to practices accepted as efficient and economical. Since writers in the field of public administration, business, and finance advocate cooperative purchasing, failure to at least explore the feasibility of this practice may be interpreted as a failure to recognize the public's interests.¹⁴ The degree to which the exhortations of

¹²
Holloway, William H., & Clark, Wayne H.,
op cit., p.97.

¹³
Munsterman, Richard E., op cit., p.171.

¹⁴
Forsythe, Ralph A. & Hardin, Claude E.,
Office of Education (OHEW). June, 1969. Development of Guidelines for Cooperative Purchasing Agencies and Procedures for Public School Districts. Washington, D. C., p. 53.

writers in the field have been put into practice has been investigated by several researchers.

Extent of Utilization

The Association of School Business Officials estimated, in 1962, that less than 10 percent of the membership (school districts) was involved in cooperative purchasing.¹⁵ A 1972 survey of the membership revealed that slightly over 50 percent were engaged in cooperative purchasing ventures of some type.¹⁶ Bryant found, in 1978, that only 5.4 percent of Mississippi schools had ever engaged in cooperative purchasing. A major conclusion of his study was that Mississippi administrators were not aware of the advantages of cooperative purchasing due to lack of formal exposure.¹⁷ In a multi-state study (not including Virginia) conducted in 1964, Notestone reported that 59.1 percent of the superintendents surveyed were utilizing cooperative purchasing. Sixty-two percent of those not purchasing cooperatively stated that they would do so if given an

15

Association of School Business Officials. (1962) Fifth Annual Volume. pp. 206-207.

16

Munsterman, Richard E., op cit., p. 176.

17

Bryant, Kenneth Earl. A Study of the Use of Cooperative Purchasing in Mississippi Public Schools. Dissertation Abstracts International, 39, (3-14), p. 1207.

opportunity. Lower prices was the stated reason for cooperative purchasing being utilized while warehousing¹⁸ and delivery problems were the deterrents given.

Evidence exists that superintendents have a desire to purchase cooperatively but lack the resources and expertise. Kiefer, in 1981, reported a strong call for state assistance that originated from smaller Ohio public school districts.¹⁹ Moll reported the same findings in a 1982 Illinois study. Illinois superintendents specifically stated that cooperative purchasing assistance was a service the state should offer in lieu of some that were antiquated.²⁰ Smaller school districts have unique problems in managing purchasing functions.

Both Kiefer and Moll drew attention to the particular problems facing small school districts who must or desire to perform demanding administrative tasks.

18

Notestone, Linda Lemley. Cooperative Purchasing in the Public School Districts of the United States: Statutory Authority and Practices. Dissertation Abstracts International, 43/06-A, p. 1779.

19

Kiefer, Glenn Philip. Historic and Contemporary Factors Influencing the Relationship Between Intermediate Education Agencies and Smaller Ohio Public School Districts. Dissertation Abstracts International. 42/07-A, p. 2952.

20

Moll, Dennis Harold. An Analysis of the Relationships Between the Educational Service Region of McLean and DeWitt Counties and Selected School Districts. Dissertation Abstracts International, 43/01-A, p. 37.

Management Concerns of Smaller School Districts

The difficulty in managing purchasing functions is of particular concern to the chief administrator of a small school district. Unlike his counterpart in a larger district, the small district superintendent has neither time, expertise, nor the personnel to accomplish this demanding task. Normally, the problem is resolved by resorting to purchasing from those jobbers or suppliers who appear to be reputable and have provided satisfactory experiences in the past. Quality control, purchase by specifications (generic), purchase by large lot to take advantage of volume, and other advantageous practices thus receive scanty or non-existent attention.²¹

To avoid paying the 10-20 percent higher costs estimated as a penalty for being a small district, Cooper advocates that:

1. Small school districts form geographically advantageous associations for cooperative purchasing. Twice a year mass purchases would equate favorably with those of larger districts so as to effect volume discounts.

21

Cooper, Lloyd G. & Others. School Purchase Practices in Texas. El Paso, Texas: Texas Western College, 1964, pp. 1-4.

2. The association should consider retaining a school supply specialist on a consultant basis or hire an individual to service all the districts. More knowledgeable and better organized business practices would more than return the salary of such an individual. ²²

Employing a joint purchasing agent might be considered in light of the experience reported by six Iowa school districts when they cooperatively hired a full-time attorney. The individual is available before negotiations become critical, acquires a thorough knowledge of each district's needs, and the cost is less overall than per diem fees. Additionally, the pooling of expertise through a central source results in better productivity. ²³

Problems associated with cooperative purchasing are not solely the province of smaller school districts. All school districts must balance the troublesome or disadvantageous aspects of cooperative purchasing against the positive factors.

22

Cooper, Lloyd G. & Others, op cit., p. 18.

23

Ross, Victor J. "Boost Bargaining Power: Form a Consortium of School Systems and Hire a Professional Negotiator. American School Board Journal, August, 1982, 169 (8), pp. 28-29.

Disadvantages of Cooperative Purchasing

Holloway and Clark investigated cooperative purchasing procedures in Kansas public schools concluding that the chief disadvantage reported was political in nature.²⁴ Fullmer reported, in 1978, that 26 percent of Oregon school districts listed political reasons as one of the greatest obstacles to cooperative purchasing.²⁵ O'Shea and Piper took particular note of this problem in their survey of North Dakota Schools but were more specific as to the root cause. Considerable pressure on board members and administrators by businessmen to purchase locally was coupled by a mind set that tax money should remain in the local economy.²⁶ Washington County Schools in Wisconsin have countered this problem by stating local taxpayers are their first concern and business must take secondary

²⁴ Holloway, William H. & Clark, Wayne H., op cit., p. 167.

²⁵ Fullmer, Ethan Yale. An Evaluation of Procedures for Purchasing School Supplies and Equipment in Oregon Public Schools Including a Survey of Cooperative Purchasing in the United States. Dissertation Abstracts International, 21 (8), p. 2171.

²⁶ O'Shea, Daniel R., & Piper, Donald L., op cit., p. 18.

27
 consideration. Monroe Public Schools, Monroe, Michigan have made cooperative purchasing a stated school board policy in all cases where it is practical. Competitive pricing is the stated rationale. 28

Nassau County, New York, schools summed up the topic by stating:

One cannot expect the average wholesaler to be exhuberant about bidding whether it be by one school district or several combined. It is comparable to asking the full service department store to rush across the street to greet the new discount merchandiser.²⁹

Concerns about a loss of autonomy or giving up one's rights is an issue that was dealt with directly in the area of cooperative sharing of facilities. The same principles apply to cooperative purchasing. Legally, a second party cannot assign or sell the rights of the party of the first part. Attention to the drafting of formal

27

McLean, Robert D. "Cooperative Purchasing-- Enriches the Tax Dollar," School Business Affairs, June, 1976, 42 (6), pp. 151-154.

28

National School Boards Association. Updating School Board Policies (September, 1974). Cooperative Purchasing: If the Board Can Handle Six Big "If's," This Policy Can Save Tax Dollars. Waterford, Connecticut: p. 3.

29

Whitt, A. Position Paper, Mid-Hudson Chapter, Nassau County Chapter, Southern Tier Chapter, Rochester Area Chapter, 1966, p. 24.

written agreements is the vehicle by which this issue can
 be addressed successfully.³⁰

However, protecting autonomy by creating a written agreement between the parties involved does not have the same significance for the public school divisions in Virginia as it does for the vast majority of school districts nationwide. Public school divisions in Virginia differ from the majority of public school districts in the nation in that Virginia school boards are fiscally dependent, school board members are appointed by governing bodies rather than elected, and certain local governing bodies (county boards of supervisors) possess statutory authority to compel the local school division to combine purchasing functions with that of the county board of supervisors. To go further, a school division that desires to enter into a cooperative purchasing agreement with a governing body or other governmental agency must then abide by the purchasing policies of that body or agency. School divisions are thus subject to enormous pressure to accede to the will of the governing body. Concern regarding a loss of autonomy by Virginia public school divisions is much more than an academic concern.

Nevertheless, school divisions are not at the total mercy of a governing body. School divisions in Virginia are independent local agencies.³¹ As such, they retain those powers enumerated in the Code of Virginia. Once they enter into a voluntary or involuntary joint centralized purchasing/cooperative purchasing agreement with a governing body, they must, under Section 11-40 of the Virginia Public Procurement Act, abide by the purchasing policies of the governing body.³² This was upheld and clarified in a 1982 opinion of Attorney General Gerald L. Baliles that was issued to the Honorable Ray L. Garland, Member, Senate of Virginia.³³

School divisions do not have to purchase cooperatively unless, as a county school division, they are compelled to do so. Those school divisions voluntarily associated may withdraw if they so desire. In any case, voluntary or involuntary association does not remove the school division's right to refuse an item or

31

Board of Supervisors of Chesterfield County v. County School Board of Chesterfield County. 182 Virginia 266, 28 S.E.2d 698 (1944).

32

Virginia Public Procurement Act of 1982.
op cit.

33

Opinion of the Attorney General of Virginia to the Honorable Ray L. Garland, Member, Senate of Virginia, December 7, 1982.

items. As an independent local agency, school boards retain the authority to determine their needs and the costs thereof as opined by Attorney General Robert Y. Button.³⁴ This authority was also affirmed by the Parham Decision in 1978.³⁵ Should a protracted difference persist, school divisions may avail themselves of the emergency purchase clause in the Virginia Public Procurement Act which also results in the suspension of other restrictions when an emergency need is declared.³⁶ Even when co-opted by a governing body, then Attorney General Albertis S. Harrison issued an opinion that the purchase of goods, materials, and supplies obtained and used for capital improvement as well as the acquisition of services for any reasons are not included in the agreement and remain the sole province of the school division.³⁷

These issues are largely a matter of overall policy and philosophy. Certain procedural concerns have also

³⁴ Report of the Attorney General at 19, (1964-65).

³⁵ School Board of the City of Richmond v. Parham, 218 Virginia 243 S. E.2nd 468 (1978).

³⁶ Virginia Public Procurement Act of 1982.
op cit.

³⁷ Report of the Attorney General at 260, (1960-61).

been identified. Forsythe and Hardin identified seven specific disadvantages of cooperative purchasing:

1. Establishes one quality level for each item.
2. Removes the user from decision making.
3. Tends to eliminate the small local bidder.
4. Forces school districts to abdicate the rights and privileges of local control.
5. May result in delayed deliveries.
6. Creates storage problems for some districts.
7. Causes loss of service to users as a result of salesmen not visiting schools as frequently.

38

Additionally, nine disadvantages worthy of consideration have been identified by Munsterman as follows:

1. Difficulty in agreeing to product specifications.
2. Inability of many vendors to supply the large quantities.
3. Red tape--increased paperwork.
4. Hidden costs may overcome lower initial price of purchase.
5. Coordinating dual purchasing function--local and cooperative.

6. Coordination of cooperative purchasing with various local districts' budget preparations.
7. Credit rating of some local districts.
8. Borrowing money to pay for once a year shipments.
9. The possibility of large suppliers getting³⁹ together on bidding.

Perhaps the most serious question raised is whether or not cooperative purchasing results in an actual cost savings to the local district after the initial price is considered. Lehman asserts that consideration must be given to fixed costs, immediate costs, and subsequent costs. Fixed costs include providing space and pay for personnel in carrying out the purchasing function. Immediate costs include purchase price and costs of the cooperative. Subsequent costs are storage costs and foregone interest costs. Foregone interest costs are those losses incurred by expending funds that otherwise might be invested in short-term interest accounts. Costs such as administration, incidentals, and fees charged by a cooperative are subject to fluctuations and remain a responsibility for calculation and inclusion in the costing process by the local school system. Storage costs may be calculated as follows:

$$SC = C \times \frac{N}{6}$$

where

SC = total storage cost per lot size of cases or units

C = cost of storage space per case or unit

N = number of units or cases stored six high

Delivery and inventory control costs must also be calculated and added. Foregone interest costs may be calculated by the following formula:

$$PI = \frac{P \times R \times I}{2}$$

where

PI = interest lost for order

P = purchase price per unit

R = number of units ordered

I = interest charge--5 percent

The equation is divided by two since it is assumed that any given order will have one half in storage for a given period of time.⁴⁰

To balance against the problems previously enumerated, a number of advantages have been identified.

40

Lehman, Gregg O. The Development of A Mathematical Purchasing Model to be Utilized in the Procurement of Consumable Supplies in School Systems. PhD. dissertation, Purdue University, 1973, p. 39.

Advantages of Cooperative Purchasing

In a major study of cooperative purchasing in the public schools of the United States, completed in 1969, Hardin reported that a consensus of the eighty-four cooperative purchasing organizations listed as advantages the following:

1. Saves money.
2. Saves time of school personnel by reduction of paperwork and calls by salesmen.
3. Allows sharing of ideas and discussion of mutual problems.
4. Permits borrowing of standardized items among systems.
5. Eases consolidation of districts.
6. Demands better inventory control and long range planning.
7. Combines the best purchasing practices from each school district.
8. Helps identify the quality of supplies and material which is sufficient for the needs of the users.
9. Causes members to become expert in certain areas of purchasing.
10. Results in a uniform cataloging system for items purchased.
11. Provides for uniform testing.

12. Encourages wider use of school supplies in terms of the range.

13. Eliminates pressure by salesmen.

14. Demands careful analysis of item specifications.

15. Demands good housekeeping practices.

16. Results in continuous price analysis of items.

17. Strengthens relationships between school districts in other activities.⁴¹

Munsterman also identified improved public relations and keeping competition honest as additional advantages.⁴²

An additional savings to practitioners is said to accrue because cooperative purchasing leads to a more prompt payment of invoices that takes advantage of discounts offered for payment of invoices within a short period of time after receipt of charges.⁴³ One unanticipated benefit of cooperative purchasing may result from a general tightening and improvement in the planning

41

Hardin, Claude E. Guidelines for Cooperative Purchasing Procedures for Public School Districts in the United States. Dissertation Abstracts International, 30 (6A), p. 2249.

42

Munsterman, Richard E., op cit., p. 176.

43

Forbes, Russell. Governmental Purchasing. New York: Harper and Brothers, 1929, pp. 9-10.

process and stocking of goods leading to a reduction of special requisitions that tie up office personnel.⁴⁴

Taking cognizance of the benefits and associated problems leads to the question of what, if any, goods, material, and/or supplies have been found to be relatively non-controversial and might serve as a point of departure for negotiations to institute cooperative purchasing agreements. What advice is available to potential practitioners that might mitigate these and other problems?

The Practice of Cooperative Purchasing

Certain items have been identified as lending themselves to the practice of cooperative purchasing. Sanders and Knapp suggest paper items, art supplies, gasoline, fuel oil, fluorescent and incandescent lamps, floor mops, brooms, instructional materials, typewriters, bread, and pianos as generally suitable goods, materials, and supplies with which to start. Audio-visual equipment and school buses were reported to be the most difficult items to purchase cooperatively.⁴⁵

44

Zorn, Robert L. "Co-op Buying: You Pool Your Power," American School Board Journal. April, 1973. Volume 160, No. 4. pp.42-43.

45

Sanders, Frank, & Knapp, Herbert, op cit., p. 2.

Difficulties associated with cooperatively purchasing school buses were addressed by Wallace in a 1978 study involving seventy-nine northeast Missouri school districts. Eighty-nine percent of the districts reported an interest in participating in such a program. Questionnaires produced five viable bid specification sheets for bus bodies and twenty-nine specification bid sheets that provided for a variety of options and chassis⁴⁶ differences.

Some doubt is cast upon the assertion that audio-visual equipment is difficult to purchase cooperatively in an advantageous manner on the basis of a study conducted by Notestone. A random sampling of school districts reported that audio-visual supplies and equipment were one of two items most frequently listed as being purchased cooperatively.⁴⁷ It appears that difficulties in the areas of bus and audio-visual purchases can and have been overcome.

Operational problems can be minimized by consulting suggestions provided in the literature. Eight suburban

46

Wallace, Ivan George. A Compilation of Specifications to Facilitate Cooperative Purchasing of School Buses in Northeast Missouri. Masters Abstracts. Volume 17, p. 123.

47

Notestone, Linda Lemley, op cit., p. 1779.

Chicago, Illinois school boards created a successful joint purchasing board that advises school districts interested in forming cooperatives to:

1. Lay a good foundation with a written agreement.
2. Involve legal counsel early to ensure members' rights are protected and compliance is assured.
3. Restrict initial purchases to several items.

The group asserts that it is easy to expand later after initial problems have been mastered. Once the mechanism is in place, three or four meetings a year are sufficient for effective results.⁴⁸

A gradual approach is echoed by what is asserted to be one of the nation's largest public school cooperative purchasing groups. One hundred Sacramento area school districts in California formally combined in 1970 to cut costs by cooperative purchasing. The Sacramento group advises that:

1. A strong leader be appointed to ensure ideas and needs are carried to fruition.
2. Deliveries and drop sites be kept to a minimum so as to attract vendors.

3. Administrative costs be agreed upon at the onset of the agreement.

4. Limit the group to a geographical area. Involve only schools and colleges since their supply needs require a different calendar than other government entities.⁴⁹

The issue of autonomy is addressed in a related article that deals with sharing facilities. Lathen and Caudillo posit that a cooperative agreement should state how differences that might arise will be resolved. The agreement should state who will be involved and what step or steps will result in the event of an impasse. Resolution by arbitration protects the parties and is strongly promoted.⁵⁰ A written agreement provides the best protection for all parties.

Specific procedures and technical legalities are important but interested school districts should not forget to confirm the legality of cooperative purchasing per se. All parties must insure that they can legally participate.⁵¹

49

Hall, Calvin W., op cit., p. 13.

50

Lathen, Calvin W. & Caudillo, Jess D., op cit., p. 30.

51

Hoffer, William. "A Purchasing Co-op: Help for Hard-Pressed Budgets." School Management, April, 1971, 15 (4), pp. 30-31.

In the final analysis, cooperative purchasing requires a team effort. Application of three C's can help insure a successful venture. Participants should direct their efforts to achieve a commonness of objective (cooperation), a structured flow of information (coordination), and the suppression of selfish motives (compliance).⁵²

Forty-one years ago, DeYoung asserted that public schools were unnecessarily expending thousands of dollars for the privilege of retaining the local purchasing option.⁵³ Eighteen years later, Linn chastised local school systems for the inexcusable practice of uneconomical local purchasing when a relatively simple procedure (cooperative purchasing) would save hundreds of thousands of dollars throughout the country.⁵⁴

Washington County, Wisconsin, schools and allied local

52

Mooney, Richard L. "Team Approach to Purchasing Requires Contracting's Three C's." College and University Business, February, 1969, 46 (2), pp. 80-81.

53

DeYoung, Chris A. Budgeting in Public Schools. Garden City, New York: Doubleday, Doron and Co., Inc., 1936.

54

Linn, Henry H. School Business Administration. New York: Ronald Press Company, 1956, p. 252.

governmental agencies translate the concept of cooperative purchasing into a practical scenario expressed by McLean:

Buying cooperatively means paying 14 cents for a ball point pen that lists for 29 cents. It means getting light bulbs and file folders at half price. It means buying street salt for \$12.85 per ton instead of \$14.00. It means saving \$50 on each carbon steel snowplow blade used in the county. In the first year they spent less than \$10,000. After eight years of expanding the range of items purchased, the group now disburses over \$250,000 a year cooperatively, and with this growth, the money they have saved has become increasingly more significant.⁵⁵

Summary

Cooperative purchasing has been employed in the private sector since the late eighteenth century. Public school districts have been slow to adopt the practice. The documented extent of cooperative purchasing in the public schools of America ranges from a low of 5 percent in Mississippi to 59 percent in certain geographical areas. Management problems are present in any situation but are particularly common to smaller school districts. The advantages and disadvantages are well documented and must be balanced based on individual circumstances. Lower prices may be offset by other considerations. Literature

was cited in which practitioners recounted procedures designed to both ameliorate the disadvantages and maximize the advantages inherent in the process.

Chapter 3
METHODOLOGY
Introduction

The practices and procedures of cooperative purchasing as employed by the public school divisions in the Commonwealth of Virginia have not been described in detail or otherwise reported in the literature by means of a formal study. Lack of documentation has made it difficult to assess what, if any, applications might prove useful for school divisions considering cooperative purchasing as a financial management technique. The purpose of this study was to investigate the following question: Has enactment of the Virginia Public Procurement Act altered the practices and procedures of cooperative purchasing as employed by the public school divisions in the Commonwealth of Virginia?

The research question is proposed for each public school division in Virginia which represents a large predetermined population. Survey research was chosen as the method for collection of data. Among its greatest strengths, survey research allows for the systematic collection of data coupled with the adaptability to a

particular situation.⁵⁶ Survey research also allows for the collection of data at a discrete point in time once the population has been determined.⁵⁷ The three major means of data collection in survey research are interviews, questionnaires, and telephone surveys. Of these three means, the questionnaire was chosen as the means to collect the data considering the magnitude of the population. Data were collected, organized comprehensively, and analyzed for emerging patterns and trends utilizing the IBM Application System.⁵⁸ An elaboration of the survey design follows.

The Population

The population studies consisted of each of the one hundred thirty-three public school division superintendents in the Commonwealth of Virginia. This population was examined using two stages of investigation. Initially, each division superintendent responded to an identical questionnaire calculated to elicit data necessary for an overall assessment of the past and

56

Williamson, J. B., Karp, D. A., & Daphin, J. R. The Research Craft. Boston: Little, Brown, and Company, 1977, p. 133.

57

Ibid., p. 134.

58

_____. IBM Application System. (International Business Machines Corp., 1985).

current utilization of cooperative purchasing practices and procedures. From these responses, those school divisions identified as having had experience with cooperative purchasing were further studied in detail utilizing a follow-up questionnaire. Questionnaires were directed to each local division superintendent. Division superintendents were judged to be those persons most knowledgeable about the practices and procedures employed in their division.⁵⁹ Additionally, the diversity of staffing practices present in Virginia's public school divisions does not generally allow for the identification of an individual in each school division assigned specific duties related to purchasing. The inclusion of several questions dealing with school division policy and philosophy were deemed best answered by the division superintendent acting in his role as spokesperson.⁶⁰

The Data

Data collected by the questionnaires were generally of the lower levels of measurements. Appropriate

59

Borg, Walter R. and Gall, Meredith D.
Educational Research: An Introduction. New York:
 Longman, Inc., 1983, p. 423.

60

Berdie, Douglas R., and Anderson, John F.
Questionnaires: Design and Use. Metuchen, New Jersey:
 The Scarecrow Press, Inc., 1974, pp. 27-28.

nonparametric statistics were utilized in assessing the data. The data acquired were generally descriptive in nature since this study was primarily concerned with the current and past status of cooperative purchasing in the public school divisions of Virginia.⁶¹ The extent, type, and purposes of cooperative purchasing were recorded using January 1, 1983, as a frame of reference. School divisions were asked to provide data on the extent to which the services of the State Department of Purchasing and Supply have been utilized before and after enactment of the Virginia Public Procurement Act. The effects of the Virginia Public Procurement Act upon the utilization of the Department of Purchasing and Supply and stated perceptions as to what the State Department of Purchasing and Supply might do to enhance the degree to which its' services are utilized were acquired by open ended response sections of the questionnaire. A combination of fixed and open-ended responses were employed so as to determine the extent to which counties have statutorily merged purchasing operations with their local school division and includes the rationale advanced for this action. Public school superintendents were asked to state their rationale for and against the employment of cooperative purchasing.

61

Borg, Walter R., and Gall, Meredith D.,
op cit., Chapter 10.

Demographic information was acquired utilizing the 1984 State Department of Education's publication, Facing⁶² Up-20. This demographic information was compared with data on key factors identified in the literature as conducive to cooperative purchasing. Additionally, the demographic data assisted in identifying existing patterns that characterized those divisions engaged in cooperative purchasing. It also served as a screening device for further investigation. Those public school divisions reporting experience with cooperative purchasing were reexamined to accumulate additional data utilizing a follow-up questionnaire.

The Instrument

The questionnaire was chosen as the best vehicle to⁶³ achieve the data collection required for this study. This technique provided for a standardized method of response and insured uniform data from all school divisions. Cost, population size, ease of completion, ease of tabulation, minimal bias, and catching opinions

62

Facing Up-20. (May 1986), Richmond, VA: Division of Management Information Services, Commonwealth of Virginia. pp. 18-22, 44-48.

63

Borg, Walter R., and Gall, Meredith D., op cit., pp. 415-435.

were also considerations leading to this selection. Both the initial data collection and subsequent follow-up investigation were accomplished by questionnaires. The responses required were, for the most part, public information that was reflective of the past and current status of cooperative purchasing practices and procedures in the public school divisions of Virginia. Superintendents were requested to provide data on the stated rationale for practicing or eschewing certain cooperative purchasing practices and procedures. Responses ranged from fixed options calculated to determine current or past status through open-ended or comment responses designed to elicit the rationale for a particular course of action. Each question was subjected to a tripartite test: (a) the information should not be obtainable by the researcher using reasonable means, such as published documents or state reports, (b) each question was directly related to a question(s) raised in Chapter 1 of the Dissertation, and (c) there was a discrete basis in the literature for inclusion. Both instruments were designed to conform with the recommendation of Berdie and

65
Anderson. The initial survey instrument was divided into five major sections designed to conform with the major questions posed by this study. Section One was designed to collect data on past and current utilization of cooperative purchasing, effects of the Virginia Public Procurement Act on cooperative purchasing, and the stated rationale for utilizing or eschewing cooperative purchasing. Section Two focused on the utilization of the State Department of Purchasing and Supply before and after enactment of the Virginia Public Procurement Act. Comments on improvement of services were addressed by an open-ended question. Section Three explored the relationship between governing bodies and school divisions as it related to joint centralized purchasing/cooperative purchasing. Section Four was designed to provide descriptive data useful in characterizing staffing and resources as each related to cooperative purchasing. Superintendents were asked, in Section Five, to state whether or not they felt cooperative purchasing was utilized in Virginia to the degree that might be expected and to clarify their answer (Appendix A).

The follow-up instruments were designed using the guidelines previously stated for the initial survey

instrument. These instruments were designed to elicit more specific information from those school divisions reporting experience with cooperative purchasing. Two forms of the follow-up questionnaire were prepared so as to distinguish between school divisions who had engaged in cooperative purchasing but were not currently doing so and those school divisions currently employing the practices and procedures of cooperative purchasing. The initial twelve questions were identical on each form but differed on the remaining two questions. The prime distinction centered around the effort to ascertain why a school division elected to no longer employ cooperative purchasing as opposed to continuing or initiating the process (see Appendixes B and C).

The questionnaires were field tested using respondents representative of the population toward whom the questionnaire was intended. Superintendents from North Carolina were selected on the basis of being representative but not in the population to be studied. A validation instrument was constructed based on the writings of Borg and Gall,⁶⁶ Berdie and Anderson,⁶⁷

66
Borg, Walter R., and Gall, Meredith D.,
op cit., pp. 418-434.

67
Berdie, Douglas R., and Anderson, John F.,
op cit., pp. 12-14.

68

and Isaac and Michael (see Appendix H).

A cover letter stating the purpose of the study, why the person was chosen, and general guidelines were drafted and enclosed (see Appendix G). Validation forms were provided for each instrument as well as enclosed drafts of each cover letter to be used in the successive stages of the study. All questionnaires in the field test were returned. The returned samples were scrutinized for each response and appropriate additions, deletions, and modifications were made. Questionnaires accompanied by appropriate cover letters were printed and distributed to each division superintendent during the months of July and August, 1985.

Data Gathering Procedures

A personally addressed packet was sent by mail to each division superintendent of schools in Virginia. An up-to-date listing was acquired from the Virginia Educational Directory, School Year 1984-85 and augmented by a further up-dating furnished to the Clerk of the Chesapeake School Board in July, 1985.⁶⁹ Each packet

68

Isaac, A., and Michael, W. B. Handbook in Research and Evaluation. San Diego, CA: EDITS Publishers, 1971, pp. 92-94.

69

Virginia Educational Directory, School Year 1984-85 (January, 1985), Richmond, VA: Department of Education, Commonwealth of Virginia.

contained a cover letter that introduced the study, stressed its usefulness, and requested the superintendent's help in achieving a representative data base (see Appendix D). The initial questionnaire was included along with a stamped, self-addressed envelope so that the completed questionnaire could be mailed directly to the researcher. Anonymity was assured to each school division respondent. Identification was justified on the basis of future follow-up data being desired.

Four weeks after the mailing, school divisions that had not responded were mailed a follow-up letter including another questionnaire and a stamped, self-addressed envelope (see Appendix E). In cases where results were not forthcoming, personal contact was made. In an effort to increase the response rate, a telephone number was provided should assistance or clarity be required and the opportunity to receive a summation of the study. This procedure was repeated for the follow-up questionnaire which was limited to school divisions reporting either past or current experience with cooperative purchasing. A separate cover letter accompanied this mailing (see Appendix F). Demographic data such as enrollment, the amount of the school division budget allotted to operations, the classification of the governing body, etc.

were compiled by the researcher from the 1984 State
Department of Education publication, Facing Up-20.⁷⁰

Data Analysis

The data accumulated in this study are reported in terms of frequency of response. Data fell into two general categories: specific fixed responses and open-ended responses. Fixed responses were tabulated using the designation in the questionnaire. Open-ended responses were assigned to a category derived from the literature.

The writings of Munsterman,⁷¹ Hardin,⁷² Forsythe and
Hardin,⁷³ Sanders and Knapp,⁷⁴ O'Shea and Piper,⁷⁵ Hall,⁷⁶

70
Facing Up-20, op cit., pp. 18-22, 44-48.

71
Munsterman, Richard W., op cit., pp. 176-177,
213.

72
Hardin, Claude E., op cit., p. 2249.

73
Forsythe, Ralph A., & Hardin, Claude E.,
op cit., pp. 10, 53.

74
Sanders, Frank, & Knapp, Herbert, op cit.,
p. 4.

75
O'Shea, Daniel R., & Piper, Donald L.,
op cit., pp. 18, 28-29.

76
Hall, Calvin W., op cit., pp. 13, 101.

Holloway and Clark,⁷⁷ and Cooper⁷⁸ constituted a range sufficient to match a wide diversity of responses. The results were analyzed using the BASIC STATISTICS⁷⁹ subprogram of the IBM Application System. The initial analysis computed the frequency of response to each question in each of the possible categories.

The CHI-SQUARE⁸⁰ subprogram was utilized to determine the statistical relationship between demographic data and the responses of school divisions having experience with cooperative purchasing. These data were analyzed to determine whether or not a pattern existed that described school divisions having elected to utilize cooperative purchasing. Appropriate tables were constructed to present the frequency of each section of responses, a comparison of pre and post January 1, 1983, practices

⁷⁷ Holloway, William H., & Clark Wayne H., op cit., pp. 97-107, 167.

⁷⁸ Cooper, Lloyd G., & others, op cit., pp. 1-4, 18.

⁷⁹ _____ . (1986). Analyzing Data with Application System (Computer Program Manual). International Business Machines Corp.; Program No. 5767-001.

⁸⁰ Ibid., pp. 9-22 to 9-27.

and procedures, responses to a follow-up investigation of those school divisions having experience with cooperative purchasing, and a profile of school districts using cooperative purchasing. The stated effects of the Virginia Public Procurement Act were thus brought into focus.

Chapter 4

RESULTS

Responses to each section of Questionnaire I (the initial survey) and Questionnaire II (the follow-up survey of those divisions reporting experience with cooperative purchasing) are presented in this chapter. Raw data establishing the history and current status of cooperative purchasing in the public school divisions of Virginia are presented first followed by an analysis of those data.

Data Collection with Questionnaire I

Questionnaire I (Appendix A) consisted of thirty questions divided into five sections. Each section dealt with a major component of the study. Section I, Cooperative Purchasing, sought information on past and current utilization of cooperative purchasing. Effects of the Virginia Public Procurement Act on cooperative purchasing and the rationale for utilizing or not utilizing cooperative purchasing were also sought. Section II, Utilization of the State Department of Purchasing and Supply, sought data on the utilization of the State Department of Purchasing and Supply before and after the enactment of the Virginia Public Procurement Act. Comments on improvement of services by division superintendents were solicited. Section III, dealing with Governing Bodies, sought to determine the relationship between governing bodies and school divisions

as relates to joint centralized purchasing/cooperative purchasing. Section IV, Demographic Data, was designed to provide descriptive data useful in characterizing staffing and resources as they relate to cooperative purchasing. Section V, the Superintendent's Views on Cooperative Purchasing, asked for the perspective of the respondent on the extent to which cooperative purchasing is or is not utilized and why this might be so. Directions were presented for the respondents to follow as well as stipulating the intention of each section.

Of the thirty questions, nine were open-ended so as to allow freedom of response. Eleven questions were answerable yes or no. Five multiple choice questions with two to four possible answers were interspersed as appropriate. Five questions of a demographic nature were included that were answerable as applicable to each school division. These may be considered as open-ended although the response did not deal with opinion or perspective. The questionnaire was mailed to each of the one hundred thirty-three public school division superintendents in Virginia.

Each questionnaire was clearly labeled identifying the school division(s) to determine the result of the initial mailing and the subsequent follow-up procedures. As a result of the first mailing, seventy-eight, or 69 percent, of the questionnaires were returned in a complete and usable form. An additional twenty-five questionnaires were

obtained from the follow-up for a total of one hundred three, or a response rate of 77.44 percent. Ten additional questionnaires were returned as a result of a telephone follow-up which brought the total to one hundred thirteen, or an 85 percent overall response rate. Kerlinger states that response rates of 50 to 60 percent are considered extremely good but that response rates of less than 80 percent should be followed up so as to determine something of the non-respondent's characteristics.⁸¹ The high return rate for this study was in excess of 80 percent and no further follow-up was deemed necessary.

Table 1 analyzes the response rate to Questionnaire I by overall and sub-group response rate. No sub-group's response rate fell below 80 percent. Table 1 also reports the percentage of county, city, town and school divisions served by one superintendent that comprise the total divisional breakdown. This was done so as to establish and be able to weigh the proportions associated with later responses in the questionnaire.

The responses were transferred to IBM COBOL Coding Forms from which a set of data cards was generated for computer analysis. Cards were validated by the computer

81

Kerlinger, Fred N., Foundations of Behavioral Research, (New York: Holt, Rinehart, and Winston, 1973), p. 414.

Table 1
Response Rate to Questionnaire I

	POSSIBLE RESPONSES FROM SUPERINTENDENTS	RESPONSES RECEIVED FROM SUPERINTENDENTS	^a PERCENT OF TOTAL
Total	133	113	85
<hr/>			
Sub Groups			
^b Counties	89	77	87
^c Cities	36	29	81
^d Towns	2	2	100
^{*e} Dual Divisions Served by One Superintendent	6	5	83

^a
Percentages rounded up at > or = .5.

^b
Counties comprise 67 percent of total divisions

^c
Cities comprise 27 percent of total divisions

^d
Towns comprise 1 percent of total divisions

^e
Dual Divisions Served by One Superintendent comprise 5 percent of total divisions

*These divisions are
Greensville County/Emporia
Grayson County/Fries
James City County/Williamsburg
Halifax County/South Boston
Fairfax County/Fairfax
King William County/West Point

technician. The researcher and two trained assistants visually validated a representative sample using the COBOL Forms as the base of reference.

Analysis of Questionnaire I Data

The IBM Application System was used to develop frequency of response and percentage values for each of the thirty questions. The BASIC STATISTICS subprogram provided the bulk of the data reported in Tables 2 through 40. Further analysis was achieved by use of the CHI SQUARE subprogram. Questions in each section are presented by reporting responses in terms of frequency, percentage, sub-group rate, and a brief analysis of those response rates deemed significant. Total group responses are presented with a further breakdown by the category of school division; i.e. county, city, etc. These are labeled as sub-groups for ease of discussion.

Section I - Cooperative Purchasing

The five questions in this section sought information on past and current utilization of cooperative purchasing, the effect of the Virginia Public Procurement Act on cooperative purchasing practices, and the stated rationale for utilizing or not utilizing cooperative purchasing respectively.

Question one presented respondents with four characterizations that reflect the possible experiences a

school division would have with cooperative purchasing. Table 2 shows that the majority, sixty-four, or 57 percent of division superintendents responding, report their school divisions have never engaged in cooperative purchasing. An additional seven, or 6 percent of the division superintendents responding, reported that they had engaged in cooperative purchasing prior to January 1, 1983, but have since discontinued the practice. Thirty-six, or 32 percent of the division superintendents responding, report that their school divisions were engaged in cooperative purchasing prior to January 1, 1983, and are still so engaged. Six county division superintendents, or 5 percent of those responding, reported that their school divisions have become involved in cooperative purchasing only after January 1, 1983. Of the seven school divisions reporting that cooperative purchasing has been discontinued, six of the seven are county school divisions. Whether a school division is classified as a city, county, town or dual division served by one superintendent does not bear any relationship to whether or not a school division has engaged in cooperative purchasing.

Question two deals directly with what effect, if any, enactment of the Virginia Public Procurement Act has had on cooperative purchasing. Division superintendents were asked to respond yes or no to this question. Table 3 shows that of the one hundred thirteen division superintendents

Table 2

The Experience of Virginia School Divisions
 With Cooperative Purchasing as Reported
 by Division Superintendents (N=113)

=====
 Divisions Involved With Cooperative Purchasing Prior to
 January 1, 1983 But Who Have Discontinued the Practice

Counties	6			
Cities	1			
Towns	0			
Dual Divisions Served by One Superintendent	0	Total	<u>7</u>	Percent of N ^a <u>6</u>

Divisions Involved With Cooperative Purchasing Prior
 to January 1, 1983 and Who Still Engage
 in Cooperative Purchasing

Counties	19			
Cities	14			
Towns	0			
Dual Divisions Served by One Superintendent	3	Total	<u>36</u>	Percent of N ^a <u>32</u>

Divisions Who Have Never Been Engaged
 in Cooperative Purchasing

Counties	46			
Cities	14			
Towns	2			
Dual Divisions Served by One Superintendent	2	Total	<u>64</u>	Percent of N ^a <u>57</u>

Divisions Who Became Involved in Cooperative Purchasing
 After January 1, 1983

Counties	6			
Cities	0			
Towns	0			
Dual Divisions Served by One Superintendent	0	Total	<u>6</u>	Percent of N ^a <u>5</u>

^aPercentages rounded up at > or = .5.

Table 3

Has Enactment of the Virginia Public Procurement Act
Affected the Decision of Your School Division to
Engage in Cooperative Purchasing (N=113)

	YES	Percent of N ^a	NO	Percent of N ^a
Total	16	14	97	86
<hr/>				
Sub Groups				
Counties	13	11	64	57
Cities	3	3	26	23
Towns	0	0	2	2
Dual Divisions Served by One Superintendent	0	0	5	4

^a
Percentages rounded up at > or = .5.

responding, ninety-seven or 86 percent, report that the enactment of the Virginia Public Procurement Act has not affected their school division's decision to engage in cooperative purchasing.

Table 4 relates the cooperative purchasing experience to the effect of the Virginia Public Procurement Act on the decision to engage in cooperative purchasing. Superintendents reporting that the enactment of the Virginia Public Procurement Act did not affect their decision to engage in cooperative purchasing did not initiate cooperative purchasing nor did they cease to employ cooperative purchasing in cases where it was already in effect. Superintendents reporting that the enactment of the Virginia Public Procurement Act had an affect on their decision to engage in cooperative purchasing are more likely to initiate and maintain an agreement than those superintendents reporting no effect was perceived.

Sixteen of the one hundred thirteen division superintendents responding to question two reported that enactment of the Virginia Public Procurement Act did affect their school division's decision on whether or not to employ cooperative purchasing. Question three asked, by means of an open-ended response, for an explanation of why this was so. The sixteen responses fell into two categories. Five school divisions (four county divisions and one city division) report that a review of the provisions of the

Table 4

The Effect of the Virginia Public Procurement Act on the Decision to Engage in Cooperative Purchasing Compared With the Cooperative Purchasing Experience (N=113)

=====

Cooperative Purchasing Experience	Had An Effect	No Effect	Totals
Involved Prior to January 1, 1983 - Now Discontinued	0	7	7
Involved Prior and After January 1, 1983	7	29	36
Never Engaged	5	59	64
Engaged After January 1, 1983	4	2	6

Relationship Between the Effect of the Enactment of the Virginia Public Procurement Act on the Decision to Engage in Cooperative Purchasing Compared with the Cooperative Purchasing Experience (N=113)

Level of Significance = < .01

=====

Variable	2 X	Degrees of Freedom	Significant
The Effect of the Virginia Public Procurement Act on the Decision to Engage in Cooperative Purchasing	9.05	1	Yes

=====

Virginia Public Procurement Act persuaded them that cooperative purchasing would be too cumbersome and time consuming when multiple organizations were involved. Eleven school divisions (nine county divisions and two city divisions) reported that the publicity leading up to and the imminent passage of the Virginia Public Procurement Act stimulated them to explore cooperative purchasing as a means of abiding by the law, pooling expertise, and saving money. Four school divisions began cooperative purchasing after enactment of the Virginia Public Procurement Act.

Questions four and five sought, through open-ended responses, to ascertain the major reasons why school divisions did or did not engage in cooperative purchasing. Responses were uniformly unambiguous greatly simplifying the categorization process. Question four was directed to those school divisions who had or are presently engaged in cooperative purchasing. School divisions reporting that they had engaged or are currently engaged in cooperative purchasing were asked to list the major reasons for their doing so. Table 5 presents the responses in terms of response frequency and the percent of responses received. Thirty-four of the seventy responses, or 69 percent, reported a savings in money as the major reason for engaging in cooperative purchasing. This, by far, constituted the major response category. Next in frequency were thirteen responses, or 27 percent, reporting a savings

Table 5

Major Reasons for Engaging in Cooperative Purchasing

(N=49)

Number of Responses	Percent of N ^a	Reasons
34	69	Saves money
13	27	Saves time administratively (less paperwork and calls by salesmen)
6	12	Combines the best practices of several school districts and/or county
6	12	Compelled to do so by county government
2	4	Encourages wider range of supplies to be evaluated
2	4	Strengthens relationships with other agencies
1	2	Eases salesmen's pressure on purchasing agents
1	2	Increases analysis of specifications resulting in better quality
1	2	Better public relations -Public perceives better use of taxes
1	2	keeps the competition honest
1	2	Helps to meet Virginia Public Procurement Act requirements
1	2	Results in continuous price analysis
1	2	No comment

a

Exceeds 100 percent due to multiple responses. Percentage rounded up at > or = .5.

in administrative time as a major factor for engaging in cooperative purchasing. Eleven other categories were recorded. It is apparent that a desire to save money emerges as the main reason for engaging in cooperative purchasing. Six school divisions stated that the major reason they were engaged in cooperative purchasing was that the county government had compelled them to do so.

When asked to state the major reasons that their school division has not engaged in cooperative purchasing, division superintendents reported a variety of reasons covering sixteen categories presented in Table 6. The most frequent response, twenty-five or 39 percent, stated that present purchasing procedures were deemed satisfactory. Eleven, or 17 percent, did not elect to comment on this question. The self-evaluation required in responding to this question may have interfered with the response rate. Stating why a process is not used may be interpreted as questioning judgment on policy. The majority of the remaining respondents did reply which provided a valid picture. This question was asked again at the conclusion of the instrument by asking why superintendent's "believe" cooperative purchasing may or may not be used to the degree one might expect. This removed self-evaluation in responding to the question. Lack of staff and lack of appropriate training accounted for nine responses or 14 percent of the total responses. Fear of the loss of autonomy, a lack of storage

Table 6

Major Reasons for Not Engaging in Cooperative Purchasing

(N=64)

Number of Responses	Percent of N	^a Reasons
25	39	Consider present procedures very satisfactory
11	17	No comment
9	14	Personnel concerns - lack of expertise
8	13	Size - too small to attract partners
7	11	Concerns about a loss of autonomy
6	9	Storage problems - delivery problems
5	8	Agreement on product specifications difficult
5	8	Geographical isolation
4	6	Red tape
4	6	Coordinating local purchasing and cooperative purchasing
3	5	Not cost effective in terms of time expended
1	2	Political concerns (use of tax money - local suppliers complaints)
1	2	Service is lost when salesmen are not involved
1	2	Hidden costs
1	2	Coordinating with budget preparation
1	2	Possibility of large suppliers conspiring on prices

^a Exceeds 100 percent due to multiple responses. Percentage rounded up at > or = .5.

and delivery capability, and being too small in size to attract other agencies were reported by 11 percent, 9 percent, and 13 percent of the school divisions respectively.

Section II - Utilization of the State Department of Purchasing and Supply

The State Department of Purchasing and Supply develops specifications for certain goods, materials, and supplies required by public agencies in the Commonwealth. For many goods, materials, and supplies, bids are solicited and a qualified vendor who submits the best price is then selected. Public agencies may purchase from the list of approved bidders without initiating the same process locally. This is a form of cooperative purchasing since local agencies opt to use this arrangement or not as they deem appropriate. Section II was designed to study the utilization of the State Department of Purchasing and Supply by school divisions before and after enactment of the Virginia Public Procurement Act. Comments were sought regarding what, if any, improvement of services might be suggested. Questions six through eleven are comprised of two multiple choice questions, one demographic response, a yes or no question, and two open-ended queries.

Question six sought to determine the pattern of buying before and after enactment of the Virginia Public Procurement Act. As shown by Table 7, the majority of

Table 7
 A Comparison of the Amount Purchased
 From the State Department of Purchasing and Supply
 Prior To and After January 1, 1983 (N=113)

	More	Percent of N	a About the Same	Percent of N	a Less	Percent of N	a
Total	34	30	72	64	7	6	
<hr/>							
Sub Groups							
Counties	26	23	45	40	6	5	
Cities	8	7	21	19	0	0	
Towns	0	0	1	1	1	1	
Dual Divisions Served by One Superintendent	0	0	5	4	0	0	

^a
 Percentages rounded up at > or = .5.

division superintendents, seventy-two or 64 percent, reported that their school division purchased about the same amount of goods, materials, and supplies from the State Department of Purchasing and Supply prior to the passage of the Virginia Public Procurement Act as has been purchased after enactment of the statute. Thirty-four, or 30 percent of the division superintendents reporting, stated that they have purchased more goods, materials, and supplies from the State Department of Purchasing and Supply since enactment of the Virginia Public Procurement Act. An increase of purchasing by the school divisions from the State Department of Purchasing and Supply reflects a perception on the part of some school divisions that certain items such as chemicals are best purchased from the State Department of Purchasing and Supply so as to avoid the writing of specifications associated with the bidding process contained under the Virginia Public Procurement Act. The decrease in purchasing by certain school divisions occurring after the enactment of the Virginia Public Procurement Act may reflect a general dissatisfaction by some school divisions with the regulatory intrusion by state agencies into school division operating procedures. The prior two interpretations of the data received are based on comments made during personal contacts with school division personnel for the purpose of obtaining clarification and/or additional information. These conclusions are further buttressed by the fact that

twenty-nine school division superintendents specifically cited the writing of specifications as motivation for utilizing the State Department of Purchasing and Supply (p. 68).

Question seven was designed to investigate the pattern of usage and extent of same by school divisions. Table 8 reports yearly purchases, occasional purchases, and the extent to which services are not utilized. The majority, fifty-six, or 50 percent, of division superintendents reported that their school divisions purchase three or more categories of goods, materials, and supplies from the State Department of Purchasing and Supply each year. Occasional purchases are made by thirty school divisions, or 26 percent of the total responding. Nineteen, or 17 percent, of the division superintendents responding reported that they purchase less than three categories of goods, materials, and supplies each year. Eight school divisions, or 7 percent, reported that they do not utilize the services of the State Department of Purchasing and Supply.

Question eight investigated whether or not enactment of the Virginia Public Procurement Act affected utilization of the State Department of Purchasing and Supply by schools divisions. The results are presented in Table 9. Seventy-nine division superintendents, or 70 percent of those responding, reported that passage of the Virginia Public Procurement Act has not affected their utilization of

Table 8
 History of Purchasing From the State
 Department of Purchasing and Supply (N=113)

		Percent of N ^a
A.	Less than 3 categories a year	17
B.	More than 3 categories a year	50
C.	Occasional purchases but not each year	26
D.	Not utilizing its services	7

Sub Groups		Counties	Cities	Towns	DDSBOS ^b
A.	a	13	5	0	1
Percent of N		12	4	0	1
B.	a	37	15	1	3
Percent of N		33	13	1	3
C.	a	22	7	0	1
Percent of N		19	6	0	1
D.	a	5	2	1	0
Percent of N		4	2	1	0

^a Percentages rounded up at > or = .5.

^b Dual Divisions Served by One Superintendent

Table 9
 The Effect of the Virginia Public Procurement Act
 on Utilization of the State Department
 of Purchasing and Supply (N=113)

	Yes	Percent ^a of N	No	Percent ^a of N
Total	34	30	79	70
<hr/>				
Sub Groups				
Counties	25	22	52	46
Cities	8	7	21	18
Towns	0	0	2	2
Dual Divisions Served by One Superintendent	1	1	4	4

^a
 Percentages rounded up at > or = .5.

services provided by the State Department of Purchasing and Supply. Thirty-four school divisions, or 30 percent of those responding, stated that enactment of the Virginia Public Procurement Act has had an effect on their use of the State Department of Purchasing and Supply. There appears to be a slight tendency, proportionately, for county school divisions to report that enactment of the Virginia Public Procurement Act has affected their utilization of the State Department of Purchasing And Supply.

Question nine investigated the stated effect of the Virginia Public Procurement Act on utilization of the State Department of Purchasing and Supply. Twenty-nine division superintendents, or 85 percent of those responding, reported that the effect centered around the necessity to develop specifications, prepare bid documents, and process same in accordance with the statute. Purchasing items from the State Department of Purchasing and Supply eliminates the necessity for these procedures. Additionally, concerns about observing the associated legalities in the bidding process are eliminated, in general, when items are acquired from the State Department of Purchasing and Supply. Four division superintendents reported a perception that enactment of the Virginia Public Procurement Act has resulted in the State Department of Purchasing and Supply achieving better quality and price structure because of the greater attention to detail and wider circulation of bid

proposals. One division reported a negative impact on their relations with the State Department of Purchasing and Supply because a particular item had been dropped from the state bid list.

Division Superintendents were asked, in question ten, what, if anything, the State Department of Purchasing and Supply might do so as to increase the use of services by their school division. Table 10 reflects the responses to this open-ended question in terms of frequency and percent of the categorical responses. Certain school divisions responded with more than one suggestion. Thirty-one division superintendents elected not to respond when asked what the State Department of Purchasing and Supply might do to enhance the use of services by their particular school divisions. This 27 percent constituted a majority of responses. Twenty-one school divisions, or 19 percent, stated that services rendered were currently satisfactory. Twenty-five school divisions, or 22 percent of those responding, stated that improved communication would be very helpful. Improved communication included more detailed brochures, a more timely issuance of the same, and improvement of employee attitude as regards helpfulness when questions and problems occur. Twenty responses, or 18 percent of the total, suggested that an expanded range of offerings be achieved through more input by school divisions. Fourteen responses, or 12 percent of the total,

Table 10

Means by Which the State Department of Purchasing and
Supply Might Increase Utilization of Their Services
by School Divisions (N=113)

Number of Responses	Percent ^a of N	Reasons
31	27	No comment
25	22	Improve communications, i.e. more detailed brochures issued on a more timely basis, employees be more helpful in attitude
21	19	Currently satisfactory
20	18	Expand range of offerings - get more input from school divisions
14	12	Strive for better prices and more of a quality in what they offer
10	9	Improve delivery services - freight too high - regional center(s) should be considered
5	4	Improve technical services - offer training sessions, help with specification writing and up-date memoranda on good purchasing procedures
4	4	Streamline bureaucratic procedures
1	1	Improve inventory procedures so that in-stock availability matches orders

^a Exceeds 100 percent due to multiple responses. Percentages rounded up at > or = .5.

stated that a decrease in the current price structure and an improvement in the quality of the goods, materials, and supplies offered might induce them to further utilize the services of the State Department of Purchasing and Supply. Ten responses, or 9 percent of the total, stated that regional centers should be developed so as to improve delivery services and reduce freight costs. Five responses, or 4 percent of the total, suggested that technical services could be improved. Specifically, it was proposed that assistance be given with specification writing, that training sessions be developed concerning purchasing procedures, and that up-dates be sent to school divisions citing improved and recently developed purchasing procedures. One response cited a need to improve inventory control so that out of stock items could be readily identified. Four responses, or 4 percent of the total, cited excessive bureaucratic procedures as an area needing improvement. Sixty-one of the respondents cited specific means by which the State Department of Purchasing and Supply might improve its services and thus attract more utilization by the school divisions in the Commonwealth of Virginia.

Question eleven sought to determine the approximate percent of goods, materials, and supplies needed by each division acquired through the State Department of Purchasing and Supply. Table 11 reflects the categories into which

Table 11

Approximate Percentage Representing the Amount of Purchases
for Goods, Materials, and Supplies Acquired Through
the State Department of Purchasing and Supply (N=113)

=====				
	1 percent or less	2-5 percent	6-10 percent	15-20 percent
Total	33	29	16	10
<hr/>				
Sub Groups				
Counties	22	19	12	7
Cities	9	10	2	2
Towns	0	0	0	0
Dual Divisions Served by One Superintendent	2	0	2	1
<hr/>				
Percent of N ^a	29	26	14	9
<hr/>				
	21-25 percent	26-39 percent	40-50 percent	No comment
Total	5	1	4	15
<hr/>				
Sub Groups				
Counties	3	1	4	9
Cities	2	0	0	4
Towns	0	0	0	2
Dual Divisions Served by One Superintendent	0	0	0	0
<hr/>				
Percent of N ^a	4	1	4	13
<hr/>				

^aPercentages rounded up at > or = .5.

responses fell. Thirty-three division superintendents, or 29 percent of the total responding, reported that they purchase 1 percent or less of the goods, materials, and supplies needed by their school division from the State Department of Purchasing and Supply. Twenty-nine division superintendents, or 26 percent of the total responding, report that they purchased 2 to 5 percent of the goods, materials, and supplies needed by their school division from the State Department of Purchasing and Supply. Sixteen division superintendents, or 14 percent of the total responding, report that they purchase 6 to 10 percent of the goods, materials, and supplies needed by their school division from the State Department of Purchasing and Supply. Ten division superintendents, or 9 percent of the total responding, report that they purchase 15 to 20 percent of the goods, materials, and supplies needed by their school division from the State Department of Purchasing and Supply. Five division superintendents, or 4 percent of the total responding, report that they purchase 21 to 25 percent of the goods, materials, and supplies needed by their school division from the State Department of Purchasing and Supply. One division superintendent, or 1 percent of the total responding, reported that he purchases 26 to 39 percent of the goods, materials, and supplies needed by his school division from the State Department of Purchasing and Supply. Four division superintendents, or 4 percent of the total

responding, report that they purchase 40 to 50 percent of the goods, materials, and supplies needed by their school division from the State Department of Purchasing and Supply. Fifteen division superintendents, or 13 percent of the total responding, elected not to answer. Combining the three purchasing categories that range from 10 percent to 1 percent or less reveals that seventy-eight division superintendents, or 79 percent of those responding, purchase 10 percent or less of their needs for goods, materials, and supplies from the State Department of Purchasing and Supply.

Section III - Governing Bodies

This section explored the relationship between governing bodies and school divisions concerning joint centralized purchasing (cooperative purchasing) with particular attention to the exercise of Section 15.1-127 of the Code of Virginia. Voluntary explorations of cooperative purchasing and associated factors were also studied.

Section 15.1-127 of the Code of Virginia provides statutory authority for county boards of supervisors to compel their local school division to join with the county in "joint centralized purchasing". Joint centralized purchasing is, in fact, cooperative purchasing minus the voluntary aspect. School divisions compelled to do so are considered to be engaged in cooperative purchasing for the purposes of this study. Although Section 15.1-127 of the

Code of Virginia does not specifically extend this authority to other than county boards of supervisors, city and town school divisions were also asked the question to determine whether any attempt or attempts were underway to extend the statute beyond the stated intent.

Question twelve asked for a yes or no answer as to whether or not the governing body compelled the school division to join in joint centralized purchasing by virtue of Section 15.1-127 of the Code of Virginia. The results are presented in Table 12. Fifteen county division superintendents, or 13 percent of the total responding, reported that the governing body of their locality compelled them to engage in joint centralized purchasing by virtue of Section 15.1-127 of the Code of Virginia. Ninety-eight division superintendents, or 87 percent of the total responding, reported that their governing body had not compelled them to engage in joint centralized purchasing. The fifteen county division superintendents reporting that the governing body had compelled them to join in joint centralized purchasing represent 19 percent of the county division superintendents responding. County governments have not elected, in the majority of cases, to utilize Section 15.1-127 of the Code of Virginia. No city or town division superintendent reported that their governing body had exercised, or attempted to exercise, Section 15.1-127 of the Code of Virginia.

Table 12
 School Divisions Compelled to Join With the Governing
 Body in Joint Centralized Purchasing (N=113)

		Percent ^a of N		Percent ^a of N
	Yes		No	
Total	15	13	98	87
<hr/>				
Sub Groups				
Counties	15	13	62	55
Cities	0	0	29	26
Towns	0	0	2	2
Dual Divisions Served by One Superintendent	0	0	5	4

^a Percentages rounded up at > or = .5.

An analysis of question thirteen, which asked whether the county governing body had instituted joint cooperative purchasing before or after January 1, 1983, revealed that approximately one-half were compelled to join in joint centralized purchasing before January 1, 1983, and approximately one-half after January 1, 1983.

The rationale used by the fifteen county boards of supervisors for invoking Section 15.1-127 of the Code of Virginia was studied in question fourteen. Division superintendents were asked what rationale was given for this action on the part of their governing body. Table 13 presents the data. Five of the thirteen county division superintendents, or 33 percent of the total responding, reported that exerting control over the purchasing operations of their school division was the rationale for the governing body (county) to compel joint centralized purchasing by Section 15.1-127 of the Code of Virginia. Six of the thirteen county division superintendents, or 40 percent of the total responding, reported that a savings in money was the rationale for the governing body (county) to compel joint centralized purchasing by authority of Section 15.1-127 of the Code of Virginia. Three county division superintendents, or 20 percent of those responding, reported that compelling the school division to join in joint centralized purchasing would more effectively combine

Table 13
 Rationale Given for Joining with the Governing Body
 in Joint Centralized Purchasing (N=15)

Given Rationale	Number of Responses	Percent of N ^a
Exert control over school divisions purchasing division	5	33
Savings in money	6	40
More effectively combine management techniques and expertise in purchasing	3	20
No comment	1	7

^a Percentages rounded up at > or = .5.

management techniques and expertise. One county division superintendent elected not to respond.

The control of purchasing operations and saving money were reported an equivalent number of times. In no case was enactment of the Virginia Public Procurement Act given as the rationale.

Division superintendents were asked, on question fifteen, to state whether or not their school division was involved in preliminary discussions designed to explore the establishment of a cooperative purchasing agreement with another school division(s) and/or public body. Table 14 presents these data. Fourteen division superintendents, or 12 percent of those responding (one hundred thirteen), reported that they were exploring cooperative purchasing as contrasted with ninety-five respondents who answered that they were not (84 percent of the one hundred thirteen responding). Four division superintendents elected not to respond to this question. Of the fourteen affirmative responses, ten were county school divisions while four were city school divisions. Proportionately viewed, the number of county and city school divisions exploring cooperative purchasing is equivalent.

Question sixteen asked the fourteen division superintendents who reported that their school division was exploring cooperative purchasing to state who initiated the discussions. Nine division superintendents, or 64 percent

Table 14

Is Your School Division Involved in Discussions
Designed to Explore the Establishment of a Cooperative
Purchasing Agreement with Another School Division(s)
and/or Public Body (N=113)

	Yes	Percent of N ^a	No	Percent of N ^a	No Comment	Percent of N ^a
TOTAL	14	12	95	84	4	4
<hr/>						
Sub Groups						
Counties	10	9	64	57	3	3
Cities	4	3	25	22	0	0
Towns	0	0	2	2	0	0
Dual Divisions Served by One Superintendent	0	0	4	3	1	1

^a
Percentages rounded up at > or = .5.

of the total responding, stated that the school division initiated the discussions. Three division superintendents, or 21 percent of the total responding, reported that their governing body had initiated discussions. One division superintendent reported that an outside agency had initiated discussions while the remaining division superintendent reported that both the school division and the governing body had initiated discussions. The impetus to discuss possible cooperative purchasing agreements originated from school divisions more frequently than from a governing body or other outside agency.

The fourteen school divisions reporting that they were discussing the establishment of cooperative purchasing agreement with another entity or entities were asked to respond as to what major points, both for and against, were being advanced in the discussions. Responses were open-ended as presented in question sixteen. Table 15 presents these data. Four school divisions reported only reasons being advanced in favor of the establishment of a cooperative purchasing agreement. One school division reported only those major points being advanced against the establishment of a cooperative purchasing agreement. Seven school divisions responded with major points both for and against the establishment of a cooperative purchasing agreement. Two school divisions elected not to respond to this question. Multiple answers were received from

Table 15

Major Points Being Advanced During Discussions for
Establishing a Cooperative Purchasing Agreement (N=14)

Major Points For	Number of Responses	Percent ^a of N
Save money	10	71
Obtain better quality goods	2	14
More effective use of personnel, time and expertise	6	43
Insure meeting legal requirements more effectively	1	7

Major Points Being Advanced During Discussions Against
Establishing a Cooperative Purchasing Agreement (N=14)

Major Points Against	Number of Responses	Percent ^a of N
Administrative problems	6	43
Inability to agree on specifications	5	36
Loss of autonomy	3	21
Storage, delivery problems	1	7
Hidden costs	1	7

^a

Percentages exceed 100 percent due to multiple responses.
Percentages rounded up at > or = .5.

respondents. Responses to the major points being advanced in favor of the establishment of a cooperative purchasing agreement were as follows:

1. Ten responses, or 71 percent of the total, cited the expectation that a saving in money would result.
2. Six responses, or 43 percent of the total, cited a more effective use of personnel, time and expertise.
3. Two responses, or 14 percent of the total, cited the expectation that a better quality of goods, materials, and supplies would result.
4. One response, or 7 percent of the total, cited that a more effective compliance with legal requirements would likely result.

Responses to the major points being advanced against the establishment of a cooperative purchasing agreement were as follows:

1. Six responses, or 43 percent of the total, cited administrative problems with the management of such an agreement.
2. Five responses, or 36 percent of the total, centered around difficulty in achieving a consensus on specifications for goods, materials, and supplies.

3. Three responses, or 21 percent of the total, cited concerns about a loss of autonomy as a major concern.
4. One response, or 7 percent of the total, cited storage and delivery problems as a drawback.
5. One response, or 7 percent of the total, cited hidden costs in the process.

The anticipation of monetary savings was the most frequently cited point advanced in favor of the establishment of a cooperative purchasing agreement. Administrative problems in the management of a cooperative purchasing agreement and achieving a consensus on specifications on goods, materials, and supplies comprise the major points advanced against the establishment of a cooperative purchasing agreement.

Section IV - Demographic Data

Section four was designed to acquire data related to the major issues associated with cooperative purchasing and serve as factors that might establish a pattern, if such was present, discriminating between school divisions' utilization of cooperative purchasing. The eleven questions in this section were comprised of seven questions answerable yes or no and four questions requesting a specific numerical answer. Each question was answered by the one hundred thirteen division superintendents responding to the study.

Tenure. The tenure of division superintendents was established for the purpose of comparing this data with the cooperative purchasing experience reported by each respondent. Question eighteen asked the division superintendent how long he or she had served in their present capacity. Categories were developed consonant with the range of responses. Table 16 presents the overall data with a breakdown by school division category. The majority of division superintendents, forty or 35 percent, had served from one to five years in their current positions. Approximately one-half of this number, nineteen or 17 percent, had not served a full year as superintendent. The six to ten year tenure category was comprised of twenty-two respondents or 19 percent of the total responding. Those superintendents serving from eleven to fifteen years and sixteen to twenty years were represented by seventeen and thirteen respondents respectively. Superintendents who have served more than twenty-one years numbered two respondents. Superintendents who were in their first term of appointment (fifty-nine) slightly outnumbered those superintendents who were in their second term or longer of appointment (fifty-four).

Each category of tenure was analyzed to determine the experience each division superintendent within that category reported relative to his or her school division's experience with cooperative purchasing. The results of this comparison

Table 16
 Tenure of Division Superintendents
 in Current Position (N=113)

Tenure (Years)	Counties	Cities	Towns	DDSBOS ^b	Total	Percent ^a of N
less than 1 year	12	4	1	2	19	17
1 - 5 years	24	14	0	2	40	35
6 - 10 years	17	5	0	0	22	19
11 - 15 years	11	5	1	0	17	15
16 - 20 years	12	1	0	0	13	12
21 years and over	1	0	0	1	2	2

^a
 Percentages rounded up at > or = .5.

^b
 Dual Divisions Served by One Superintendent

are shown on Table 17. The majority (57 percent) of school divisions in Virginia have never been engaged in cooperative purchasing (Table 2). Superintendents with less than one year in office did not impact at all on the status of cooperative purchasing agreements. Two of the cooperative purchasing agreements initiated after January 1, 1983, were begun by superintendents serving their first term (one to five years). Two additional agreements were completed by superintendents who have achieved considerable longevity (eleven to fifteen years and sixteen to twenty years respectively). The change in superintendents that occurred at the time of this study did not produce any significant increase in cooperative purchasing agreements. The status quo was maintained.

Superintendent's involvement with purchasing. The degree to which division superintendents are involved with purchasing affairs was studied, through question nineteen, to establish base data for comparison with utilization of cooperative purchasing. Involvement in a process usually reflects the key participant's preferences and philosophy. It is reasonable to assume that when the superintendent becomes intimately involved in purchasing matters, the procedure utilized will be of his or her choice. Table 18 presents the division superintendent's responses to whether or not they personally attend to the majority of purchasing needs relative to goods, materials, and supplies needed for

Table 17

Tenure of Division Superintendents Compared to Division
Experience With Cooperative Purchasing (N=113)

Experience With Cooperative Purchasing	Tenure Category (Years)					
	Less Than 1	1-5	6-10	11-15	16-20	21 or More
Involved Prior to January 1, 1983 - Now Discontinued	2	1	3	0	1	0
Involved Prior and After January 1, 1983	6	15	4	7	4	0
Never Engaged	9	22	14	9	8	2
Engaged After January 1, 1983	2	2	1	1	0	0
Total	19	40	22	17	13	2

Relationship Between the Tenure of the Superintendent in
His or Her Current Position Compared with the
Cooperative Purchasing Experience (N=113)

Level of Significance = < .01

Variable	2 X	Degrees of Freedom	Significant
Tenure in current position	3.66	5	No

Table 18
 Personal Involvement of the Superintendent in
 Attending to the Majority of the Purchasing Operations
 (N=113)

	Yes	Percent ^a of N	No	Percent ^a of N
Total	26	23	87	77
<hr/>				
Sub Groups				
Counties	20	18	57	50
Cities	4	3.5	25	22
Towns	1	1	1	1
Dual Divisions Served by One Superintendent	1	1	4	3.5

^a
 Percentage rounded up at > or = .5.

operation. Eighty-seven superintendents, or 77 percent, do not attend personally to the majority of purchasing needs. Twenty-six respondents, or 23 percent of the total responding, do attend personally to the majority of purchasing needs for their school divisions. County school division superintendents comprise 77 percent of those respondents who personally attend to the majority of purchasing needs.

The twenty-six respondents replying in the affirmative were further analyzed as to the responses given to question one (utilization of cooperative purchasing) to determine whether or not a pattern might emerge. Table 19 presents the findings. Eight respondents had reported that their school division employed cooperative purchasing. The remaining eighteen had reported no utilization of cooperative purchasing by their school division. Seventy percent of the division superintendents reporting that they personally attend to the majority of the purchasing needs for their school divisions do not utilize cooperative purchasing. Personal involvement in purchasing by the division superintendent does not reflect significant utilization of cooperative purchasing.

Prior business management experience. Prior experience in managing the major business affairs of a school division at the level of director or higher was established by means of question twenty-six. Table 20 shows that thirty-seven

Table 19

Personal Involvement of the Superintendent in Attending
to the Majority of the Purchasing Operations Compared
with the Cooperative Purchasing Experience (N=113)

Cooperative Purchasing Experience	Major Involvement	Not Involved to a Major Extent	Totals
Involved Prior to January 1, 1983 - Now Discontinued	2	5	7
Involved Prior and After January 1, 1983	5	31	36
Never Engaged	16	48	64
Engaged After January 1, 1983	3	3	6

Relationship Between Personal Involvement of the
Superintendent in Attending to the Majority of the
Purchasing Operations Compared with the Cooperative
Purchasing Experience

Level of Significance = < .01

Variable	2 X	Degrees of Freedom	Significant
Involvement of the Superintendent in the Purchasing Operation	2.44	1	No

Table 20
 Prior Experience in Managing the Major Business
 Affairs of a School Division as Reported by
 Division Superintendents (N=113)

	Yes	Percent ^a of N	No	Percent ^a of N
Total	76	67	37	33
<hr/>				
Sub Groups				
Counties	53	47	24	21
Cities	19	17	10	9
Towns	1	1	1	1
Dual Divisions Served by One Superintendent	3	2	2	2

^a
 Percentages rounded up at > or = .5.

division superintendents, or 33 percent of the total responding, report that they did not have prior experience in managing the major business affairs of a school division prior to assuming the superintendency. Seventy-six division superintendents, or 67 percent of the total responding, report that they did have prior experience in managing the major business affairs of a school division prior to assuming the superintendency. Proportionately, there is a tendency for county division superintendents to be more likely to have prior experience in managing the major business affairs of a school division prior to assuming the superintendency than have those who have assumed the superintendency of a city school division.

Each category was analyzed to determine the group response to question one which asked for the utilization of cooperative purchasing by each school division. Of the seventy-six division superintendents who reported prior experience in managing the major business affairs of a school division, twenty-seven, or 35 percent, are and have been involved in cooperative purchasing. Forty respondents, or 53 percent, in this category reported that their school division has never engaged in cooperative purchasing. Four superintendents have discontinued the practice while five have implemented cooperative purchasing after January 1, 1983. Of the thirty-seven division superintendents reporting no major experience in managing the business

affairs of a school division prior to assuming the superintendency, nine, or 24 percent, reported that their school division had been and was utilizing cooperative purchasing. Twenty-four respondents, or 65 percent, reported that their school division had never engaged in cooperative purchasing. Three superintendents stated that they had discontinued the practice while one has initiated cooperative purchasing after January 1, 1983.

Division superintendents who report having prior experience in managing the major business affairs of a school division comprise the largest group of superintendents utilizing cooperative purchasing (75 percent). Overall, prior experience in business management is not a factor in the utilization of cooperative purchasing. Four division superintendents who reported prior experience in managing the major business affairs of a school division have discontinued cooperative purchasing as opposed to three division superintendents who did not have experience in managing the major business affairs of a school division prior to assuming the superintendency. Prior experience in business management is not a factor in determining whether a superintendent continues or discontinues cooperative purchasing. Table 21 presents the comparative data.

Prior experience with cooperative purchasing. The objective of question twenty-seven was to acquire base data

Table 21

Prior Experience in Managing the Major Business Affairs
of a School Division as Reported by Superintendents
Compared with the Cooperative Purchasing Experience (N=113)

=====

Cooperative Purchasing Experience	Did Have Prior Experience	Did Not Have Prior Experience	Totals
Involved Prior to January 1, 1983 - Now Discontinued	4	3	7
Involved Prior and After January 1, 1983	27	9	36
Never Engaged	40	24	64
Engaged After January 1, 1983	5	1	6

Relationship Between Prior Experience of the Superintendent
in Managing the Major Business Affairs of a School Division
Compared with the Cooperative Purchasing Experience
(N=113)

Level of Significance = < .01

=====

Variable	2 X	Degrees of Freedom	Significant
Prior experience of the Superintendent in Business Management	1.13	1	No

=====

on prior experience with cooperative purchasing agreements before assuming the superintendency so as to compare the responses with utilization of cooperative purchasing. Table 22 shows that seventy-four division superintendents, or 66 percent of the total responding, report that they had no prior experience with cooperative purchasing prior to assuming the superintendency. Thirty-nine division superintendents, or 34 percent of the total responding, report that they had prior experience with cooperative purchasing prior to assuming the superintendency. Proportionately, it does not appear that any significant difference in this pattern is present when comparing the four types of school divisions. An analysis of the thirty-nine division superintendents reporting prior experience with cooperative purchasing before assuming the superintendency reveals that twenty, or 51 percent, of those superintendents are not utilizing cooperative purchasing in their school divisions. Nineteen, or 49 percent of the school division superintendents report that they are utilizing cooperative purchasing. Prior experience with cooperative purchasing by the division superintendent increases the likelihood that cooperative purchasing will be utilized by that school division. The data are presented in Table 23.

Formal exposure to cooperative purchasing. Formal exposure to the policies and procedures of cooperative

Table 22
 Prior Experience with Cooperative Purchasing
 as Reported by Division Superintendents (N=113)

	Yes	Percent ^a of N	No	Percent ^a of N
Total	39	34	74	66
<hr/>				
Sub Groups				
Counties	25	22	52	46
Cities	8	7	21	19
Towns	0	0	2	2
Dual Divisions Served by One Superintendent	1	1	4	3

^a
 Percentages rounded up at > or = .5.

Table 23

Prior Experience with Cooperative Purchasing by the
 Superintendent as Compared to the Cooperative
 Purchasing Experience (N=113)

Cooperative Purchasing Experience	Did Have Prior Experience	Did Not Have Prior Experience	Totals
Involved Prior to January 1, 1983 - Now Discontinued	2	5	7
Involved Prior and After January 1, 1983	17	19	36
Never Engaged	18	46	64
Engaged After January 1, 1983	2	4	6

Relationship Between Prior Experience with Cooperative
 Purchasing by the Superintendent and the Cooperative
 Purchasing Experience (N=113)

Level of Significance = < .01

Variable	2 X	Degrees of Freedom	Significant
Prior experience with cooperative purchasing by the Superintendent	7.37	1	Yes

purchasing was a factor deemed to have the potential for influencing the utilization of cooperative purchasing. In question twenty-eight, division superintendents were asked whether or not they had ever been formally exposed to the policies and procedures of cooperative purchasing by means of formal course work, workshops, or other means designed to familiarize them with the concept. Responses are presented in Table 24.

Seventy-nine of the division superintendents, or 70 percent of the total responding, report that they have never been formally exposed to the policies and procedures of cooperative purchasing. Thirty-four of the division superintendents, or 30 percent of the total responding, report that they have had formal exposure to the policies and procedures of cooperative purchasing. The majority of divisions superintendents responding have not been formally exposed to the policies and procedures of cooperative purchasing. Proportionately, it does not appear that any significant difference exists between division superintendents in the four types of school divisions.

Analysis of the thirty-four division superintendents reporting formal exposure to the policies and procedures of cooperative purchasing reveals that twenty, or 59 percent of those responding, have never utilized cooperative purchasing. Ten division superintendents, or 29 percent of those responding, report that they have utilized and

Table 24
 Formal Exposure to the Policies and Procedures
 of Cooperative Purchasing as Reported by
 Division Superintendents(N=113)

	Yes	Percent ^a of N	No	Percent ^a of N
Total	34	30	79	70
<hr/>				
Sub Groups				
Counties	25	22	52	46
Cities	8	7	21	19
Towns	0	0	2	2
Dual Divisions Served by One Superintendent	1	1	4	3

^a
 Percentages rounded up at > or = .5.

continue to utilize cooperative purchasing. Four division superintendents, or 12 percent of those responding, report that they have utilized cooperative purchasing in the past but are not currently doing so. The majority (70 percent) of division superintendents reporting exposure to the policies and procedures of cooperative purchasing are not currently utilizing cooperative purchasing as a means of acquiring goods, materials, and supplies for their school division. Formal exposure to the policies and procedures of cooperative purchasing is not a significant factor in a division superintendent's decision to employ cooperative purchasing. The data are presented in Table 25.

Employment of purchasing agents. The degree to which the employment of professional, full-time purchasing personnel compares to the utilization of cooperative purchasing by school divisions was studied by means of question twenty-one. Table 26 presents the data for comparison. Seventy-nine school divisions, or 70 percent of those responding, report that no full-time professional purchasing personnel are employed. Thirty percent of the school divisions reporting stated that full-time professional personnel are utilized. Utilization by county school divisions as opposed to city school divisions is proportionately equal. The employment of professional full-time purchasing personnel is not practiced by the majority of school divisions in Virginia.

Table 25

Formal Exposure of the Superintendent to the Policies
and Procedures of Cooperative Purchasing as Compared
to the Cooperative Purchasing Experience (N=113)

=====

Cooperative Purchasing Experience	Has Been Exposed	No Exposure	Totals
Involved Prior to January 1, 1983 - Now Discontinued	4	3	7
Involved Prior and After January 1, 1983	10	26	36
Never Engaged	20	44	64
Engaged After January 1, 1983	0	6	6

=====

Relationship Between Exposure of the Superintendent to the
Policies and Procedures of Cooperative Purchasing and
the Cooperative Purchasing Experience (N=113)

Level of Significance = < .01

=====

Variable	2 X	Degrees of Freedom	Significant
Formal exposure of the Superintendent to the policies and procedures of cooperative purchasing	1.06	1	No

=====

Table 26

Number of School Divisions Reporting the Employment of
Professional, Full-time Purchasing Personnel (N=113)

	Yes	Percent ^a of N	No	Percent ^a of N
Total	34	30	79	70
<hr/>				
Sub Groups				
Counties	20	18	57	50
Cities	13	12	16	14
Towns	0	0	2	2
Dual Divisions Served by One Superintendent	1	1	4	3

^a
Percentages rounded up at > or = .5.

Analysis of school division's utilization of cooperative purchasing compared to the employment of professional, full-time purchasing personnel reveals that an overall relationship exists. These data are presented in Table 27. Two division superintendents reported that professional, full-time purchasing personnel were employed but those two school divisions have discontinued cooperative purchasing. Nine respondents answering in the affirmative have never engaged in cooperative purchasing (26 percent). Eighteen school divisions are practicing cooperative purchasing (53 percent of those responding) while employing professional, full-time purchasing personnel. However, eighteen school divisions utilizing cooperative purchasing do not report employing professional, full-time purchasing agents. The significant relationship encompasses those school divisions who instituted cooperative purchasing after January 1, 1983. All five reported that they do employ professional, full-time purchasing personnel. Cooperative purchasing does not, in practice, require full-time professional purchasing agents but it increases the likelihood of utilization.

Number of purchasing agents employed. The thirty-four school divisions reporting the employment of professional, full-time purchasing personnel were asked, in question twenty-two, to state how many persons were employed in this capacity. Table 28 presents the data in detail. The number

Table 27

School Divisions Reporting Employment of Full-time
Professional Purchasing Agents as Compared to
the Cooperative Purchasing Experience (N=113)

Cooperative Purchasing Experience	Do Employ	Do Not Employ	Totals
Involved Prior to January 1, 1983 - Now Discontinued	2	5	7
Involved Prior and After January 1, 1983	18	18	36
Never Engaged	9	55	64
Engaged After January 1, 1983	5	1	6

Relationship Between the Employment of Full-time
Professional Purchasing Agents and the Cooperative
Purchasing Experience (N=113)

Level of Significance = < .01

Variable	2 X	Degrees of Freedom	Significant
Employment of full- time professional purchasing agents	16.32	1	Yes

Table 28

Number of Staff Members Employed by School Divisions
to Serve as Full-time Purchasing Agents (N=34)

	Number of Employees							
	1	1.5	2	3	4	5	6	7
School Divisions Reporting in Each Category	20	1	6	3	1	1	1	1
<hr/>								
Sub Groups								
Counties	12	1	4	2	0	0	0	1
Cities	7	0	2	1	1	1	1	0
Towns	0	0	0	0	0	0	0	0
Dual Divisions Served by One Superintendent	1	0	0	0	0	0	0	0

of full-time professional purchasing personnel employed by each school division ranges along a continuum from one to seven. The majority, 59 percent, of the school divisions report that one full-time professional purchasing agent is employed. Eighteen percent report having two full-time professional purchasing agents on their staffs. Nine percent of the school divisions reporting stated that three full-time professional purchasing agents are employed. The remaining five school divisions report that one and a half, four, five, six or seven full-time professional purchasing agents are employed respectively.

A comparison between utilization of cooperative purchasing and the number of professional, full-time purchasing employees reported reveals certain clear patterns. Table 29 depicts the data. The four division superintendents who reported that their school division employed four, five, six, or seven purchasing employees respectively have all utilized cooperative purchasing prior to January 1, 1983, and continue to do so. School divisions who reported employment of one to three persons are likely to employ cooperative purchasing. Overall, a relationship does exist.

Ability to warehouse and deliver goods. The inability of a school division to warehouse and deliver needed goods, materials, and supplies places that division at a serious disadvantage when considering entering into cooperative

Table 29

Number of Full-time Professional Purchasing Agents
Employed as Compared with the Cooperative Purchasing
Experience (N=34)

Cooperative Purchasing Experience	Number of Full-time Professional Purchasing Agents								Totals
	1	1.5	2	3	4	5	6	7	
Involved Prior to January 1, 1983 - Now Discontinued	1	0	1	0	0	0	0	0	2
Involved Prior and After January 1, 1983	10	1	2	1	1	1	1	1	18
Never Engaged	6	0	2	1	0	0	0	0	9
Engaged After January 1, 1983	3	0	1	1	0	0	0	0	5

Relationship Between the Number of Full-time
Professional Purchasing Agents and the
Cooperative Purchasing Experience (N=34)

Level of Significance = < .01

Variable	2 X	Degrees of Freedom	Significant
Number of full-time professional purchasing agents employed	20.23	7	Yes

purchasing since bulk buying and timely response to needs at individual locations are primary components of the system. Division superintendents were asked to respond, in question twenty-three, to whether or not their school division had the capability to warehouse and deliver goods. Table 30 presents the findings. Sixty-three percent of the school division superintendents responding report that they have the capability to warehouse and deliver goods, materials, and supplies in bulk quantities. The majority of school divisions in Virginia are not restricted from purchasing cooperatively due to a lack of capability to warehouse and deliver goods, materials, and supplies. Thirty-seven percent, or forty-two, of the school division superintendents responding report that they are unable to warehouse and deliver goods, materials, and supplies in bulk.

The forty-two school divisions reporting an inability to warehouse and deliver goods and materials were analyzed further to determine what utilization, if any, has been made of cooperative purchasing. Table 31 presents the data. Twenty-nine school divisions, or 69 percent of those responding, have never engaged in cooperative purchasing. One school division has discontinued the practice. Nine school divisions, or 22 percent of those responding, employed cooperative purchasing prior to January 1, 1983, and are continuing to do so. Three school divisions, or

Table 30
 Capability For Warehousing and Delivery of
 Goods, Materials, and Supplies (N=113)

	Able To Do So	Percent ^a of N	Not Able To Do So	Percent ^a of N
Total	71	63	42	37
Sub Groups				
Counties	55	49	22	19
Cities	14	12	15	13
Towns	0	0	2	2
Dual Divisions Served by One Superintendent	2	2	3	3

^a
 Percentages round up at > or = .5.

Table 31

Capability for Warehousing and Delivery of Goods,
Materials, and Supplies as Compared to the
Cooperative Purchasing Experience (N=113)

Cooperative Purchasing Experience	Able to Warehouse and Deliver	Unable to Warehouse and Deliver	Totals
Involved Prior to January 1, 1983 - Now Discontinued	6	1	7
Involved Prior and After January 1, 1983	27	9	36
Never Engaged	35	29	64
Engaged After January 1, 1983	3	3	6

Relationship Between Capability for Warehousing and
Delivery of Goods, Materials, and Supplies and the
Cooperative Purchasing Experience (N=113)

Level of Significance = < .01

Variable	χ^2	Degrees of Freedom	Significant
Capability for warehousing and delivery of goods, materials, and supplies	1.95	1	No

7 percent of the total responding, began cooperative purchasing after January 1, 1983. Twelve school divisions, or 29 percent of the total responding, are utilizing cooperative purchasing. The inability to warehouse and deliver goods, materials, and supplies is not an absolute bar to the utilization of cooperative purchasing.

Bulk purchasing. Bulk purchasing constitutes the cornerstone of cooperative purchasing practice because of the relationship to lower cost. Division superintendents were asked, in question twenty-four, whether or not their school division's budget was constructed so as to allow for the bulk purchase of goods, material, and supplies at one or more times during the year. The results are presented in Table 32. The majority (96 percent) of the division superintendents responding report that their budgets are constructed so as to allow for the bulk purchase of goods, materials, and supplies at one or more times during the year. Five county division superintendents report that their budget is not constructed so as to allow for the bulk purchase of goods, materials, and supplies at one or more times during the year.

The five county school divisions were further analyzed to determine what utilization, if any, has been made of cooperative purchasing. Table 33 presents the results. Three of the school divisions have never employed cooperative purchasing while two employed cooperative

Table 32
 Budget Construction Allowing for the
 Bulk Purchase of Goods, Materials, and Supplies at
 One or More Times During the Year (N=113)

	Yes	Percent ^a of N	No	Percent ^a of N
Total	108	96	5	4
<hr/>				
Sub Groups				
Counties	72	64	5	4
Cities	29	26	0	0
Towns	2	2	0	0
Dual Divisions Served by One Superintendent	5	4	0	0

^a
 Percentages rounded up at > or = .5.

Table 33

Budget Construction Allowing for Bulk Purchasing as
 Compared to the Cooperative Purchasing Experience (N=113)

=====

Cooperative Purchasing Experience	Able to Bulk Purchase	Not Able to Bulk Purchase	Totals
Involved Prior to January 1, 1983 - Now Discontinued	7	0	7
Involved Prior and After January 1, 1983	34	2	36
Never Engaged	61	3	64
Engaged After January 1, 1983	6	0	6

=====

Relationship Between Budget Construction Allowing for Bulk Purchase and the Cooperative Purchasing Experience (N=113)

Level of Significance = < .01

=====

Variable	2 X	Degrees of Freedom	Significant
Budget construction allowing for bulk purchasing	.14	1	No

=====

purchasing prior to January 1, 1983, and are still doing so. Budget construction that does not allow for bulk purchasing of goods, materials, and supplies at one or more times during the year is not an absolute bar to the employment of cooperative purchasing.

Amount purchased outside school division boundaries.

A significant amount of purchasing outside the confines of a school division's boundaries has been cited in the literature as a potential deterrent to cooperative purchasing because of local vendor's complaints. Question twenty-five asked division superintendents what percentage of goods, materials, and supplies were purchased outside the confines of their school division's boundaries. Responses are presented in Table 34. Three division superintendents reported that their school divisions purchased less than 25 percent of their goods, materials, and supplies from vendors outside the confines of their school division boundaries. Eighteen school division superintendents reported that they purchased between 26 percent and 50 percent of their goods, materials, and supplies from vendors outside the confines of their school division boundaries. Thirty-four division superintendents reported that between 51 percent and 75 percent of their goods, materials, and supplies are obtained from vendors outside the confines of their school division boundaries. Forty-nine division superintendents reported that they purchase between 76 percent and 99 percent of

Table 34

Percentage of Purchases Including Goods, Materials, and
Supplies Obtained from Vendors Outside the Confines
of the School Division Boundaries (N=113)

	< or = 25 percent	26-50 percent	51-75 percent	76-99 percent	No comment
Total	3	18	34	49	9
<hr/>					
Sub Groups					
Counties	1	12	26	33	5
Cities	2	5	7	12	3
Towns	0	0	0	2	0
Dual Divisions Served by One Superintendent	0	1	1	2	1
Percent of N ^a	3	16	30	43	8

^a
Percentages rounded up at > or = .5.

their goods, materials, and supplies from vendors outside the confines of their school division boundaries. Nine division superintendents elected not to respond to this particular question. Nineteen percent of the school division superintendents responding purchase 50 percent or less of their goods, materials, and supplies from vendors outside the confines of their school division boundaries. Seventy-three percent of the school division superintendents responding to this question report that they purchase more than 50 percent of their goods, materials, and supplies from vendors outside the confines of their school division boundaries. Forty-nine school division superintendents, or 43 percent of those responding, report that 76 percent or more of the goods, materials, and supplies obtained from vendors are purchased outside their school division boundaries. The majority of school divisions are purchasing a significant percentage of their needs from vendors outside the confines of their school division boundaries. Proportionately, there does not appear to be any significant difference in patterns reported by the four types of school divisions.

School divisions in each category were further analyzed by comparing this data with their reported utilization of cooperative purchasing. Table 35 presents the results. Of the three school divisions spending less than 25 percent outside the boundaries of their school division, one

Table 35

Percentage of Purchases Made Outside the Geographical Boundaries of the School Division as Compared with the Cooperative Purchasing Experience (N=104)

Cooperative Purchasing Experience	< or = 25 percent	26 - 50 percent	51 - 75 percent	76 - 99 percent	Totals
Involved Prior to January 1, 1983 - Now	1	0	3	3	7
Discontinued					
Involved Prior and After January 1, 1983	2	7	11	13	33
Never Engaged	0	9	17	32	58
Engaged After January 1, 1983	0	2	3	1	6

Relationship Between Percentage of Purchases Made Outside the Geographical Boundaries of the School Division and the Cooperative Purchasing Experience (N=104)

Level of Significance = < .01

Variable	X	Degrees of Freedom	Significant
Percentage of purchases made outside the geographical boundaries of the school division	6.13	4	No

division has discontinued the use of cooperative purchasing while two were and still are employing cooperative purchasing. Analysis of the eighteen school divisions reporting that 26 to 50 percent of their purchases are made outside the boundaries of their school divisions reveals that seven were employing cooperative purchasing prior to January 1, 1983, and are still doing so, nine have never employed cooperative purchasing, and two began cooperative purchasing after January 1, 1983. The category reporting 51 to 75 percent purchasing rate outside the boundaries of their school division contains three divisions reporting discontinuance of cooperative purchasing, eleven school divisions employing cooperative purchasing prior to January 1, 1983, and continuing to do so, seventeen school divisions never engaged in cooperative purchasing, and three divisions reporting the employment of cooperative purchasing after January 1, 1983. Three school divisions in the 76 to 99 percent category have discontinued cooperative purchasing, thirteen employed cooperative purchasing prior to January 1, 1983, and continue to do so, thirty-two school divisions have never engaged in cooperative purchasing, and one division began utilization after January 1, 1983. Thirty-nine school divisions, or 43 percent of those responding, have never engaged in cooperative purchasing but purchase more than half of their goods, materials, and supplies outside the boundaries of their school division.

Twenty-eight school divisions, or 67 percent of the divisions reporting the utilization of cooperative purchasing before and after January 1, 1983, purchase more than half of the goods, materials, and supplies outside the boundaries of their school division. High purchasing percentages outside the school division boundaries does not appear to be a major factor in deterring the employment of cooperative purchasing.

Section V - The Superintendent's Views on Cooperative Purchasing

One of the chief questions targeted for investigation was why cooperative purchasing has or has not been utilized by the public school divisions in the Commonwealth of Virginia. Why a school division has or has not elected to employ cooperative purchasing can be viewed as a potentially threatening question for division superintendents since it involves matters of policy. Formulation and administration of policy are major responsibilities of a division superintendent and carry his or her imprimatur. Defense and justification of same has become commonplace and frequently leads to a cautious response to inquiries. Borg and Gall suggest that potentially threatening questions may be raised at several points with the second question being phrased in a different manner calculated to lessen the threat to the

82
respondent. With this in mind; each division superintendent was asked, in the initial phase of the questionnaire, to state the rationale for employing or not employing cooperative purchasing in his or her school division. The concluding section of the questionnaire asked division superintendents whether or not they agreed with the consensus of experts in the field who have stated that cooperative purchasing has not been utilized in the public schools to the degree one might expect. Respondents were to indicate agreement or disagreement with the statement and state their "belief" why this was or was not so. Insertion of the word "believe" in the second form of the question allowed division superintendents to respond in a somewhat different context than with the first form which dealt specifically with their own school division. Removing the immediacy of the response, thereby making it slightly more abstract, was intended to permit the opportunity for a less inhibited response. One hundred four division superintendents responded affirmatively as regards whether they did or did not believe that cooperative purchasing has not been utilized to the degree one might expect. Therefore, all responses as to why they believed such is the case were directed solely towards why cooperative purchasing

has not been employed to the degree one might expect. Nine division superintendents elected not to respond to this question.

In all, one hundred fifty-three responses falling into fourteen distinct categories were generated by the second section of this question. Table 36 presents the response data. The largest number of responses, forty-two, or 37 percent, cited concerns regarding a loss of autonomy by the school division should they enter into cooperative purchasing. Twenty-five responses, or 22 percent, cited the inability of all parties to agree on a unified set of specifications as the second most prevalent reason. Fifteen responses, or 13 percent, cited excessive red tape as a reason for not employing cooperative purchasing. Political concerns were cited by three respondents as a reason for not engaging in cooperative purchasing. This comprised 3 percent of the total responses. Lack of knowledge about the process and procedures of cooperative purchasing was cited on thirteen occasions accounting for 12 percent of the total responses. The same response figure was given for geographical considerations. Twelve responses, or 11 percent, centered around personnel problems dealing with adaptation, attitude, commitment, and expertise. The remainder of the responses fell into nine categories with none achieving a degree of significance.

Table 36

Reasons Given by Superintendents for Not Utilizing
Cooperative Purchasing to the Degree That Might be Expected
(N=113)

=====

Number of Responses	Percent of N	Reasons
42	37	Concerns about the loss of autonomy
25	22	Inability to agree on unified specifications
15	13	Excessive red tape
13	12	Geographical considerations - isolation
13	12	Lack of knowledge about the process
12	11	Personnel - adaptation, attitude, commitment, expertise
9	8	Did not express an opinion
7	6	Coordination problems both with the budget and other agencies
5	4	Storage/delivery problems with bulk purchases
4	4	Hidden costs may accrue
3	3	Political concerns
2	2	Possibility of large suppliers conspiring to control price, distribution
1	1	Only one level of quality chosen
1	1	Delays in delivery (by vendors)
1	1	Division size too small to be effective

a
Exceeds 100 percent due to multiple responses. Percentage rounded up at > or = .5.

Comparing the responses between this question and those responses given that dealt specifically with an individual school division (question five) reveals two entirely different patterns. The only significant category of response to the first form of this question stated that the present procedures employed were satisfactory. This is a safe response that either suggests contentment or the desire to avoid the direct question. Autonomy was mentioned by seven respondents in the first form of the question as opposed to forty-two respondents in the second format. Inability to agree on a unified set of specifications was mentioned five times in the first format as opposed to twenty-five times on the second response. Excessive red tape garnered four responses to the first format as opposed to fifteen on the second. Political concerns appeared once on the first form as opposed to three times on the second. Political concerns, inability to agree on specifications, and excessive red tape all contain, as a major element, concerns about a loss of autonomy. Three practitioners in the field of purchasing and supply were interviewed concerning this assertion. All unanimously agreed that autonomy was a major factor in these reasons and frequently was used as a code word for a concern about the loss of autonomy. If this be the case, the majority of the reasons given for not utilizing cooperative purchasing in whole, or in part, center around concerns about the loss of autonomy.

This figure applies to the question when asked in the second format. The first format produced 18 percent of the responses dealing wholly or in part with autonomy.

The discrepancy between responses to question five and question twenty-nine is brought about by the two variations in which this question was asked. The response given to what superintendents "believe" is more reflective of reality than when the question was applied directly to a school division. A fear of the loss of autonomy when engaging in cooperative purchasing agreements is the major reason why cooperative purchasing is not utilized in the public schools in Virginia to the degree one might expect.

Operational Budget, Enrollment, and Regional Study Groups

In addition to the data acquired by Questionnaire One, three additional factors were deemed to be worthy of analysis. Student enrollment, the size of the school division's operational budget, and the Superintendent's Regional Study Group assigned to respective school divisions were identified and analyzed to determine what, if any, relationship existed relative to the utilization of cooperative purchasing. Regional Study Groups were selected as a means of grouping school divisions geographically because this arrangement combines propinquity and the scheduled contacts the superintendents experience with each other.

Operational budget. Operational budgets for the one hundred thirteen school divisions surveyed were tabulated in ascending order by consulting Facing Up-20⁸³ for the 1984-85 school year. Table 37 presents the data. Two operational budget categories, six million dollars or less and seven to fifteen million dollars, contain 67 percent of the respondents. School divisions having operational budgets of sixteen to twenty-one million dollars total eight in number. The remaining twenty-nine school divisions in the Commonwealth of Virginia have operational budgets of twenty-two million dollars or more. The relationship between budget and experience with cooperative purchasing is shown in Table 38.

Five of the seven school divisions who have discontinued cooperative purchasing have budgets ranging from seven to fifteen million dollars. These same five school divisions cited a lack of savings when compared to the effort involved to purchase cooperatively as the reason for the discontinuance. School divisions who report operational budgets of twenty-two million dollars or more comprise 56 percent of those school divisions who employed cooperative purchasing prior to January 1, 1983, and are continuing to do so. This same budget category accounts for

83

Facing Up-20, op cit., pp 44-48.

Table 37
 Analysis of School Divisions' Operational Budgets
 1984-85 (N=113)

	< or = 6 million	> 6 to < 16 million	> or = 16 to < 22 million	> or = 22 million
Total	39	37	8	29
Percent of N ^a	34	33	7	26
<hr/>				
Sub Groups				
Counties	27	27	5	19
Cities	9	8	2	9
Towns	2	0	0	0
Dual Divisions Served by One Superintendent	1	1	1	1

^a
 Percentages rounded up at > or = .5.

Table 38

Size of the Operational Budget Compared With
the Cooperative Purchasing Experience (N=113)

Cooperative Purchasing Experience	Operational Budget			
	< or = 6 million	> 6 to < 16 million	> or = 16 to < 22 million	> or = 22 million
Involved Prior to January 1, 1983 - Now	1	5	0	1
Discontinued				
Involved Prior and After January 1, 1983	7	6	3	20
Never Engaged	31	25	4	4
Engaged After January 1, 1983	0	1	1	4

Relationship Between the Size of the Operational Budget
and the Cooperative Purchasing Experience (N=113)

Level of Significance = < .01

Variable	2 X	Degrees of Freedom	Significant
Size of the Operational Budget	40.15	8	Yes

four of the six school divisions who initiated cooperative purchasing after January 1, 1983. The size of a school division's operational budget increases the likelihood that cooperative purchasing will be employed. School divisions with large financial resources largely combine with city or county governments to combine resources that translate into real clout in the marketplace. Yet, small school divisions can successfully execute cooperative purchasing agreements as evinced by the thirteen school divisions who report operational budgets of fifteen million dollars or less. School divisions with very small budgets must be evaluated guardedly because fifteen counties compelled joint centralized purchasing with the majority falling into this area.

Enrollment. Six school division enrollment categories were established using 1984-85 Facing Up-20 reports as a base.⁸⁴ Each of the one hundred thirteen school divisions that responded were assigned a category. The resulting data is presented in Table 39. Seventy-two school divisions, or 64 percent of those responding, have less than 5,000 students. This comprises the majority category by a considerable margin. The category of 5,000 to 9,999 students comprises the next largest category with

84

Facing Up-20, op cit., pp. 18-22.

Table 39

Enrollment of School Divisions as of 1984-85 (N=113)

	Counties	Cities	Towns	DDSBO ^b	Total	Percent ^a of N
less than 5,000	50	18	2	2	72	64
5,000 to 9,999	18	3	0	2	23	20
10,000 to 14,999	6	1	0	0	7	6
15,000 to 19,999	0	2	0	0	2	2
20,000 to 24,999	0	2	0	0	2	2
25,000 and over	3	3	0	1	7	6
Total	77	29	2	5	113	

a
Percentages rounded up at > or = .5.

b
Dual Divisions Served by One Superintendent

twenty-three school divisions, or 20 percent of those responding, falling into this category. Seven school divisions, or 6 percent of those responding, have 10,000 to 14,999 students. School divisions with 15,000 to 19,999 and school divisions with 20,000 to 24,999 students were reported by two school divisions each, or 2 percent of those responding respectively. Seven school divisions, or 6 percent of those responding, have student enrollments of 25,000 or more. Enrollment may be characterized as a broadly based pyramid which quickly narrows as the enrollment passes 10,000 students. Each category was analyzed as to the experiences the respective school divisions have had with cooperative purchasing. Table 40 presents the data.

Eight of the nine school divisions reporting student enrollment of 20,000 and above are engaged in cooperative purchasing agreements. The majority (thirty-three) of the other school divisions in the Commonwealth of Virginia engaged in cooperative purchasing fall into the two smallest enrollment categories. The middle-sized school divisions (10,000 to 14,999 and 15,000 to 19,999) also show involvement in cooperative purchasing but to a lesser numerical degree because there are few divisions that fall into these categories. It can be said that a large enrollment (size) increases the likelihood of cooperative

Table 40
 Enrollment Size Compared With the
 Cooperative Purchasing Experience (N=113)

Experience With Cooperative Purchasing				
Enrollment	Involved Prior to January 1, 1983 - Now Discontinued	Involved Prior and After January 1, 1983	Never Engaged	Engaged After January 1, 1983
Less than 5,000	4	12	55	1
5,000 to 9,999	2	11	7	3
10,000 to 14,999	0	4	1	2
15,000 to 19,000	0	1	1	0
20,000 to 24,999	0	2	0	0
25,000 and above	1	6	0	0

Relationship Between Enrollment Size and the
 Cooperative Purchasing Experience (N=113)

Level of Significance < .01

Variable	2 X	Degrees of Freedom	Significant
Enrollment size	42.69	5	Yes

purchasing being utilized but size is not a bar to purchasing cooperatively.

Region. Using the Virginia Educational Directory - School Year 1984-85, school divisions were coded according to the appropriate region.⁸⁵ Each region was then analyzed to determine what pattern, if any, emerged as regarded the reported utilization of cooperative purchasing. Table 41 presents each of the four possible utilization categories for cooperative purchasing by region and school division category. Regions I, III, IV, V, VI, and VII reflect an even pattern of cooperative purchasing utilization ranging between 32 and 40 percent of the total school divisions in each region. This percentage is also consistent with the overall state percentage of 37. Region II consists of seventeen school divisions with nine, or 53 percent, utilizing cooperative purchasing. Region II school divisions engage in cooperative purchasing to a higher degree, in terms of percentage, than do other regions in Virginia. Region does not bear a relationship to utilization of cooperative purchasing.

85

Virginia Educational Directory - School Year 1984-85, op cit., pp. 15-16.

Table 41

Region Study Groups Analyzed by Response to Experience
With Cooperative Purchasing (N=113)

=====
Divisions Involved with Cooperative Purchasing Prior to
January 1, 1983 But Who Have Discontinued the Practice

	I	II	III	IV	V	VI	VII
Counties	1	0	2	2	0	0	1
Cities	0	0	0	0	1	0	0
Towns	0	0	0	0	0	0	0
Dual Divisions Served by One Superintendent	0	0	0	0	0	0	0
Total	1	0	2	2	1	0	1

Divisions Involved with Cooperative Purchasing Prior
to January 1, 1983 and Who Still Engage
in Cooperative Purchasing

	I	II	III	IV	V	VI	VII
Counties	5	2	3	3	3	1	3
Cities	1	6	0	1	2	3	1
Towns	0	0	0	0	0	0	0
Dual Divisions Served by One Superintendent	0	1	0	1	0	0	0
Total	6	9	3	5	5	4	4

Table 41 continued on the following page.

Table 41 continued.

Divisions Who Have Never Been Engaged in Cooperative Purchasing							
	I	II	III	IV	V	VI	VII
Counties	12	2	4	5	9	7	7
Cities	1	3	1	3	2	2	2
Towns	0	2	0	0	0	0	0
Dual Divisions Served by One Superintendent	1	0	0	0	0	0	1
	—	—	—	—	—	—	—
Total	14	7	5	8	11	9	10

Divisions Who Became Involved in Cooperative Purchasing After January 1, 1983							
	I	II	III	IV	V	VI	VII
Counties	1	0	1	0	1	1	2
Cities	0	0	0	0	0	0	0
Towns	0	0	0	0	0	0	0
Dual Divisions Served by One Superintendent	0	0	0	0	0	0	0
	—	—	—	—	—	—	—
Total	1	0	1	0	1	1	2

Table 41 continued on the following page.

Table 41 continued.

Relationship Between Regional Study Groups and
the Cooperative Purchasing Experience (N=113)

Level of Significance = < .01

=====

Variable	2 X	Degrees of Freedom	Significant
Regional study group	2.22	6	No

Establishment of a Profile Distinguishing School Divisions Engaged in Cooperative Purchasing

Fifteen factors deemed to have the potential to impact on whether or not a school division does or does not employ cooperative purchasing were analyzed for significance by means of the CHI SQUARE subprogram of the IBM Application System.⁸⁶ Assuming a null hypothesis, only those relationships achieving significance at the .01 level were accepted for further analysis.

A statistically significant relationship was established between six factors and whether or not a school division utilized cooperative purchasing. Each factor was further analyzed and found to have a rational and explainable relationship. No factor was identified as being completely discrete in that the relationship applied only to school divisions who do or do not purchase cooperatively. School divisions in Virginia do and do not utilize cooperative purchasing in the presence or absence of any of the six significant factors. However, the presence or absence of each factor increases or decreases the likelihood that cooperative purchasing will be utilized. Table 42 presents the results. Each of the six factors achieving significance are reported as follows.

86

_____. (1986). Analyzing Data with Application System (Computer Program Manual). op cit.

Table 42

Relationship Between Selected Variables and
the Cooperative Purchasing Experience (N=113)

Level of Significance = < .01

Variable	χ^2	Degrees of Freedom	Significant
Category of School Division	4.14	3	No
Size of Enrollment	42.69	5	Yes
Size of Operational Budget	40.15	8	Yes
Region	2.22	6	No
Tenure of the Superintendent in Current Position	3.66	5	No
Superintendent Attends to the Majority of Purchasing Activities	2.44	1	No
Prior Experience of the Superintendent with Cooperative Purchasing	7.37	1	Yes
Prior Exposure of the Superintendent to Cooperative Purchasing	1.06	1	No
Prior Experience of the Superintendent in Managing the Major Business Affairs of the School Division	1.13	1	No
Ability to Bulk Purchase	.14	1	No
Ability to Warehouse and Deliver	1.95	1	No

Table 42 continued on the following page.

Table 42 continued.

Variable	2 X	Degrees of Freedom	Significant
Percentage of Goods Purchased Outside School Division Boundaries	6.13	4	No
Employment of Full-time Professional Purchasing Agents	16.32	1	Yes
Number of Full-time Professional Purchasing Agents Employed	20.23	7	Yes
Stated Effect of the Virginia Public Procurement Act on Utilization of Cooperative Purchasing	9.05	1	Yes

Enrollment size. Although the majority of school divisions involved in cooperative purchasing cluster in the smaller enrollment categories which include the majority of school divisions, the percentage of school divisions utilizing cooperative purchasing increases with enrollment. As enrollment approaches or exceeds twenty-five thousand students, the utilization of cooperative purchasing becomes a near certainty.

Operational budget size. As the size of the operational budget increases, so does the likelihood that cooperative purchasing will be utilized. School divisions with operational budgets of nineteen million dollars and above are nearly certain to utilize cooperative purchasing.

The superintendent's prior experience with cooperative purchasing. Although cooperative purchasing is being practiced by school divisions employing a superintendent with no prior experience in cooperative purchasing agreements, the likelihood that cooperative purchasing will be utilized increases when the superintendent has had experience with cooperative purchasing.

Employment of full-time professional purchasing agents. School divisions who report that they employ one or more full-time professional purchasing agents are more likely to purchase cooperatively than are those divisions who do not employ purchasing agents. There are, however,

school divisions who employ purchasing agents but do not purchase cooperatively. School divisions have been identified as purchasing cooperatively in the absence of full-time professional purchasing agents.

Number of professional full-time purchasing agents employed. As the number of professional full-time purchasing agents employed increases, so does the likelihood that a school division is purchasing cooperatively. If four or more full-time professional purchasing agents are employed, it is a certainty that cooperative purchasing is being employed.

Effect of the Virginia Public Procurement Act on cooperative purchasing. Division superintendents who reported that enactment of the Virginia Public Procurement Act had no effect, or a negative effect are not likely to employ cooperative purchasing. Those division superintendents who reported that the Virginia Public Procurement Act did effect their decision concerning cooperative purchasing are more likely to purchase cooperatively than those who reported no effect or a negative effect.

Data Collection with Questionnaire II

In order to analyze and report pertinent data on past and present cooperative purchasing agreements involving public school divisions in Virginia, Questionnaire II was

directed only to those school division superintendents reporting past or current utilization of cooperative purchasing. Two formats were devised. Both formats were identical through question twelve but differed on questions thirteen and fourteen. Questions one through twelve sought data on the cooperative purchasing agreements themselves in terms of type, duration, parties involved, type of goods, materials, and supplies purchased, as well as operational procedures and problems. Question twelve asked respondents for advice deemed beneficial to any school division interested in exploring cooperative purchasing.

School divisions currently engaged in cooperative purchasing were sent the format presented in Appendix B. Question thirteen asked what factors, if any, might result in the cessation of cooperative purchasing. In question fourteen, respondents were asked to rate the likelihood that cooperative purchasing would continue to be utilized. Respondents reporting that cooperative purchasing had been discontinued were sent the second format as presented in Appendix C. Questions thirteen and fourteen sought information on why the cooperative purchasing had been terminated and under what conditions might cooperative purchasing be resumed.

Approximately half the questions on each format were open-ended so as to allow freedom of response. The

remaining six to seven questions required a specific choice of responses or the insertion of data.

Each questionnaire was clearly labeled identifying the school division(s) to determine the result of the initial mailing and the subsequent follow-up procedures. A cover letter (Appendix F) was included with each questionnaire. Respondents were informed how the researcher classified the utilization of cooperative purchasing reported earlier. This was intended to serve as a double check on the initial data collection. As a result of the first mailing, thirty, or 61 percent, of the questionnaires were returned in a complete and usable form. Four weeks later, personal contact was initiated with each non-respondent. An additional twelve questionnaires were obtained for a total of forty-two, or a response rate of 86 percent. The high return rate for this study was in excess of 80 percent and no further follow-up was deemed necessary as per Kerlinger.⁸⁷

Table 43 analyzes the response rate to Questionnaire II by overall and sub-group response rate. No sub-group response rate fell below 80 percent. Of the seven division superintendents not responding, four had reported that their school division had been engaged in cooperative

87

Kerlinger, Fred N., op cit., p. 414.

Table 43
Response Rate to Questionnaire II

	Possible Responses From Superintendents	Responses Received From Superintendents	Percent of Total	a
Total	49	42	86	
<hr/>				
Sub Groups				
Counties	31	25	81	
Cities	15	14	93	
Towns	0	0	0	
Dual Divisions Served by One Superintendent	3	3	100	

a
Percentages rounded up at > or = .5.

purchasing prior to and after January 1, 1983. The remaining two respondents were split between the other two classifications (discontinued or began cooperative purchasing after January 1, 1983).

Analysis of Questionnaire II Data

The IBM Application System was used to develop frequency of response and percentage values for each of the thirty questions. The BASIC STATISTICS subprogram provided the bulk of the data reported in Tables 43 through 52. Questions are presented by reporting responses in terms of frequency, percentage, sub-group rate, and a brief analysis of those response rates deemed significant. Total group responses are presented with a further breakdown by the category of school division; i.e. county, city, etc. These are labeled as sub-groups for ease of discussion.

The Cooperative Purchasing Agreement

The first four questions sought specific data on the cooperative purchasing agreement itself. Question one sought to determine what, if any, type of agreement was prevalent. As presented in Table 44, informal agreements constitute 62 percent of the responses. Twenty-one percent of the cooperative purchasing agreements are formal in nature. Seventeen percent are a combination of formal and informal components that characterize the agreements. Informal agreements constitute the method by which the

Table 44
Types of Agreements Utilized to Conduct
Cooperative Purchasing (N=42)

	Counties	Cities	Towns	DDSBOS ^b	Total
Formal Agreement	6	3	0	0	9
^a Percent of N	14	7	0	0	21
Informal Agreement	17	8	0	1	26
^a Percent of N	41	19	0	2	62
Informal & Formal Agreements	2	3	0	2	7
^a Percent of N	5	7	0	5	17

^a
Percentages rounded up at > or = .5.

^b
Dual Divisions Served by One Superintendent

majority of respondents conduct cooperative purchasing business. County school divisions utilize formal agreements by a two to one margin over city school divisions.

Question two was designed to accumulate data on the longevity of cooperative purchasing agreements. The responses fell into four categories. School divisions reporting discontinuance of cooperative purchasing did so after periods of time ranging from two to five years. The average "trial" period was three years. The five school divisions initiating cooperative purchasing after enactment of the Virginia Public Procurement Act in 1983 did so within one year. Twenty-one cooperative purchasing agreements began between 1980 and January 1, 1983. It should be noted that the final draft copy of the proposed Virginia Public Procurement Act was promulgated in September of 1980.⁸⁸ The remaining ten school divisions reporting utilization of cooperative purchasing began operations between then and twenty-six years ago using 1986 as the base of reference. A fifteen year average is an accurate reflection of what might be termed long-term experiences. As a whole, cooperative purchasing agreements are of a relatively recent nature in the public schools of Virginia.

Information on what pattern, if any, exists relative to the party or parties with whom school divisions join in cooperative purchasing agreements was sought through question three. Table 45 presents the total and sub-group responses. The categories of response fell into five distinct groups. Categories D and E merit further explanation. Each of the categories contains, as one of the outside agencies, either the city or county government. Only category C does not involve the county or city government. Twenty-four cooperative purchasing agreements (categories A and B), or 57 percent, are directly with the city or county government. Fourteen cooperative purchasing agreements (categories D and E), or 34 percent, involve the county or city government and one or more other agencies. Four cooperative purchasing agreements, or 9 percent involve only school divisions. Cooperative purchasing agreements involving only school divisions is not commonplace in the public schools of Virginia. City or county governments are closely involved with school divisions in cooperative purchasing.

Further evidence of the involvement of county and city governments in cooperative purchasing agreements with school divisions was evident in the results of question four which sought information on the categories of goods, materials, and supplies purchased cooperatively. As presented in Table 46, thirteen categories were established. Heating

Table 45
 Parties With Whom School Divisions Joined in a
 Cooperative Purchasing Agreement (N=42)

	Counties	Cities	Towns	DDSBOS ^a	Total
A. Directly with the County Administration	14	0	0	2	16
B. Directly with the City Administration	0	8	0	0	8
C. Directly with Another School Division	2	2	0	0	4
D. Two Outside Agencies	5	1	0	1	7
E. More than Two Outside Agencies	4	3	0	0	7

a

Dual Divisions Served by One Superintendent

Table 46

Categories of Goods, Materials, and Supplies That Were
or Are Being Purchased Cooperatively (N=42)

Number of Responses	Percent ^a of N	Categories
28	67	Gasoline
25	60	Heating Oil
20	48	Diesel Fuel
20	48	Paper Products
15	36	Custodial Supplies
12	29	Instructional Supplies
10	24	Food
7	17	Art Supplies
7	17	Fluorescent/Incandescent Lamps
5	12	Furniture
3	7	Office Equipment
2	5	Data Processing/Computers
1	2	Insurance

^a

Exceeds 100 percent due to multiple responses. Percentages rounded up at > or = .5.

oil, diesel fuel, gasoline, paper products, and custodial supplies constitute the majority of goods, materials, and supplies purchased cooperatively. These items are common to both government and school division operating needs.

Successes, Failures, and Problem Resolution

Questions five through eight were designed to investigate factors that led to establishing each cooperative purchasing agreement, successes and problems, and the manner in which problems were resolved. Each question was open-ended.

Question five asked division superintendents what factors led to the establishment of cooperative purchasing. As presented in Table 47, 86 percent of the responses cited an expectation that lower costs would accrue due to increased volume and competition among vendors.

The results of question seven are presented in Table 48. When asked for the major successes achieved, 91 percent of the responses cited lower prices.

Taken together, Tables 47 and 48 reflect that the major factor (cost savings) contributing to the establishment of the majority of cooperative purchasing agreements also represented the major category of reported successes (91 percent). The major expectation (cost reduction) was realized.

Table 47
 Factors Contributing to the Establishment of
 Cooperative Purchasing Agreements (N=42)

Number of Responses	Percent ^a of N	Factors
36	86	Lower cost due to increased volume and competition
7	17	Save time and use personnel more wisely
5	12	Improve relationship between agencies
4	10	County wished to exert control
3	7	Improve quality of goods and services
3	7	Standardization leading to borrowing and interchange

^a Exceeds 100 percent due to multiple responses. Percentages rounded up at > or = .5.

Table 48
Major Successes of the Cooperative
Purchasing Agreements (N=42)

Number of Responses	Percent ^a of N	Successes
38	91	Lower prices
8	19	Saves time administratively
4	10	Strengthens relationships
4	10	Better quality product
2	5	Helps insure compliance with Virginia Public Procurement Act
1	2	Standardized goods

^a

Exceeds 100 percent due to multiple responses. Percentages rounded up at > or = .5.

Major problems and the means by which resolution was achieved were addressed by questions seven and eight. The responses were placed in categories and are presented in Table 49. Twenty-one division superintendents stated no major problems were encountered. Four additional categories were reported that were distributed in a relatively even manner in terms of response frequency.

Fourteen respondents, or 67 percent of those reporting, achieved problem resolution by a "task force" approach. "Task force" approach is defined as involving those persons affected by the problem and/or possessing expertise deemed related to the problem in a conference. Four cooperative purchasing agreements experiencing problems achieved resolution by dissolving the agreement. One division superintendent reported that legal steps were taken to remove a vendor from the approved list of bidders.

The majority of respondents report that no major problems have been encountered with cooperative purchasing agreements. The majority of school divisions experiencing a major problem or problems elect to achieve resolution by a "task force" approach rather than resorting to dissolution of the agreement.

Vendors as an Aspect of Cooperative Purchasing

Data on vendors, as they relate to the process of cooperative purchasing, were acquired by questions nine

Table 49

Major Problems and Means of Resolution Encountered With
Cooperative Purchasing Agreements

Major Problems (N=42)

=====		
Number of Responses	Percent ^a of N	Problems
21	50	No major problems reported
9	21	Difficulty in agreeing on unified specifications
8	19	Invoices - bookkeeping problems
7	17	Delivery problems
7	17	Communications between agencies and division of labor

Means of Resolution (N=21)^b

=====		
Number of Responses	Percent ^a of N	Resolutions
14	67	Task force approach
4	19	Dissolved agreement
2	10	Removed vendor from approved list
2	10	Restructured billing procedure inter-agency
1	5	Established central drop point for delivery

^a
Exceeds 100 percent due to multiple responses. Percentages rounded up at > or = .5.

^b
Less than N=42 since not all school divisions had problems that needed to be resolved.

through eleven. Division superintendents were asked what problems, if any, were presented by vendors. The majority of division superintendents, 84 percent, reported no significant problems have been experienced associated with vendors. Two respondents cited the inability of small vendors to compete in cooperative purchasing bidding processes as a problem in their respective school divisions. One situation was reported whereby a vendor who failed to meet his contractual obligations was taken off the approved list. One problem cited by a division superintendent involved bookkeeping problems experienced by a vendor who had a contract that included a variable rate structure. Three respondents cited problems with deliveries not being made properly in terms of quantity, date of delivery, and proper drop off points.

The effect of a cooperative purchasing agreement on the amount of goods, materials, and supplies purchased inside the boundaries of the school division was studied through question ten. In Table 50, the data received shows that the majority of school division purchases remained about the same under cooperative purchasing. Twenty-eight percent of the respondents reported that more purchases were made inside the boundaries of their school divisions under cooperative purchasing than previously. This suggests that local vendors found ways to be competitive in their pricing structure. Fifteen percent stated that cooperative

Table 50
 Comparison of Purchases Made From Vendors Inside the
 Geographical Boundaries of Their School Division
 Under Cooperative Purchasing as Opposed to No
 Cooperative Purchasing Agreement (N=40)^a

		b Percent of N	Less	Percent of N	b About the Same	Percent of N
Total	11	28	6	15	23	57
<hr/>						
Sub Groups						
Counties	9	23	3	7.5	12	30
Cities	2	5	3	7.5	9	22
Towns	0	0	0	0	0	0
Dual Divisions Served by One Superintendent	0	0	0	0	2	5

^a
 Total is less than 42 because two division superintendents,
 declined to respond to this question.

^b
 Total percentages rounded up at > or = .5.

purchasing had resulted in more purchasing outside the school divisions' boundaries when cooperative purchasing was employed. Employing cooperative purchasing has not resulted in a significant loss of business by local vendors.

Division superintendents were asked, in question eleven, if any significant amount of concern has been expressed by a group or groups that cooperative purchasing was resulting in too much money being spent outside the school divisions' boundaries. Thirty-four respondents, or 81 percent, said they had not received concerns about the matter. Eight responses were in the affirmative. The eight division superintendents further reported that six of them had been contacted by vendors; one stated that local vendors, the school board, and the local governmental body had all expressed concerns. One division superintendent elected not to identify the group or groups expressing concern.

Concern about the amount purchased outside the school divisions' boundaries when utilizing cooperative purchasing is not widespread. Concerns that are expressed come almost exclusively from local vendors. Political entities have not gotten involved in this concern save one reported incidence.

Practitioners Advice on Cooperative Purchasing

The final question that was directed to all respondents (question twelve) solicited advice for school divisions

interested in exploring cooperative purchasing. Table 51 presents the categorized responses with frequency and percent of response. No single response proved dominant. Beginning the process with several easily agreed upon volume items while proceeding slowly and approaching the concept with an open mind were the most frequently mentioned. All responses are a part of the literature reviewed dealing with cooperative purchasing and reflect a blend of pragmatism and theory.

Factors Affecting the Future of Cooperative Purchasing

The thirty-six school divisions employing cooperative purchasing were asked, in questions thirteen and fourteen, what factors might cause a cessation of cooperative purchasing and the likelihood cooperative purchasing would continue to be employed. Table 52 presents the responses to what factors would likely result in a cessation of cooperative purchasing. Eighteen division superintendents did not feel a likely combination will occur based on an analysis of their current situation. The remaining eighteen divisions superintendents cited four possible factors that would likely cause a cessation of cooperative purchasing. The most frequently mentioned single factor (25 percent of the responses) was a situation whereby savings were not justified when compared to organizational complexities. Autonomy was cited in two categories which, if taken

Table 51

Advice For School Divisions Interested in Exploring
Cooperative Purchasing as Reported by
Division Superintendents (N=42)

=====

Number of Responses	Percent of N ^a	Advice
8	19	Begin with several easily agreed upon volume items and expand to other items depending upon the success of the agreement.
7	17	Approach the concept with an open mind.
5	12	Guard your autonomy as it relates to the satisfaction received in terms of the school divisions particular needs.
5	12	Allow sufficient lead time for a standardization of specifications and preparation of the necessary agreements and bid documents.
4	10	Be sure delivery capability on the part of the vendor and/or agencies is sufficient.
4	10	Analyze the capabilities and manpower of Purchasing Departments involved so as to determine whether additional people would be needed. If so, this cost might off set savings.
4	10	Evaluate the present working relationship between the agencies involved. It should have a history of cooperation to be successful.

Table 51 continued on the following page.

^a
Exceeds 100 percent due to multiple responses. Percentages rounded up at > or = .5.

Table 51 continued.

Number of Responses	Percent ^a of N	Advice
3	7	Understand that needs and circumstances differ to the extent that a considerable amount of time may be required to achieve a workable relationship.
3	7	Limit the number of participants and items.
3	7	Appoint a lead administrator to coordinate all the activities.
3	7	Choose large volume items such as paper to maximize savings vs. the extra work involved.
3	7	Analyze the purchasing procedures of the groups involved to determine how difficult a cooperative agreement would be.
1	2	Insure that all agencies involved have budgetary capability to make bulk purchases.
1	2	Must have the support of top management.

^a Exceeds 100 percent due to multiple responses. Percentages rounded up at > or = .5.

Table 52
Foreseeable Factors Likely to Result in the
Cessation of Cooperative Purchasing (N=36)

=====

Number of Responses	Percent ^a of N	Factors
18	50	Do not feel a likely combination will occur based on current situation
9	25	Savings not justified due to organizational complexities
7	19	Change in political climate favoring autonomy
5	14	If needs cannot be reduced to commonality
4	11	Autonomy threatened

^a Exceeds 100 percent due to multiple responses. Percentages rounded up at > or = .5.

together, accounts for 33 percent of the responses. One-half of the school divisions responding who employ cooperative purchasing do not feel a combination of factors will occur so as to cause a cessation of cooperative purchasing. The other eighteen school divisions have identified potential factors that might result in a cessation of cooperative purchasing.

Respondents were asked to rate the likelihood that their school divisions would continue to engage in cooperative purchasing. Eighty-one percent stated it was likely that cooperative purchasing would continue. Nineteen percent rated the likelihood of cooperative purchasing as uncertain. No division superintendent selected unlikely as a response.

Factors Associated with the Cessation and Resumption of Cooperative Purchasing

The six school divisions who have ceased to utilize cooperative purchasing were asked, in questions fourteen and fifteen, what factors contributed to the demise of cooperative purchasing and under what circumstances might cooperative purchasing be resumed. All six division superintendents stated that the effort necessary to continue cooperative purchasing was evaluated as being disproportionate to the amount of savings realized. All six were unanimous in agreeing that prices would have to rise to a level deemed unacceptable. Even then, each respondent

stressed that a serious commitment to overcome ongoing obstacles would be necessary and accepted by all parties.

SUMMARY

Arrayed in Chapter 4 are data collected on past and current cooperative purchasing experiences as reported by division superintendents representing the majority of school divisions in the Commonwealth of Virginia. This summary is intended to place the findings in perspective. Conclusions, implications for practice, and recommendations of the study are presented in Chapter 5.

The majority of public school divisions in Virginia are not utilizing cooperative purchasing as a means of obtaining goods, materials, and supplies. The results of this study do not suggest any change in this pattern is likely to occur in the near future. Division superintendents equate cooperative purchasing with a loss of autonomy, feel comfortable and satisfied with current "traditional" purchasing methods, and are not persuaded that the effort necessary to purchase cooperatively is justified by such savings in operational expenses as may accrue. The majority of goods, materials, and supplies are purchased from commercial vendors based outside the geographical confines of the respective school division boundaries. Pressure to "buy locally" does not present a problem. The State Department of Purchasing and Supply has experienced a slight

increase in sales to a minority of school divisions who reported difficulty in writing bid specifications for certain items such as chemicals. Overall, school divisions choose commercial vendors as suppliers for the majority of their needs.

Although the majority of division superintendents have had prior experience in managing the major business affairs of a school division prior to assuming the superintendency, prior formal exposure to and experience with the policies and procedures of cooperative purchasing were not reported by this same majority of respondents. Division superintendents are not personally involved in the purchasing operation to any appreciable degree. Purchasing is a staff function that, in the majority of cases, does not involve full-time professional purchasing agents.

Conventional wisdom, as contained in the literature on cooperative purchasing, suggests that the presence or absence of a number of key factors inhibits or enhances the practice of cooperative purchasing. Public school divisions in Virginia practice or eschew cooperative purchasing despite the presence or absence of key factors as outlined in the literature. School divisions practice cooperative purchasing in the absence of warehousing and delivery capabilities as well as a lack of full-time professional purchasing agents. School divisions purchase traditionally in the presence of every key ingredient that would suggest

cooperative purchasing would be utilized. The majority of school divisions are not barred from utilizing cooperative purchasing due to the presence of technical barriers.

School divisions purchasing cooperatively do so, in the majority of cases, with their governing body and/or another state agency without employing a written agreement.

Petroleum products, paper products, and custodial supplies comprise the bulk of those items purchased cooperatively.

Cooperative purchasing agreements were expected to save money and have done so. Major problems were experienced by approximately one-half of the respondents and were resolved by joint consultations. Utilizing cooperative purchasing did not, for the majority of respondents, either alter the balance of purchasing that previously existed within and without school division boundaries or result in local vendors expressing concerns about a loss in business.

Existing cooperative purchasing agreements are likely to continue unless organizational complexities arise to the degree that accrued savings are not proportionate to the efforts necessary to resolve the problems. The majority of cooperative purchasing agreements involving school divisions were initiated between 1980 and 1984. With the exception of one agreement that has been in force for twenty-six years, the remainder of cooperative purchasing agreements have been in force from between ten to fifteen years. Regionally, cooperative purchasing

agreements are spread on a relatively even basis throughout the Commonwealth.

Chapter 5

CONCLUSIONS, IMPLICATIONS FOR PRACTICE, AND A RECOMMENDATION FOR FURTHER RESEARCH

This final chapter is devoted to answering the purposes of the study as set out in Chapter 1, presenting certain implications for practice, and making a recommendation pertaining to further research.

Conclusions

The Effect of the Virginia Public Procurement Act on Cooperative Purchasing

Enactment of the Virginia Public Procurement Act did not have a major impact on the utilization of cooperative purchasing by school divisions in the Commonwealth of Virginia. A minority of school divisions began cooperative purchasing agreements chiefly because of a perception that the legal requirements of the Virginia Public Procurement Act concerning specification writing and bid procedures would best be addressed by cooperative efforts with another agency or agencies. This same concern over legal compliance with the Virginia Public Procurement Act stimulated exploratory cooperative purchasing discussions by a small number of concerned school divisions.

The Effect of the Virginia Public Procurement Act on Utilization of the State Department of Purchasing and Supply

Enactment of the Virginia Public Procurement Act did not affect the majority of school divisions in terms of the extent and/or type of services requested and provided by the State Department of Purchasing and Supply when compared on the basis of pre and post January 1, 1983 conditions. The attendant provisions of the Virginia Public Procurement Act necessitating the development of specifications, preparation of bid documents, and the processing of same has persuaded a minority of school divisions to purchase certain difficult to specify items, such as chemicals, from the State Department of Purchasing and Supply thereby relieving the school divisions of the technical burden and concern about compliance with bid procedures. The majority of school divisions elect to meet their needs for goods, materials, and supplies from commercial vendors.

The Effect of the Virginia Public Procurement Act on the Exercise of Section 15.1-127 of the Code of Virginia

Enactment of the Virginia Public Procurement Act has not had an effect on whether or not county boards of supervisors have elected to compel joint centralized purchasing with their respective school division by invoking Section 15.1-127 of the Code of Virginia. Rather, a desire to exercise more control over the purchasing function and to save money emerged as co-equal factors that provided the

impetus for initiating joint centralized purchasing. No trend or pattern towards extensive state-wide implementation of Section 15.1-127 is evident at this time.

Rationale for Exercising or Foregoing Cooperative Purchasing

School divisions engage in cooperative purchasing for one major reason - to save money. Saving money is the major factor that led to the establishment of cooperative purchasing agreements in Virginia and it is the most frequent success factor reported. The next most frequent reason given and success reported is a savings in administrative time in terms of less paperwork and contacts by salesmen.

The primary reason that school divisions in Virginia advance for not utilizing cooperative purchasing is a concern that autonomy will be compromised. Additional reasons such as an inability to agree on a unified set of specifications, excessive red tape, and political concerns strongly relate to autonomy and may reasonably be considered to be further manifestations of this concern.

Establishment of a Profile that Distinguishes School

Divisions Engaged in Cooperative Purchasing

No discrete profile can be established that differentiates between school divisions that are or are not utilizing cooperative purchasing because the presence or absence of key factors in either group does not exist to

the degree that a statistical relationship can be derived. However, the presence of certain factors does increase the likelihood that a school division will purchase cooperatively. Examination of the data leads to the suggestion that there is a high probability that a school division will utilize cooperative purchasing when student enrollment approaches or exceeds twenty-five thousand students, the operational budget is nineteen million dollars or more, one or more full-time professional purchasing agents are employed, the division superintendent had prior experience with cooperative purchasing, and there was a held perception by the division superintendent that cooperative purchasing would be the best method available to deal with the strictures imposed by the Virginia Public Procurement Act as regards specification writing, bid procedure, and contract administration.

Recommendations to Improve Services and Utilization
of Services Offered by the State Department of
Purchasing and Supply

The majority of division superintendents responding to this study suggested that services offered by the State Department of Purchasing and Supply could be improved so as to increase utilization of this department by public school divisions. Improved communications between the State Department of Purchasing and Supply and public school

divisions constituted the major area cited for improvement. Brochures listing offerings and services should be more detailed and timely in terms of issuance and up-dating. Employees were perceived as being less than helpful in terms of the attitude conveyed. School divisions do not perceive that sufficient input is sought regarding their needs. As a result, school divisions perceive that the range of offerings available from the State Department of Purchasing and Supply is very narrow.

Implications for Practice

An analysis of the responses reported in this study and the literature previously cited suggests that cooperative purchasing may be successfully initiated and administered by a systematic approach that stresses awareness and planning. Such an agreement may evolve through application of six phases.

Practitioners Guide to Cooperative Purchasing

Self-Evaluation Phase. Evaluate the current prices being paid for goods, materials, and supplies by contacting neighboring school divisions and the local governing body. Should a discrepancy exist that is deemed significant, it would be appropriate to evaluate those items individually. Items should be evaluated as to perceived commonality and the relative ease by which a common set of specifications might be developed. Volume should be considered along with

the number of potential vendors who might be interested in bidding. Large volume items of commonality are thus distilled.

Next, examine relationships to determine which agency or agencies has had a history of cooperation and good working relations with the host agency. The host agency should then examine what each potential participant might be able to bring to the relationship. Particular attention should be paid to whether known deficiencies in available personnel, warehousing capability, delivery services, etc. may become problematical. Can these potential problems be resolved at least in theory?

After identifying those items likely to be appropriate for purchasing cooperatively, the potential agency or agencies most likely to be approachable, and the potential problems involved, the top management of the host agency must agree to support and pursue the process. A presentation should be developed for the purpose of approaching potential participants.

Approach Phase. The potential participant or participants should then be invited to attend a presentation outlining all the aforementioned factors. There should ensue a frank discussion that would not minimize or gloss over those potential problems identified by the host agency. Potential participants should be provided with a written summary and asked to evaluate the situation so as to meet

again at a specified date for further discussion. The only commitment sought at this time is that an honest evaluation be made by participants and that the host agency be given an opportunity to discuss the matter at a subsequent meeting.

Commitment Phase. The next meeting should be for the purpose of discussing whether or not the plan is feasible and whether the parties are willing to commit a person or persons to planning sessions designed to lead to a joint proposal. An individual should be designated as the coordinator with the responsibility for moving the process forward in an expeditious manner.

Planning Phase. The planning phase serves to identify potential problems so as to develop procedures and strategies designed to insure a profitable and smooth relationship. Certain key concepts should be uppermost in the minds of the planners:

1. Choose a few large volume items such as paper, gasoline, light bulbs, etc. that are easily agreed upon. Expansion can occur later when the system has been tested.
2. Analyze the manpower capabilities of each agency to ascertain whether cost savings might be negated if additional personnel must be employed.
3. Analyze the purchasing procedures of each agency with particular attention to invoicing and payment.

- Be sure that any significant difference in method will not compromise the agreement. If so, modifications should be agreed upon.
4. Evaluate whether warehousing and delivery capabilities are either sufficient or a trade-off in services is possible by one or more participants to resolve the matter.
 5. Designate one agency as the fiscal agent empowered to act for the group in cases where one entity must either speak or sign for the others.
 6. Appoint a lead administrator to coordinate activities. Participants must realize that needs and circumstances differ to a degree that will require a certain amount of time to resolve. A workable relationship develops over a period of time.
 7. Be sure that safeguards are included that do not threaten the autonomy of the participants.
 8. Submit a written agreement outlining all responsibilities, procedures, goals, etc. to each school board for approval.

Implementation Phase. Certain key factors should be considered before bids are promulgated:

1. Be sure that agreement on specifications is present. If there is a split proposal, insure that such is clearly marked in the bid proposal.

2. Allow sufficient lead time for preparation, promulgation, and acceptance of bid documents. Cooperative purchasing awards do take somewhat longer than individual proceedings and cannot be consummated at the last minute.
3. Bid proposals should clearly stipulate factors such as split deliveries and billings, deliveries of bulk items at more than one time of the year, and any other special considerations necessary due to the uniqueness of the arrangement. This is critical because bids depend on the accuracy of what the vendor perceives must be done to fulfill the contract.
4. The evaluation of bids should include a certain scrutiny of the potential low bidder. Agencies have a perfect right to ascertain whether or not a vendor can, in fact, fulfill a contract. It may well be necessary to receive some evidentiary assurance that sufficient office expertise is available to handle split billings. Multiple deliveries of bulk items require a sufficient fleet and receiving space to process the client's needs.

Planning, consultation when problems occur, and a desire to save money have been shown to overcome a multiplicity of problems.

Evaluation Phase - Continuous. Scheduled conferences should be an on-going aspect of any cooperative purchasing agreement so as to measure success and head off potential problems. Any system can be improved but a systematic program of evaluation helps insure it.

The Leadership Function

Colleges of education, the State Department of Purchasing and Supply, the Virginia State Legislature, and school division superintendents have, by virtue of the leadership roles each group occupies, the potential to influence the practice of cooperative purchasing by public school divisions. Each of the following recommendations is directed to that entity best positioned to make an evaluation and take such action as may be deemed appropriate.

The absence of formal exposure to the policies and procedures of cooperative purchasing suggests that the majority of division superintendents in Virginia have evaluated the efficacy of cooperative purchasing on a less than informed basis. Schools of education should include, as part of the instructional block dealing with business and finance, sufficient introductory data on the policies and procedures of cooperative purchasing so that purchasing decisions regarding this matter will not be made on a uninformed basis. Adequate literature exists to both qualify cooperative purchasing as a legitimate academic

topic and permit adequate summarization in a short time frame.

Public school divisions in Virginia perceive the State Department of Purchasing and Supply as an agency that has not sought input concerning their particular needs for goods, materials, and supplies nor has provided any appreciable amount of leadership as regards the purchasing process as a whole. The State Department of Purchasing and Supply should take cognizance of this perception for the purpose of assessing whether or not a more active role is indicated. At the very least, expertise could be shared by means of regional seminars or periodic newsletters. A conscious effort on the part of the State Department of Purchasing and Supply to survey and analyze the needs school divisions express might well result in an expanded role that would prove beneficial to both parties.

The Virginia State Legislature might be well served by taking cognizance of the expressed concerns voiced by the division superintendents of schools concerning the loss of autonomy they find inherent in the cooperative purchasing process. Specifically, the statutory requirement that a school division desiring to engage in a cooperative purchasing venture with a governing body subjugates the school division's purchasing policies to that of the governing body could be reviewed as to the intended purpose. As it now stands, this requirement inhibits cooperative

purchasing. The necessity for continuation of this restriction is questionable since every public body in the Commonwealth of Virginia is required to observe the tenets of the Virginia Public Procurement Act.

Given that division superintendents of schools in Virginia report that cooperative purchasing is being successfully utilized, saves money, and results in certain other beneficial outcomes; division superintendents not currently purchasing cooperatively should evaluate the procedure with an open mind. The real leadership question to be answered is whether or not local circumstances are just not conducive to the utilization of cooperative purchasing or is the locality willing to unnecessarily expend funds for the privilege of maintaining local independence.

A Recommendation for Further Research

This study set out to accumulate detailed data sufficient to describe past and current cooperative purchasing practices in the public schools of Virginia. Additionally, the impact of the Virginia Public Procurement Act upon cooperative purchasing and other pertinent issues as outlined in Chapter 1 were duly reported and analyzed. Each of the objectives of the study has been met. No major question remains unanswered. In the absence of significant economic or political changes, no further research on this topic is indicated or recommended.

BIBLIOGRAPHY

References Cited

- Aljian, George W. Purchasing Handbook. New York: McGraw-Hill Book Company, 1973, (third edition), pp. 20-50.
- Association of School Business Officials. (1962) Fifth Annual Volume. pp. 206-207.
- Berdie, Douglas R., and Anderson, John F. Questionnaires: Design and Use. Metuchen, New Jersey: The Scarecrow Press, Inc., 1974, pp. 11-71, 147-183, 200-201.
- Board of Supervisors of Chesterfield County v. County School Board of Chesterfield County. 182 VA 266, 28 S.E.2d 698 (1944).
- Borg, Walter R., and Gall, Meredith D. Educational Research: An Introduction. New York: Longman, Inc., 1983, pp. 354-359, 403-454.
- Bryant, Kenneth Earl. A Study of the Use of Cooperative Purchasing by Mississippi Public Schools. Dissertation Abstracts International, 39, (3-14), p. 1207.
- Comish, Newal H. Cooperative Marketing of Agricultural Products. New York: D. Appleton & Company, 1929.
- Cooper, Lloyd G. & Others. School Purchase Practices in Texas. El Paso, Texas: Texas Western College, 1964, pp. 1-4.
- Danser, Harold W. "Cut 10 Percent from Your Supply Budget," School Business Affairs, January 1977, 43, pp. 8-9.
- DeYoung, Chris A. Budgeting in Public Schools. Garden City, New York: Doubleday, Doron and Co., Inc., 1936.
- Facing Up-20. (May 1986), Richmond, Virginia: Division of Management Information Services, Commonwealth of Virginia. pp. 18-22, 44-48.

- Forbes, Russell. Governmental Purchasing. New York: Harper and Brothers, 1929, pp. 9-10.
- Forsythe, Ralph A., and Hardin, Claude E. Development of Guidelines for Cooperative Purchasing Agencies and Procedures for Public School Districts. Office of Education (OHEW), Washington, D. C.: Bureau of Research, June 1969, pp. 53.
- Fullmer, Ethan Yale. An Evaluation of Procedures for Purchasing School Supplies and Equipment in Oregon Public Schools Including a Survey of Cooperative Purchasing in the United States. Dissertation Abstracts International, 21 (8), p. 2171.
- Hall, Calvin W. Different Approaches to Shared Services. Conference paper, October, 1980, p. 101.
- Hardin, Claude E. Guidelines for Cooperative Purchasing Procedures for Public School Districts in the United States, Dissertation Abstracts International, 1969, 30 (6-A), p. 2249.
- Hoffer, William. "A Purchasing Co-op: Help for Hard-Pressed Budgets." School Management, April, 1971, 15 (4), pp. 30-31.
- Holloway, William H., and Clark, Wayne H. "Cooperative Purchasing in the Public Schools: A Status Report with Comparisons." Planning and Changing, Summer-Fall, 1977, 8 (2-3), pp. 97-107.
- Isaac, S., and Michael, W. B. Handbook in Research and Evaluation. San Diego, California: EDITS Publishers, 1971. pp. 92-94.
- Kerlinger, Fred N. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, 1973, p. 414.
- Kiefer, Glenn Phillip. Historic and Contemporary Factors Influencing the Relationship Between Intermediate Education Agencies and Smaller Ohio Public School Districts. Dissertation Abstracts International. 42 (7-a), p. 2952.
- Kula, Edwin J. "Cooperative Purchasing Reduces Costs." School Business Affairs, March 1981, 47 (3), pp. 12-13.

- Lathen, Calvin W., and Caudillo, Jess D. "Before You Agree to Share Facilities, Consider These 14 Crucial Issues." American School Board Journal, June 1982, 169 (6), p. 30.
- Lehman, Gregg O. The Development of A Mathematical Purchasing Model to be Utilized in the Procurement of Consumable Supplies in School Systems. Ph.D. dissertation, Purdue University, 1973, p. 39.
- Linn, Henry A. School Business Administration. New York: Ronald Press Co., 1956, p. 252.
- McLean, Robert D. "Cooperative Purchasing--Enriches the Tax Dollar." School Business Affairs, June 1976, 42 (6), pp. 151-154.
- Moll, Dennis Harold. An Analysis of the Relationships Between the Educational Service Region of McLean and Dewitt Counties and Selected School Districts. Dissertation Abstracts International. 43 (1-A), p. 37.
- Mooney, Richard L. "Team Approach to Purchasing Requires Contracting's Three C's." College University Business. February 1969, 46 (2), pp. 80-82.
- Munsterman, Richard E. Purchasing and Supply Management Handbook for School Business Officials. (revised) Association of School Business Officials. Chicago, Illinois: 1978, p. 213.
- National School Boards Association. Updating School Board Policies (September 1974). "Cooperative Purchasing: If the Board Can Handle Six Big 'If's,' This Policy Can Save Tax Dollars." Waterford, Connecticut: p.3.
- Notestone, Linda Lemley. Cooperative Purchasing in the Public School Districts of the United States: Statutory Authority and Practices. Dissertation Abstracts International. 43 (6-A), p. 1779.
- Opinion of the Attorney General of Virginia to the Honorable Ray L. Garland, Member, Senate of Virginia, December 7, 1982.

- O'Shea, Daniel R., and Piper, Donald L. Saving Money Through Group Bidding by North Dakota School Districts. North Dakota University, Grand Forks: Bureau of Educational Research and Services. (November 1976), pp. 28-29.
- Perky, Cheves W., Cooperation in the United States. New York: Cooperative League of the United States, 1917, p. 3.
- Report of the Attorney General at 19, (1964-65).
- Report of the Attorney General at 260, (1960-61).
- Ross, Victor J. "Boost Bargaining Power: Form a Consortium of School Systems and Hire A Professional Negotiator." American School Board Journal. August 1982, 169 (8), pp. 28-29.
- Sanders, Frank, and Knapp, Herbert. Cooperative Purchasing Guidelines (No. 2). Park Ridge, Illinois: Research Corporation of the Association of School Business Officials of the United States and Canada, 1979. p. 4.
- School Board of the City of Richmond v. Parham, 218 VA ____. 243 S.E.2d 468 (1978).
- Senate Document 18 - Virginia Public Procurement Act Final Draft, 1980. Richmond, Virginia.
- Virginia Educational Directory, School Year 1984-85 (January 1985), Richmond, Virginia: Department of Education, Commonwealth of Virginia.
- Virginia Public Procurement Act of 1982. Code of Virginia, Chapter 7, Articles 1-4; Chapter 2, Article 8.
- Wallace, Ivan George. A Compilation of Specifications to Facilitate Cooperative Purchasing of School Buses in Northeast Missouri. Masters Abstracts. 17 (2) p. 23.
- Whitt, Robert L. Structuring Education for Business Management. Lincoln, Nebraska: Great Plains School District Organization Project. April 17, 1968, p. 24.
- Williamson, J. B., Karp, D. A., and Daphin, J. R. The Research Craft. Boston: Little, Brown, and Company, 1977.

Zorn, Robert L. "Co-op Buying: You Pool Your Power and Pocket Your Savings. American School Board Journal. April 1973, 160 (4), pp. 42-43.

_____. IBM Application System. (International Business Machines Corp., 1985).

_____. Analyzing Data with Application System. Computer Program Manual. (International Business Machines Corp.; Program No. 5767-001, 1986).

BIBLIOGRAPHY

References Consulted

- Abbott, Forrest L., Ahrens, Bert C., and Ritterskomp, James J., Jr. (Eds.). Purchasing for Educational Institutions. New York Teachers College Press, T. C. Columbia University, 1961-1968, (third print), pp. 4-14, 171.
- Elgin, Peggie R. "Here's How to Ensure Harmony Between Regional and Local Boards." American School Board Journal. February 1980, 167 (2), p. 26.
- Fortune, Jim C., Poole, Nancy A., and Underwood, Kenneth E. "Fill Yourself In: Money Continues To Color School Board Priorities." American School Board Journal. January 1984, 171 (1), pp. 24-25.
- Fox, Lawrence E. "Putting Cooperation Into Purchasing Yields Increased Savings for Consortium." College and University Business. August 1972, 53 (2). p. 17.
- Goinnell, Harold C. Patterns of Expenditures Among Rural New Hampshire School Districts. Durham: New Hampshire University, August 1967, p. 34.
- Information on the Public Procurement Act from George W. Holmes, III, and Frank E. Barham of the Virginia School Boards Association to School Board Chairmen and Division Superintendents. Charlottesville, Virginia, December 14, 1982.
- Information on the Public Procurement Act from George W. Holmes, III, and Frank E. Barham of the Virginia School Boards Association to School Board Chairmen and Division Superintendents. Charlottesville, Virginia, January 6, 1982.
- Letter from Delegate V. Thomas Forehand, Jr. to the Attorney General of Virginia, The Honorable Gerald L. Baliles. December 1, 1982.

Parsons, Edgar Warner. Cooperative Purchasing of School Supplies Under the California Standard School Supplies Law. Dissertation Abstracts International, 25 (10). p. 5694.

Ruffin, Santee C., Jr. "School Business Partnerships." Educational Digest, March 1984, 49 (7), p. 57.

Watson, Maria L. "Businesses Help Schools." American School Board Journal. February 1979, 166 (2), pp. 31-32.

_____. "Centralization of Purchasing Rings Up Million Dollar Savings." College and University Business, 49 (5), pp. 76-82.

APPENDIX A

QUESTIONNAIRE FOR DIVISION SUPERINTENDENTS

A DESCRIPTIVE STUDY OF COOPERATIVE PURCHASING
IN THE PUBLIC SCHOOL DIVISIONS OF VIRGINIA

Name of School Division _____

GENERAL INSTRUCTIONS

Please respond to the following questions as they best describe your school division. You are encouraged to consider those questions dealing with rationale and effects most carefully. These open-ended questions have been held to a minimum for your convenience but they represent a significant portion of this study.

DEFINITIONS

For the purposes of this questionnaire, key terms are defined as follows:

Cooperative Purchasing: Any formal or informal agreement by which your school division joined with another school division and/or public agency or government body to make purchases of goods, material, and/or supplies so as to take advantage of joint purchasing power.

Goods, Material, and Supplies: Those items necessary to maintain the functioning of a school division exclusive of contracted/professional services and construction projects.

Governing Body: The local political body appropriating funds for your school division (City Council, County Board of Supervisors, Town Council, etc.).

SECTION I COOPERATIVE PURCHASING: This section seeks information on past and current utilization of cooperative purchasing. Effects of the Virginia Public Procurement Act on cooperative purchasing and your rationale for utilizing or not utilizing cooperative purchasing are also sought.

1. Please check the descriptor(s) regarding the cooperative purchasing experience of your school division that provides the most accurate characterization:
 - a. We were involved prior to January 1, 1983 but are not currently using cooperative purchasing. _____
 - b. We were involved prior to January 1, 1983 and are still engaged in cooperative purchasing. _____
 - c. We have never been engaged in cooperative purchasing. _____
 - d. We became engaged in cooperative purchasing after January 1, 1983. _____

2. Has enactment of the Virginia Public Procurement Act affected your school division's decision to engage in cooperative purchasing? YES ___ NO ___

3. If the response to question 2 was yes, please provide a brief explanation for your response:

4. If your school division has or is engaged in cooperative purchasing, please list the major reasons for doing so:

5. If your school division has not engaged in cooperative purchasing, please list the major reasons for electing not to do so:

SECTION II UTILIZATION OF THE STATE DEPARTMENT OF PURCHASING AND SUPPLY:

This section is intended to study the utilization of the State Department of Purchasing and Supply before and after enactment of the Virginia Public Procurement Act. Additionally, your comments on improvement of services are respectfully sought.

6. As of January 1, 1983, our school division has purchased, during the course of each year following (please check the answer that best describes your district's practices):

more _____
about the same _____
less _____

from the State Department of Purchasing and Supply than was done prior to that date.

7. Our school division's history of purchasing from the State Department of Purchasing and Supply can best be characterized as (please check the appropriate response):
- a. Making purchases each year consisting of less than three categories of items. _____
 - b. Making purchases each year consisting of more than three categories of items. _____
 - c. Making occasional purchases but not each year. _____
 - d. Not utilizing its services. _____

8. Has the Virginia Public Procurement Act had an effect on your utilization of the State Department of Purchasing and Supply to help meet your needs for goods, material, and supplies? YES ___ NO ___

9. If your response to question 8 was yes, please explain your response briefly:

10. Please comment on what you perceive the State Department of Purchasing and Supply might do to increase the use of its services by your school division:

11. Please express the approximate percentage or dollar figure that represents the total amount of your purchases of goods, material, and supplies acquired through the State Department of Purchasing and Supply:

% _____ or \$ _____

SECTION III GOVERNING BODIES: This section seeks to determine the relationship between governing bodies and school divisions as they relate to joint centralized purchasing/cooperative purchasing.

12. Has the governing body of the city/county compelled your school division to join with it in joint centralized purchasing by invoking its statutory authority under Section 15.1-127 of the Code of Virginia? YES ___ NO ___

13. If your response was yes to question 12, please check the appropriate response that describes when this action took place:
- Prior to January 1, 1983 _____
After January 1, 1983 _____
14. If your response was yes to question 12, please describe briefly the stated rationale for this action:
- _____
- _____
- _____
15. Is your school division involved in discussions designed to explore the establishment of a cooperative purchasing agreement with another school division(s) and/or public body? YES ___ NO ___
16. If your response was yes to question 15, whose initiative began these discussions? (Please check the appropriate response.)
- a. Your school division.
b. Your governing body.
c. Other (please list) _____
- _____
17. If your response was yes to question 15, please list the major points being advanced for and against the establishment of a future cooperative purchasing agreement:
- a. For _____
- _____
- _____
- _____
- B. Against _____
- _____
- _____
- _____

SECTION IV DEMOGRAPHIC DATA: This section has been designed to provide descriptive data useful in characterizing staffing and resources as they relate to cooperative purchasing.

- 18. How long have you served in your present capacity as superintendent? _____
- 19. Do you, as superintendent, personally attend to the majority of your division's purchasing of goods, material, and supplies? YES ___ NO ___
- 20. How many persons comprise your staff? (Include only Assistant Superintendents, Directors, Supervisors, Program Administrators, and Coordinators.) _____
- 21. Does your staff include professional personnel whose sole or major duty is purchasing? YES ___ NO ___
- 22. How many professional personnel fulfill this function? _____
- 23. Does your school division have a warehouse facility for storing goods, material, and supplies along with in-house capability to deliver from the facility to where the items are needed? YES ___ NO ___
- 24. Is your budget constructed so as to allow for the bulk purchase of goods, material, and supplies at one or more times during the year? YES ___ NO ___
- 25. Approximately what percentage of your purchases of goods, material, and supplies is made from vendors outside the confines of your school division's boundaries? _____ %
- 26. Have you had prior experience managing the major business affairs of a school division at the level of director or higher? YES ___ NO ___
- 27. Have you had experience in cooperative purchasing agreements prior to assuming your present position? YES ___ NO ___
- 28. Have you ever been exposed to the practices and procedures of cooperative purchasing by means of formal course work, workshops, or other structured means designed to familiarize you with this concept? YES ___ NO ___

SECTION V THE SUPERINTENDENT'S VIEWS ON COOPERATIVE PURCHASING:

29. It has been stated by some writers in the field of educational business administration that cooperative purchasing has not been employed to the degree that might be expected. Do you believe this is so in Virginia's public school divisions? Why or why not?

I would like a summary of the results of this study. YES ___ NO ___

APPENDIX B

FOLLOW-UP QUESTIONNAIRE FOR DIVISION SUPERINTENDENTS

A DESCRIPTIVE STUDY OF COOPERATIVE PURCHASING
IN THE PUBLIC SCHOOL DIVISIONS OF VIRGINIA

Name of School Division _____

GENERAL INSTRUCTIONS

On the basis of information provided on a questionnaire seeking data pertinent to your school division's experience with cooperative purchasing, your division has been classified as circled:

- a. Your school division was involved with a cooperative purchasing agreement prior to January 1, 1983 but is not currently so engaged.
- b. Your school division has been engaged in cooperative purchasing prior to January 1, 1983 and is continuing to engage in cooperative purchasing.
- c. Your school division has become engaged in cooperative purchasing after January 1, 1983.

Please respond to the following questions as they best describe your school division. You are encouraged to consider those questions dealing with rationale and effects most carefully. These open-ended questions have been held to a minimum for your convenience but they represent a significant portion of this study.

- 1. Was or is the agreement(s) (please check as appropriate)
 - a. a formal written agreement (s) _____
 - b. an informal agreement (s) _____
 - c. other (please explain briefly) _____

- 2. How long was or has it been in effect?
 - a. beginning date _____
 - b. ending date _____

- 3. Please list the parties with whom you joined in a cooperative purchasing agreement:

4. What categories of goods, material, and supplies was or are being purchased cooperatively? (Check all appropriate responses)

- | | |
|---|---|
| <input type="checkbox"/> Heating Oil | <input type="checkbox"/> Instructional Supplies |
| <input type="checkbox"/> Diesel | <input type="checkbox"/> Art Supplies |
| <input type="checkbox"/> Gasoline | <input type="checkbox"/> Fluorescent/Incandescent Lamps |
| <input type="checkbox"/> Paper Products | <input type="checkbox"/> Furniture |
| <input type="checkbox"/> Custodial Supplies | <input type="checkbox"/> Food Items |

Other _____

5. What factors contributed to the establishment of this cooperative purchasing agreement?

6. What were or are the major successes of the agreement?

7. What were or are the major problems encountered?

8. How were they resolved?

9. What problems, if any, were presented by vendors?

10. When comparing purchases made from vendors inside the boundaries of your school division under cooperative purchasing as opposed to no cooperative purchasing agreement, which of the following best describes the comparison:

- a. More purchases were made outside the boundaries of our school division utilizing cooperative purchasing. _____
- b. Less was purchased outside the boundaries of our school division utilizing cooperative purchasing. _____
- c. About the same was purchased under either system. _____

11. Did you or have you received any significant amount of expressed concern by any group(s) that cooperative purchasing was resulting in too much money being spent outside your division? YES ___ NO ___

If your response was yes, please list the group(s) _____

12. What advice would you give to school divisions interested in exploring cooperative purchasing?

13. What factors, if any, do you foresee that would likely result in your school division ceasing to employ cooperative purchasing?

14. Combining past, current, and projected future factors, how do you rate the likelihood that your school division will continue to engage in cooperative purchasing?

- Likely _____
- Uncertain _____
- Unlikely _____

APPENDIX C

FOLLOW-UP QUESTIONNAIRE FOR DIVISION SUPERINTENDENTS

10. When comparing purchases made from vendors inside the boundaries of your school division under cooperative purchasing as opposed to no cooperative purchasing agreement, which of the following best describes the comparison:
- a. More purchases were made outside the boundaries of our school division utilizing cooperative purchasing. _____
 - b. Less was purchased outside the boundaries of our school division utilizing cooperative purchasing. _____
 - c. About the same was purchased under either system. _____

11. Did you or have you received any significant amount of expressed concern by any group(s) that cooperative purchasing was resulting in too much money being spent outside your division? YES ___ NO ___

If your response was yes, please list the group(s) _____

12. What advice would you give to school divisions interested in exploring cooperative purchasing?

13. What factors contributed to the termination of the cooperative purchasing agreement?

14. What factors or set of circumstances would need to be present for a revival of your participation in cooperative purchasing?

APPENDIX D

COVER LETTER FOR INITIAL QUESTIONNAIRE

Office Phone:

Home Phone:

Dear

I need your help! As a practicing public school administrator (and doctoral candidate), I am studying cooperative purchasing practices and procedures employed by the public school divisions in Virginia. This area has not been the focus of an organized study in the past. Valuable insights and techniques acquired and developed by practitioners are unavailable to interested school divisions who might profit by this knowledge. The data from this study will be made available to any interested administrator who might wish to evaluate the initiation of a cooperative purchasing agreement in the future. It will also provide respondents an opportunity to suggest ways that the State Department of Purchasing and Supply might better serve our needs.

Respondents are assured of total confidentiality of response. No school division will be identified. The identification of your division on this questionnaire is necessary due to the need for follow-up in certain cases.

So that this study will accurately reflect all available data on a potentially cost-saving technique, I earnestly request your participation by the prompt return of the questionnaire. Should it prove more feasible for a member of your staff to complete this form, please feel free to exercise this option at your discretion.

I thank you in advance for your time and consideration.

Sincerely,

Robert A. Cowden

APPENDIX E
FOLLOW-UP LETTER

Office Phone:
Home Phone:

Dear

I am concluding the data collection phase of the study on cooperative purchasing practices and procedures in the public school divisions of Virginia. To this date, I have not received a completed questionnaire from you or your designee and I am eagerly awaiting its return.

This is a valuable study in that the practices and procedures of cooperative purchasing in Virginia's public school divisions have not been reported. The accumulated insights and comments will prove very valuable to those interested in exploring cooperative purchasing further. The view of individuals who occupy a major leadership role in your school division is critical to achieving meaningful data. Failure to include data from your school division leave a critical void in my data base.

Please take some time from your already busy schedule to contribute your valuable data and perceptions. I have enclosed another questionnaire and return envelope for your convenience.

Please contact me at either of the above phone numbers if clarification or any other assistance can be rendered.

Sincerely,

Robert A. Cowden

APPENDIX F
FOLLOW-UP QUESTIONNAIRE COVER LETTER

Office Phone:
Home Phone:

Dear

Your kind response to my questionnaire dealing with cooperative purchasing practices and procedures is greatly appreciated. A tabulation of the responses you provided indicates that your school division has had experience with cooperative purchasing. In order to gain additional insights that can only be provided by current or past practitioners, I am requesting your responses to the enclosed questions. I shall not impose upon your good will past this point but a compilation and reporting of this information will prove valuable to those entrusted with the responsibility for purchasing needed goods and materials.

Again, I thank you for your time and consideration.

Sincerely,

Robert A. Cowden

APPENDIX G

COVER LETTER FOR VALIDATION FORMS

Office Phone:
Home Phone:

Dear

Dr. Glen Earthman suggested I contact you to help me validate my questionnaires. We both realize that the content does not apply directly to your situation since it is designed to focus in on only public school divisions in Virginia. However, your experience and job responsibilities will enable you to make a qualified judgment on a number of critical issues. Dr. Earthman also stated that you have had formal classwork dealing with budget and finance in Virginia. The intent of my study is to determine the past and current status of cooperative purchasing in Virginia along with patterns that may emerge regarding who has or has not utilized cooperative purchasing and the rationale accompanying same. An effort is also being made to determine the effects of the new State Procurement Act on the topic. I am also investigating some aspects of the use of our State Department of Purchasing and Supply by public school divisions. In addition to the questionnaires, I am enclosing the cover and follow-up letters that will be sent. Your comments will be greatly appreciated on these. I am enclosing some forms for your responses but please feel free to write on the instruments as my English teacher was so fond of doing (you may wish to do this on the letters in lieu of the form).

For clarification:

1. Cover letter for initial survey instrument.
2. Follow-up letter for initial survey instrument.
3. Cover letter for second mailing covering divisions reporting use of cooperative purchasing.
 - A. Initial survey instrument.
 - B. & C. Instruments covering follow-up on those divisions reporting use of cooperative purchasing.

Along with a self-addressed, stamped envelope for your reply, please accept my thanks in advance for your cooperation in helping me validate my instrument and complete the study. If I may ever reciprocate or help in any way, please do not hesitate to call on me.

Sincerely,

Robert A. Cowden

APPENDIX H

VALIDATION FORM FOR INSTRUMENTS/LETTERS

To Be Used in Cooperative Purchasing Study

Name of Reviewer _____ Title _____

Title of Instrument _____

Please check/comment as appropriate:

A. Readability

1. Ambiguity of questions/responses:

Clear _____ Needs Improvement _____

Comments: _____

2. Grammar:

Satisfactory _____ Needs Improvement _____

Comments: _____

3. Sufficient "white space":

Satisfactory _____ Needs Improvement _____

Comments: _____

B. Validity

1. Appears to cover the topic:

Satisfactory _____ Needs Improvement _____

Comments: _____

2. Likelihood that answers will be truthful:

Satisfactory _____ Needs Improvement _____

Comments: _____

C. Reliability--Likelihood that all respondents will interpret the instrument alike

Satisfactory _____ Needs Improvement _____

Comments: _____

D. Type and amount of data is sufficient to draw conclusions

Satisfactory _____ Needs Improvement _____

Comments: _____

E. Length is appropriate and will not adversely affect return rate

Satisfactory _____ Needs Improvement _____

Comments: _____

F. Adequate provision made for responses including those which might be unanticipated

Satisfactory _____ Needs Improvement _____

Comments: _____

G. Format

1. Ease of completion

Satisfactory _____ Needs Improvement _____

Comments: _____

2. Instructions--clear and adequate

Satisfactory _____ Needs Improvement _____

Comments: _____

3. Logical sequence of presentation

Satisfactory _____ Needs Improvement _____

Comments: _____

4. Interest and challenge presented by questions

Satisfactory _____ Needs Improvement _____

Comments: _____

5. Professional appearance

Satisfactory _____ Needs Improvement _____

Comments: _____

H. Other Comments You May Have:

**The three page vita has been
removed from the scanned
document. Page 1 of 3**

**The three page vita has been
removed from the scanned
document. Page 2 of 3**

**The three page vita has been
removed from the scanned
document. Page 3 of 3**