
NATIONAL CENTER FOR EDUCATION STATISTICS

Working Paper Series

The Working Paper Series was created in order to preserve the information contained in these documents and to promote the sharing of valuable work experience and knowledge. However, these documents were prepared under different formats and did not undergo vigorous NCES publication review and editing prior to their inclusion in the series.

NATIONAL CENTER FOR EDUCATION STATISTICS

Working Paper Series

Making Data Relevant for Policy Discussions: Redesigning the School Administrator Questionnaire for the 1998-99 SASS

Working Paper No. 96-09

April 1996

Contact: Dan Kasprzyk
Surveys and Cooperative Systems Group
(202) 219-1588

U. S. Department of Education
Office of Educational Research and Improvement

U.S. Department of Education

Richard W. Riley

Secretary

Office of Educational Research and Improvement

Sharon P. Robinson

Assistant Secretary

National Center for Education Statistics

Jeanne E. Griffith

Acting Commissioner

Surveys and Cooperative Systems Group

Paul D. Planchon

Associate Commissioner

National Center for Education Statistics

The purpose of the Center is to collect and report "statistics and information showing the condition and progress of education in the United States and other nations in order to promote and accelerate the improvement of American education."—Section 402(b) of the National Education Statistics Act of 1994 (20 U.S.C. 9001).

April 1996

Foreword

Each year a large number of written documents are generated by NCES staff and individuals commissioned by NCES which provide preliminary analyses of survey results and address technical, methodological, and evaluation issues. Even though they are not formally published, these documents reflect a tremendous amount of unique expertise, knowledge, and experience.

The *Working Paper Series* was created in order to preserve the information contained in these documents and to promote the sharing of valuable work experience and knowledge. However, these documents were prepared under different formats and did not undergo vigorous NCES publication review and editing prior to their inclusion in the series. Consequently, we encourage users of the series to consult the individual authors for citations.

To receive information about submitting manuscripts or obtaining copies of the series, please contact Suellen Mauchamer at (202) 219-1828 or U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics, 555 New Jersey Ave., N.W., Room 400, Washington, D.C. 20208-5652.

Susan Ahmed
Chief Mathematical Statistician
Statistical Standards and
Services Group

Samuel S. Peng
Director
Methodology, Training, and Customer
Service Program

**Making Data Relevant for Policy Discussions:
Redesigning the School Administrator Questionnaire
for the 1998-99 SASS**

Henry Y. Zheng
1995 AERA Research Fellow

April 1996

School of Public Policy and Management
The Ohio State University
5357 Ambrosia Avenue
Columbus, Ohio 43235-5556

Table of Contents

Foreword	iii
I. Introduction	1
II. An Overview of the School Administrator Questionnaire of SASS	2
III. School Administrator Research Using SASS -- An Assessment	6
IV. Improving the School Administrator Questionnaire: Some Suggestions	13
(1) The Core Items	15
(2) Principals' Jobs and Responsibilities	17
(3) Principals' Perceptions of Their Teaching Staff	19
(4) Principals' Perceptions on School Matters	20
(5) Principal Preparation and Licensure	22
V. Conclusion	22
References	24

Making Data Relevant for Policy Discussions: Redesigning the School Administrator Questionnaire for the 1998-99 SASS¹

I. Introduction

As an integral part of the Schools and Staffing Survey (SASS) conducted by the National Center for Education Statistics (NCES), the School Administrator Questionnaire has been used to collect information from both public and private school administrators regarding their demographic characteristics, academic background, professional training, and attitudes toward school management issues (Davis & Sonnenberg, 1995). Thus far, three surveys were conducted separately in 1987-1988, 1990-1991, and 1993-1994. These efforts have resulted in a large pool of data that is now available for presenting a comprehensive national profile of school administrators as a professional work-force. Research products based on these data resources have provided valuable information to educational decision-makers on a number of important policy issues.

For example, in their report to the National Leadership Network, Moorman et al. (1992) argue that there is a pervasive bias favoring white male principals over female and minority principals in America's schools. They question whether female or minority principals may "inhabit a school different from their majority counterparts" and whether this difference may "hold significant implications for their tracking and on-the-job performance (p.166)." Moorman and associates' observation touches upon a sensitive issue that has long been debated within the education administration community. However, without the support of authoritative evidence, such an observation remains subjective and inconclusive. Fortunately, with the implementation of SASS, policy issues such as this can now be fully explored by tapping into the data resources collected through the school administrator survey. Within NCES, both Hammer and Rohr's report (1994) on the disproportional distribution of male and female principals in America's public and private schools and Rossi and Daugherty's report (1995) on the types and locations of schools at which America's minority principals work have rendered strong statistical evidence to support some of the arguments made by Moorman and associates (1992).

The school administrator survey, together with other components of SASS, not only provides data for mapping the basic demographic and educational background of school administrators, it also offers opportunities for assessing principals' attitudes toward

¹ I would like to express heartfelt appreciation to the following people who made suggestions for improving this paper: Kerry Gruber, Charles Hammer, Sharon Bobbitt, and Daniel Kasprzyk of NCES, Ramsay Selden of Education Statistical Services Institute, and John Mullens of Policy Studies Associates.

school management issues such as the priorities of educational goals, seriousness of school problems, and the distribution of decision-making power in schools. As education reform continues to demand improvements and greater accountability from our educational system to better prepare students for future challenges, it becomes evident that information regarding school principals will continue to be of great interest to education researchers and policy-makers. As Odden (1995) points out, the decentralization of decision-making power from school boards to individual schools has placed school principals at the forefront of the current reform movement. It is therefore important that we have reliable and comprehensive information on the principalship in order to make sound judgments on school administrators' roles and contributions to school improvement and student outcomes.

NCES is currently in the process of reviewing the direction, purposes, and uses of SASS for the planned 1998-99 survey. This includes examining the current uses of its data, its relationships with other federally sponsored data collection efforts, and future national survey needs in accordance to changing policy priorities. As part of the review efforts, this paper will discuss the scope, uses, and possible changes of the school administrator component of SASS from a user's perspective. In the following chapters, I will first present an overview of the school administrator questionnaire across three separate surveys. Next, an assessment of the current uses of the school administrator data will be given. Lastly, comments and suggestions for possible changes to the school administrator questionnaire will be offered.

II. An Overview of the School Administrator Questionnaire of SASS

The school administrator survey of SASS is the most comprehensive and the largest national study of school principals in this country, perhaps even in the world. The only study outside of NCES that can competently approach the depth and extensiveness of SASS is the survey of school administrators by Feistritzer and associates in 1987 for the National Center for Education Information. Feistritzer and associates' study (1988) surveyed the basic demographic background of school administrators and their attitudes toward a number of school management issues. The study has a sample of more than five thousand elementary and secondary school administrators, including superintendents, public and private school principals. Compared to the school administrator survey of SASS, Feistritzer and associates' study has a number of disadvantages. It is a one-shot study, hence it is limited by its inability to provide a longitudinal perspective on changes occurring within the school administrator workforce. It also lacks the broad scope that SASS has. Feistritzer and associates' study only provide basic demographic information

such as gender, age, education, and work experience. It does not have essential information such as principals' professional training and the contextual environment of schools in which principals work. Moreover, Feistritzer and associates' survey did not offer user-friendly data resources to other researchers for further exploring the policy issues related to the principalship.

Compared to Feistritzer and associates' and other similar studies, data collected from the school administrator surveys of SASS have several distinct advantages. First of all, it has a large and comprehensive sample of principals from all varieties of schools. It includes not only principals from public schools of different sizes, locations, and levels, but also private schools of different group types and religious affiliations. The 1987-88 SASS has a sample size of 9,317 public schools and 3,513 private schools (NCES, 1994) while the 1990-91 SASS has a sample size of 9,330 public schools and 3,270 private schools (Kaufman and Huang, 1993). Such a high degree of representation affords researchers the opportunity to conduct analysis down to the basic level of the stratification sampling structure. For example, there are even enough cases for comparing three different types of Jewish schools in the private school sample (Broughman, McLaughlin, O'Donnell, and Ries, 1995). Secondly, the school administrator survey is inherently integrated with other components of SASS. For every school included in the survey, its principal and a number of teachers within the same school would also be surveyed. The school's file is also linked with the school district's file. These inter-file linkages provide a high degree of flexibility to data users for incorporating relevant variables from other databases. For example, while the school survey provides contextual information regarding the schools in which principals fulfill their leadership roles, the teacher survey supplements additional information on how well principals perform such leadership roles (from teachers' perspective). Moreover, the school administrator questionnaire has maintained a high level of consistency over the past three surveys that many of the core items remain unaltered. Such a consistency allows researchers to evaluate the changes overtime in many areas of the principalship. Policy-makers may use such data to assess the changes and progresses of the school administration workforce.

Table One

An Overview of Questionnaire Items of School Administrator Component of The Schools and Staffing Surveys at the National Center for Education Statistics

Categories of Questions	Specific Types of Questions Asked	Number of Items ²		
		1987-88	1990-91	1993-94
Education and Training	Degrees achieved and major fields of study	25	18	29 ³
	Professional Training	4	7	6
Professional Experience	Teaching experience: years and assignment fields	6	4	4
	Administrative experience: years and positions	5	5	24 ⁴
	Other job experience	6	6	17 ⁵
Career plan	Plan to remain as principal	-	2	6
Compensation	Salary	2	2	2
	Benefits	10	10	10
Demographics	Gender, age, race	4	5	5
Job-related Activities	Activities and hours spent	11	-	-
Perceptions	Perceptions of school problems	13	22	24
	Perceptions of influence on school matters	9	15	39 ⁶
	Perceptions on school educational goals	-	3	3
Questions about school's	Teacher evaluation	1	3	-
Teaching staff	Teacher training	1	-	-
	Teacher recruitment	8	-	-
Misc.	Data & phone number	3	3	4
Total		108	105	173

² Refers to total number of response items. A question may have multiple response items.

³ BA/BS degree granting university and location were added.

⁴ Grade level of previous principal positions and breaks in principal career were added.

⁵ New position categories and years of experience were added.

⁶ Private school version has 27 items.

In Table One, an overview of all survey items is presented for the school administrator questionnaires. While the total number of survey items for the first two surveys is about the same (108 and 105 respectively), the number of items for the 1993-94 survey increases substantially to 173. Given the busy schedule of school administrators, it is reasonable to believe that this total number of question items has reached the critical length. Any increase in length will very likely cause a decline in survey return rate. Across the three questionnaires, there are eight general categories of questions: questions about the education and training of principals, their professional experience, their plan to retire or to remain as principals, their salary and benefits, their perceptions on a variety of school matters, their basic demographic background, their job-related activities, and their opinions of their teaching staff.

Among these eight general categories of questions, items inquiring about principals' education and training, professional experience, compensation, and basic demographic background remain consistent throughout all three surveys. These questions are the core items of the questionnaires. They are essential in tabulating the gender, age, and racial distributions of school principals and in presenting a basic profile of their educational background and professional preparation (including pre-service, in-service training and work experience). The availability of these data items enables the tracking of the dynamic changes in the basic characteristics of our nation's education administration workforce. It also helps answer some of the fundamental questions about the reform of the principal workforce itself. For example, in an extensive study of the sex factor on principals' career decisions, their job performance, their compensations, and their job satisfaction, Gross and Trask (1975) documented significant differences between male and female principals through personal interviews and mail surveys. Twenty years after Gross and Trask's study, one wonders how our education system has been changed to achieve gender equity. To answer this or other related policy questions, these core data items from the school administrator surveys are particularly useful.

Principals' perceptions of school matters are another general category of question items. The school administrator questionnaires invite principals to indicate their perceptions on the seriousness of a variety of problems facing their schools, their perceptions over the distribution of decision-making influence at the school, and their ranking of important educational goals⁷. Over the years, these items regarding perceptions have proliferated. The items for mapping principals' perceptions on school problems increased from 13 items in 1987-88 to 24 items in 1993-94. Items regarding principals'

⁷ The 1987-88 survey did not include the item for ranking educational goals.

perceptions on the distribution of decision influence for school matters (also called “locus of control” items) increased from 9 items in 1987-88 to 39 items in 1993-94⁸. To a certain extent, such increases reflect efforts committed by the staff at NCES to make the SASS surveys more relevant to the reform movements and policy debates in education administration. If we are to put more power into the hands of school principals and teachers to decide what is good for their schools and the students, we ought to know what they think about the merit of the reform and the impacts of its implementation. Understandably, most of these perceptual items could also be found in the teachers' questionnaires.

Question items about principals' career plans, such as decisions to retire or to remain as principals, grow from none in 1987-88 to 6 items in 1993-94. These items help shed light on the supply and demand situation of the school administrator workforce. Together with information about principals' ages and career breaks, these data items can be used to assist the projection of demands for new principals. Judging by the fact that information regarding principals' supply and demand situation is seriously lacking, the availability of these items can be quite valuable to those who have stakes in training and recruiting new school administrators.

While most categories of questions in the school administrator questionnaires have experienced increases in question items over time, two categories of questions have been down-sized. Questions about principals' job-related activities and questions about the recruitment and evaluation of teachers were actually eliminated from the 1993-94 survey. These changes may have been justified at the time the 1993-94 survey was planned. However, it is my opinion that these items should be restored but in different formats. Details will be discussed in Section IV of this paper.

III. School Administrator Research Using SASS – An Assessment

The three waves of SASS school administrator surveys have accumulated a large amount of data about school principals in the United States. Modern decision-support theory believes that data can be transformed into information only when it is used to assist decision-making (Rohrbaugh, 1986; Hammond & Arkes, 1986). According to this view, the effectiveness of data-collection efforts is ultimately judged by the quality of the data and how the data is used to inform policy decisions. In a report prepared by the Research Triangle Institute, Curtin and Fiore (1995) clearly indicate that the school administrator database from SASS is a very useful source of information for education decision-makers.

⁸ 39 items for public school questionnaire; 27 items for private school questionnaire.

In a sequence of topics, Curtin and Fiore demonstrate how the school administrator data can be used to inform policy makers and education researchers about the pluralistic transformation of the principalship in America's schools, the changing qualifications and professional preparation of school principals, the new roles required for principals in managing schools, and the status of principal retention and turnover.

Table Two

Samples of School Administrator Research Using NCES Data

Research Based on SASS		Research Based on HS&B	
Author, Year, Title	Type of Publication	Author, Year, Title	Type of Publication
Hammer, C. and Rohr, C. (1993) Teaching, Administrative, and Other Work Experience of Public School Principals	Issue brief NCES Publication	Chubb, J. and Moe, T. (1985) Politics, Market, and the Organization of Schools	Conference paper American Political Science Association
Hammer, C. and Rohr, C. (1994) Public and Private School Principals? Are There Too Few Women?	Issue brief NCES Publication	Eberts, R. and Stone, J. (1988) Student Achievement in Public Schools: Do Principals Make a Difference?	Journal article Economics of Education Review
Rossi, R. and Daugherty, S. (1995) At Which Types of Schools Do Minority Principals Work?	Issue brief NCES Publication	Hannaway, J. and Talbert, J. (1991) Bringing Context into Effective Schools Research: Urban-Suburban Differences	Research Paper OERI Publication
Ingersoll, R. and Rossi, R. (1995) Who Influence Decision-making About School Curriculum: What Do Principals Say?	Issue brief NCES Publication	Goldring, E. and Rallis, S. (1993) Principals of Dynamic Schools: Taking Charge of Change	Book Corwin Press
Anderson, J. (1993) Who's Runs the Schools? The Principal's View	Research Report OERI Publication	Lee, V. et al. (1993) Teachers and Principals: Gender-related Perceptions of Leadership and Power in Secondary Schools	Journal article Educational Evaluation and Policy Analysis
Fowler, W. (1991) What Are the Characteristics of Principals Identified as Effective by Teachers?	Conference paper AERA	Brewer, D. (1993) Principals and Student Outcomes: Evidence from U.S. High Schools	Journal article Economics of Education Review
Haller, E. et al. (1994) Does Graduate Education in Educational Administration Improve America's Schools? Another Look at Some National Data	Conference paper AERA		
Ballou, D. and Podgursky, M. (1995) What Makes A Good Principal? How Teachers Assess the Performance of Principals	Journal article Economics of Education Review		

In Table Two, research products using the SASS principal database are listed together with research products using the High School and Beyond (HSB) principal database. HSB is a national longitudinal survey of high school sophomores and seniors conducted also by NCES. Students selected to participate in the study were administered a series of cognitive tests measuring their verbal and quantitative skills in 1980. Several follow-up surveys were conducted with sub-samples of the original sample population to determine changes in their test scores. In 1984, an “Administrator and Teacher Survey” (ATS) was added to the HSB study, with questionnaires administered to principals, guidance counselors, and teachers in about 500 schools, or about half of the original number of sample schools (Chubb & Moe, 1985). The added ATS was intended to study the organizational aspects of schools – schools’ relationships with parents and school boards, teachers’ perceptions of principals’ leadership roles, and principals’ perceptions of school environments and management practices. Many of the question items used in ATS were later incorporated into the teacher and principal components of SASS. It is therefore useful that in discussing the use of SASS data to study the principalship that we also discuss research products that are based on HSB data.

Overall, it appears that research endeavors based on HSB data had enjoyed greater success in getting their products accepted by external publications (see Table Two). Research works using HSB data were accepted not only by academic journals and conferences, but also by a major book publisher that specializes in education-related topics. In contrast, only one of the principal-related research products based on SASS data was accepted for external publication. The relative success of HSB-based research products is partly due to the early inception of the HSB database. The fact that HSB data was collected almost four years earlier than SASS data gave HSB data-users much more time to get familiarized and to work with the data. Another reason that may explain the relative success of HSB-based studies is that principal and teacher questionnaires were added to the original HSB survey of students’ cognitive abilities with a clear intention of linking principals’ performance to student outcomes. This addition enabled the merging of the demographic background and personal perceptions of principals and teachers with students’ test scores. This merging provides the convenience and opportunities for exploring the connections between principal-related variables and student outcomes.

In a study of principals’ influence on student outcomes based on HSB data, Brewer (1993) used the change in student test scores between sophomore year (1980) and senior year (1982) as a dependent variable to measure the influence of principals on student outcomes. His study reveals that principals can influence student outcomes through the setting of academic goals for students, through the screening of new teachers,

and through their decisions on instructional methods. This study, together with the study by Eberts and Stone (1988), is one of the very small number of empirical studies on principals' influences on student outcomes that were reportedly backed by direct statistical evidence. Brewer claims that his findings render supports to the "effective schools" argument that principals can make a difference in student's outcomes (Hallinger & Murphy, 1987).

Despite the optimism, research findings based on the linking of ATS with HSB are not without their perils. First of all, the connection between principal behaviors and student performance is indirect at best (Glasman & Heck, 1992; Klein-Kracht, 1993). Principals do not interact with students directly and their influences on student achievements are muted by other more powerful factors, such as the quality of teachers, the degree of parental involvement, and students' own motivations, just to name a few. There is no way that these variables can be controlled in the analysis. Therefore, caution must be exercised in making direct inference from principals' performance to student outcomes. Furthermore, the use of students' cognitive test scores as the sole basis for assessing student outcome is too simplistic. Student outcome is a multi-dimensional construct. To reduce such a broad concept into a single dimension solely based on test scores undermines the moral and social values of education, not to mention that test-based criteria can also be quite complicated. The way Brewer (1993) used the data also led to some unsettling questions about the reliability of his findings. For example, the dependent variable he used is the change in student test scores between 1980 and 1982, but the independent variables are from principal and teacher surveys conducted in 1984. In light of the time differences, we need to ask: Are those principals surveyed in 1984 the same principals in those schools between 1980 to 1982? Did teachers and principals have the same perceptions in 1984 as in 1980 or 1982? Moreover, there were drop-outs in the test population. It may be reasonable to speculate that these drop-outs are probably among the students who did not perform well in the first cognitive test. Did this selection bias have influence on the internal validity of the research findings?

In comparing the ATS of HSB and the principal and teacher components of SASS, Ingersoll (1995) points out quite clearly the differences between the two databases. ATS was developed specifically to facilitate the investigation of relationships between school staffing characteristics and student outcomes (Chubb & Moe, 1985) while SASS is intended to provide a comprehensive assessment of schools and staffing conditions in the United States. ATS has a usable sample of about 350 secondary schools while SASS has more than 12,000 sample schools of different levels. ATS has a limited generalizability of schools due to its small sample size while SASS supports national estimates by any

number of different school characteristics, including sector, level, state, urbanicity, and school size. SASS is also more accurate in distinguishing different types of private schools. For example, SASS separates private schools into sub-types grouped by their religious orientations and group affiliations.

The comprehensiveness of the SASS data and the availability of three waves of surveys have provided ample opportunities for conducting in-depth analysis on a number of key education policy issues. With direct relevance to education administration research, we may use the data to study the changing demographic characteristics of the education administration workforce and how these demographic changes are associated with changes in salary and compensations. Policy studies such as these can answer questions on whether economic equity for women and minority principals has been improved as their shares in the administration workforce expanded. We may also pursue studies to understand the perceptual differences between principals and teachers regarding the making-decision structures in schools and how such differences in perceptions are affected by their educational and demographic background. Such studies may help explain the trends and patterns of decentralization and the locus of control in school management. Or, we may want to find out whether the effectiveness of principal leadership is constrained by the organizational settings or the socio-economic conditions of schools. The study of principal leadership using SASS data, even without the direct linkage to student outcomes, can still shed light on how schools can be more effectively governed and improved.

Over the past several years, there have been a number of principal-related research papers that based their findings on the analysis of the SASS data. In addition to the issue briefs and research reports published by the National Center for Education Statistics, there are two academic conference papers and one published journal article that employed the SASS data to address issues surrounding the principalship and school administration. For example, Fowler (1991) used teachers' perceptions of principals' leadership behaviors to create an index of perceived principal effectiveness. His findings indicate that principal effectiveness is a complex and multi-dimensional construct and a principal's ability in leading the school effectively is influenced by a number of factors, including the principal's age, gender, teaching experience or the school's location, size, and level. Similarly, the study conducted by Haller, Brent, McNamara, and Rufus (1994) also used teachers' perceptions of principals to create indices of school leadership, but Haller and associates' interest is to find out how graduate training in educational administration would help improve principals' leadership effectiveness. The findings from Haller and associates' study lead to a disturbing yet tantalizing conclusion: graduate training in education

administration does not have significant influence on the attributes that characterize effective principals. Judging by the fact that most states require a master's degree or even a doctoral degree in Education Administration as a prerequisite for principal licensure, this finding posts serious questions on the validity of such a requirement to education policy makers. Recently, the Los Angeles Unified School District decided to waive this and other mandated requirements for hiring new principals⁹, hence setting an example for challenging the status quo of school administration licensing practices. This bold reform effort is clearly supported by what Haller and associates discovered from analyzing the SASS data.

In the only externally published research paper that employed SASS data to address principalship issues, Ballou and Podgursky (1995) used the 1987-88 SASS data to evaluate the influence of principals' educational credentials and professional experience on teachers' assessment of principals' leadership practices. Ballou and Podgursky find little statistical evidence to support the recent proposals for enhancing the "professionalism" of the principal workforce by requiring more advanced degrees and additional administrative training. They argue that principal licensing requirements in the states may undervalue those attributes that characterize good school leaders. For example, principals with more teaching experience are generally rated higher by teachers. However, most states only require new principals to have a few years of teaching experience. Ballou and Podgursky's study obviously raises serious questions for policy makers to ponder.

Despite the relatively small number of studies using SASS to examine the roles and practices of school principals, those that had been completed have provided many interesting and fresh insights on policy issues related to school administration. Given the great potential of SASS as a comprehensive national database on schools and their staffing patterns, it is imperative that more studies be done to take advantage of the depth and richness of the database. In order to encourage more researchers to use the SASS data to study education policy issues, NCES must play a more active role in facilitating the awareness of and access to the data set. For example, a brochure describing the database together with suggested research questions can be distributed to directors of graduate studies at universities to encourage doctoral students to utilize the database for writing their dissertations. The electronic codebook system now available with the SASS CD-ROMs should be transformed into a Windows-based system to enhance its user-

⁹ "Matter of Principal", Editorial, Los Angeles Times, page 8, November 2, 1995.

friendliness¹⁰. Or, SASS can create its own world-wide web (WWW) home-page to provide on-line, 24 hours access to the database¹¹.

Efforts to promote the awareness and access of the SASS database will provide the necessary conditions for wider use of the data resources for education research. However, in order to facilitate the use of the data to conduct policy analysis, modifications must be made to the content of the questionnaire so that it is more relevant to current policy debates. In the following chapter, I will discuss my personal view on how to improve the principal questionnaire.

IV. Improving the School Administrator Questionnaire: Some Suggestions

In a discussion of methods for assessing the effectiveness of public funded research organizations, Altschuld and Zheng (1995) believe that a stakeholder-based approach is more useful than a goal-based approach in assessing the performance of research organizations. This is because research organizations usually have broad and general goals and their organizational outputs are mostly intellectual products and services that cannot be measured meaningfully in tangible monetary or numeric terms. Performance of research organizations thus are better gauged from their customers' perspective. In the case of SASS, its customers would include education researchers, planners and policy makers at federal, state, and local governments, and individuals and organizations who have interest in schools and school staffing issues.

In order to improve the relevance and usefulness of the data products of SASS, it is logical that we find out what the customers' current and future needs are. To this end, I decided to obtain some first-hand knowledge by conducting a small survey via the Internet discussion group "AERA-A¹²" hosted by Arizona State University¹³. In my e-mail survey, I asked, "what is the most important policy research issue for education administration in the next 10-15 years?" Of the 18 answers with direct relevance to the principalship, 28% of the answers (n=5) indicated that principals' roles and contributions in school decentralization and restructuring should be the most important research issue; 33% of the answers (n=6) stated that principals' accountability to school outcomes should be the

¹⁰ In my opinion, the DOS-based electronic codebook system is somewhat difficult to install and this initial problem may discourage many new users from exploring the data CDs.

¹¹ NCES is currently in the process of putting the SASS data on the World Wide Web site at <http://www.ed.gov/NCES>.

¹² AERA-A is a group organized by the Education Administration section of the American Education Research Association and has members from the research, practice, and policy-making communities of education administration.

¹³ Records of the survey are archived at Internet site magnus.acs.ohio-state.edu. Electronic copies are available through yzheng@magnus.acs.ohio-state.edu.

key issue. Specifically, one respondent wanted to know how principals can be evaluated fairly through demonstrated added value to the learning process of students; 22% of the answers (n=4) identified the working conditions and career decisions of principals as the major research concern. Lastly, 16% of the responses (n=3) rated principals' attitudes and handling of new information technologies in classroom teaching and learning as the most important issue.

This survey may be too small to collect the opinions of the broad research community of education administration, however, a review of the literature shows that the research issues raised by these respondents actually echo with some of the community's prevalent views. Murphy and Beck (1994) believe that principals' roles and responsibilities must be clarified at a time when schools are forced to transform and restructure. Despite the increased importance of their jobs, principals themselves have been silent and passive in defining their roles in school leadership. The clear definition of principals' roles will help principals understand how to meet the demands for accountability, how to adapt to the changing social fabric of schools, and how to make schools meet the needs of a post-industrial world. In a widely cited paper, Re-Thinking School Leadership: An Agenda for Research and Reform, Bolman, Johnson, Murphy, and Weiss (1990) of the Harvard Graduate School of Education make similar observations. They believe that school leaders, under the constraints of changing student demographics, fiscal difficulties, and greater societal expectations, must learn to cultivate constituent supports, including supports from parents, teachers, and school boards. School leaders should adapt to new management reality and to establish mutually dependent and cooperative relationship with teachers. School leaders should also understand how the technology of instruction can facilitate the delivery of knowledge from teachers to students.

Most of the recent studies on principals' roles in school restructuring and reform are built on the framework of the "effective school" movement (Murphy & Louis, 1994; Hallinger & Leithwood, 1994). Despite the marginal variations in their views, these studies in general agree with Murphy's (1994) argument that school restructuring produced a nearly overwhelming workload for principals, demanded that they work both harder and smarter, and created considerable work-related stress. In order to survive these new challenges, principals must adapt to roles changes in several important areas: delegating more decision-making power to teachers and other support staff and promoting a collaborative relationship with them; enabling and supporting teacher success through more constructive approaches in professional developments; managing a constellation of change efforts, including the direct involvement in instructional practice improvement; and

extending the school boundary through active community marketing efforts to cultivate parental and public support (Bookbinder, 1991; Elmore, 1995; Odden, 1995).

Judging from the above discussions on the important policy research issues for education administration for the years to come, it is quite clear that principals' new roles in leading schools at a time of change and uncertainty is of major concern to education researchers and policy-makers. If SASS is to contribute more to these policy discussions, its survey questionnaires must be updated from its current format to become more relevant to the needs of the educational policy research and decision-making communities. In light of these discussions and the objectives of SASS, I would like to make the following suggestions for bringing the current SASS school administrator questionnaire (1993-94 version) to tie more closely to the current policy debates:

(1) The Core Items

The core items of the questionnaire, that is, questions about principals' education and professional training, work experience, compensations, and demographic background should be retained for all surveys. These items are deemed essential, for they provide the necessary conditions for constructing the basic profile of the school administrator workforce. Policy issues may change and research emphases may shift over time, but the need for understanding the basic characteristics and working conditions of school principals is continuous. Researchers, policy makers, and other concerned parties need these core data items to track the dynamic changes in our nation's education administration workforce. Policy research based on the analysis of perceptions, school outcomes, or community opinions also need to consider the contextual constraints of the principalship. Therefore, it is imperative that these items be retained for all surveys.

Nevertheless, some of the questions in the core items are too elaborate and some of them are too simple. Changes should be made to balance the two extremes. Specifically, questions about principals' education background may be too elaborate. For example, it may not be necessary to ask whether a principal has an associate's degree and in what field. Given the fact that the majority of principals has at least a Master's degree and nearly everyone has a Bachelor's degree, what is the value of knowing one has an Associate's degree¹⁴? It is also not necessary to ask about the location and name of the college from which they earned their college degrees. There is no written rule that a principal must graduate from an Ivy League school or a top-tier public university.

¹⁴ In the 1993-94 SASS, only 4.9% of principals indicated that they had an Associate's degree.

Knowing the schools from which they graduated will not contribute significantly to the understanding of the policy issues surrounding the principalship.

Question #16, "were you the principal of this school in the Spring of 1991?" is redundant since the question right after it asks the respondents, "prior to this school year, how many years were you employed as the principal in this school?" If the answer is greater than two, by logic, the respondent would most probably be the principal of this school in the Spring of 1991. Question #18b asks, "in what grade levels were the students in the school in which you last served as principal?" There are fifteen choices, ranging from pre-kindergarten to grade 12. Each choice takes up one data space. In order to increase the efficiency of the answer format, it would be better that a smaller range of choices was used in this case. For example, instead of listing all possible grade levels, the question can simply have several general categories of answers, i.e., elementary, secondary, elementary and secondary combined, and others.

In addition to formal education, principals usually receive other types of training to prepare themselves for the job of a school leader. Exactly what kinds of training did they receive and how effective was that training in helping them to prepare for the challenges ahead? We have no way to know, for the questions on professional training are simply too vague (only "yes" or "no" answers are available). Since pre-service and in-service training are very important parts of the principal certification and preparation process, it is therefore necessary that we ask more questions about them. In a recent article on principal training programs, Bjork and Ginsberg (1995) criticize the conventional approach to principal training as too abstract from reality to be of real-life use in practice. They believe that principal training programs in the United States are in need of a paradigm realignment, that is, fundamental changes that will force the entire field to shift from academic-oriented to practice-oriented training. These changes may include sending university faculty members to schools to gain clinical experience or release principals from school-level duties to pursue full-time training that will integrate their school administrative experience with theories.

Observations made by researchers (Bjork & Ginsberg, 1995; Ballou & Podgursky, 1995; Haller and associates, 1994) regarding principal training programs clearly indicate that there are much to be learned about the contents and impacts of these programs. In order to facilitate the policy changes for improving these training programs, the principal survey of SASS should expand the number of questions in this area. In addition to asking whether a respondent had participated in a training program, we should also ask how long the training lasted, how frequently he/she received the training, and how satisfied was he/she with the outcome of the training. For example, we can ask,

Have you participated in any in-service training in evaluation and supervision?

☐ Yes ☐ No

If yes, how many times have you had this type of training during your entire principal career?

Times (give a number)

To what extent did this training help you become a more effective principal?

☐ Extremely helpful, ☐ Very helpful, ☐ Somewhat helpful, ☐ Not helpful, ☐ Waste of time

Another area that should be modified is the questions about service breaks in a principal's career. Instead of asking whether the breaks were due to layoff or a reduction-in-force, multiple choices should be offered. For example, reasons for breaks in services could be: layoff, organizational restructuring, educational leave, personal/sick leave, military leave, and others. Through multiple choices, we may be able to know more about the reasons why principals have to leave their jobs. Additionally, we should ask how long it took them to find a new principal position if they were unable to return to their original positions. This information would shed light on the demand and supply situation for school principals.

(2) Principals' Jobs and Responsibilities

In the 1987-88 SASS survey, principals were asked to give their best estimates of the number of hours they spent on several categories of school-related activities, i.e. teacher supervision or curriculum management. In the two SASS surveys that followed, this entire set of questions was eliminated. Through my conversations with the staff at NCES, I got the impression that it was eliminated due to questions about the reliability of principals' self-reported numbers and a significantly high percentage of missing answers (one possibility is that principals did not keep good track of exactly how they spent their time and were unwilling to venture a guess). If these problems are real, they would definitely create problems to the reliability of these data items, hence their elimination is the sensible thing to do.

However, the elimination of these items created a regrettable void in the principal questionnaire of those items about the jobs and responsibilities that principals performed. It is regrettable because modern principalship is such a complex enterprise that most outsiders really cannot comprehend the extent to which these jobs and responsibilities burden school principals¹⁵. If we don't ask these questions in our surveys, we miss the best opportunity to understand how school principals perceive and perform their

¹⁵ One of the reasons that the principal questionnaire is much shorter than the teacher questionnaire is the consideration that principals are under greater time and work pressures.

responsibilities. The need to know more about the jobs principals perform is greater than ever. As my previous discussions on the key policy research issues indicate, principals presently are given more responsibilities as education reform, political changes and technological improvements have shifted more decision-making power from districts to schools. With the increase in responsibilities, calls are heard with increasing frequency for greater accountability and more extensive performance review for principals (Kirst, 1990).

Paradoxically, the increase of responsibilities does not come with better understanding of principals' jobs and abilities to perform those jobs. Gottfredson and Hybl (1987) provide a very good observation on this paradoxical situation. They believe that much of the demands for principals' increasing accountability to school effectiveness are "based on very limited knowledge of what principals actually do and which aspects of the job are most important and most burdensome. Furthermore, although much writing and advice on the principalship is generic, the role of the principal may differ according to the kind of school the principal leads. Most principals must learn the ropes on the job with limited support and guidance. Many schools do not have a clear written job description to spell out what is expected of the principal (p.1)." Clearly, to know more about the jobs and responsibilities of principals should be an important goal of a national survey of school principals. If data are collected for making informed policy decisions, then, data about principals's roles and responsibilities are obviously the type of data that have a very high degree of policy relevance to decision-making. A major study of school administrators such as SASS simply cannot ignore this critical aspect of the principalship.

In order to include question items on principals' jobs and responsibilities in the questionnaire and not to repeat the pitfalls of the 1987-88 SASS survey, the questions must be framed differently. Instead of asking principals to provide estimates on time usage, we may ask them to rank the importance of a number of jobs related to their management responsibilities and how they actually allocate time to accomplish those jobs. For example, we can ask principals questions in the following format:

Among the following school-related activities, please provide us your ratings of their importance to your job as a school leader and the time you spent on them given your current workload:

<u>Activities</u>	<u>Importance</u>	<u>Time Spent</u>
Sit in a classroom to observe teachers' instruction	0-Not a part of my job 1-Not important 2-Somewhat important 3-Moderately important 4-Very important	0-None 1-Little 2-Occasionally 3-Frequently 4-Extensively (a major part of my job)
Talk to parents about their children's school problems	0-Not a part of my job 1-Not important 2-Somewhat important 3-Moderately important 4-Very important	0-None 1-Little 2-Occasionally 3-Frequently 4-Extensively (a major part of my job)
Take actions to ensure enough computer & telecommunication equipment for students ¹⁶	0-Not a part of my job 1-Not important 2-Somewhat important 3-Moderately important 4-Very important	0-None 1-Little 2-Occasionally 3-Frequently 4-Extensively (a major part of my job)

By presenting questions in this format, we can avoid asking principals to pinpoint the exact number of hours they spent on each activity and to preserve the opportunity to obtain valuable information about their jobs and responsibilities. The scales for the answers can be fine-tuned to better capture the importance and the time spent on each activity. Further studies also need to be done to find out what activities should be included in the list. But it is certain that these activities should represent those jobs and roles typically performed by principals in their capacities as the cultural, managerial, instructional, moral, and strategic leaders (Leithwood & Duke, 1993). Not all jobs and responsibilities are viewed as equally important to principals and some jobs may be viewed as less important but would consume more of their time. If we need to know how principals can effectively improve their schools, we at least should know something about how they perceive their roles and responsibilities and how much time they have to spend on each activity.

(3) Principals' Perceptions of Their Teaching Staff

In the 1987-88 SASS survey, principals were asked about the availability of formal evaluation systems for teachers. In the 1990-91 SASS survey, this set of questions was

¹⁶ This question partially addresses one of the policy issues raised by several respondents in my e-mail survey about principal's support for new technologies in schools.

changed to solicit principals' perceptions on the quality of their teaching staff. However, in the 1993-94 SASS, these questions were removed completely. Given the usefulness of these items and the fact that there are only 2-3 items for this set of questions, its removal is also quite regrettable. Slater and Teddlie (1992) believes that an effective school must possess three key components: teacher preparedness, student readiness, and administrative appropriateness. These three components must be integrated into an unbroken chain of actions in order to generate better school outcomes. Principals may have influence on improving students' achievements, but such influence to a great extent have to rely on teachers' performance as a medium to deliver the effects.

Although the teacher component of SASS has already provided large amount of data on teachers' quality, they are from teachers' own perspective. The addition of a few items in the principals' questionnaire will give us an additional perspective on teachers' quality. Since we have asked teachers to evaluate the performance of their principals, we should also ask principals to tell us how they feel about their teachers. Current efforts to reform our schools call for principals to work more closely with their teaching staff to improve student outcomes. In order to assess how the collaborative relationship between principals and teachers can flourish and how such a collaboration affect the overall effectiveness of the school, it is useful that we gain an understanding of both principals' and teachers' perceptions of the other party.

(4) Principals' Perceptions on School Matters

In all three waves of SASS surveys, principals and teachers were asked to reveal their perceptions on the seriousness of a range of school problems, issues related to decision influence (locus of control) on school matters, and the importance of a number of educational goals. In the 1993-94 survey, the total number of items for the perception of school problems is 24 for both principal and teacher questionnaires. In addition, the public school principal questionnaire has 39 "locus of control" items while the private school principal questionnaire has 27. Since SASS already has three surveys, in retrospect, judging by the frequency of the items being used and the consideration for reducing some questions in order to make room for new items, I would like to suggest that the entire section on principals' perceptions of school problems be removed from the next survey and the items regarding "locus of control" be retained.

I believe that the central objective for knowing principals' and teachers' perceptions on school problems such as student tardiness and student drug use is to provide policy-makers and researchers data on how school administrators and teachers feel about the problems facing schools. Information about these perceptions can alert the

public and decision-makers to give higher priorities to support principals and teachers to solve these problems. Since teachers interact directly with students and have first-hand knowledge of students' conditions inside and outside of the classroom, we would assume that they at least have equally valuable comments on school problems. Teachers' perceptions may be different from principals. But for the purpose of understanding school problems facing students inside and outside of classrooms, teachers' perceptions should be sufficient to help inform us of the seriousness of those problems.

The "locus of control" items are a different matter, for the central objective here is to find out the perceptions on the distribution of decision influence among a number of people. Knowing the differences between principals' and teachers' perceptions help researchers and policy-makers understand the decision-making and organizational structures in schools. Such an understanding in turn can help evaluate current efforts in restructuring the organizational arrangements for school governance. Since teachers and principals are increasingly charged with more authority in determining the curriculum, personnel, and discipline policies of schools, it is naturally necessary that both parties' perspectives be considered.

Issues regarding the organizational arrangements for power sharing in schools are sensitive yet important. Despite the obvious reasons for principals to work closely with teachers to achieve school outcomes, there are many problems that may lead this collaborative relationship to falter. Wooster (1991) believed that part of the problem could be attributed to each party's perception of their domain of influence. For example, teachers may feel that they should have the most say in instructional matters. Therefore, when a principal visits a teacher's classroom to observe instructional practice and make comments on possible improvements, the teacher may have the impression that the principal is interfering with his/her right to teach and is imposing an administrator's view on the teacher who may be a better expert on the subject. Other issues that can be explored with these "locus of control" items are the differences between private and public school principals and between private and public school teachers. In a survey of Catholic teachers, Kushner and Helbling (1995) point out that private school teachers tend to agree more with their principals on school management issues and such agreements are mostly based on mutual trust, while such trust and agreement are much weaker among public school teachers toward their principals. How true is this observation? Does this difference contribute to the cultural differences between public and private schools? We can find out some answers by comparing the perceptions between public and private school principals and teachers.

(5) Principal Preparation and Licensure

As I mentioned earlier in this paper, information regarding principals' pre-service and in-service training and preparation are not detailed enough to provide good estimates on the impacts of these training and preparation programs on principals' leadership effectiveness. In addition to my previous suggestions for expanding these questions, I would also like to see the inclusion of several questions regarding principals' licensure in the next SASS survey. Almost all states require principals to possess a legitimate school administration license and to renew the license after a period of time in service. Reading through the job advertisements for principals, one cannot help but notice that a principal's license is always one of the most important prerequisites for the job. Given such an emphasis on principal licensure, one has to wonder whether such a requirement has been helpful in keeping the principal workforce to a higher standard; or did the licensing process keep some of the brightest minds from the teacher workforce or other professions away from this important and challenging field of leadership?

Despite the relevance of principal licensure practice to the formation of the principal workforce, information regarding this practice is scarcely available. It is therefore useful that in at least one of the principal surveys of SASS that we can devote some attention to these issues. In the questionnaire, we may ask principals when they obtained their first principal license and at what level, how many renewals did they have after the first license, whether they needed to apply for a new license when they transferred from an out-of-state administrative position, or how useful did the licensing process help them become more effective school leaders.

V. Conclusion

In conclusion, I would like to reiterate the importance and usefulness of the principal surveys of SASS in contributing to the understanding of the characteristics and conditions of the school administrator workforce in America. As the most comprehensive study of school principals currently available, the principal survey of SASS has provided valuable data for exploring various important policy issues regarding the basic characteristics of school principals in the United States, including their education background, professional training, work experience, salary and compensation, and their perceptions on a range of school management matters.

In order to further extend the principal survey's utility in educational policy debates, I have suggested above a number of changes to the principal survey questionnaire. These suggestions include: keep the core items consistent throughout all survey efforts but simplify those items that are overly elaborate; expand the items on

principals' in-service and pre-service training programs and solicit principals' level of satisfaction with those programs; request that principals rank the relative importance of a number of school activities as related to their role as school leaders and ask how they allocate their time for those activities; remove principals' perceptions of school problems to make room for new items; retain the "locus of control" items; and include some questions in the next survey regarding principal licensure procedures.

These suggestions are based on my understanding of the major policy research issues for education administration in the near future. The changes I suggested do not include possible items to evaluate how principals can create "added value" directly to student achievement as suggested by some scholars in my e-mail survey. It is not the objective of the Schools and Staffing Survey to assess the immediate impact of principals on student outcomes. It is also my contention that principals' influence on students' learning are indirect as long as teachers are the ones who teach in the classroom. Given these constraints, it is natural that principals' demographic characteristics, their educational and professional backgrounds, their perceptions of school management issues, their perceptions of their teaching staff, and their economic status should be the major concerns of a national survey of school principals.

References

- Anderson, J. (1993). Who runs the schools? the principal's view (Research Report No. OR-93-3078). Office of Research, U.S. Department of Education.
- Ashbaugh, C. R., & Kasten, K. L. (1992). The licensure of school administrators: policy and practice. Washington, D.C.: American Association of Colleges for Teacher Education.
- Ballou, D., & Podgursky, M. (1995). What makes a good principal? How teachers assess the performance of principals? Economics of Education Review, 14(3), 243-252.
- Bjork, L. G., & Ginsberg, R. (1995). Principals of reform and reforming principal training: a theoretical perspective. Education Administration Quarterly, 31(1), 11-37.
- Bobbitt, S., & McMillen, M. (1995). Qualifications of the public school teacher workforce: 1988-1991 (NCES-Report No. 95-665). National Center for Education Statistics.
- Bolman, L. G., Johnson, S. M., Murphy, J. T., & Weiss, C. H. (1990). Re-thinking school leadership: An agenda for research and reform No. Occasional Paper No. 1). The National Center for Education Leadership: Harvard Graduate School of Education.
- Bookbinder, R. M. (1991). The Principal: leadership for the effective and productive school. Springfield, IL: Charles C. Thomas Publisher.
- Brewer, D. J. (1993). Principals and student outcomes: evidence from U.S. high schools. Economics of Education Review, 12(4), 281-292.
- Choy, S., Henke, R., Medrich, E., & Bobbitt, S. (1993). Schools and staffing in the U.S.: A statistical profile, 1990-91 (NCES Report No. 93-146). National Center for Education Statistics.
- Chubb, J. E., & Moe, T. M. (1985). Politics, markets, and the organization of schools. Paper delivered in American Political Science Association Annual Meeting, . New Orleans, LA:
- Curtin, T. & Fiore, T. (1995). Profile of Public and Private Principals: Results from NCES' 1987-88, 1990-91, and 1993-94 Schools and Staffing Survey. Washington, DC: National Center for Education Statistics, U.S. Department of Education.
- Eberts, R. W., & Stone, J. A. (1988). Students achievement in public schools: do principals make a difference? Economics of Education Review, 7(3), 291-299.
- Elmore, R. F. (1995). Teaching, learning, and school organization: Principles of practice and the regularities of schooling. Education Administration Quarterly, 31(3), 355-374.
- Feistritzer, C. E., Quelle, F., & Bloom, I. (1988). Profile of school administrators in the U.S. Washington, D.C.: National Center for Education Information.
- Fowler, W. J. (1991). What are the characteristics of principals identified as effective by teachers. Paper delivered in American Education Research Association meeting, . Chicago, IL:
- Gilat, A., & Sulzer-Azaroff, B. (1994). Promoting principals' managerial involvement in instructional improvement. Journal of Applied Behavior Analysis, 27(1), 115-129.

- Ginsberg, R., & Thompson, T. (1993). Dilemmas and solutions regarding principal evaluation. Peabody Journal of Education, 58-74.
- Clasman, N. S. & Heck, R. (1992). The changing leadership role of principals: Implications for principal assessment. Peabody Journal of Education, 68(1), 5-24.
- Goldring, E. B., & Rallis, S. F. (1993). Principals of dynamic schools. Newbury Park, CA: Corwin Press.
- Gottfredson, G. D., & Hybl, L. G. (1987). An analytical description of the school principal's job. Baltimore, MD: The Johns Hopkins University Press.
- Greenfield, W. D. (1995). Toward a theory of school administration: the centrality of leadership. Education Administration Quarterly, 31(1), 61-85.
- Haller, E. J., Brent, B. O., McNamara, J., & Rufus, C. (1994). Does graduate training in education administration improve America's schools? Paper delivered in American Education Research Association meeting, . New Orleans, LA:
- Hallinger, P., & Leithwood, K. (1994). Exploring the impact of principal leadership. School Effectiveness and School Improvement, 5(3), 206-218.
- Hammer, C. H., & Rohr, C. L. (1993). Teaching, administrative, and other work experience of public school principals (Issue Brief No. IB-2-93). National Center for Education Statistics.
- Hammer, C. H., & Rohr, C. L. (1994). Public and private school principals: are there too few women? (Issue Brief No. IB-1-94). National Center for Education Statistics.
- Heck, R. H., & Marcoulides, G. A. (1993). Principal leadership behaviors and school achievement. NASSP Bulletin, 77(May), 20-28.
- Ingersoll, R. (1994). Organizational control in secondary schools. Harvard Educational Review, 64(2), 150-171.
- Ingersoll, R. (1995). An agenda for research on teachers and schools: revisiting NCES' schools and staffing survey (Working Paper No.95-18). National Center for Education Statistics, U.S. Department of Education.
- Ingersoll, R., & Rossi, R. (1995). Who influences decision-making about school curriculum: what do principals say? (Issue Brief No. IB-4-95). National Center for Education Statistics.
- Kirst, M. W. (1990). Accountability: Implications for state and local policymakers. Washington, D.C.: OERI, U.S. Department of Education.
- Kleine-Kracht, P. A. (1993). The principal in a learning community. Journal of School Leadership, 3(4), 391-399.
- Kushner, R. & Helbling, M. (1995). The people who work there: The report of the Catholic Elementary School Teacher Survey. Washington, DC: National Catholic Education Association.
- Lee, V. E., Smith, J. B., & Cioci, M. (1993). Teachers and principals: gender-related perceptions of leadership and power in secondary schools. Educational Evaluation and Policy Analysis, 15(2), 153-180.
- Leithwood, K., & Steinbach, R. (1993). Total quality leadership: expert thinking plus transformational practice. Journal of Personnel Evaluation in Education, 7, 311-337.

- Lipham, J. M. (1981). Effective principal, effective school. Reston, VA: National Association of Secondary School Principals.
- Marcoulides, G. A., & Heck, R. H. (1993). Examining administrative leadership behavior: a comparison of principals and assistant principals. Journal of Personnel Evaluation in Education, 7, 81-94.
- Moorman, H. N. et. al. (1992). Strengthening support & recruitment of women & minorities to positions in education administration. Washington, DC: OERI, U.S. Department of Education.
- Murphy, J., & Louis, K. S. (Ed.). (1994). Reshaping the principalship: insights from transformational reform efforts. Thousand Oaks, CA: Corwin Press.
- National Association of Elementary School Principals (1990). Principals for 21st century schools. Alexandria, VA: NAESP.
- National Center for Education Statistics (1991). SASS and TFS Questionnaires 1987-1988 U.S. Department of Education.
- National Center for Education Statistics (1992). SASS and TFS Questionnaires 1990-91 U.S. Department of Education.
- National Center for Education Statistics (1994a). An overview of the SASS and TFS (NCES 94-440). U.S. Department of Education.
- National Center for Education Statistics (1994b). Quality profile for SASS: Aspects of the quality of data in the Schools and Staffing Surveys (SASS) (NCES 94-340). U.S. Department of Education.
- National Center for Education Statistics (1994c). SASS and PSS Questionnaires 1993-1994. Washington, D.C.: U.S. Department of Education.
- Odden, A. R. (1995). Educational leadership for America's schools. New York: McGraw-Hill, Inc.
- Ogawa, R. T., & Bossert, S. T. (1995). Leadership as an organizational quality. Educational Administration Quarterly, 31(2), 224-243.
- Pajak, E., & McAfee, L. (1992). The principal as school leader, curriculum leader. NASSP Bulletin, 76(Nov.), 21-30.
- Pantili, L., Williams, J., & Fortune, J. (1991). Principal assessment: effective or not? In AERA Annual Meeting. Chicago, IL:
- Rohrbaugh, J. (1986). Institutional research as decision support. In J. Rohrbaugh & A. T. McCartt (Eds.), Applying Decision Support Systems in Higher Education San Francisco: Jossey-Bass Publishers.
- Rowan, B., Raudenbush, S. W., & Kang, S. J. (1991). Organizational design in high schools: a multilevel analysis. American Journal of Education 68, 238-266.
- Silins, H. C. (1994). The relationship between transformational and transactional leadership and school improvement outcomes. School Effectiveness and School Improvement, 5(3), 272-298.
- Slater, R., & Teddlie, C. (1992). Toward a theory of school effectiveness and leadership. School Effectiveness and School Improvement, 3(4), 242-257.

Stufflebeam, D., & Nevo, D. (1993). Principal evaluation: new directions for improvement. Peabody Journal of Education, 24-46.

The National Commission on Excellence in Education (1983). A Nation At Risk: The imperative for educational reform No. U.S. Department of Education.

Thomson, S. D. (Ed.). (1992). School leadership: a blueprint for change. Newbury Park, CA: Corwin Press.

Valentine, J. W., & Bowman, M. L. (1991). Effective principal, effective school: does research support the assumption. NASSP Bulletin, 75(Dec.), 1-7.

van de Grift, W., & Houtveen, T. (1991). Principals and school improvement. School Effectiveness and School Improvement, 2(1), 53-70.

Wooster, M. M. (1991). First principals: the leadership vacuum in American schools. Policy Review, 57(Summer), 55-61.

Listing of NCES Working Papers to Date

<u>Number</u>	<u>Title</u>	<u>Contact</u>
94-01	Schools and Staffing Survey (SASS) Papers Presented at Meetings of the American Statistical Association	Dan Kasprzyk
94-02	Generalized Variance Estimate for Schools and Staffing Survey (SASS)	Dan Kasprzyk
94-03	1991 Schools and Staffing Survey (SASS) Reinterview Response Variance Report	Dan Kasprzyk
94-04	The Accuracy of Teachers' Self-reports on their Postsecondary Education: Teacher Transcript Study, Schools and Staffing Survey	Dan Kasprzyk
94-05	Cost-of-Education Differentials Across the States	William Fowler
94-06	Six Papers on Teachers from the 1990-91 SASS and Other Related Surveys	Dan Kasprzyk
94-07	Data Comparability and Public Policy: New Interest in Public Library Data Papers Presented at Meetings of the American Statistical Association	Carrol Kindel
95-01	Schools and Staffing Survey: 1994 papers presented at the 1994 Meeting of the American Statistical Association	Dan Kasprzyk
95-02	QED Estimates of the 1990-91 Schools and Staffing Survey: Deriving and Comparing QED School Estimates with CCD Estimates	Dan Kasprzyk
95-03	Schools and Staffing Survey: 1990-91 SASS Cross-Questionnaire Analysis	Dan Kasprzyk

Listing of NCES Working Papers to Date (Continued)

<u>Number</u>	<u>Title</u>	<u>Contact</u>
95-04	National Education Longitudinal Study of 1988: Second Follow-up Questionnaire Content Areas and Research Issues	Jeffrey Owings
95-05	National Education Longitudinal Study of 1988: Conducting Trend Analyses of NLS-72, HS&B, and NELS:88 Seniors	Jeffrey Owings
95-06	National Education Longitudinal Study of 1988: Conducting Cross-Cohort Comparisons Using HS&B, NAEP, and NELS:88 Academic Transcript Data	Jeffrey Owings
95-07	National Education Longitudinal Study of 1988: Conducting Trend Analyses HS&B and NELS:88 Sophomore Cohort Dropouts	Jeffrey Owings
95-08	CCD Adjustments to the 1990-91 SASS: A Comparison of Estimates	Dan Kasprzyk
95-09	The Results of the 1993 Teacher List Validation Study (TLVS)	Dan Kasprzyk
95-10	The Results of the 1991-92 Teacher Follow-up Survey (TFS) Reinterview and Extensive Reconciliation	Dan Kasprzyk
95-11	Measuring Instruction, Curriculum Content, and Instructional Resources: The Status of Recent Work	Sharon Bobbitt & John Ralph
95-12	Rural Education Data User's Guide	Samuel Peng

Listing of NCES Working Papers to Date (Continued)

<u>Number</u>	<u>Title</u>	<u>Contact</u>
95-13	Assessing Students with Disabilities and Limited English Proficiency	James Houser
95-14	Empirical Evaluation of Social, Psychological, & Educational Construct Variables Used in NCES Surveys	Samuel Peng
95-15	Classroom Instructional Processes: A Review of Existing Measurement Approaches and Their Applicability for the Teacher Follow-up Survey	Sharon Bobbitt
95-16	Intersurvey Consistency in NCES Private School Surveys	Steven Kaufman
95-17	Estimates of Expenditures for Private K-12 Schools	Steve Broughman
95-18	An Agenda for Research on Teachers and Schools: Revisiting NCES' Schools and Staffing Survey	Dan Kasprzyk
96-01	Methodological Issues in the Study of Teachers' Careers: Critical Features of a Truly Longitudinal Study	Dan Kasprzyk
96-02	Schools and Staffing Survey (SASS): 1995 Selected papers presented at the 1995 Meeting of the American Statistical Association	Dan Kasprzyk
96-03	National Education Longitudinal Study of 1988 (NELS:88) Research Framework and Issues	Jeffrey Owings
96-04	Census Mapping Project/School District Data Book	Tai Phan

Listing of NCES Working Papers to Date (Continued)

<u>Number</u>	<u>Title</u>	<u>Contact</u>
96-05	Cognitive Research on the Teacher Listing Form for the Schools and Staffing Survey	Dan Kasprzyk
96-06	The Schools and Staffing Survey (SASS) for 1998-99: Design Recommendations to Inform Broad Education Policy	Dan Kasprzyk
96-07	Should SASS Measure Instructional Processes and Teacher Effectiveness?	Dan Kasprzyk
96-08	How Accurate are Teacher Judgments of Students' Academic Performance?	Jerry West
96-09	Making Data Relevant for Policy Discussions: Redesigning the School Administrator Questionnaire for the 1998-99 SASS	Dan Kasprzyk