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THE ADMINISTRATIVE SYSTEMS FUNCTION

IN SELECTED BUSINESS ORGANIZATIONS

BY

BRIDGET N. O'CONNOR

Accepted by the faculty of the Graduate School, Indiana

University, in partial fulfillment of the requirements for the degree,

Doctor of Philosophy.

Director of Thesis

Doctoral Committee:

Chairman

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CHAPTER I

INTRODUCTION

Background and Genesis of the Problem

Business organizations operate, generally, in terms of specific
and distinct functions. These functions are related to production,
distribution, accounting, finance, management, and personnel. In all
organizations, there is also a clearly identifiable function under-
girding all aspects of the business enterprise--an administrative
support function. This function encompasses such components as data
processing, word processing, records management, and communications
services. These individual components in combination under the direction
of a management level individual form a comprehensive support facility
for the organization known as the administrative systems function.

The administrative systems function is complex because of its
multilevel, multifaceted applications. "Personnel range from func-
tionaries to professionals; technology varies from manual to elec-
tronic."[1] From the literature it is possible to identify specific
developments in administrative systems technology and personnel
which have had an impact on the organization and management of this
complex function.

The major development in administrative systems is that "the
cost of people is going up and their output is going down. The
opposite is true with technology. As new developments emerge from

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[1]Miller, G. B., "The Basics of Administrative Support Systems,"
unpublished paper, August, 1982.

the laboratory, machine performance goes up while machine costs go down."[2] In fact,

> A typical example will suffice. The IBM 701 elec-
> tronic computer introduced in 1952 could perform
> 2,193 multiplications per second. The IBM 4341
> introduced in 1979 can perform 239,102 multipli-
> cations per second. Rental of a million bytes of
> storage on the same IBM 701 amounted to $22,867 a
> month in 1952, while the equivalent storage on the
> IBM 4341 now costs $430 a month.[3]

Moreover, of the $800 billion constituting the total cost of office operations in 1979, only $200 billion applied to expenses related to technology; 600 billion were personnel costs.[4] Therefore, in devising ways of making the office more productive, business is looking at technology and the personnel who use the technology.

Technology

    Data Processing. There is a wide range of equipment available in the current markets. Data processing technology includes computers of all sizes ranging from personal, to minicomputers, to small business computers, to large scale computers. "Each size is a fully functioning computer."[5]

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    [2]Connell, T. J., "It's Time to Take a Hard Look at Office Productivity," Management World 9:35, October, 1980.

    [3]Ibid., p. 35.

    [4]Ibid., p. 35.

    [5]Quible, Z., Introduction to Administrative Office Management, p. 614.

The basic difference between the sizes is in terms
of the competency power each is able to generate,
equipment costs, expansion capabilities, types of
input/output, storage, capacity, and processing
speeds.[6]

Word Processing. A wide diversity of word processing equipment

has appeared on the market. Each of 75-100 manufacturers[7] produces

word processors with features including term glossaries/dictionaries,

word wraparound, and spelling checking dictionaries; some word processors

feature arithmetic capabilities.[8]

Records Management. Automated file storage and retrieval

systems are directly integrated with data/word processing technology.

Therefore, the technology needed to automate files is available.

Yet, while electronic storage and retrieval technology is available,

market analysts predict that "paper usage in the office will increase

at 10% per year into the 1980's."[9] The "paperless" office (implying

complete electronic storage and retrieval systems) is not foreseen

in the near future.

Records management technology also includes micrographics

and reprographics. Technology supporting micrographics includes a

range of quality cameras, media, viewers, and projectors.

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[6]Ibid., p. 614.

[7]Smith, H. T., "A Look at the State of Office Systems Today
Shows How Far We've Come and Where We're Going," Management World
9:9-10, January, 1980.

[8]Rosen, A., and Falden, R., Word Processing, p. 115.

[9]Fauth, W. C., "An Effective Guide to File Management,"
Information and Records Management, 13:96, April, 1979.

Reprographics technology includes copiers and duplicators capable
of producing additional copies in a range of quality and speeds.
Collators, enlargers, reducers, and color processors are all options
available on reprographic equipment.

Communications Services. Communications technology embraces
all voice and data transmission devices. The services involved include
mail, telephone, telegraph, teletypewriting, electronic mail, and the
"telecommunications interconnection of these technologies in inte-
grated networks."[10]

Integrated Technology. "The synergistic effect of integrating
many tools into one coherent workshop makes each tool considerably
more valuable than if it were used alone."[11] For example, integrated
technology enables one individual to (1) originate a document on a
word processor; (2) merge that document with names and addresses;
(3) compute billings, etc.; (4) file the document electronically;
(5) instruct hard copies to be made for mailing, and (6) transmit the
documents electronically. Thus, one integrative process may utilize
technology common to all four different components. The effect of
this integrated procedure is a much more efficient process than would
be possible were each step accomplished by separate technology.

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[10]Prince, J. S., "What It Will Take to Manage in the 80's,"
Administrative Management 4:34, January, 1980.

[11]Englebart, D. C., "Integrated, Evolutionary Office Automation
Systems," in Emerging Office Systems, edited by Lindau, R., Blair,
J. H., and Siegman, J., p. 306.

Personnel

"Technology will only permit, not _ensure_ cost reduction and increased efficiency in our offices."[12] While we have sophisticated technology, "82% of all correspondence is still originated by a writer putting pen or pencil to paper--as did scribes one thousand years ago. The technology is there--we must learn to use it."[13] Therefore, business is addressing personnel productivity problems from both managerial and operative perspectives.

Management Personnel. The quest to make the manager more productive has not been entirely successful. Floyd Harris, chairman of the first annual Office Automation Conference sponsored by the American Federation of Information Processing Societies, explained that while technology was available, "there were two main barriers to its use: managerial skepticism and implementation."[14] Skepticism was defined as fear that technology will change managers' traditional modes of operation[15] and fear that "the rolling obsolescence of current technology will make them (managers) dependent upon antiquated systems in a short time."[16] Implementation is the problem that most

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[12]Hershey, G. L., "Two Keys for Tomorrow's Office: Top Management Support and New Curricula are Essential," Management World 8:26, July, 1979.

[13]Mangus, M., "Office Automation, Personnel and the New Technology," (citing Floyd Harris address), Personnel Journal 59:816 October, 1980.

[14]Ibid., p. 816.

[15]Ibid., p. 816.

[16]Ibid., p. 816.

managers encounter, having . . ."neither the time nor the inclination to grasp new developments, study their cost effectiveness, and then integrate all the available technologies into problem-solving. solutions."[17]

Hiltz examined such managerial barriers dealing with the application of computer technology. A finding of the Hiltz study revealed that the more a person expected to benefit from the technology prior to its use, the greater the success of the technology.[18] Fear and skepticism were lessened when managers understood the technological applications prior to their implementation.

Operative Personnel. While managers are learning to accept and use technology, the operative workforce is also going through some adjustments. "Automated equipment requires special talents and abilities which go beyond the traditional clerical job capabilities."[19] This changing workforce is having a dramatic impact on support systems management.

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[17]Ibid., p. 816.

[18]Turoff, M., "Management Issues in Human Communications via Computer," in Emerging Office Systems, edited by Lindau, R., Bair, J. H., and Seigman, J. (citing Hiltz, type of publication not given, 1980), p. 235.

[19]Quible, Z., "The Eighties Imperatives," Management World 9:9 December, 1980.

> The workforce (and its managers) in the '80's will
> have to change to meet the needs of a workforce that
> will be better educated, increasingly affluent, and
> less orthodox in its approach to work. The overall
> labor force will include more women, minorities and
> older people. As a group, it will be more self-
> oriented, more knowledgeable about the world, and
> more concerned about the quality of working life--
> including pay, benefits, safety, security, and
> human dignity.[20]

In addition, these well informed workers may be more inclined

to join in collective bargaining. Unions have not traditionally

been active in clerical areas. Kleinschrod explained that "female

office workers have been historically difficult to organize."[21]

He continued, "Offices have resisted unions in part because the

nature of their work, working environments, and work attitudes differ

markedly from so many blue collar trades."[22] The 80's are seeing

the work environment and attitudes change; there is a clerical union

movement underway:

> Citing dissatisfaction with pay scales, a lack of
> career development programs and on-the-job harrass-
> ment, a new labor coalition believes that a growing
> number of the nation's 20 million office workers are
> ready for unionization. The coalition intends to
> pursue those office workers--78 percent of whom are
> female. The primary goals: more money and greater
> corporate sensitivity to the concerns of clericals
> and secretaries throughout industry.[23]

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[20]"Straws in the Winds of Change," _Administrative Management_
40:42, January 1979.

[21]Kleinschrod, W. A., "9 to 5 Wasn't Much: Will 925 Do Better?"
Administrative Management 42:21, April, 1981.

[22]_Ibid._, p. 21.

[23]"Coalition Gears Up to Organizing Women," _Industry Week_
208:136, March, 1981.

Another concern relating to operative personnel is the expected shortage of clerical workers in the next decade. "Currently, the shortage of these workers is increasing more rapidly than any other field."[24] Secunda reported that the supply of clerical workers is already down, especially those with high quality skills.[25]

The Current Study

Technology in data processing, word processing, records management, and communications services is diverse and capable of affecting the quality and quantity of work produced. Moreover, this technology is having a profound impact on managers' as well as operatives' work lives. A functional division has been identified which encompasses data processing, word processing, records management, and communications services technology and personnel: the administrative systems division. However, a review of the literature shows no research has examined the organization and management of administrative systems as a distinct division within a business organization. There appears to be a need for research which will add to an understanding of this essential management division.

To obtain data relating to the administrative systems function in business, administrative divisions in five select, progressive (employing up-to-date policies and procedures) organizations were studied. Care was taken in the sample selection phase to choose

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[24]Quible, Z., "The Eighties Imperatives," op. cit., p. 9.

[25]Secunda, D., "The Council's Report: Highlights of the AMA Council Meetings," Management Review 67:33, December, 1978.

organizations which were progressive and representing a variety of industries. The size and responsibilities of the administrative systems division and its manager's rank were examined across five sites. In addition, job functions of administrative systems managers, including job descriptions, communications channels, and personnel issues were addressed by this study.

The researcher interviewed personnel involved in administrative systems management at all levels, as well as users of support services, to learn the nature and scope of administrative systems management. Combined with company documents and responses from questionnaires distributed to operatives, the researcher developed profiles of this division and its manager. Conclusions and inferences concerning support systems management were derived from the findings.

As a by-product of this study, a theoretical curriculum model for an administrative systems track in an undergraduate school of business was structured.

Review of Related Literature

Periodicals

Journal articles relating to administrative systems management are not cited per se as "related literature." Rather, articles from recent periodicals are incorporated into chapters of this study where their reports are meaningful.

Major Research Studies

A review of the related research reveals no study describing the operations and management of the administrative systems division. While support services have been investigated, most studies have concentrated on office management rather than systems management. The traditional concept of office management implies supervision of a workplace where secretarial and clerical work is performed as a direct support service. Administrative systems management, on the other hand, is the management of the entire support process which includes the management of technology and personnel at all levels of an organization. Further, administrative systems components may be centralized or decentralized, integrated or distinct. In short, the concept of administrative systems, as outlined in this study, implies the management of support components in their totality—component technology, personnel, and procedures throughout an organization and at all levels of supervision.

In addition, no study has identified the administrative systems division in the aggregate as it operates in modern business; most studies have had curriculum development as their primary goal. Moreover, no study has used case study methodology.

The major research in the area, found through an exhaustive
search of the Business Education Index, Dissertation Abstracts (both
Business and Education), and Doctoral Dissertations in Business
Education revealed eight related studies completed in the past 15
years. These eight related studies are presented chronologically,
beginning with the 1967 Stead study.

Stead Study (1967). Stead[26] was the first to study the systems
approach to support services management. Selecting Harris County
(Texas), a county found by the U.S. Census Bureau as representative
of the U.S. by industry, Stead sent out a questionnaire to members
of the Administrative Management Society, the Data Processing Manage-
ment Association, the American Records Management Association, the
National Secretaries Association, and the Systems and Procedures
Association. Respondents were asked questions about their duties
and asked to rank them in terms of importance.

Finding significant differences between the duties of indi-
viduals in each of these five organizations, Stead developed a
university curriculum for each group: (1) the administrative manager;
(2) the data processing manager; (3) the records manager; (4) the
secretary: and (5) the systems analyst. Of interest to the current
study, Stead concluded that the core curriculum of the administrative
manager should be administrative management, systems and procedures,
communications, and records management. Of note, Stead did not suggest

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[26]Stead, B. A., A Computer Approach to University Curriculum
Design for Administrative Management, 1967.

extensive technical training in component areas for the administrative manager; instead, it was proposed that the administrative manager need only a user's understanding of technical capabilities and the ability to interface technology into a systems operation for the organization.

The Stead study, concerned primarily with curriculum development, involved the compilation of findings from questionnaires sent to members of five distinct professional organizations. Five separate curriculums evolved as a result of the study. The Stead study provided little information concerning the management and organization of support systems.

Ray Study (1968). The purpose of Ray's[27] 1968 study was to examine changes in office automation and to discover if colleges and universities were keeping up with those changes. Preparation for managing the office function was analyzed by comparing recommendations drawn from interviews with 52 Administrative Management Society members regarding the most desirable content of university offerings with what was currently being offered by colleges and universities. Ray's secondary data consisted of the review of 80 collegiate catalogues of institutions offering programs in office management. Ray concluded that collegiate programs were not adequate for administrative managers.

Like Stead before him, Ray recommended that preparation for managers not require extensive work in office and secretarial skills. The suggested program was a combination of general education and

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[27]Ray, C. M., The Functions of Administrative Office Managers with Implications for Collegiate Programs of Study, 1968.

business administration, including office administration, principles of management, business communications, accounting, and personnel management. Of lessor importance but still desirable to management preparation, economics, data processing, business statistics, systems and procedures, marketing, human relations, and a part-time internship of actual work experience were recommended.

The Ray study was strictly an evaluation of current curricular offerings. No attempt was made to examine job functions of administrative managers; rather, data were opinions of administrative managers concerning their views on an appropriate college curriculum. By confining the problem to curricular evaluation, Ray's study did not provide data concerning how administrative systems components are organized and job functions of administrative systems managers. The curriculum developed in the current study evolved from data describing and analyzing the administrative systems division and its manager.

Smith and Warner (1971). Smith and Warner[28] of Brigham Young University distributed a questionnaire to Administrative Management Society members attending the AMS annual convention in May, 1969. Five hundred questionnaires were distributed to this group; 141 were returned and tabulated. Smith and Warner's purpose was to determine the requirements for the position of administrative manager, and how the prospective administrative manager could best prepare for this position.

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[28]Smith, H. T., and Warner, S. E., Administrative Office Management Preparation, 1971.

A major finding of the study was average percentages of time alloted by administrative managers to the basic managerial functions of planning, 21%; controlling, 23%; organizing, 21%; and leading, 26%. In addition, Smith and Warner found that managers spent 77% of their time communicating--25% in writing and 52% in oral communications.

The Smith-Warner study significantly points the way to an understanding of job functions of administrative managers. However, no attempt was made to define the sample; membership in AMS was deemed an adequate base for validating job functions. Another limiting factor is that fewer than one third of the distributed questionnaires were returned. Note also that the study was concerned with administrative office management; no attempt was made to examine the more global roles of administrative systems managers.

Lundberg Study (1975). The Lundberg[29] study dealt with personnel management in offices. Lundberg concentrated on identifying "shifts" in how office management specialists viewed the clerical worker from a period of 1880 to 1970. Testimony of office management experts found in journals, texts, monographs, etc., were reviewed and the trend in personnel management outlined. The chief problem was to determine how the perceptions of office productivity had been influenced by changing management attitudes.

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[29]Lundberg, R. L., Perceptions of American Office Management Specialists About Office Productivity and Human Resources, (Ed.D. thesis, Columbia University, 1975).

Lundberg divided the time span studied into four eras, identifying each era's contribution toward personnel management: 1870 - 1910, the shaping of the business office; 1910 - 1930, the scientific management approach applied to office work; 1930 - 1945, the depression and World War II; and 1945 - 1970, the postwar problems and the introduction of automated data processing.

The contribution of the Lundberg study to the current study lies, chiefly, in its historical perspective on operative personnel developments. The results of the study suggest that current personnel developments have been affected by socio-economic events as well as technology. The area of personnel management within administrative systems has roots, as described by Lundberg's study. The current study examined administrative systems managers' attitudes toward the clerical worker.

Dod Study (1975). The purpose of the Dod[30] study was to determine current duties, responsibilities, and training of administrative managers in order to improve/expand upon current university offerings.

Dod analyzed two texts in administrative management, grouped 58 topics from the texts, and formed a questionnaire. The questionnaire was sent to a random sample of 236 AMS members (who were currently administrative managers) in the Southeast region of the United States.

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[30]Dod, G. A., Duties, Responsibilities, and Formal Training of Administrative Managers in Business Firms in the Southeastern Region of the United States with Implications for Improving Collegiate Administrative Management Instruction, 1975.

From the findings, Dod categorized the personal characteristics of
the managers, i.e.:

age--75% were between 30 and 55

sex--88% were male; 12% female

education--86% had at least a Bachelors degree

experience--ranged from one to 40 years; average was
      13 years

The Dod study also provides valuable information concerning
the job functions of administrative managers. One of its most signifi-
cant contributions to the current study is its listing of duties which
includes the four components of administrative systems management.
The total range of administrative duties described by Dod were:
supervision, records management, training, financial management,
personnel recruitment and selection, systems and procedures, office
planning, layout, design, word processing, security of building,
telecommunications, fringe benefits, data processing, insurance,
micrographics, and food services.

The Dod study concluded that administrative managers needed
strong background in four areas: 1) training programs; 2) financial
management; 3) personnel recruitment and selection; and 4) systems
and procedures.

Although Dod provided pertinent data describing administrative
managers' job functions, the sample was not well defined; membership
in AMS was seen as adequate for being labeled an administrative manager.
In addition, no attempt was made to examine the administrative systems

division—its organization and managerial levels within the organization. Also, no effort was made to examine the impact procedural, technological, and personnel developments had on support systems management.

Hahn Study (1976). The Hahn[31] study is also included as background for the current study. Hahn surveyed 724 officers in 130 chapters of the AMS in an attempt to determine personal characteristics of office administration personnel, the officers' views on future employment requirements, and to compare those requirements with current requirements. In addition, Hahn asked the officers to recommend programs of study.

Personal characteristics studied included traits such as age, sex, and level of education completed. Respondents predicted younger, more educated administrative personnel and the male/female ratio to become equal. Officers checklisted specific courses to be included as "important" or "essential." As a result of the investigation, Hahn recommended the following set of courses: principles of finance, principles of management, personnel management, office management, office communications—oral and written, systems and procedures, records management, introduction to data processing, office procedures, human relations in business, and an office administration internship.

Although the Hahn study did take requirements of current administrative managers into consideration, it, nevertheless, leaves unanswered questions concerning the role of the administrative systems

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[31]Hahn, R. D., _Characteristics of Office Administration Personnel and Requirements for Future Employees with Curriculum Implications for a Four Year Degree Program in Office Administration_, 1976.

division as a viable organizational function. And, moreover, no information was provided describing the total job functions of administrative managers.

Smith Study (1979). Smith[32] identified competencies required to manage an office or staff, then had those competencies rated by a sample of 104 Administrative Management Society presidents. The next step was to have collegiate instructors identify and rate competencies being taught in administrative office management collegiate courses. Competencies listed by the two groups were then compared. Listing 44 competencies which administrative managers were performing, Smith ascertained that collegiate instructors were including those competencies in their instruction. However, managers and instructors were found not to be in agreement as to the relative importance of the competencies. Because of these discrepencies, Smith suggested a more diverse curriculum. In particular, more emphasis in the areas of communication, listening, decision making, directing, and budgeting were recommended.

The Smith study makes an important contribution to the problem of determining skills required by administrative office managers. By ranking competencies, those skills which are deemed vital were separated from those only marginally important. However, data were based on what office managers and collegiate instructors considered important. The Smith study concentrated on office operations and leaves unanswered questions concerning the organization, management, and role of the administrative systems function.

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[32]Smith, B. E. H., Competencies in Administrative Office Management as Perceived by Office Managers and Collegiate Office Management Instructors, 1979.

Jarrell and Brant Study (1981). The most recent study related to the current study is a yet unpublished one conducted by Jarrell and Brant[33] and sponsored by Drexel University and the Administrative Management Society. The purpose of this 1981 study was to learn more about the jobs of manager-members of AMS. Questionnaires were sent to 2,754 randomly selected members of AMS. Seven hundred fifty-four questionnaires were returned. Respondents gave information concerning their titles, organizations, education, salary, age, and sex. In addition, respondents were asked to define "success."

Job titles ranged from supervisor to president; the large majority of job titles employed the title "manager." In addition, the survey reported that administrative managers were generally found at middle and upper-middle management levels, and there was a significant number of administrative managers in manufacturing and insurance. Jarrell and Brant reported that the "average" administrative manager had a bachelor degree in some area of business administration and earned an average salary of $35,000 per year. Three percent reported annual incomes of over $75,000 per year and 12% over $50,000. The average age of the administrative managers was 44; one-third were female.

The sample was asked to give a definition of the term "success." Twenty job functions, according to enjoyment, importance to their career, and functional emphasis were rated. Oral communications and judgments involving people were rated as the top job functions for all three categories.

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[33]Jarrell, D., and Brant, W., A Study of the Administrative Manager, unpublished paper, 1981.

The significance of the Jarrell and Brant study resides in its emphasis on ascertaining the rank/position of administrative managers. However, surveys were sent randomly to individuals whose binding characteristic was that they were members of AMS; administrative managers were not carefully defined. A wide diversity of job titles, job descriptions, and levels of management resulted. Another limitation was that fewer than one third of the sample returned the questionnaire.

Of interest, research for the Jarrell and Brant study was conducted at the same times as the current study. While the Jarrell and Brant study utilized a survey approach, employing statistical analysis, the current study utilized case study analysis. Despite their differences the Jarrell and Brant study appears to be most closely in focus with the intent of the current study, to better describe the position of the administrative manager within the overall management structure of the organization. However, rather than define "success," the current study attempts to define job functions of administrative systems managers.

Summary of Related Research

In summary, a review of the literature shows no current research describing the organization and management of the administrative systems function. No previous formal research has examined the manner in which data processing, word processing, records management, and communications services interact in providing support services for all managerial functions or the effects of these services on the organization as a whole.

CHAPTER II

THE PROBLEM

Statement of the Problem

The problem was to determine how the administrative systems division operates in modern business. As administrative support-systems management differs from organization to organization, the need existed to examine organizations known to have successful, progressive administrative systems divisions. The organizational structure of administrative systems divisions and the job functions of their managers were examined in five select business firms. More specifically, this study addressed the following questions:

1. How do administrative systems divisions compare in terms of size and responsibility?

2. How are data processing, word processing, records management, and communications services organized and managed within the administrative systems division?

3. How do job functions of administrative systems managers compare in selected business organizations?

4. What communications channels are utilized within the administrative systems division and from the administrative systems division to other divisions in the organization?

5. How are administrative systems managers providing management/training for users of support systems?

6. How are administrative systems divisions' operative personnel selected, trained, and evaluated? Are there major personnel issues affecting the administrative systems division?

7. What is the profile of the administrative systems manager in terms of age, sex, salary, education, and experience? Why was this individual selected?

8. What are the viewpoints of administrative systems managers, users, and top management concerning the future of the administrative systems division?

9. What skills and knowledges do administrative systems managers, their superiors, and users of the system regard as vital to the success of an administrative systems manager?

Data resulting from this research should be of value to the business sector as well as universities offering degree programs in management. Information describing and analyzing the administrative systems division in five progressive organizations should bring the nature, scope, and demands of the area more into focus. As a by-product of this study, a curriculum was developed which identifies major skills and knowledges needed by an administrative systems manager.

Parameters of the Problem

Class A Data

These are data obtained from 1) interviews with the administrative systems managers, upper-level managers, support services managers/ supervisors, other function managers and 2) the questionnaires distributed to operative personnel.

Class B Data

These are data obtained from company documents (organizational charts and job descriptions).

Limitations

The results of this study may be limited by any one or a combination of the following factors:

1. **The number of firms investigated.** Because of the nature of this study, it was limited to the study of the administrative systems division in five firms. Therefore, it was necessary to exercise extreme caution in making generalizations from this limited number of firms.

2. **The researcher variable.** While every effort was made by the researcher to concur with reliability and validity standards, data in this project were collected subjectively. Therefore, the skill of the researcher in conducting interviews is a limiting factor.

3. **The scope of the study.** As this study was intended to be a study of a particular division and manager, only the management of the administrative systems division, as outlined in this study, was examined. The management of data processing, word processing, records management, and communications services, when performed outside the administrative systems division is not included as part of this study.

Definitions.

The following terms are used in this study:

1. **Administrative systems division**--the managerial unit in an organization for which the top ranking administrative systems manager was responsible (see administrative systems manager).

2. **Administrative systems function**--the business function concerned with the integration of data processing, word processing, records management, and communications services which provide an information and service base for all functions of the organization.

3. <u>Administrative</u> <u>systems</u> <u>manager</u>--individual within an organization responsible for at least three of the four components of the administrative systems function (data processing, word processing, records management, and communications services).

4. <u>Communications</u> <u>network</u>--the communications service which serves an organization's data and voice transmission needs via a combination of in-house terminals.

5. <u>Communications</u> <u>services</u> <u>management</u>--the administrative systems component concerned with service designed to get information from one station to another.

6. <u>Component</u>--constituent part of a system. Generally used here to refer to data processing, word processing, records management, or communications services.

7. <u>Data</u> <u>processing</u> <u>management</u>--the administrative systems component concerned with the processing of numerical data for all functions of the organization. Includes operations, programming, and systems analysis.

8. <u>Electronic</u> <u>mail</u> <u>services</u>--electronics-based message transmission services which include facsimile, teletype, and computer-based message switching services.

9. <u>Facsimile</u> <u>services</u>--the use of electronic equipment capable of transmitting via telephone lines any paper-based information.

10. <u>Filing</u> <u>systems</u>--the records management service which establishes filing rules, codes, and procedures for the efficient storage and retrieval of nonelectronic documents.

11. Forms management--the records management service which determines the need for, design of, and application for nonelectronic forms used throughout the organization.

12. Inactive records storage--the procedures and guidelines to facilitate the storage of records no longer used by an organization.

13. Mail services--communications support service dealing with the distribution, both inward and outward, of mail.

14. Micrographics--the records management service concerned with the use of micrographic techniques to facilitate information storage and retrieval.

15. Operations--preparation of information input for use in a computer as well as computer manipulation of that information.

16. Purchasing--the handling of all paperwork associated with capital expenditures (equipment, furnishings, etc.).

17. Records management--the administrative systems component concerned with the control of non-electronic records from their creation to their ultimate disposition. Includes forms management, filing systems, the records retention schedule, inactive records storage, micrographics, and reprographics.

18. Records Retention Schedule--the records management service responsible for establishing a list of types of records retained by a company and the length of time they are retained.

19. Reprographics--the records management service related to all reproducing and duplicating processes.

20. Support System--combination of services which enable a user to do work more efficiently.

21. <u>Telephone services</u>--services established to provide an organization with voice communications capabilities.

22. <u>Word processing</u>--the administrative systems component concerned with the highly automated processing of written communications from creation to output.

23. <u>User</u>--management level individual who utilizes support services.

CHAPTER III

METHODOLOGY AND PROCEDURES

This chapter deals with detailed information pertaining to
methodology and procedures. It is divided into six phases: (1) sample
determination; (2) data collection; (3) data validity; (4) case
reporting; (5) findings and (6) summary, conclusions, inferences.

While a number of methodology options were available to the
researcher, case study methodology was chosen for this study. The
intent of the study was to examine administrative systems divisions
in depth in organizations identified as particularly well organized
and managed; case study methodology was deemed appropriate. Also, an
examination of the literature revealed no case studies had been done
in the area. With these arguments, expert opinion (Dr. T. James
Crawford and Dr. Georgia B. Miller of Indiana University) was that
the case study approach would be the most appropriate data collection
method for this particular research.

Sample Determination

The first step was to identify progressive firms which had
an individual in their hierarchy responsible for at least three of
the four components of the administrative systems function—data
processing, word processing, records management, and communications
services.

To gather a population of potential cases, the current president
and five past presidents of Administrative Management Society chapters

in Cincinnati, Ohio; Indianapolis, Indiana; and Louisville, Kentucky were contacted by letter. (See Appendix A) These presidents and past presidents were asked to nominate at least five firms in their vicinity which were progressive in terms of support systems management and had an identifiable administrative systems division. These respondents identified a total of 46 firms. Of note, two firms were nominated three or more times; eight firms were nominated twice.

Thus, the technique of "purposeful sampling" was employed. Following Patton's rationale, the critical question was to understand extreme [progressive] cases.[1] "Decision makers and evaluators think through what cases they could learn the most from, and those are the cases that are selected for study."[2] In addition, sampling critical cases "permits logical generalization and maximum application of information to other cases because if it's true of this one case, it's likely to be true of all other cases."[3]

The second step was to select five firms from the 46 firms nominated. The person identified as the administrative systems manager was contacted by telephone and asked to describe the nature and size of the organization as well as his/her position. In addition, at that time, feedback as to the manager's willingness to cooperate and participate in the project was obtained.

Thirteen firms were eliminated at this stage because, while they were progressive, they did not have a person in their hierarchy

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[1]Patton, M. Q., _Qualitative Evaluation Methods_, p. 101.

[2]_Ibid._, p. 101.

[3]_Ibid._, p. 105.

responsible for three of the four components of the administrative systems function. Twelve other firms were eliminated because of their extremely small sizes; these firms were either local branches of large organizations or small proprietorships. Another six organizations were eliminated because the administrative systems manager was not willing/able to participate in the study. Therefore, the sample was reduced to a total of 15 organizations.

In order to deal with the problem of representativeness, an effort was made to maximize the variation in case selection.[4] First, preference was given to those organizations nominated more than once by Administrative Management Society presidents and past presidents. Then, selection of the firms was further narrowed, considering the type and size of the organization. Companies were chosen from five distinct areas of business: banking, manufacturing, utilities, insurance, and retailing. Following is the rationale for company selection:

1. Banking--1,800 employees; nominated by two AMS respondents

2. Manufacturing--6,600 employees; nominated by two AMS respondents

3. Utilities--5,500 employees; nominated by two AMS respondents. Also, this was the only utility nominated.

4. Insurance--500 employees; nominated by three AMS respondents.

5. Retailing--7,000 employees; nominated by one AMS respondent. Of the three retail establishments nominated, this was the only firm which had a manager responsible for data processing, word processing, records management, and communications services.

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[4]Ibid., p. 102.

The third step was to contact by letter the administrative systems managers of the 15 organizations (See Appendix A) thanking them for their agreement to participate in the study, and informing them of their selection status. The managers of five administrative systems divisions chosen to participate in the study were asked to schedule interviews with the following personnel:

The administrative systems manager

The administrative systems manager's immediate superior

A manager or supervisor responsible for each of the four component areas of data processing, word processing, records management, and communications services

Three users of administrative systems services

Also, the letter discussed the questionnaire which was to be distributed randomly to operative employees. This letter also included tentative dates for the interviews. A phone call from the researcher established the dates and times of the interviews.

Data Collection

The second phase of this research was to conduct the scheduled interviews and distribute the questionnaires. An interview guide was followed for each of four groups: 1) the administrative systems manager; 2) the administrative systems manager's immediate superior; 3) the supervisors/managers of components; and 4) users of the system. (See Appendix B) In addition, a short questionnaire (See Appendix B) was given randomly by the administrative systems manager to ten operative

employees. A questionnaire was considered appropriate, since the

main purpose of the questionnaire was to substantiate interview data

regarding personnel policies and principal concerns of the operative staff.

"According to Dexter (1970), 'Interviewing is the preferred

tactic of data collection when in fact it appears it will get <u>better</u>

data or <u>more</u> data at <u>less cost</u> than other tactics.'"[5] Guba explained:

> The ability to tap into the experience of others in
> their own natural language, while utilizing their
> value and belief framework, is virtually impossible
> without face-to-face and verbal interaction with them.
> Getting better data, more data, and data at less cost
> often involved being on site.[6]

Kerlinger concurred:

> Data collection methods can be categorized by the
> degree of their directness. . . . Interviews and
> schedules are ordinarily quite direct. . . . When
> used with a well conceived schedule, an interview
> can obtain a great deal of information, is flexible
> and adaptable of individual situations, and can
> often be used when no other method is possible or
> adequate.[7]

There are weaknesses to the interview guide approach, however.

For example, omitting important, salient topics, and variable sequencing

and question wording could cause imcomparable responses.[8] An effort

was made to avoid such weaknesses.

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[5]Guba, E. G., and Lincoln, Y. S., <u>Effective Evaluation</u>, p. 154, 155 (citing L. A. Dexter, <u>Elite and Specialized Interviewing</u>, 1970).

[6]Guba, E. G., and Lincoln, Y. S., <u>Effective Evaluation</u>, p. 155.

[7]Kerlinger, F. H., <u>Foundations of Behavioral Research</u>, pp. 479, 480.

[8]Patton, <u>op. cit.</u>, p. 206.

Nonetheless, the strengths of the interview approach appear to outweigh any weaknesses. Patton agreed:

> the outline increases the comprehensiveness of
> the data and makes data collection somewhat
> systematic for each respondent. Logical gaps in
> data can be anticipated and closed. Interviews
> remain fairly conversational.[9]

In addition to the scheduled interviews, a one-page questionnaire was given operative employees. Upon arrival at the site, the researcher requested the administrative systems manager to randomly distribute the questionnaires. Completed questionnaires, enclosed in sealed envelopes, were collected at the close of the interview day.

At most sites, the investigator spent two days collecting data. Approximately two hours were spent interviewing each administrative systems manager; one hour was spent with each component manager; approximately 30 minutes were spent with the superior of the administrative systems manager, and each of three users.

All interviews were tape recorded. The verbatim transcription of tapes constituted the principal raw data for the study. Findings from questionnaires were summarized on large charts for ease in reference.

Data Validity

This third phase, the subject of scientific adequacy, is approached by discussing issues of internal validity, external validity, and reliability.

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[9]Ibid., p. 206.

Internal Validity. Guba listed the following potentially
invalidating factors in naturalistic research and suggested ways the
researcher could overcome them:

1. Distortions resulting from the researcher's
   presence at the research site.

   Close monitoring of responses and a prolonged
   engagement at the research site are sufficient
   to overcome these effects.

2. Distortions resulting from the field worker's
   involvement with subjects.

   Avoid too much involvement. The field worker
   should constantly check to be sure that
   objectivity is maintained.

3. Distortions resulting from bias on the part of
   the field worker or the subjects.

   Special efforts and sensitivity on the part of
   the investigator will help to offset such
   tendencies.

4. Distortions resulting from the manner in which
   data gathering techniques are employed.

   Careful recording of data, continual scrutiny
   of data for internal and external consistency,
   cross checking of inferences with selected
   interview material, and continual assessments
   of subject credibility are sufficient to overcome
   most of these distortions.[10]

An effort was made to avoid these invalidating factors, following the
above suggestions.

In addition, structural corroboration, "the process of
gathering data or information and using it to establish links that
eventually create a whole that is supported by the bits of evidence

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[10]Guba, E. G., Towards a Methodology of Naturalistic Inquiry
in Educational Evaluation, p. 62.

that constitute the whole,"[11] was attempted. "Evidence is structurally corroborative when pieces of evidence validate each other."[12]

Two techniques to establish structural corroboration, triangulation and cross examination were employed in presenting data for this study.

Triangulation is "checking out the consistency of findings generated by different data collection methods and checking out the consistency of different data sources within the same method."[13] Therefore:

> Once a proposition has been confirmed by two or more measurement processes, the uncertainty of its interpretation is greatly reduced. The most persuasive evidence comes through a triangulation of measurement processes. If a proposition can survive the onslaught of a series of imperfect measures, with all their irrelevant error, confidence should be placed in it.[14]

In this study, findings from the administrative systems manager(s), upper management, component managers/supervisors, other function managers, and operative staff were triangulated.

The second technique of establishing structural corroboration, cross examination, was employed in the data collection phase. Cross examination is repeating key questions to insure consistent answers from the same source. "If one way to establish the adequacy of a

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[11]Guba, E. G., _Towards a Methodology of Naturalistic Inquiry in Educational Evaluation_, p. 63. (citing Eisner, no title given, n.d.).

[12]_Ibid._, p. 63.

[13]Patton, _op. cit._, p. 329.

[14]Guba, _op. cit._, p. 64.

'fact' or inference is through the use of repeated perspectives. . .
another way is through the use of repeated observations from a single
perspective."[15]

Tymitz and Wolf proposed the following objectives of cross
examination:

1. To establish the witness' frame of reference
   or bias so that the values and/or assumptions
   underlying his testimony will be clear. This
   will enable the panel to understand the testi-
   mony's context, its subtleties and nuances,and
   perhaps even to understand why the witness
   believes the way he does.

2. To point out the flaws, alternative consequences,
   or beliefs expressed in direct examination.

3. To clarify, extend, or modify facts, opinions,
   or beliefs expressed in direct examination.

4. To help the panel understand that plausible
   inferences exist other than the one(s) estab-
   lished by direct examination for any piece of
   evidence.[16]

For the above reasons, cross examinations were deemed an appropriate
tool to establish internal validity.

In addition, upon completion of the case studies, host validation
of the data was obtained. Administrative systems managers were sent
copies of the case describing their division to verify for accuracy
(letter accompanying case is in Appendix A). All cases were described
as providing a fair report of the administrative systems division.

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[15]Ibid., p. 64.

[16]Tymitz, B., and Wolf, R. L., An Introduction to Judicial
Evaluation and Natural Inquiry, pp. 59-60.

Case Reporting

Case studies growing out of interviews, questionnaires, and company documents were the format for reporting the data of this research project. The purpose of this study was to examine the administrative systems division in modern business. The case study format is an appropriate format for reporting such data:

> Rather than being asked himself to integrate
> a wide variety of information in disparate forms,
> the reader is presented with a well-integrated
> statement that points out the essentials (and
> their relationships) and discards the remainder.[17]

Nonetheless, an element of subjectivity is present in utilizing case study methodology. One cannot be entirely free from personal judgment either in choosing the case or in assembling the data.[18] However, Hillway explained:

> . . . the method [the case study method] has proved
> so effective that its weaknesses need not prevent
> its use if the investigator exercises due discretion.
> . . . If nothing else, the use of the case study
> can decrease the tendency to misinterpret statistical
> data. The relationship of isolated factors often can
> be seen more clearly through intensive case study
> than through mere quantitative analysis.[19]

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[17] Guba, op. cit., p. 376.

[18] Hillway, T., Introduction to Research, p. 243.

[19] Ibid., p. 243.

Findings Presentation

Upon completion of the case study reports, major variables studied and observed in each case were examined. Using a cross-site matrix, similarities in the variables, as well as differences, were investigated and interpreted. Findings were grouped into five categories (the same categories used in the case reporting phase) for presentation:

1. The administrative systems division

2. The job functions of administrative systems managers, including job descriptions, communications channels, and personnel considerations

3. Biographical information on the administrative systems manager

4. Perspectives on the future of the administrative systems division

5. Skills identified as required of administrative systems managers of tomorrow

Summary/Conclusions/Inferences

Following a summary of the findings of this study, profiles of both the administrative systems division and its manager were developed. Crose site analysis of the findings enabled the researcher to make conclusions and inferences concerning the management of the administrative systems division.

Then, as a by-product of this study, a model curriculum for the preparation of an administrative systems manager was prepared. This curriculum model is outlined in Chapter VI.

CHAPTER IV

CASE STUDIES

Introduction

This chapter consists of five case studies, each a description
of a particular administrative systems division. The framework used
to describe each case answers the questions presented in Chapter 2
and encompasses four categories: (1) the administrative systems
'division, (2) the administrative systems manager, (3) administrative
management personnel practices, and (4) the future of the adminis-
trative systems division.

A-1 BANK AND TRUST COMPANY

Introduction

A-1 Bank and Trust Company, part of A-1 Corporation, is a
complete commercial banking operation. Services offered by the bank
include demand and time deposits, commercial, consumer, credit card,
and mortgage loans, correspondent banking services, mortgage services,
direct lease financing, and safe deposit facilities. A-1 Bank and
Trust Company has 35 banking centers and 31 electronic banking
facilities. There are approximately 1,800 employees throughout the
company, including 1,200 at the corporate office.

Table 1 lists the persons interviewed whose responses constitute
most of the data gathered for this company. The interviewee's managerial
level, title, component responsibility, and superior are shown. Supple-
mentary data came from company documents as well as questionnaires

TABLE 1. RANK AND RESPONSIBILITIES OF MANAGERS INTERVIEWED
AT A-1 BANK AND TRUST COMPANY

Interviewee's Title	Component Responsibility	Managerial Level	Immediate Superior
President*		5	
Senior Vice President, Information Services+	Data Processing Word Processing Records Management Communications Services	4	President*
Vice President, Computer Operations	Data Processing	3	Senior Vice President, Information Services+
Manager, Word Processing	Word Processing	2	Manager, Central Information Services
Systems Director	Communications Services	2	Vice President, Technical Services
Chief Financial Officer±		4	President*
Senior Vice President, Human Resources±		4	President*
Senior Vice President, Marketing and Retail Banking+		4	President*

KEY: * = Superior of Administrative Systems Manager
+ = Administrative Systems Manager
± = User of Administrative Systems Services

returned by ten operatives in the Data and Word Processing Departments of the organization. Data compiled for A-1 Bank and Trust Company reflect conditions existing at the time of the interviews.

Administrative Systems Division

Organizational Structure. The Information Services Division of A-1 Bank and Trust Company was the administrative systems division for purposes of this study. As Chart 1 illustrates, there were five levels of management at A-1 Bank and Trust Company; the Senior Vice President, Information Services was at level four, reporting directly to the President of the company. At a peer level to the Senior Vice President, Information Services were Senior Vice Presidents in Marketing and Retail Banking, Bond Management, Operations, Personnel, and Trust.

Chart 1 further shows that within Information Services there were four staff employees and five vice presidents. The four staff positions were the administrative assistant and persons expert in the following three areas: financial analysis, interactive equipment, and marketing. The four line departments in Information Services were Computer Operations, Data Processing Operations, Technical Services, and Systems Development. There was a total of 300 employees in the Information Services Division. Following is a more detailed description of each line department.

Computer Operations. Computer Operations was responsible for the long range planning of data processing services, as well as the day-to-day operations of the computer operations facility. There was a total staff of 110 employees in this department.

President

Senior Vice President, Marketing & Retail Banking

Senior Vice President, Bond Management

Senior Vice President, Information Services

Senior Vice President, Personnel

Senior Vice President, Trust

Interactive Services

Administrative Assistant

Marketing

Financial Analysis

V.P., Computer Operations

V.P., Processing Services

V.P., Technical Services

V.P., Systems Development

CHART 1. A-1 BANK AND TRUST ORGANIZATIONAL CHART

Data Processing Operations. As previously mentioned, A-1 Bank and Trust Company had 45 banking centers and 31 electronic banking facilities. Data Processing Operations was responsible for the on-line computer entry function of all data from these remote sites. The Word Processing Manager and the Telecommunications Manager were within this Department, also. Word Processing was responsible for research and development in word processing as well as the word processing centers. Telecommunications services included telephone, facsimile, and teletype operations.

Technical Services. Technical Services prepared all computer programs and codes and did division-wide systems analysis. In addition, Technical Services was responsible for all telecommunications-based services available throughout the organization.

Systems Development. Systems Development handled all applications-related work done in various departments of the bank. Two systems directors responsible for specific systems projects reported to the Vice President, Systems Development. A third manager in Quality Control was responsible for computer forms control and procedure analysis, as well as user (manager) education in the use of support services.

Status of the Administrative Systems Division. Managers within Information Services viewed their division equal in status to the other five divisions of the organization.

A user, the Senior Vice President, Marketing and Retail Banking described Information Services as a very service-oriented division: This executive said Information Services' status was difficult to describe because:

> There is much less known about it [Information Services]
> by the line areas. So, perhaps it has more control
> over its destiny than other staff areas like personnel.
> It is more like the Trust area [which practices
> extreme confidentiality].

A second user, the Chief Financial Officer, explained that the status of Information Services was rising; as technology became more commonplace, the need for Information Services was predicted to rise.

The third user interviewed, the Senior Vice President, Human Resources, saw Information Services from a labor standpoint. Minimization or containment of the growth in personnel was seen as one of administrative systems' biggest roles; centralized services were labor-efficient. The status of Information Services was directly linked to the quality of support services as well as employee productivity gains (more productive employees equal less need for more employees). Because Information Services' work quality was considered excellent and its productivity rates were rising, this executive described the status of Information Services as high.

The Administrative Systems Manager

Background. The Senior Vice President, Information Services, 39 years of age, had been with A-1 Bank and Trust Company for six years and in his current position for three years. His salary was in the $75,000 range. This executive obtained most of his technical training while in the U.S. Navy; he had spent two years in Navy data processing schools and two years in data processing operations. With A-1 Bank and

Trust Company he had begun as Vice President, Systems and Programming. His prior experience included being a software development executive, a data processing manager, and a vice president (systems) for another financial institution.

Position Description. The Senior Vice President, Information Services, a fourth level manager, reported directly to the President of the company. As part of upper management, the Senior Vice President played a major role in the long term planning of the organization. Specifically, he was responsible for the total array of automated support services.

As the administrative systems manager was defined as the manager responsible for at least three of the four administrative systems components, a more detailed description of the manager's responsibility, in terms of each component, beginning with data processing, follows. A fifth category, other services, describes managerial duties outside the component categories.

Data Processing. All four Information Services departments were responsible for data processing services. Responsibility included all data entry (batch entry as well as on-line), manipulation, programming, and systems analysis.

Word Processing. A second level manager within the Data Processing Operations Department was responsible for word processing research, development, and operations.

Records Management. Records management was not an identifiable function in the Information Services Division. Company-wide records management policies were the responsibility of a separate division.

The Senior Vice President, Information Services, had direct responsibility for the records management function only within the Information Services Division.

Communications Services. Telephone services, facsimile services, and teletype services were within the Telecommunications Department which was within Data Processing Operations. The Systems Director, a second level manager in the Technical Services Department was responsible for communications network development, implementation, and operation. As previously noted, on-line data entry from remote sites was the responsibility of the Vice President, Data Processing Operations.

Other Services. In addition to internal communications services, this division was also responsible for research in integrating banking services (staff position, Interactive Services). Also, the division was involved in time sharing activities whereby computer services were marketed outside the bank to other banking entities (staff position, marketing).

Professional Development Practices. At one time in his career, the Senior Vice President, Information Services had joined many professional organizations. At the time of this study, however, little need was reported for such groups. The company sent this executive for specialized training at least two weeks a year, exposing him to new places and programs. In addition, he spent at least one week a year at a technical school. These external educational programs plus company educational programs, plus journals including Administrative Management, Datamation, and Infosystems kept the Senior Vice President abreast of developments in the administrative systems area.

As to his own future in A-1 Bank and Trust Company, this executive explained he "always aspired to the highest." The Information Systems Division was his only possible route to the presidency of the organization.

Administrative Systems Manager Selection Criteria. The President of A-1 Bank and Trust Company explained that the purpose of Information Services was to provide the necessary support and administrative services needed to coordinate the activities of the corporation. The current Senior Vice President, Information Services had joined the organization as a consultant and had stayed on in Systems and Programming after the position was identified. Prerequisite to his appointment were proven managerial skills, experience within the organization, knowledge of data processing and electronic banking, as well as an understanding of the banking industry. These skills/knowledges were viewed as vital for the Senior Vice President, Information Services to be able to provide coordinated support services.

Administrative Systems Management Practices

Communications Channels. Communications channels within Information Services were a combination of formal and informal processes. Executives at each level submitted formal, written reports to their immediate superiors. All meetings, on the other hand, were generally described as informal. At lower levels of management, only the Systems Director reported attending weekly meetings with the Senior Vice President, Information Services, and the Manager of Computer Operations.

Irregularly scheduled meetings were more common. The Senior Vice President, Information Services met informally once or twice a

week with the President. The President reported daily telephone conversations with the Senior Vice President. Both parties described such contact as an appropriate medium for information exchange/consolidation.

In addition to contact with the President, the Senior Vice President, Information Services reported daily personal contact with each of his vice presidents. The vice presidents substantiated this report. Managers at both levels said daily contact was for information exchange.

While the Senior Vice President, Information Services reported frequent contact with peer level managers in other divisions, second and third level managers explained they saw their peers in other divisions infrequently. Lower level executives met only when involved in projects of mutual concern or interest.

All three users substantiated that there was frequent contact (approximately three times a week) with the Senior Vice President, Information Services. Most meetings were informally scheduled and generally covered a specific topic of interest. Two users reported being on committees with the Senior Vice President, Information Services (Senior Vice President, Human Resources: Work Flow Committee; Senior Vice President, Marketing and Retail Banking: Priority Committee). The Senior Vice President, Marketing and Retail Banking explained that frequent contact was for consulting and mutual problem solving. Particularly because of Marketing's desire for data processing services, there was need to have Information Services involved in the marketing function.

Personnel Considerations

Management. The Senior Vice President, Information Services explained that Information Services catered to users' needs for technology information and services. In fact, users took an active part in equipment feasibility studies. Users concurred they had ample information describing available support services. As to the use of equipment, the Education Coordinator within the Systems Development Department was responsible for user training.

One user, the Senior Vice President, Marketing and Retail Banking explained that the Information Services Division was trying to break the computer's mystic "Chinese Wall." The Chinese Wall was defined as a psychological barrier between computer-related services and users:

> So, they [Information Services] are beginning to educate us. . . . We should look at things and see what has to be done. This should produce a synergism effect; the sum of the total effort will be more than the parts.

Of note, the Chief Financial Officer expressed the belief that there was currently an over-use (misuse) of technology. On-line information, he explained, was not always current:

> One doesn't need a computer to carry last month's data. While technicians understand technology, managers generally don't. Information Services' role is to understand, keep up with, and explain the uses of technology.

Operatives. Operative personnel considerations are subdivided into six categories: (1) unions; (2) selection; (3) training; (4) performance appraisals; (5) complaints, and (6) job satisfaction.

Unions. Only one manager interviewed, the Manager of Word Processing, indicated that there had been some talk of unions among operative employees. The Word Processing Manager explained that she occasionally discussed the possibility of a union with other managers to let them know that the threat existed and should never be too far from their minds. The Word Processing Manager explained that she worked to see that when policies, procedures, and salaries were established, each person was treated equally. These guidelines insured that no operative would perceive a need for a union.

Reports from operative staff substantiated that there was currently no threat of unions, although one operative wrote, "Sometimes I wish we did [have a union]." Three other operatives reported hearing talk of a union but that talk was "nothing significant" or that "the person didn't know much about unions."

Selection. Turnover in all administrative systems departments, except Word Processing, was described as high. The major reason cited for the high turnover rate was the odd hours worked by operatives; the bank was open 24 hours a day, seven days a week. Evening, night, and weekend hours were a problem with many employees. Word Processing was better able than other departments to attract and keep personnel because of economic advantages in favor of word processing. While the bank's clerical structure was grades one through nine, Word Processing levels were grades six to nine, providing word processing with an economic attraction.

Due to current nation-wide economic problems, additions (not replacements) to the operative staff were minimal. When personnel were

needed, no department reported trouble finding people. Only the Manager of Word Processing reported that while she preferred to have three or four qualified applicants from which to choose, recently Personnel had been able to provide only two applicants.

As in all personnel related aspects of the division, actual selection responsibility was as close to the department managers/ supervisors as possible. Managers/supervisors submitted an initial request for a new/replacement employee to the Personnel Department. While Personnel did the initial recruiting, screening, and testing of applicants, it was the individual manager's responsibility to interview and select the employee.

Training. It was also the individual manager's role to see that the proper training was available and up-to-date. For the most part, training in the Computer Operations Department was on-the-job. Training also included formal education, including courses which the managers themselves taught, coupled with video training. An effort was made to see that a variety of training techniques was utilized.

Training for all Word Processing positions was done in the Word Processing Centers. The Manager of Word Processing coordinated this training. Using manuals and/or video training, a trainee was stationed at a word processor, making training self-taught and self-paced. In addition, employees were continually cross training between the magnetic card typewriters and the more complex standalone word processors.

In the Technical Services Department, training was both internal and through vendor-sponsored classes. The Education Coordinator in the Systems Development Department did internal training for computer

operators. In addition to skills classes, the Department offered classroom training sessions outlining how the individual employee played a part in the networking operations. Therefore, people at all levels knew how they fit into the "big picture."

The role of the Senior Vice President, Information Services in regard to training consisted of goal setting and budgeting. Specific training programs were handled by managers at lower levels in the organization.

Performance Appraisals. Once trained and on the job, operative employees were evaluated against set standards which were created in committee. The Education Coordinator (Systems Development Department) was responsible for the committee's activities. Standards were kept up-to-date and published regularly.

Employees were reviewed and evaluated by their respective managers/supervisors twice a year. According to management, operatives were judged on their productivity levels and were measured the same regardless of the equipment they operated (i.e., word processing operatives, whether they operated magnetic card typewriters or the standalone word processors, were evaluated against the same production standard).

While eight of the operatives responding to the questionnaire concurred with managers that performance was the sole criterion for evaluation, two operatives disagreed. A keypunch operator indicated that the basis for evaluation was attendance and punctuality, not skills. A corresponding secretary indicated that, in addition to job performance, attitude and attendance were also considered in the evaluation.

Complaints. Managers explained that complaints from operative employees were minor and infrequent. The Vice President, Computer Operations explained that most complaints dealt with working hours. The Systems Director agreed, saying the complaints generally dealt with scheduling problems. In addition, technical problems (problems with equipment operations) were sometimes a source of complaints. The Manager, Word Processing explained that about 90 percent of the operators' complaints dealt with user problems; users providing input for the center did not write or speak clearly. Other complaints were generally the result of personality conflicts.

The major complaint listed by operatives, however, was too much supervision. In addition, unrealistic production measurements, limited career advancement possibilities, problems with co-workers, and low wages were reported as areas of concern.

Should an employee have a complaint, his/her first recourse was to the immediate supervisor. The Senior Vice President, Information Services explained that if the employee did not get any satisfaction, the employee could go to either the Manager involved, the Personnel Department, or to his office. The immediate supervisor, however, generally was able to handle all complaints.

Job Satisfaction. Because complaints were limited, salaries were good, and working conditions were excellent, the Senior Vice President, Information Services, the Vice President, Computer Operations, and the Systems Director described job satisfaction of operative employees as high. Only the Manager, Word Processing reported job satisfaction as moderate. She explained that the Word Processing Center was

considered a production environment. After an operator had reached the senior level and had been there for two or three years, boredom set in with the job. The operator at that point could do (and had done) all jobs in the Center. After about five years in Word Processing, employees generally moved on to something else.

The Data Processing and Word Processing operatives responding to the questionnaire, proved that the Word Processing Manager's views were in line with their own. Eight operatives rated job satisfaction as moderate; only two rated job satisfaction as high.

Future of the Administrative Systems Function

Future of the Administrative Systems Division. Each manager interviewed, both Information Services executives and users predicted more office automation in the near future. However, user departments were expected to play a larger role in all data entry/retrieval functions, and many divisions would probably go on-line, as users became adept in the operation of technology.

In addition, the Systems Director explained that all data transmission would merge with the network control center, making communications one complete area, integrating all support systems. Electronic communications services were described as a relatively new area to the bank. Within the past year, the Systems Director reported that activity in communications had quadrupled; that growth rate was expected to continue. The President concurred; in fact, he predicted communications and data processing functions would merge within the year.

Among users, only the Chief Financial Officer warned of a danger in the over-use of technology. Proliferation of equipment, if not coupled with user education, could be a problem in the future.

Of interest, the Senior Vice President, Human Resources reported that soon employees would be able to do their work at home. When an employee reports to an office for work, space costs, transportation costs, clothing expenses, etc., ensue. Working at home would reduce or eliminate these work-related expenses. Having managers and operators working in their homes rather than in the formal company structure was viewed by this Senior Vice President as a viable alternative for the bank in the near future.

Considering future numbers of operatives required in the Information Services Division, the Senior Vice President, Information Services envisioned a levelling off of the present number. However, managers in Word Processing and Systems predicted an overall reduction in the number of support staff. Only the Vice President, Computer Operations predicted automation would cause an increase in the number of personnel:

> Generally, people think that as they automate,
> personnel numbers are reduced. This is not true;
> examining past records, as automation grew, so did
> the ranks of personnel in the area.

Skills Required of a Future Administrative Systems Manager

According to the President, prerequisites of the administrative systems manager's position of the future paralleled the current administrative systems manager's qualifications: experience in data processing, knowledge of electronic banking, and most important, managerial skills.

The Senior Vice President, Marketing and Retail Banking
explained that the individual in Information Services would need to
be a public relations individual; the mystic Chinese Wall of computer
operations needed to be broken down. The Chief Financial Officer
concurred; it was imperative that the individual in Information Services
be able to relate to the user.

The Senior Vice President, Information Services reported
specific skills/knowledges as imperative to the success of a future
administrative systems manager:

1. Communications Skills. While primary communications were
generally oral, in technology related areas writing skills were also
deemed imperative. In short, in order to move up the management ladder
in any organization, people must be able to express themselves effec-
tively. The level of communications skills was the difference between
the one who "makes it" and the one who does not.

2. General Business Concepts. A good general business background
should enable the manager to understand the operations of all functions
of the business. Such understanding is necessary if the administrative
systems manager is to be able to aid users in supplying services based
upon functional needs.

3. Data Processing Concepts. At the time of this interview, the
bank was emphasizing business skills; they were hiring people with only
a minimum of data processing skills. Only an understanding of data
processing applications was mandatory for an administrative systems manager.

4. Knowledge of the Banking Industry. If the manager is to
participate in planning and policy formulation, he/she must be able to

understand the nature of the banking industry as well as the larger dimensions of the local organization.

BEST MANUFACTURING COMPANY

Introduction

Best Manufacturing Company is a large aluminum manufacturing
company. Best Manufacturing Company employs 6,600 employees, including
250 assigned to the general office, which houses the top administrative
staff for four operating centers (plants). Best Manufacturing Company
is a subsidiary of a larger, multi-faceted organization, located on
the West Coast.

Table 2 lists the persons interviewed whose responses constitute
most of the data gathered for this company. The interviewee's managerial
level, title, component responsibility, and superior are shown.
Supplementary data came from company documents as well as questionnaires
returned by ten operatives from departments throughout the administrative
systems division. Data compiled for Best Manufacturing Company reflect
conditions existing at the time of the interviews.

Administrative Systems Division

Organizational Structure. The Information Systems Division was
the administrative systems division for purposes of this study. Best
Manufacturing Company had five levels of management; the Manager, Infor-
mation Systems, was at level three. Chart 2 depicts the reporting
structure for the entire organization, as well as the specific placement
of the Information Systems Division. Of particular significance are the
five divisions equal in position to Information Systems: Controller,
Planning, Administrative Services, and Metal Control.

TABLE 2. RANK AND RESPONSIBILITIES OF MANAGERS INTERVIEWED
AT BEST MANUFACTURING

Interviewee's Title	Component Responsibility	Managerial Level	Immediate Superior
Vice President, Planning and Control*		5	President
Manager, Information Systems+	Data Processing Word Processing Records Management Communications Services	4	Vice President, Planning and Control*
Computer Operations Manager	Data Processing	3	Manager, Information Systems+
Planning Analyst	Word Processing Communications Services	–	Technologies Management Manager
Controller±		4	Vice President, Planning and Control*
Manager, Metal Control±		4	Vice President, Planning and Control
Employee Relations Manager±		3	

KEY: * = Superior of Administrative Systems Manager
+ = Administrative Systems Manager
- = Staff Position
± = User of Administrative Systems Services
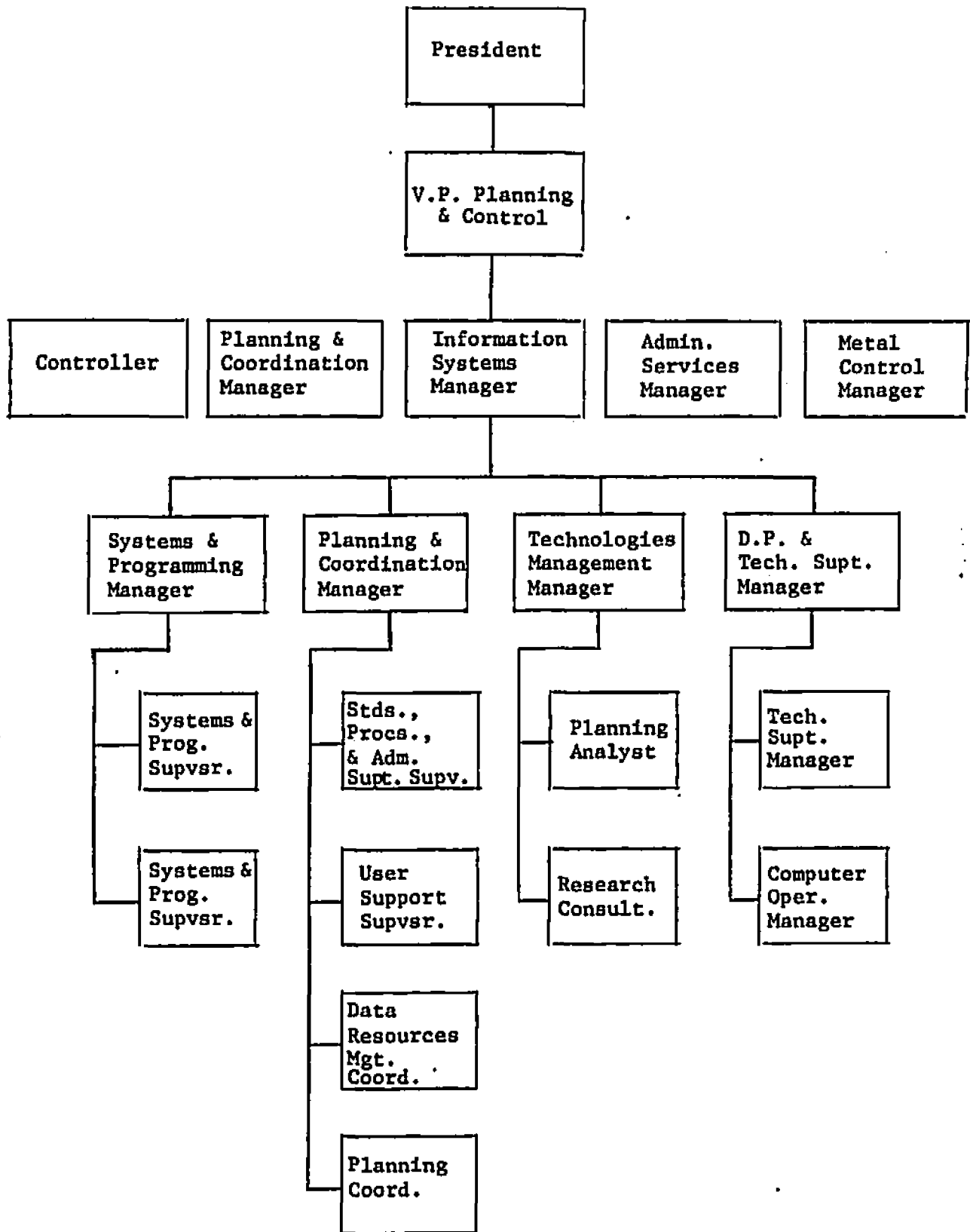
CHART 2. BEST MANUFACTURING ORGANIZATIONAL CHART

Shortly before the time of the interviews, the structure of the Information Systems Division had been altered. Attempting to more clearly define the functions of the division, the following four departments had been established, each headed by a manager: (1) Systems and Programming; (2) Technologies Management; (3) Planning and Coordination; and (4) Data Processing and Technical Support. A total of 44 employees worked in the Information Systems Division. Further description of each Information Systems department follows:

Systems and Programming. Systems and Programming was responsible for all aspects of systems and programming activities as well as for the coordination of company-wide applications systems throughout the Best Manufacturing Company. Two individuals responsible for supervising staff in programming and analysis reported to the Manager, Systems and Programming.

Technologies Management. Technologies Management was responsible for assuring that new and emerging technologies were adapted for cost-effective use by Best Manufacturing Company. Four staff personnel reported to the Technologies Management manager.

Word processing research and development activities as well as operations were the responsibility of one staff employee, the Planning Analyst. Significantly, this analyst was also responsible for developing the pilot computer-based message switching program as well as the communications network (in its developmental stage). Word processing operations were distributed; each department secretary had a word processor. Working with the Planning Analyst was a Trainer, responsible for operative training on new equipment.

Planning and Coordination. The Department of Planning and
Coordination was responsible for all Information Systems Planning.
In addition, this department was responsible for determining office
production standards as well as for providing user-training/education.
Two supervisors and two coordinators reported to the Planning and
Coordination Manager.

Data Processing and Technical Support. The Department of Data
Processing and Technical Support was assigned control of all operations
of the General Office's data processing function. Reporting to the
Manager, Data Processing and Technical Support, were two managers, one
responsible for actual computer operations, and the other for technical
support analysis.

Status of the Administrative Systems Division. In describing
the status of Information Systems, the consensus among interviewees
at all levels and in all divisions was that the status, currently low,
was changing. . . upward. The Information Systems Manager explained
that his position was relatively new and that progress was continually
being made in convincing executives that Information Systems was, indeed,
an integral part of the operations of the company. The top ranking
officer interviewed, the Vice President, Planning and Control, concurred:

> Presently it [Information Systems] is not recognized
> at the level it should be, but it is going to grow
> a lot faster than others [other divisions]. What
> results do we expect from that function? We are
> addressing that problem now--and its importance will
> grow.

Managers in other divisions agreed that the status of Information
Systems was changing. One manager pointed out that Information Systems

would never be the most important function in the organization; the
business was aluminum. Information Systems would never generate income.
Another manager explained that Information Systems was receiving a big
share of the operational budget; therefore, it was described as _having_
to be important.

The Administrative Systems Manager

Background. The Manager, Information Systems had been with the
Best Manufacturing Company for one year and with its parent company for
five years prior to his placement at Best Manufacturing Company. He
was 43 years of age at the time of this interview; his salary was in
the $65,000 range.

The Manager, Information Systems, held a bachelor's degree in
economics. Previous job titles include Data Processing Manager, Deputy
Director, Manager of Internal Systems, Product Manager, and Consultant.

This manager considered himself expert in the technical areas
of his division. Most of this executive's time, however, was spent in
planning and in coordination activities. For planning and coordination,
some exposure to the technical side of operations was reported important,
but technical skills were not necessarily deemed crucial.

Position Description. The purpose of Information Systems was to
manage the data resources of the company. Data were described as a
resource; making data available to managers and seeing that data received
their maximum use throughout the company was an essential mission of
Information Systems.

The Manager, Information Systems. was responsible on a company-wide basis for three out of four of the administrative systems components. Only records management was limited to intradivision applications. Further description of management's responsibility for each of the components follows, beginning with data processing.

Data Processing. The Manager, Information Systems was responsible for the entire data processing component. All four Information Systems departments were responsible for some particular segment of the data processing component--operations, programming, or systems analysis.

Word Processing. All word processing services--operations as well as research and development activities were the responsibility of the Manager, Information Systems. All word processing activities were managed within the Technologies Management Department.

Communications Services. The Manager, Information Systems was responsible for all high-technology communications services. Facsimile services, the computer based message switching service, and the communications network were all under the direction of the Manager, Information Systems.

Because of the ever-occurring changes in data processing and the relatively large staff in that section, the Manager, Information Systems explained that managing data processing activities required more management time on his part. Also, this executive took a considerable amount of interest in and participated in Planning and Coordination; decisions made in the Planning and Coordination Department had a very direct impact on both the division and the organization.

Professional Development Practices. The Manager, Information Systems stayed abreast of new technology and issues in administrative systems management through vendors, professional literature, and special seminars. He belonged to Guide, an IBM users' organization, and other vendors also apprised him of new products and developments. In addition, he read a long list of journals, including Datamation, Infosystems, Data Processor, Computer World, and Systems Journal. Most information, however, was obtained from seminars sponsored by the parent company for its subsidiaries. These seminars enabled subsidiaries to share information and allowed the parent company to provide up-to-date information concerning technological developments. For attending outside seminars, this executive selected ones dealing not so much with individual technologies, but rather with subjects relating to managing personnel in the area.

Personally, this manager's career aspirations centered on advancing in general management, not the management of technologies. In the future, his current position would probably be elevated to the level of vice president. Upon reaching a vice president status, the executive would find greater opportunity for more senior management positions.

Administrative Systems Manager Selection Criteria. The Vice President, Planning and Control revealed that the current Information Systems Manager had been "sought out" for the job. The current Administrative Systems Manager had begun in the parent organization as a staff consultant; he was an acknowledged expert in the industry on data center performance standards. A second reason cited for selecting this particular

individual was his demonstrated managerial capability; he had a unique ability to deal with people and with changing situations. Thus, the Vice President, Planning and Control, explained that technical and managerial skills/knowledges combined to make this individual an ideal candidate for the position.

Administrative Systems Management Practices

Communications Channels. Managers at the Best Manufacturing Company described communications channels as informal. Bi-weekly staff meetings among individuals at the same level of management and their mutual superiors were the general operating practice. The bi-weekly meetings were described as performance "check points" by the Information Systems Manager. In addition, daily contacts between all managers and their immediate superior and subordinates were made for problem solving/ information exchange purposes.

User meetings were also held with all interested managers. These meetings were generally of 30 to 45 minutes in duration. In these sessions, the Manager, Information Systems, presented information concerning technology and its uses. The presentation, oral in nature, was followed by a question-answer period. Users interviewed indicated the belief that this practice was very beneficial. Managers in Information Systems considered the meetings successful because of the large number of employees participating.

Personnel Considerations/Management. While a primary means of educating users in support systems technology was through the monthly users' meeting, the Planning and Coordination Department employed a supervisor whose chief responsibility was providing user education and training. Also, the Controller explained that vendors often supplied

training in the use of new technology. Once a piece of equipment was installed, the vendor would demonstrate and explain its various applications. However, this executive indicated a preference for summary information prepared by the company to such "sales pitches" by vendors. A second user, the Manager, Metal Control, explained that he had had little in-house or vendor training; he wanted to learn more.

Personnel Considerations/Operatives. Operative personnel considerations are subdivided into the following categories: (1) unions; (2) selection; (3) training; (4) performance appraisals; (5) complaints; and (6) job satisfaction.

Unions. While there was currently no union operating in the Best Manufacturing Company, the Manager, Computer Operations explained that the company was paying well. Also, the job market was tight; in fact, the company was creating no new operative positions at the current time. Of particular interest is the fact that many employees in the Information Systems Division had been transferred, or promoted to Information Systems, from other organizational divisions; Information Systems was considered a good place to work.

When a vacancy occurred, supervisors in the Division requisitioned the Employee Relations Division for applicants. Employee Relations recruited both internally and externally. The internal recruiting process was through the parent company's system, which utilized an internal newspaper having classified pages. Individuals applying to the Best Manufacturing Company in this manner had preference over external applicants. External recruiting included, but was not limited to, advertising in newspapers and trade journals. The Employee Relations

Division was responsible for recruiting and screening all applicants, "weeding out the airline pilots trying to become programmers." Departments in Information Systems were sent qualified individuals for further interviewing.

Upon completing an interview, the interviewer in Information Systems filled out an evaluation form, and then discussed the qualifications of the applicant with the Employee Relations Manager. Final selection of an applicant was the responsibility of Information Systems, with the Employee Relations Division making the job offer to the successful applicant.

Training. Once hired, employees were trained, generally, by the supervisor in the segment in which the new employee was assigned. The Technical Support Group (the same group responsible for research in office automation) supplemented on-the-job training with in-house classroom sessions plus hands-on experiences with equipment. In addition, vendor video tapes were often part of the training program.

The Manager, Information Systems established training goals prepared by the department managers and reviewed training budget requests. Managers at lower levels were responsible for the operation and evaluation of the actual training programs conducted within their own jurisdiction.

Performance Appraisals. The Standards, Procedures, and Administrative Supervisor within the Planning and Coordination Department set performance standards for operative employees. For those types of work in which production performance could not be measured accurately, workers were required to set their own standards, subject to review by their supervisor (thus practicing management by objectives). As part of each employee's annual review session, operatives' performance levels

were measured against the pre-established production standards.
Management used a standardized form in evaluating operative personnel.

During the review periods, supervisors were responsible
for the initial review session; then, the manager of the department
interviewed the employees. Concerns and problems were thus discussed
at two levels of management.

Complaints. The yearly review sessions described in the previous
paragraph were one vehicle for registering complaints. In addition,
operatives were aware that their first recourse for any complaint
was their immediate supervisor. Should the complaint not be handled
satisfactorily at the local level, the employee could go to higher
level managers within the division or, ultimately, to the Personnel
Department.

However, managers interviewed said that complaints were few.
Should an employee have a complaint, it generally concerned the pressure
of too much to do and/or the strict attendance policy. Operatives them-
selves listed lack of movement on the job, low job status, lack of
technical expertise, lack of challenges, and too many supervisors as
their main concerns.

Job Satisfaction. Because of a good salary schedule, a good
package of fringe benefits, and good working conditions, managers
interviewed rated operative job satisfaction as high. According to
the Computer Operations Manager, only employees who worked evening or
night shifts could be considered "moderately" satisfied with their
positions.

Five operatives reported that job satisfaction was, indeed, high. Four operatives reported moderate job satisfaction; one reported low job satisfaction. Those workers rating job satisfaction high explained that they enjoyed the challenges of the job and the people they encountered on the job.

The Future of the Administrative Systems Function

The Future of the Administrative Systems Division. In the future, the Vice President, Planning and Control, and the Manager, Information Systems explained that there would be more emphasis on managing personnel and planning for technology. For this reason, Information Systems would eventually grow, becoming more centralized, yet having more distributed services. In fact, the Best Manufacturing Company was seriously considering a utility concept wherein Information Systems would provide a central computer; remote sites would have enough computer power to handle local needs. Only services not a specific function of the location would be handled centrally. Growth, the two executives agreed, would be in the management and planning areas.

The Manager, Computer Operations concurred with the prognosis of a larger computer operation yet with more distributed services. He did not, however, predict an increase in the number of personnel; the current Information Systems staff should be able to handle the increased volume of processing needs.

The Planning Analyst, responsible for word processing and several telecommunications services, predicted that word processing services would continue to operate on a distributed organization plan.

However, smaller word processing "puddles" (a puddle would consist of perhaps three corresponding secretaries providing back-up services) would supplement word processing needs.

In addition, the Planning Analyst envisioned telecommunications services as the key to office automation. As the organization utilized computer based message switching services and networking services, telecommunications services would evolve as the linkage for data processing, word processing, and records management.

Skills and Knowledges Required of a Future Administrative Systems Manager. The Vice President, Planning and Control emphasized communications skills as vital to the success of a future administrative systems manager. For the division to thrive in the future, the administrative systems manager must be able to "sell" administrative services. He said:

> One thing that is slowing them [Information Systems]
> down is that 40-or 50-or 60-year old managers are not
> acclimated; they resist using technology. It is
> almost like using a foreign language to those learning
> to use it after working for years without it.

The Controller agreed that the future of the Information Systems Division was dependent upon the division's management. The Information Systems Manager would need to be people oriented. "The sign of a successful person in the [Information Systems] area is one who has the ability to communicate with the user."

The Manager, Information Systems emphasized three areas as being mandatory skill/knowledge areas for a future administrative systems manager:

1. Communications skills. "My whole job is communications." Understanding people and why they do the things they do was described as important. The ability to think on one's own and have confidence in those thoughts is a prerequisite to good communications. "You may only see a senior person once, and you have to make him or her feel that your idea is valid. You have to have communications skills to do that." Skills in both speaking and writing were judged invaluable.

2. The Ability to Plan. How to manage Information Systems required special abilities and understandings. Everyone wants something, and the allocation of services to all the demands was described as a difficult task. Information Systems must blend into the overall plan of the organization.

3. Data Processing. While data processing skills were described as initially important, after a certain skill level, all that was needed was breadth, not depth, in data processing. Thus, the ability to indicate what the computer can do for the needs of the business was deemed more important than operational skills.

CITY TELEPHONE COMPANY

Introduction

City Telephone Company is the corporate headquarters of a telephone company spanning parts of three states. The company, a separate operating division of a nation-wide telephone system, has approximately 5,500 employees with 1,200 employees in the headquarters.

Table 3 lists the persons interviewed whose responses constitute most of the data gathered for this company. The interviewee's managerial level, title, component responsibility, and superior are listed. Supplementary data were collected from company documents as well as questionnaires returned by ten operatives in the Word Processing Department. Data compiled for the City Telephone Company reflect conditions existing at the time of the interviews.

Administrative Systems Division

Organizational Structure. This study defined the "administrative systems manager" as the individual responsible, as least in part, for three of the four components of the administrative systems function (data processing, word processing, records management, and communications services). Because Staff Manager I, who reported to the District Manager, Administrative Services, also met this definition, two individuals in City Telephone Company are considered administrative systems managers. For purposes of this study, the division headed by the senior level executive, the District Manager, Administrative Services is considered the Administrative Services Division.

TABLE 3. RANK AND RESPONSIBILITIES OF MANAGERS INTERVIEWED
AT CITY TELEPHONE

Interviewee's Title	Component Responsibility	Managerial Level	Immediate Superior
Assistant Secretary and Assistant Treasurer*		5	Vice President, Secretary and Treasurer
District Manager, Administrative Services+	Data Processing Word Processing Records Management Communications Services	4	Assistant Secretary and Assistant Treasurer*
Staff Manager (I)	Data Processing Word Processing	3	District Manager, Administrative Services+
Staff Manager (II)+	Word Processing Records Management Communications Services	3	District Manager, Administrative Services+
Staff Manager (III)	Records Management	3	District Manager, Administrative Services+
Staff Manager (IV)	Records Management	3	District Manager, Administrative Services+
Asst. Staff Supervisor	Word Processing	1	Staff Manager (I)
Staff Associate	Word Processing	-	Staff Manager (II)+
Staff Specialist, Long Range Planning±		2	
Staff Assistant, Rates and Revenues±		2	
Assistant Staff Supervisor, Business Marketing±		1	

KEY: * = Superior of Administrative Systems Manager
       + = Administrative Systems Manager
       - = Staff Position
       ± = User of Administrative Systems Services

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Chart 3, found on the following page, shows that the District Manager reported to the Assistant Secretary and Assistant Treasurer who, in turn, reported to the Vice President, Secretary and Treasurer. The Vice President, Secretary and Treasurer, reported directly to the President of the company. Thus, the District Manager, Administrative Services, was classified as operating on the fourth of a seven-level management hierarchy within the organization.

The Administrative Services division was organized into four departments, each headed by a Staff Manager. For purposes of this report, the departments are numbered I, II, III, and IV. The four departments had a total of 85 employees. Responsibilities of each department are described below.

Department I. Department I was responsible for seven distinct functions: (1) entering and updating all payroll information for the entire organization; (2) billing user departments for services obtained from Administrative Services (a charge-back system); (3) analyzing the total monthly budget of the division (if some divisional expenditures were high or not up to what they should be, this department investigated); (4) operating the organization's cashier service which, among other duties, handled the organization's $100,000 petty cash fund; (5) supervising word processing employees on two work shifts; (6) arranging executive travel and conferences, and (7) operating the corporate library which, in addition to regular library services, routed journals to individual readers throughout the organization.

Department II. Department II was responsible for eight distinct functions: (1) managing the communications center; (2) processing
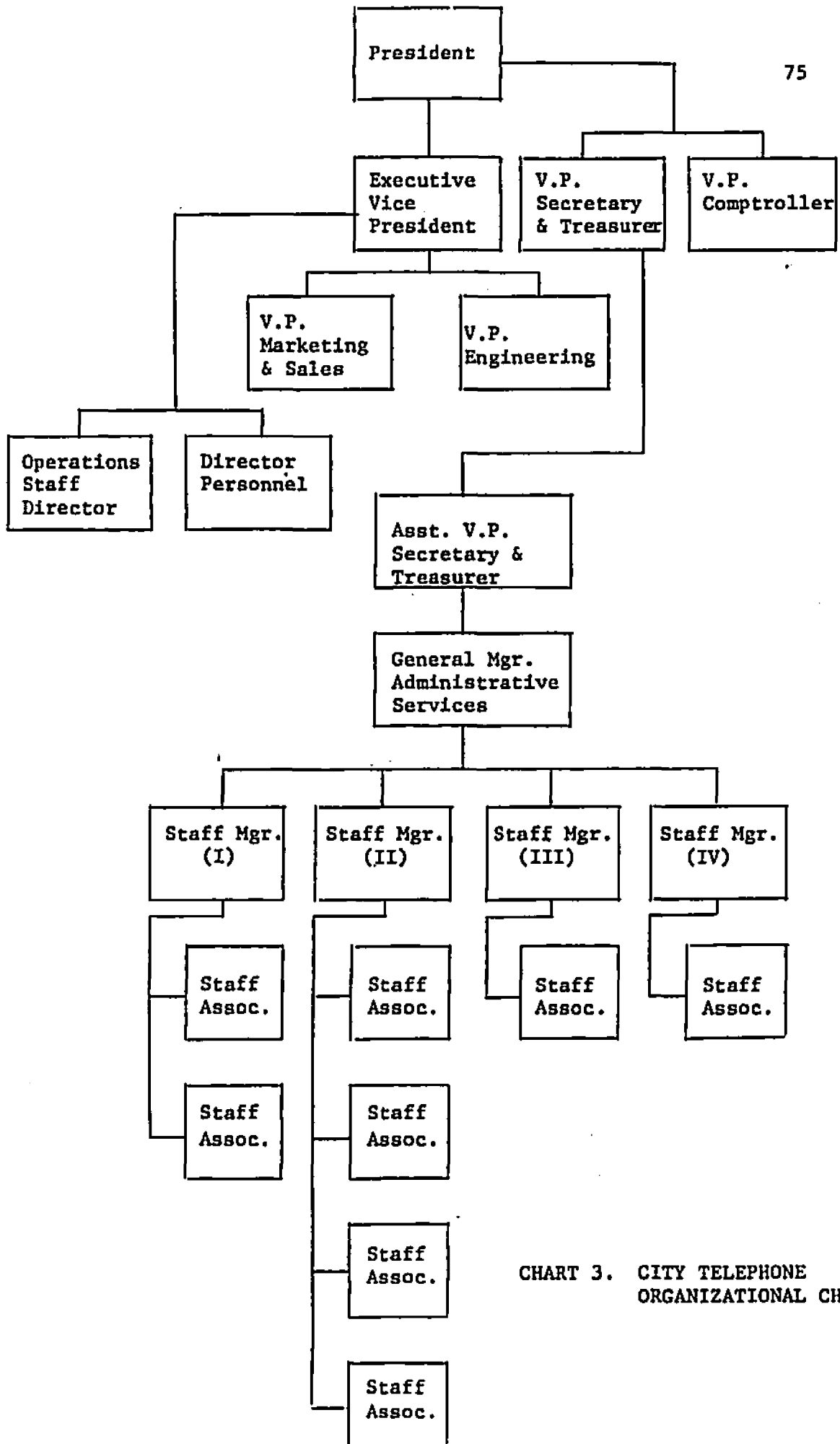
CHART 3. CITY TELEPHONE
ORGANIZATIONAL CHART

microfilm and arranging for the processing of computer output micro-

film; (3) training operatives and users in the use of support technology;

(4) managing the office telephone service; (5) operating the mailroom;

(6) purchasing capital goods for the Administrative Services division

and distributing office supplies company wide; (7) operating food

services; and (8) administering the handicapped worker program. Since

Staff Manager II was also considered an administrative systems manager,

more detailed information on this department has been included in other

segments of this company report.

Department III. Department III was responsible for five identi-

fiable functions: (1) developing and maintaining filing standards

and procedures; (2) designing and controlling forms; (3) preparing the

records retention schedule; (4) microfilming selected inactive records;

and (5) storing inactive records.

Department IV. Department IV was responsible for four basic

functions; (1) managing the central reproduction facility; (2) maintaining

distributed copiers (quick copy); (3) preparing graphic aids (commercial

art); and (4) arranging for commercial printing needs (printing purchases

from outside vendors).

Status of the Administrative Systems Division. Managers within

Administrative Services expressed the belief that Administrative

Services was equal in status to other divisions of the same rank within

the organization.

One user, the Staff Specialist, Long Range Planning, indicated

that his need for information was growing, not only for quantity, but

for accurate, timely information. In the past, the Staff Specialist explained that the Administrative Services Division had held a low status in the organization. However, because of the general need for information, that status was changing. . . upward.

The Assistant Secretary and Assistant Treasurer, the top ranking officer interviewed, indicated the status of the Administrative Services Division was low at the current time but that its status was rising as managers were becoming more knowledgeable about the facilities and operations produced through administrative services facilities. Information concerning the types and benefits of support services was being disseminated company-wide. With professionals in Administrative Services providing efficient, effective services and managers in other divisions using those services, the prestige of the division was expected to grow.

The Administrative Systems Manager

Personal Information. The senior Administrative Services Manager, the Manager, Administrative Services, was 52 years of age at the time of this study. He had been with City Telephone Company for 28 years and in his current position for 10 years. He requested his salary be kept confidential.

Holding a B.S. in Secondary Physical Education, this executive explained he relied on the same skills as a manager that he had used as an educator and coach. Previous experience within City Telephone Company included the position of Sales Manager and Trainer in the Marketing Department, and Employment Manager, a position on the same managerial level as his current position.

The District Manager, Administrative Services. did not consider himself an expert in matters related to technology; moreover, he did not consider it necessary that the people reporting to him (staff managers) have technological expertise. Nonetheless, he did believe that staff managers needed some technical background, since it was their responsibility to "get the job done." However, at the District Manager level of management, managerial ability was deemed more important than technical skills.

Position Description. The District Manager, Administrative Services explained that the purpose of Administrative Services was to relieve existing employees of the responsibility of anything not directly related to their jobs; "to simplify everything so that the employee could do the job he/she is supposed to do."

The District Manager, Administrative Services was responsible, in part, for all four administrative systems components. Further description of management's responsibility for each component follows. A fifth category, "other services," describes additional responsibilities of the District Manager.

Data Processing. The General Manager, Administrative Services was responsible for one data processing operation, company payroll. Department I was assigned this function.

Word Processing. The General Manager, Administrative Services was responsible for word processing operations as well as research and development activities. Department I was responsible for word processing operations; research and development activities were within Department II.

Records Management. The District Manager, Administrative
Services was responsible for all facets of records management.
Department II was responsible for the storage of active records,
micrographics (active records), and computer output microfilm.
Department III was responsible for the storage and microfilming of
inactive records, as well as forms management, filing systems manage-
ment, and the records retention schedule. Of note, Staff Manager III
had developed the records management system and records retention
schedule for all national divisions of the utility. Department IV
was responsible for the central reprographic center, as well as for
"quick copy" or distributed copiers.

Communications Services. The District Manager, Administrative
Services was responsible for all communications services. Department
II operated the organization's telephone services, mail services, and
communications center. The center included facsimile services,
teletype services, and the computer-based message switching service
(for use among national divisions of the utility).

Other Services. Departments I, II, and III were responsible for
services not encompassed by the aforementioned components, including the
organization's travel bureau, library services, food services, graphic
art services, and the handicapped worker program.

Professional Development Practices. The District Manager, Adminis-
trative Services stayed abreast of developments in technology and per-
sonnel issues affecting administrative systems by reading journals such
as Administrative Management and The Office. His main vehicle for
staying informed, however, was the national organization's quarterly

meetings; there, managers from all national divisions exchanged ideas
and attended workshops and seminars planned by specialists for each
of the administrative systems components.

Concerning his personal goals within City Telephone Company,
the District Manager indicated that he intended to retire in his
current position.

Administrative Systems Manager Selection Criteria. The
Assistant Secretary and Assistant Treasurer described the current
District Manager's transfer to the Administrative Services Division
as a horizontal promotion. The current District Manager, Administrative
Services had been a District Manager in the Personnel Division. Upon
reorganization of the Personnel Division, the District Manager position
had been eliminated. At that time, the current Administrative Services
Manager had been horizontally promoted to the Administrative Services
Division because of his background/experience in the organization as
well as his excellent managerial skills.

The Administrative Systems Manager

Staff Manager II was responsible for some aspects of word
processing, records management, and communications services; therefore,
he also met this researcher's definition of administrative systems
manager.

Personal Information. Staff Manager II was 42 years of age at
the time of this study. He had been with City Telephone Company for
25 years and in his current position for 11 years.

Graduating with a B.S. in Business Administration, Staff Manager II
had been a co-op student at City Telephone Company before beginning

a full-time position in City Telephone Company's Marketing Department. Job titles in the Marketing Division held by Staff Manager II were Salesman, Service Engineer, and Accounts Manager. From the Marketing Division he had been transferred to the Business Office; from there to the Comptroller's Division and for the past 11 years he had been in the Administrative Services Division.

At the fourth level of management, this executive reported little need to be technically expert in matters related to technology. He was aware, however, of what technology could do—and could not do for the organization—and relied on first line supervisors to handle all technical operations.

Position Description. Staff Manager II reported directly to the District Manager, Administrative Services. Staff Manager II was responsible for 8 managers who, in turn, supervised 34 operative employees. The major responsibilities of his position are discussed in terms of word processing, records management, communications services, and other services.

Word Processing. Reporting to Staff Manager II was a Staff Associate responsible for word processing research and development activities. This individual also trained managers and operatives in the use of all new support services.

Records Management. Another Staff Associate in Department II was responsible for microfilming and storing active records. Records such as correspondence and paid bill files were put on microfiche. Computer output microfilm was purchased from a service bureau.

Communications Services. The Communications Center included facsimile machines capable of communicating with any other facsimile machine as well as the Administrative Data Network Systems which tied together all units in the national organization. One communications system of this network enabled City Telephone Company to order booklets on recommended procedures directly from the National System.

Staff Manager II was also responsible for managing the office telephone account, coordinating facilities for all telephone services, and operating the mail room. Management of the telephone account included keeping records of telephone usage company-wide. Coordination of facilities, for example, could involve putting two or three lines on a phone instead of just one or rearranging office telephone cables. Operation of the mail room entailed the handling of all incoming/ outgoing/intra-office mail for the entire organization.

Other Services. Staff Manager II was responsible for three other functions not covered by the above categories: purchasing, food services, and the handicapped worker program.

Purchasing for the Administrative Services Division, this manager explained, was from major vendors as well as the Minority Group in the city. With regard to office supplies, this executive was responsible for their company-wide purchase, storage, and distribution.

Since the purpose of administrative services was to take care of those things that were a service to other employees, all food vending machines were under the direction of a Staff Associate reporting to Staff Manager II.

Lastly, the Staff Manager was responsible for the Handicapped
Worker Program. This program, under the direction of a staff associate,
identified jobs handicapped workers could do and provided training
in the corporate office for those jobs.

Professional Development Practices. Staff Manager II belonged
to the Chamber of Commerce. Through the Chamber of Commerce he had made
contacts for purchasing from the Minority Business Association. To
stay current in administrative systems, he read a variety of journals,
including Administrative Management, Datamation, Information and
Records Management, Information Systems News, Modern Office Procedures,
The Office, Office Product News, Word Processing, and Word Processing
Systems.

Concerning promotion possibilities at City Telephone Company,
Staff Manager II indicated that movement throughout the organization
was currently stagnant. He did aspire to move up one or two steps in
the organizational ladder, but explained that further advancement would
depend, in large measure, upon the state of the national economy and the
promotion of his superiors. He preferred to remain in areas related
to Administrative Services.

Administrative Systems Manager Selection Criteria. The District
Manager said that Staff Manager II had been promoted to his current
position because of his "general, over-all knowledge of the operation
of all [administrative services] departments." Also, Staff Manager II
had excellent managerial and communications skills making him the ideal
candidate for the position.

Administrative Systems Management Practices

Communications Channels. Most communications channels at City
Telephone Company were informal and oral. There was a weekly meeting of
upper level managers--Vice Presidents, District Manager, and Staff
Managers. This meeting was described as an opportune time to exchange
information and get feedback on existing program successes or problems.

There were no regularly scheduled meetings at lower levels of
management. The most common information exchange channel consisted of
daily, personal contact with all immediate supervisors and subordinates.
Of interest, the District Manager made a point of making himself available
to every employee in his division as he made daily "rounds" of the
division. Concerning the importance of such contact, Staff Manager II
commented that the daily contact assured good, open communications.

As Table 3 revealed, users interviewed were not at the same
level of management as the administrative systems managers. Users inter-
viewed did not have direct contact with the administrative systems managers,
but did report frequent, informal oral contact with Administrative Services
personnel at lower levels of management.

Personnel Considerations/Management. At weekly staff meetings,
managers in Administrative Services exchanged ideas/information with
executives in other divisions. A second management personnel contact was
through the Staff Associate responsible for user training. This Staff
Associate was also responsible for evaluating efficiency and effectiveness
of secretarial staff throughout the organization. Duties included updating
operating procedures and training new managers in the use of all support

service technology utilized by the company. Information passed through staff meetings and by the Staff Associate was the primary means of user education.

One user, the Staff Specialist, Long Range Planning, however, reported that he had little or no training in the use of support facilities. He suggested that all managers should be given administrative services information as part of their orientation to the company. To know what services were available and how they related specifically to a given job was seen as highly desirable. He recommended that Administrative Services continually update all managers on services available, perhaps through memoranda. The other users interviewed, the Staff Assistant, Rates and Revenues, and Assistant Staff Supervisor, Business Marketing, had not received training from Administrative Services; however, they considered themselves adept in support services use.

Personnel Considerations/Operatives. Operative personnel considerations are subdivided into the following categories: (1) unions; (2) selection; (3) training; (4) performance appraisals; (5) complaints; and (6) job satisfaction.

Unions. Operative employees at City Telephone Company had been unionized since 1946. Only one executive (Staff Manager IV) was able to pinpoint the exact date the union had become active; most interviewees said the union had been in existence "forever." One manager reported that the union was "not strong." No manager interviewed felt that the union's presence greatly affected his/her managerial style.

There was a formal grievance procedure in which an employee could file a complaint with the union steward who, in turn, would set up a meeting with the employee's immediate supervisor and the supervisor's

superior. The case would then be reviewed and documented by that group.
If a satisfactory solution was not reached at that point, the case then
went, first to the District Manager or Assistant Secretary and Assistant
Treasurer, and then to the Manager of Personnel and Labor Relations.
The final step was formal arbitration.

Only two managers reported instances where union procedures/
policies had a negative impact:

> Staff Manager III indicated that one grievance had
> caused delays in getting his department work out.
> In this instance, a worker had demanded an extended,
> five-week vacation and had filed a grievance to
> procure it.

> Staff Manager IV indicated that getting new jobs
> designed and labelled by the union was sometimes
> a problem.

Overall, the union was not extremely active; management explained
that the working conditions/policies at City Telephone Company did not
warrant much union activity. Operatives responding to the questionnaire
concurred that the union was currently not very active.

Selection. Partially because of the union's presence and
partially because of management preferences, staff selection was a closed
process. Nearly all positions in Administrative Services were filled from
within the organization and by the Personnel Department. Staff Manager II
reported problems finding people within the company who wanted to work:
"There are some people who want to work and then there are some people
who want a paycheck. And we have both." Due to economic conditions,
however, City Telephone Company was currently accepting no new job
applicants; when an employee left the organization, his/her job was
simply absorbed by remaining employees.

Under more normal conditions, however, the department manager or supervisor would requisition the Employment Office for additional or replacement personnel. The formal requisition justified the need for additional help and prescribed the job's responsibilities. The Employment Office evaluated the request and, once approved, recruited, interviewed, tested, and selected an employee for the position. Administrative Services had no role in the process beyond the initial requisition.

Training. New or transferred employees were generally trained on-the-job. Staff Manager III explained that at the Records Center, on-the-job training was effective because of the close working relationship existing between the supervisor and the employees. In addition, Staff Manager III explained that, for more general training, he coordinated departmental classroom training sessions.

In reprographics (Department III), training needs were described as minimal. The supervisor involved was responsible for equipment demonstrations; beyond that stage, little training was considered necessary.

The District Manager explained that first-level supervisors were responsible for all training needs within the organization. At the District Manager level, the responsibility consisted of setting goals for training programs, setting budgets, and evaluating the program.

Performance Appraisals. Once trained in the use of specific equipment, operatives were evaluated in terms of pre-set production standards. These standards were established by each work group. Quality and quantity production standards were based upon both the nature of the task being done and the equipment being used. The Assistant Staff Supervisor, Word Processing explained that, initially, word processing produc-

tion had been computer measured. Due to the time involved in filling out production cards, however, computer measurements were eliminated.

Employees were evaluated every six months, solely on performance, by their immediate supervisor. A standardized form was used; operatives were well aware of the evaluation schedule and evaluation criteria.

Complaints. Before deciding to file a formal grievance procedure (see Unions, p. 85), operative employees knew they should first discuss their complaint/concern with their immediate supervisor. Of interest, only two of the ten questionnaire respondents mentioned the formal grievance procedure as a means of airing a complaint.

Managers in Administrative Services reported that while complaints were few, operatives in all departments had complained of a lack of movement within the organization (few promotions). Staff Manager III said that the microfilming staff, with very routine jobs had remarked that their jobs did not provide enough challenge or variety. Staff Manager I said complaints generally dealt with vacation times (schedules) or seniority problems. The Assistant Staff Supervisor, Word Processing concurred that work scheduling (the Word Processing Center operated on two shifts) was a problem. However, she reported that the biggest category of complaints concerned users--complaints about directions, illegible handwriting, and unclear dictation.

Operatives themselves reported interpersonal relationships, lack of movement within the organization, attendance policies, and lack of challenges on the job as major complaint categories.

Job Satisfaction. All managers/supervisors interviewed, with the exception of the Staff Manager II, perceived operative job satisfaction

as high. Managers explained that, generally, people were doing what they liked to do. Staff Manager III justified his rating saying there was good supervision and a high quality of work demanded; operatives reportedly felt much self esteem for doing a good job. Staff Manager II, however, explained that job satisfaction was probably low at the current time due to lack of promotional possibilities in the organization.

Operative employees rated their job satisfaction as either high (six) or moderate (four). Those expressing high job satisfaction expressed enjoying their jobs and their interaction with people on the job. Of interest, those expressing moderate job satisfaction reported no "improvements" which could be made to their present positions.

The Future of the Administrative Systems Function

The Future of the Administrative Systems Division. The entire organization was "on hold" waiting to see what would happen as a result of the Department of Justice's case against the national organization. If conditions were normal, the District Manager explained, the Administrative Services area would be growing. This growth would occur because as more advanced office systems became available, the systems would need to be centrally controlled. Ten years ago, Administrative Services had 9 managers; at the time of this study, there were 27 managers. Growth in the area would be high, once the outstanding law suits were settled.

Staff Manager II predicted growth particularly in the purchasing area. Presently, his department was responsible only for purchasing for Administrative Services; soon, the department would be responsible for purchasing for the entire organization.

Moreover, since City Telephone Company is in the communications business, Staff Manager II envisioned more automation and more services. Automation in the form of electronic mail, teleconferencing, data processing, and word processing was expanding. As employees came to accept and appreciate office automation, the need for selecting equipment and supervising training for managers would be more and more vital to the operation of the company. Possibilities for growth in all office automation areas were viewed as boundless.

Staff Manager I also predicted more automation. The Travel Bureau was one area in which the computer would be utilized more; word processing was another. More automation, yet no change in the current number of personnel was foreseen. Automation was viewed as a means of enabling employees to become more productive; thus, the same work force would be able to handle an increasingly large volume of work more effectively.

Only Staff Manager III believed his department would not grow. While paper would not be eliminated for years, the major change would be that records would be more electronic. Staff Manager III was very interested in minicomputers and their applications to forms management, records retention, and retrieval. Electronic services would be the future of records management.

Staff Manager IV agreed that paper would not be eliminated entirely for years. People would still depend heavily on reproduction facilities, both the reproduction center and the distributed copiers. In addition, he envisioned graphics changing with technology; there would be major changes in how graphics would be produced in the future.

Users concurred that Administrative Services would be expanding in years to come. Users would need more information and that information needed to be accurate and timely. Users predicted that Administrative Services would be able to handle more information without an increase in Staff because of increased automation.

The top ranking executive interviewed, the Assistant Secretary and Assistant Treasurer, explained that Administrative Services was in its infancy. Centralized services were economical because they were professionally managed. Support services would become more automated. Automation would need to be centrally managed in Administrative Services. In the foreseeable future, he envisioned executives with their own mini-computers. The problem was that executives would need to know how to use the equipment; and equipment, like people, needs periodic updating. User education and staying abreast of current software possibilities would be a function of Administrative Services. However, this executive reports that people at upper levels of management would always need an assistant, a secretary; only for lower levels of management would centralization of support services prevail.

Skills and Knowledges Required of a Future Administrative Systems Manager. The Assistant Secretary and Assistant Treasurer explained that managers in Administrative Services must have good, solid backgrounds, consisting of a college education (preferably in business administration), good mathematical skills, good logic, excellent communications skills (oral and written), and sales skills. The ability to get along well with people at all levels was described as mandatory. Moreover, the executive

explained that the administrative systems manager of the future should be able to explain and promote the use of support services.

Users interviewed said the success or failure of the Administrative Services Division would depend upon the people in the area. The Staff Specialist, Long Range Planning, commented that the people in Administrative Services must be professional and be able to impart that professionalism to other divisional managers. The administrative systems manager must be able to explain support services--both equipment and procedures.

The District Manager emphasized three skill/knoweldge areas that would be needed by an administrative systems manager in the future:

1. Marketing. One must be able to sell. Selling services was described as one of the main duties of the manager of the future. Knowing what is technologically available is imperative, but being able to sell that service to potential users was described as crucial.

2. Time Management. The ability to manage one's time is vital. Time management skills imply being able to adhere to self discipline and self direction.

3. Experience. The District Manager expressed the belief that "co-op" experience would be of extreme importance to someone managing the division in the future. The more experience one had in an organization, the better manager he/she should be.

Staff Manager II emphasized the following skills/knowledges as vital to the success of an administrative systems manager of the future:

1. General Business. A general, over-all knowledge of the operations of all departments in the organization would be important. One must know the client, understanding his/her needs.

2. Communications Skills. Writing, speaking, and listening skills were considered absolutely necessary.

3. Good Managerial Skills. The ability to manage people; to understand employee needs would be important to any managerial position in the future.

DIXIE INSURANCE COMPANY

Introduction

Dixie Insurance Company is the home office of a property and casualty insurance company located in Lousiville, Kentucky. Dixie has approximately 400 employees, including the 350 employees working in the Louisville home office. Outside the home office, Dixie is responsible for the staff of eleven regional claims offices located throughout the state.

Table 4 lists the persons interviewed whose responses constitute most of the data compiled for this Company. The interviewee's managerial level, title, component responsibility, and superior are listed. Supplementary data were compiled from company documents as well as from responses on questionnaires returned by ten operatives in the Word Processing and Quality Control Department. Data compiled for Dixie Insurance Company reflect conditions existing at the time of the interviews.

Administrative Systems Division

Organizational Structure. In total, Dixie Insurance Company had five levels of management, with administrative systems managers at levels three and two. Both the Vice President, Operations, and the Assistant Vice President, Administrative Services, met this researcher's definition of administrative systems manager; each was responsible, at least in part, for three of the four administrative systems components (data processing, word processing, records management, and communications services). The Operations Division, headed by the third level administrative systems manager, was the administrative services division for purposes of this study.

TABLE 4. RANK AND RESPONSIBILITIES OF MANAGERS INTERVIEWED
AT DIXIE INSURANCE

Interviewee's Title	Component Responsibility	Managerial Level	Immediate Superior
Executive Vice President*		5	
Vice President, Operations+	Data Processing Word Processing Records Management Communications Services	3	Senior Vice President
Assistant Vice President, Administrative Services+	Word Processing Records Management Communications Services	2	Vice President, Operations+
Assistant Vice President, Data Processing	Data Processing	2	Vice President, Operations+
Assistant Vice President, Processing	Records Management	2	Vice President, Operations+
Supervisor, Word Proc. and Quality Control	Word Processing	1	Assistant Vice President, Administrative Services+
Micrographics Supervisor	Records Management	1	Assistant Vice President, Administrative Services+
Mail Room Supervisor	Communications Services	1	Assistant Vice President, Administrative Services+
Assistant Vice President, Accounting±		2	Vice President, Accounting
Assistant Vice President, Human Resources±		2	Vice President, Operations
Vice President, Underwriting±		3	Senior Vice President

KEY: * = Chief Executive of the Company
+ = Administrative Systems Manager
± = User of Administrative Systems Services

The Vice President, Operations, was one of five vice presidents. Other divisions were Sales, Accounting, Claims, and Underwriting (see Chart 4). All vice presidents reported to the Senior Vice President who, in turn, reported to the Executive Vice President.

The Operations Division, consisting of 122 employees, was subdivided into the following five departments, each directed by an assistant vice president: Processing; Human Resources; Administrative Services; Policy Holder Services and Methods and Procedures; and Data Processing. A further description of each department follows:

Processing. Processing was responsible for creating the filing system and the organization's records retention schedule. The Processing Department sorted incoming premiums, preparing them for bank deposit and batch entry for data processing operations. The department processed all changes made in existing insurance policies.

Human Resources. Human Resources provided the personnel function of Dixie Insurance Company. The Assistant Vice President, Human Resources, with the aid of two staff members (one administrative assistant and one trainer), was responsible for recruiting, screening, orienting, training, and developing employees on a company-wide basis.

Administrative Services. Administrative Services was responsible for a wide range of support services including word processing, reprographics, micrographics, communications systems, security, purchasing, office equipment and supplies, facility planning and furniture, inventory, and housekeeping.

A Supervisor of Micrographics and a Supervisor of Word Processing and Quality Control reported to the Assistant Vice President, Adminis-
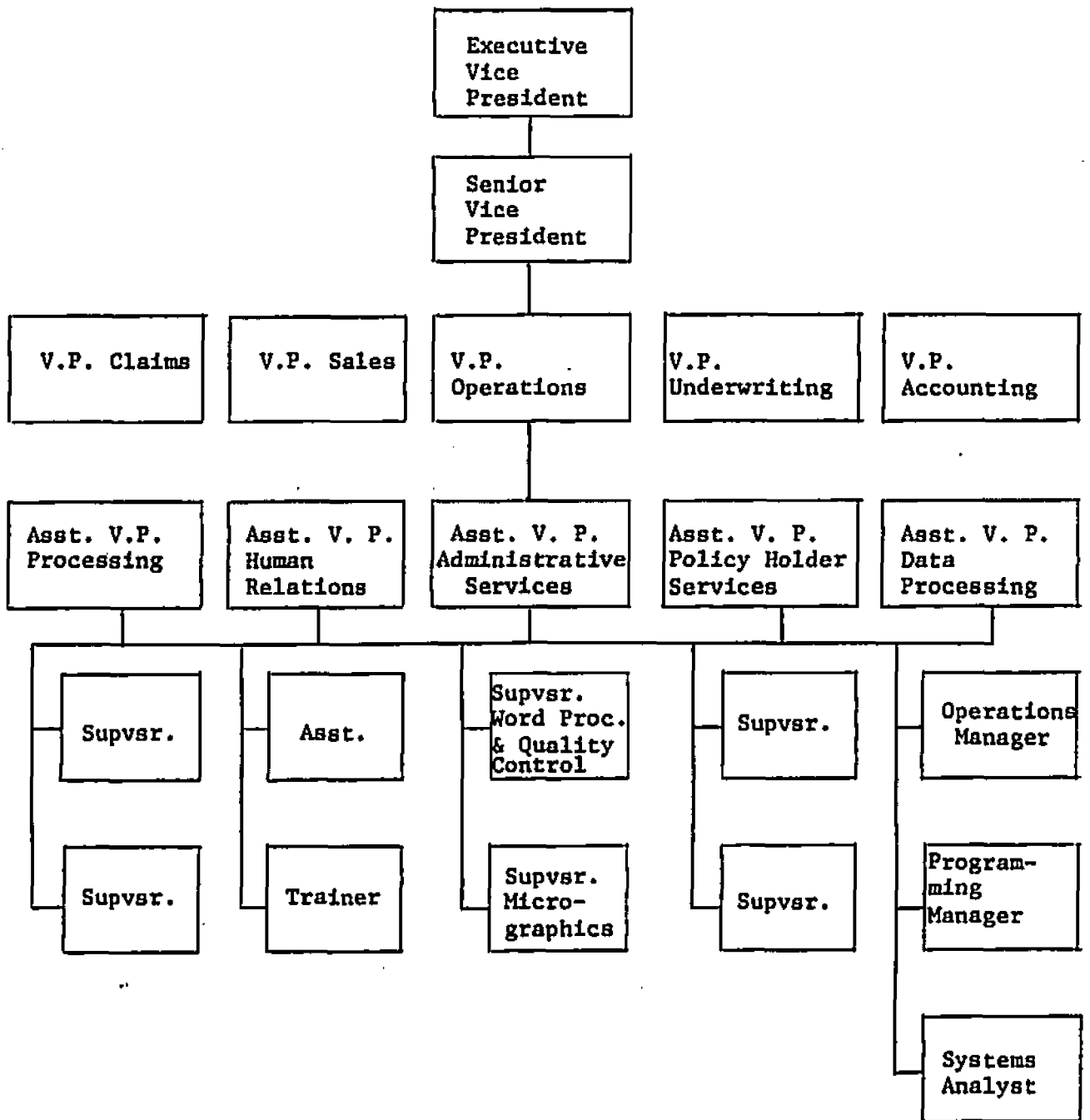
CHART 4. DIXIE INSURANCE ORGANIZATIONAL CHART

trative Services. The Supervisor of Word Processing and Quality Control was responsible for the operations of the word processing center.

Policy Holder Services and Methods and Procedures. This department was responsible for handling all correspondence or inquiries of agents, policy holders, and mortgagees.

Data Processing. Data processing, a centralized service, was the responsibility of the Assistant Vice President, Data Processing. All subfunctions of the data processing component--operations, programming, and systems analysis--were the responsibility of this department. Individuals reported to the Assistant Vice President, Data Processing, who had direct responsibility for each subfunction.

Status of the Administrative Systems Division. All managers interviewed described the status of Operations as prestigious. Furthermore, the Vice President, Underwriting, explained that Operation's importance would grow as the volume of business increased. The Assistant Vice President, Accounting, referred to Operations as the "heart of the company"; while Operations did not produce sales or handle claims, the company could not function without it.

The Administrative Systems Manager

Background. The Vice President, Operations, 55 years of age, had been with Dixie for 35 years and in his current position for ten years. The yearly salary for the position was $50,000. This Vice President completed two years of college with preparation in business administration. Beginning as a Transfer Supervisor, he was promoted to other positions, including Planning Manager, Office Manager, and Director of Operations.

The Vice President claimed no extensive technological skills, but did label himself an "informed user." Individuals reporting to the Vice President kept him informed of technological advancements.

Position Description. The Vice President, Operations was a third level manager in an organization having five levels of management. Above the Vice President were the Senior Vice President and Executive Vice President. As part of upper management, the Vice President was directly involved in decisions affecting internal activities of the organization as well as activities related to the insurance industry. Further description of the position, in terms of component responsibilities and a category entitled "other services" follows.

Data Processing. The Vice President, Operations had ultimate responsibility for all aspects of the data processing function--operations, programming, and systems analysis. The Assistant Vice President, Data Processing, a second level manager in the Operations Division, was directly responsible for data processing services.

Word Processing. The Vice President, Operations was also responsible for all word processing activities. Research and development activities were the responsibility of the Assistant Vice President, Administrative Services; word processing operations were the responsibility of the Supervisor, Word Processing and Quality Control, who reported to the Assistant Vice President, Administrative Services.

Communications Services. All electronic and nonelectronic communications services were ultimately the responsibility of the Vice President, Operations, as all subsets of the communications component were the responsibility of the Assistant Vice President, Administrative Services.

Other Services. In addition to responsibilities encompassed by the above categories, the Vice President, Operations was also responsible for the organization's personnel function, the handling of all requests for information from policy holders and agents, and a wide range of administrative services including purchasing, office supplies, and security.

Professional Development Practices. The Vice President, Operations was a member of both the Administrative Management Society and the American Management Association. In addition, this executive served on the Human Resources Committee for the National Association for Independent Insurers.

This administrator read Management World, Computer World, and Modern Office Procedures on a regular basis. In addition, the Vice President kept up-to-date on new ideas and procedures by attending workshops and seminars sponsored by AMS, AMA, and NAII.

Concerning personal goals attainable within Dixie, this Vice President explained that there were still two levels of management above him. He had aspirations of moving up the organizational ladder.

The Administrative Systems Manager

The Assistant Vice President, Administrative Services also met this researcher's definition of administrative systems manager; he was responsible, at least in part, for word processing, records management, and communications services. Therefore, this executive is also presented as the Administrative Systems Manager.

Background. Twenty-six years with Dixie, the Assistant Vice President, Administrative Services had been in his current position

for nine years. This executive was 45 years of age; salary for his position was $45,000.

The Assistant Vice President completed two years of college. Most of his job training, however, had come while on the job, through seminars and workshops. This executive had earned the C.A.M. (Certified Administrative Manager) designation. For this designation, one must pass examinations over five areas of management: personnel management, management concepts, information systems, administrative services, and financial management. Previous to his current position, he had worked in Dixie's Data Processing and Accounting Departments.

The Assistant Vice President, Administrative Services considered himself technically expert in computer operations as a result of work experience in data processing and an ability to use several programming languages.

Position Description. The Assistant Vice President had responsibilities in the following four categories:

Word Processing. The Word Processing and Quality Control section was the word processing center for the organization. Twelve operatives were under the direction of a supervisor who reported to the Assistant Vice President. These operatives handled the typing of new insurance policies, made changes in existing policies, and filled other document preparation needs as requested for the entire organization.

Records Management. The Assistant Vice President, Administrative Services handled several phases of Dixie's records management cycle. Responsibility here included forms management, micrographics, and

reprographics. Micrographics, employing five operatives, was a section itself, headed by a supervisor.

Communications Services. The Assistant Vice President was responsible for communications services throughout the company. In addition to the Mail Room having a supervisor and four operatives, this executive was responsible for all other communications services: telephone, facsimile machines, teletype machines, and a pilot computer-based message switching service.

Other Services. The Assistant Vice President, Administrative Services was responsible for additional services including purchasing, office supplies, facilities planning, inventory, housekeeping, and security.

Professional Development Practices. To keep current with changes in administrative systems management, the Assistant Vice President, Administrative Services, attended seminars periodically and read a long list of journals, including Management World, Administrative Management, Modern Office Procedures, and The Office. In addition, he was currently a member of the local Administrative Management Society chapter as well as a past president.

Possibilities for promotion were good for this executive, as the company followed a policy of promotion from within the organization. Preferring to remain in the Operations Division, this executive aspired to the position immediately above him, Vice President, Operations. With the advancement of the current Vice President, that position would become available in a few years.

Administrative Systems Management Practices.

Communications Channels. All communications channels at Dixie were rated "good" by all persons interviewed. The Dixie Insurance Company had regularly scheduled meetings at each level of management. Vice Presidents met on Monday with the Senior Vice President and Executive Vice President. Assistant Vice Presidents met with their respective Vice Presidents on Tuesday morning; Supervisors met with their respective Assistant Vice Presidents on Tuesday afternoon; operatives met on Wednesday morning with their supervisors. Following this schedule, information was passed from level to level within the organization. Of note, the Assistant Vice President, Administrative Services described the staff meetings as "quality circles." Meetings were not intended to be gripe sessions, but instead, times when participants could get feedback through discussions of concerns or plans. Everyone interviewed claimed the weekly meetings were a very effective, reliable way of passing information through the organization.

In addition to the regularly scheduled meetings, personal contact among managers within Operations was frequent. The Vice President, Operations reported contact several times a week with other Assistant Vice Presidents, depending upon specific problems or projects underway. Every Assistant Vice President interviewed indicated that, as claimed, contact with the Vice President was frequent. The Assistant Vice President, Administrative Services indicated that telephone contact with the Vice President occurred at least daily. All Assistant Vice Presidents reported meeting with their immediate subordinates at least daily; supervisors claimed they saw their staff several times a day.

Written communications channels were also employed. Assistant Vice Presidents reported sending memos at least weekly to the Vice President, Operations, and twice a week to their supervisors. Formal, written reports, however, were not mentioned as a regular communications channel; again, most information was transmitted orally at staff meetings.

Communications channels outside the Operations Division included, first, the regularly scheduled meeting of Vice Presidents including the Vice President, Operations. At lower levels of management, Assistant Vice Presidents reported contact at least three times a week with peer managers in other divisions. Users interviewed substantiated this report. In addition, Operations also published a company-wide newsletter through the Human Resources Department.

Personnel Considerations/Management. Training users to utilize support technologies was identified as a major role of Operations. The Human Resources Department, part of the Operations Division, provided the bulk of all training and development needs of managers in the organization.

The Assistant Vice President, Accounting explained that periodically, additional training sessions for managers were set up by vendors, through Human Resources. Often those training sessions were conducted outside the organization, in a classroom environment.

The Vice President, Underwriting, said that information exchange between divisions was good and that, generally, all training received was adequate. Of note, the Vice President, Underwriting, at the time of this interview was part of the Text Processing Task Force, which was examining Dixie's word processing needs.

Personnel Considerations/Operatives. Operative personnel
considerations are subdivided into the following categories: (1) unions;
(2) selection; (3) training; (4) performance appraisals; (5) complaints;
and (6) job satisfaction.

Unions. Operative employees at Dixie were not unionized. There
was managerial concern, however, as the Word Processing Supervisor
reported a neighboring insurance company had just narrowly defeated a
unionization attempt. The Assistant Vice President, Human Resources
explained that the company was attempting to create a non-union environ-
ment. The company's package of benefits, a four and a half-day work
week, cost of living raises, and a casual work atmosphere were seen by
most managers as counteracting any demand for a union.

Present at Dixie, however, was an Employee Committee. This
committee had a membership of 30 operatives, each a department
representative. Its major concerns dealt with policy decisions; for
example, negotiations for new soft drink machines or bathroom scales.
The Micrographics Supervisor explained the Committee was sometimes a
sounding board for grievances; however, no other manager interviewed
saw the committee playing such a role. Of note, neither the Employee
Committee nor the possibility of a union was recorded by operative
employees responding to the questionnaire.

Selection. Dixie attempted to hire into entry level positions
people who were capable of more than entry level work. Because of
current economic conditions and their policy of hiring college students
part time, Dixie reported no problem finding over-competent people for
entry level positions.

When an operative position became available, the Human Resources Department was informed of the opening and given a job description. Human Resources posted the job announcement on company bulletin boards for three days. If there were no applicants or no qualified applicants, Human Resources advertised, interviewed, tested, screened, and sent a limited number of qualified applicants to the supervisor involved. The supervisor interviewed those passing the initial screening and made recommendations for possible employment. At that point the recommended applicant was generally sent to the Assistant Vice President for final approval.

Training. Operative employees in all departments received on-the-job training supplemented by occasional in-house classroom training sessions. On-the-job training was coordinated by component supervisors, who generally had held the operative position at one time. Of note, only the Assistant Vice President, Processing, explained that his department often utilized the services of the Trainer in Human Resources. The Trainer often worked closely with Processing's supervisory staff in seeing that new employees were trained properly.

The role of the Vice President, Operations and the Assistant Vice President, Administrative Services, in the employee training process consisted of evaluating the training programs and handling budgetary considerations.

Performance Appraisals. Standards for evaluating the performance of operatives were relatively simple and informally determined. Each supervisor of production was responsible for preparing a report detailing operative output. These reports were compared to ones previously

prepared by the supervisor. This process worked well in production oriented areas such as data entry and word processing. However, in some areas, such as micrographics and the mailroom, performance standards were reported difficult to establish, since output was inconsistent from week to week; demand for micrographic and postal services varied. Standards in areas such as micrographics and the mailroom, therefore, were subjectively established by supervisors.

In addition to performance standards, operatives were also evaluated in terms of their attendance record, attitude, and dress. Thus, factors unrelated to productivity which were subjectively determined were also part of the evaluation process.

Just prior to the time of these interviews, the Human Resources Department had developed and distributed a new evaluation form, making the evaluation procedure uniform company-wide. Performance evaluations conducted by supervisors were done formally once a year and were subject to review by Assistant Vice Presidents.

Complaints. Operatives within the Dixie Insurance Company indicated that they were aware of having access to the Human Resources Department for complaints or concerns, but that they should first try to settle their differences with their immediate supervisors. A strict attendance policy and occasional personality conflicts were described by managers and supervisors as the major areas of concern reported by operative employees. Interestingly, neither of these complaints were listed by operatives responding to the questionnaire. Operatives registering their complaints listed work-related problems such as

too much repetitive work, uneven work flow, and the inability of
users to give directions clearly, write legibly, or dictate well
as particularly important.

Job Satisfaction. Seven of the eight administrative systems
managers rated job satisfaction among operatives as high. Only the
Assistant Vice President, Data Processing, explained that job satis-
faction was sometimes only moderate. Many data processing positions,
he explained, were monotonous, repetitive jobs. Operatives working
in these positions became more dissatisfied the longer they were on
the job.

Half of the operatives responding to the questionnaire rated
job satisfaction high. Four described job satisfaction as moderate,
and one described job satisfaction as low. The operative reporting
low job satisfaction listed as major complaints user problems (inability
of users to provide clear directions, handwriting, and dictation) and
not enough work to do.

The Future of the Administrative Systems Function

The Future of the Administrative Systems Division. The Operations
Division had been reorganized in 1967. Since that time it had changed;
office automation had completely redefined the operation of the division.
In the next five years, even more automation was anticipated.

The Assistant Vice President, Administrative Services, was the
only individual interviewwd who believed that the Dixie Insurance
Company would be completely paperless within the next five years. Other
managers, including the Assistant Vice President, Processing, registered

the belief that Dixie would probably not be completely paperless for a substantially longer period of time. There would continue to be a need for a strong records management program (nonelectronic records) in the Dixie Insurance Company.

In the future, managers predicted data processing operations would be more distributed. Information would go directly from users' offices and other remote locations directly into a mainframe computer. However, centralized mainframe computers would continue to be controlled by the Data Processing Department.

In addition to remote CRT's users interviewed expressed a desire for stand-alone word processors in their divisions, separate from the Word Processing Center. Those managers interviewed in Operations, however, (particularly the Supervisor, Word Processing and Quality Control), believed the company would benefit more from centralized operations. The Text Processing Task Force (comprised of the Assistant Vice President, Administrative Services, and major users) was currently looking into the word processing needs of the organization to determine which of the many possible structures would be of most benefit to the organization.

The Mail Room Supervisor pointed out that the insurance industry was very dependent upon mail services and would continue to be so in the future. Customers would continue to need premium notices, notices of cancellations, notices of rate changes, etc. The supervisor envisioned mail room operations becoming more automated (for example, at the time of this interview, a new, more sophisticated letter opener was being acquired).

Electronic mail, networking, and other telecommunications services were seldom mentioned by interviewees. Only the Assistant Vice President, Administrative Services, believed that telecommunications services would be completely operational in the near future. Pilot programs were currently underway; yet, no user interviewed mentioned in his/her discussions of support services that these services were either available or desirable.

A general consensus of all managers interviewed was that, in the years ahead, there would be no increase in the number of employees in Administrative Services. Rather, the productivity of the current staff would be enhanced by automation. Therefore, the Operations Division would grow in status, not numbers. Support services would be of vital importance to those in other areas of the organization. Providing timely, accurate information would continue to be the goal of Administrative Services. Such services would involve more productive personnel, not an increase in the number of personnel.

Skills and Knowledges Required of a Future Administrative Systems Manager. The success of the Operations Division in the future was seen as highly dependent upon its management. The chief executive of the company indicated that the main qualification for an administrative systems manager was the ability to communicate. In addition, understanding the insurance industry and the company "from the ground up" was seen as very desirable.

When the two administrative systems managers were asked to discuss areas of expertise an administrative systems manager of the near future

should possess, each had definite opinions. To begin, the Vice President, Operations reported the following four areas as vital to the success of an administrative systems manager at Dixie:

1. Communications Skills. Communications skills were defined as the ability to communicate with subordinates, peers, and superiors both orally and in writing in a manner that gets the message across.

2. Knowledge of automation. An administrative systems manager would need a general knowledge of automation in whatever form it took; not necessarily an ability to write computer programs, but a knowledge of what technology can do, how to appy it to the needs of the organization, and how new technology can interface with current technology.

3. General Business Principles. An administrative systems manager would need to understand how a business operates. Administrative Systems provides support for all functions of the organization; knowing what other divisions do, therefore, is essential.

4. Knowledge of the Insurance Industry. An administrative systems manager would need to understand the company and its product in order to apply its services to organizational needs.

The Assistant Vice President, Administrative Services explained that an administrative systems manager should possess skills/knowledges in the following areas:

1. Communications Skills. An administrative systems manager would need to communicate both orally and in writing. While written skills were not being used extensively at the current time, demand for their use would increase as users did more of their own data entry, retrieval, and communications through their own work stations. Also,

oral communications skills were deemed important, as managers must be able to communicate in person with people at all levels of the organization.

2. General Business Principles. To know what other divisions do was described as necessary if the administrative systems manager is to provide adequate services for those divisions.

3. The C.A.M. Designation. The Assistant Vice President explained that an administrative systems manager would need skills/ knowledges in all areas encompassed by the C.A.M. examination: Personnel management, management concepts, information systems, administrative services, and financial management.

4. Work Experience. The Assistant Vice President recommended work experience, preferably in support services supervision and preferably from within the organization, as preparation for an administrative systems manager. The Dixie Insurance Company had a policy of promoting from within the organization; thus, experience was generally required to advance within the organization.

EASTERN RETAIL COMPANY

Introduction

The Data Management Center, a unit of Eastern Retail, is located in Indianapolis, Indiana, a city with a population of 700,000. There are 150 employees in the Center, supporting a total of 250 stores nation-wide and 7,000 employees. There are five major centers within Eastern Retail: Mail Order, Retail, Shoe, Discount, and Data Management. The Data Management Center was the "hub" of Eastern Retailing, providing data processing and technical consulting services for all company units.

Table 5 lists the persons interviewed whose responses constitute the majority of data reported for this company. The interviewee's managerial level, title, component responsibility, and superior are listed. Supplementary data were obtained from company documents as well as questionnaires returned by nine operatives representating all departments. Data compiled for Eastern Retail Company reflect conditions at the time of the interviews.

Administrative Systems Division

Organizational Structure. The Data Management Center was headed by the Vice President, Management Information Systems. Reporting to this Vice President were four General Managers: Technical Support; Telecommunications and Administration; Systems Development; and Computer Operations. This structure is illustrated on Chart 5.

For purposes of this study, the Telecommunications and Administration Division was the administrative systems division. Within

```
                    ┌──────────────┐
                    │  President   │
                    └──────┬───────┘
                           │
                    ┌──────┴───────┐
                    │ V.P.         │
                    │ Management   │
                    │ Info. Services│
                    └──────┬───────┘
```

General Mgr., Technical Support	General Mgr., Systems Development	General Mgr., Telecomm. & Administration	General Mgr., Computer Operations

Manager, Network Control	Manager, Communications Services	Manager, Data Communications	Manager, Human Res. Development

Systems Supvsr.

Systems Supvsr.

Personnel Admin.

Trainers

Exec. Asst. & Supvsr., Admin. Services

CHART 5.   EASTERN RETAIL ORGANIZATIONAL CHART

TABLE 5. RANK AND RESPONSIBILITIES OF MANAGERS INTERVIEWED
AT EASTERN RETAIL COMPANY

Interviewee's Title	Component Responsibility	Managerial Level	Immediate Superior
Vice President, Management Information Systems*		4	
General Manager, Telecommunications and Administration+	Data Processing Word Processing Records Management Communications Services	3	Vice President, Management Information Systems*
Manager, Human Resource Development	Word Processing Records Management	2	General Manager, Tele-communications and Admin.+
Executive Assistant and Supervisor, Administrative Services	Word Processing Records Management	1	Manager, Human Resource Development
Manager, Communications Systems Services	Communications Services	-	General Manager, Tele-communications and Admin.+
Manager, Network Control	Communications Services	2	General Manager, Tele-communications and Admin.+
Manager of Systems Development, Research, and Administration+		2	Vice President, M.I.S.*
Manager of Technical Support+		2	Vice President, M.I.S.*
Manager of Data Administration and Standards+		2	Vice President, M.I.S.*

KEY: * = Superior of Administrative Systems Manager
       + = Administrative Systems Manager
       - = Staff Position
       ± = User of Administrative Systems Services

Telecommunications and Administration were four departments: Network Control, Communications Systems Services, Data Communications, and Human Resources Development (see Chart 5), with a total work force of 25 employees.

Network Control. Network Control was the department which processed all on-line transactions from other centers and stores throughout the nation (there were over 1,000 data entry stations in remote areas of the business). Control of this data reception network involved working with vendors, the telephone company, and users in remote locations to insure that data reception terminals operated efficiently.

Communications Systems Services. Communications Systems Services was a staff department whose manager acted as an internal consultant for the corporation in regard to office systems. This consultancy included research in word processing technology/applications as well as telecommunications services.

Data Communications. Data Communications entered and processed all batched data from remote locations. When data arrived at the site in any medium other than telephone lines, Data Communications was responsible for its processing.

Human Resource Development. Human Resource Development was responsible for the personnel function of the Data Management Center. Human Resources Development advertised, screened, tested, and interviewed prospective employees for the entire center. Human Resource Development also took an active role in the company-wide employee evaluation process by performing initial evaluation interviews. In addition to personnel related duties, Human Resource Development was also responsible for managing the use of all word processors and the copier.

Status of the Administrative Services Division. The status of
the Telecommunications and Administration Division was described by
nearly all managers and users as prestigious; its manager was classified
at a General Manager level. In addition, the Division was described as
growing rapidly. Only the Manager of Data Administration and Standards
expressed the opinion that the status of the Telecommunications and
Administration Division was not considered equal to other divisions such
as the Division of Systems Development.

The Administrative Systems Manager

Background. The General Manager, Telecommunications and Adminis-
tration had been employed at Eastern Retailing for eight years and
served in his current position for three years. He was 35 years of age,
and had a salary in the $50,000 range. He had held previous job titles
in the Eastern Retailing organization such as Telecommunications Manager
and Data Communications Specialist. Prior to joining Eastern Retailing,
he had been an Industry Manager with the area telephone company.

This executive was technically expert in telecommunications
services. In data processing, he considered himself a good user, but
not a programmer or systems analyst. Not wishing to become a "child
of technology," he wanted, first and foremost, to be known as a "business-
man and retailer." The knowledge of how technology could satisfy the
needs of the business was all the technical knowledge he deemed essential.

Position Description. The primary objective of the Data Manage-
ment Center was "to provide data processing services and systems
services to the corporation for the purpose of reducing operating

expenses." The Telecommunications and Administration Division was charged specifically with insuring that corporate telecommunications expenses were controlled; to provide the best possible services at the least possible cost. In addition, the Manager, Telecommunications and Administration was in charge of the administrative side of the Center, including personnel, word processing, and records management. Specific responsibilities in categories of component functions and "other services" follows:

Data Processing. The General Manager, Telecommunications and Administration had partial responsibility for data processing as two managers in his division, the Manager, Network Control; and the Manager, Data Communications, provided data processing input services for all other units of the organization. The Manager, Network Control was responsible for on-line data entry; the Manager, Data Communications was responsible for batched data entry.

Word Processing. The General Manager, Telecommunications and Administration was ultimately responsible for all distributed word processing services. The Executive Assistant and Supervisor, Administrative Services was responsible for day-to-day operations of word processing services; in this function, she reported to the Manager, Human Resource Development. Responsible for reserach and development of word processing services (for the entire organization, not just the Center) was the Communications Services Manager who was also responsible for all office automation research and development activities.

Records Management. The Data Management Center was reported to be an almost paperless operation. Records management responsibilities

including forms management, preparation and maintenance of the records
retention schedule, filing systems management, and inactive file storage
management were done only for the Division and were the responsibility
of the General Manager, Telecommunications and Administration. The
Executive Assistant and Supervisor, Administrative Services, within the
Human Resource Development Department, was responsible for the Center-wide
operations of reprographic equipment.

Communications Services. The General Manager, Telecommunications
and Administration was responsible for all communications services
with the exception of the operations of teletype and facsimile machines.
The Executive Assistant and Supervisor, Administrative Services managed
mail services; telephone services were the responsibility of the
Human Resource Development Manager; the developmental computer-based
message switching service was the responsibility of the Manager, Communi-
cations Systems Services; and the communications networks : were managed
by the Manager, Network Control.

Other Services. In addition to responsibilities in the four
component categories, the General Manager, Telecommunications and
Administration was responsible for the Center's personnel function.
The General Manager explained that the area of Human Resource Development
demanded more of his time than the other areas, simply because the adminis-
trative duties associated with the personnel function were time consuming.
The Manager of Human Resource Development was this executive's right-hand
man"; the two individuals often worked closely together on projects.

Professional Development Practices. The General Manager was a
member of the Data Processing Management Association, the Indiana
Telecommunications Users Association, and the International Communications

Association. In addition, he was a member of the steering committee of
the National Retail Merchants Association, the committee in the organi-
zation dealing with telecommunications issues.

The General Manager, Telecommunications and Administration read
a variety of journals relating to administrative systems in general and
to telecommunications specifically: Administrative Management,
Datamation, Information Systems News, Infosystems, Computer World,
Today's Office, Data Communications, and Business Communications Review.
Moreover, he attended seminars on topics ranging from office automation
to telecommunications to management techniques. Explaining that this
range of topics was considered desirable, he said:

> There is a real tendency, particularly in the data
> processing world, to become a child of the techno-
> logy. . . . The ability to deal with the technology
> is only the means to the end. A variety of knowledge
> is needed.

As to his future within the organization, this executive indicated
that he had been offered promotions which would have taken him out of
the geographical area. Moreover, he preferred his current position to
any other position available in the organization.

Reason for Selection. The Vice President, Management Information
Systems said that the objective of administrative systems was to support
business goals and objectives in the most cost-effective, timely manner.
He described Telecommunications and Administration as a "catch-all"
department. At the time the Division was established, the organization
had no one with real expertise in office systems coordination; someone
had to be trained to coordinate technology at individual centers as well

as integrate technology throughout the organization. The organization
needed someone with telecommunications skills and management abilities
for this position. The current General Manager, Telecommunications and
Administration, had those needed qualifications of (1) technical knowledge
and (2) managerial skills.

Administrative Systems Management Practices

Communications Channels. The General Manager, Telecommunications
and Administration wrote weekly and monthly reports to executives in
the corporation. In addition, he made formal oral presentations of
those reports in a process called the quarterly review. These reports
were presented to the president of the corporation, divisional presidents,
and corporate vice presidents.

Within the Telecommunications and Administration area, communi-
cations were much less formal. While the General Managers and the Vice
President, Management Information Systems met bi-weekly, there were no
regularly scheduled meetings within the Telecommunications and Adminis-
tration Division. Formal meetings were described as unnecessary, since
managers at all levels had contact with their immediate superior and
subordinates several times a day.

Users of administrative support services interviewed were all
second-level managers in other divisions. Only one user, the Manager
of Technical Support, indicated that there was frequent, direct contact
with managers in the Telecommunications and Administration Division.
The other two users interviewed relied on information coming from
the General Manager level in memoranda giving information disseminated
at formally scheduled staff meetings.

Personnel Considerations/Management. The Senior Career Training
Administrator within the Human Resource Department offered classes on
effective listening, feedback, interpersonal relationships, etc., as
well as specific, technically-oriented training programs. Managerial
training programs dealing with efficient, effective use of support
services generally originated in the Human Resource Development
Department.

Also, as previously described, the General Manager, Telecommuni-
cations and Administration informed users of support services available
through informal information exchange and formal reports presented to
other General Managers in scheduled staff meetings. All General
Managers attending the staff meetings prepared memoranda outlining
information presented. In this manner, information on available support
services was channeled through the organization.

Personnel Considerations/Operatives. Operative personnel
considerations are subdivided into the following categories: (1) unions;
(2) selection; (3) training; (4) performance appraisals; (5) complaints;
and (6) job satisfaction.

Unions. There was no union at Eastern Retailing; moreover, managers
reported no talk of a union among employees. The Manager, Telecommuni-
cations and Administration reported that a union at the Mail Order Center
of the company had been narrowly defeated, but that operative employees
at the Data Management Center had never considered a union. Operatives
concurred; no operative responding to the questionnaire reported any
talk of the need for or desirability of a union.

Selection. Attracting and keeping people in the Division of
Telecommunications and Administration was not viewed by managers inter-

viewed as a problem. The Manager, Telecommunications and Administration, and the Human Resource Development Manager both cited extremely low turnover rates.

Departmental requisitions for replacement/additional employees were submitted to the Human Resource Development Department for approval. Once approved, the Manager, Human Resource Development interacted with employment agencies or generated newspaper ads to recruit prospective employees. Applicants were interviewed and tested. Managers/supervisors requesting an employee did the actual selection; only for positions which were considered particularly critical did the General Manager get involved in the selection process.

Training. Operative training needs of the Division were also handled through the Human Resource Development Department. The Junior Career Training Manager was responsible for in-house formal training coupled with training on machine operations. The bulk of operative training, however, was on-the-job, through interaction with other operatives.

The Executive Assistant and Supervisor, Administrative Services played a coordinating role in the training of secretaries on word processing equipment. The Junior Career Training Manager was responsible for the actual training program.

The General Manager, Telecommunications and Administration prepared the training budget and established goals for training programs. The Junior Career Training Supervisor within the Human Resource Development Department and the employee's first-level supervisor had all direct training responsibilities.

Performance Appraisals. The evaluation process at the Data Management Center was very formal, with the Human Resource Development Department playing an important role in the process. New employees were evaluated after an initial three months of service and then, again, after six months. Of note, the Manager, Human Resource Development, conducted the initial evaluation interviews for all employees in the Data Management Center.

After their first year, employees were subjected to an annual performance evaluation. Immediate superiors were responsible for this procedure which was based on employee/supervisor established standards (management by objectives). Of note, the General Manager, Telecommunications and Administration, reviewed the formalized evaluations prepared by managers and supervisors to insure that objectives had been set properly.

Complaints. Employees in the data processing area were described as being unique in their needs and demands. Because they spent a good deal of time alone, problems evolved which required that they have access to someone who understood problems associated with a data processing work environment.

Should employees have complaints or problems, they knew their first recourse would be through their immediate supervisor. The company had trained all managers in feedback techniques; to be able to talk to all employees at all levels of the organization was a goal of these training classes. However, when a supervisor or manager could not handle a complaint, the employee could go to the General Manager or to the Human Resource Development Manager. The Human Resource Development Manager commented:

> We recently completed a survey that was administered
> by Xerox Corporation. Xerox took an anonymous survey
> of all employees--their attitudes toward their job,
> their pay scales, their relationships with their
> supervisors, their career growth opportunities, etc.
> One thing that came out from that survey was a major
> strength of ours--that employees could talk to the
> supervisors, even if they have problems with that
> supervisor. There are a lot of open communications.

Managers interviewed explained that operative complaints ranged

from "too much to do and not enough time to do it," to personality

conflicts with other employees. Operatives, however, listed lack of

responsibility on the job, lack of challenges, and problems with users--

understanding/deciphering directions, handwriting, or dictation--as

major complaints.

The Future of the Administrative Systems Function

The Future of the Administrative Systems Division. The General

Manager, Telecommunications and Administration envisioned his division

playing a much larger role in company operations in the future. At the

time of this interview, this executive was trying to combine voice and

data lines into a full motion video line that would enable analysts in

the Data Management Center to talk to a general merchandising manager

in New York, thus eliminating the travel expense. As the Data Management

Center's involvement with company centers became stronger, a video

channel would be operative almost full time.

The Vice President, Management Information Systems concurred

with the General Manager's prediction that there would be communications

services utilized in the future. He went a step further, however, by

predicting that, in the future, more work would be done at home through

telephone lines by utilizing telephone facilities. Buyers, distributors, and even programmers could work away from the central office. Communications services at Eastern Retail were reported to be in their infancy.

All users interviewed anticipated major changes in communications methods throughout the organization. Executives at all centers would have individual computer terminals aiding them in performing their jobs. Centralized control and coordination of this sophisticated technology would be the role of Telecommunications and Administration in the future.

Because of the limited text-processing needs of the organization, the Executive Assistant and Supervisor, Administrative Services; the Manager, Communications Services; and the Vice President, Management Information Systems did not foresee any changes in the Center's use of word processing which would continue to be a distributed service. However, the word processing function was envisioned as growing in the future in terms of additional terminals. Moreover, more software applications would be available.

In regard to both data and word processing needs of the future, both the General Manager and the Human Resource Development Manager said that the retail establishment would be looking at an information center concept in the years ahead. Eventually, data processing and word processing would have to merge. The organization, however, was not quite ready for that merger yet; there was little need at the current time for more automated, integrated office automation systems.

The Network Control Manager was the only individual interviewed who did not expect an increase in the use of technology; the Network

Control Department was reported to be as automated as it possibly could be.

On the other hand, the Manager, Communications Systems Services predicted much more automation. Moreover, she explained there would be a greater need for coordination of office automation services on a corporate basis.

The Vice President, Management Information Systems reported that Telecommunications and Administration (under a new, revised title) would be more involved in the business of retailing in the future. The department would undoubtedly be more user-oriented, and services could best be provided with central coordination (control) of services.

Skills and Knowledges Required of a Future Administrative Systems Manager. The Vice President, Management Information Systems described data processing, word processing, and telecommunications services currently as distinct operational areas. In order to get "office automation" functioning, someone expert in office operations from a functional perspective was desirable. The Manager, Technical Services concurred; both managers pointed out that technical answers to problems were easily acquired. The administrative systems manager must have a higher-level skill--the ability to understand technology and apply it to the benefit of the organization.

The current administrative systems manager, the General Manager, Telecommunications and Administration stressed the following areas as areas in which future administrative systems managers should be prepared:

1. Communications Skills. By the nature of the job, adminis-
trative systems managers have to be detail oriented and are typically
perceived as responsible for secretarial services, a low status area.
The person responsible for administrative systems must be able to
communicate the importance and possible uses of support services to
users. Administrative Systems managers must be able to speak to
superiors, peers, and subordinates on a one-to-one basis as well as
through formal group presentations.

2. Automation. There would be a struggle arising between the
data processing and word processing communities in the near future;
the technologies already had converged. The Administrative Systems
manager charged with integrating data processing and word processing
technology would have to understand both technical and human relations
problems associated with changes.

3. Retailing. To be an effective administrator, one has to
know the industry. The person in administrative systems has to go beyond
dealing with problems only. To be effective, one has to recognize new
opportunities. For example, the General Manager, Telecommunications
and Administration, pointed out that

> The aim of support services management is not to cut
> expenses; it is to make sure the dollars are used
> effectively. If spending an additional $10 could
> generate $16, that would be effective use of support
> services.

Thus, understanding the business (retailing) was seen as a prerequisite
to developing new ideas encompassing the use of technology.

CHAPTER V

FINDINGS

The findings of this study are divided into five main topics:
(1) the administrative systems division; (2) job functions of adminis-
trative systems managers; (3) background of the administrative systems
manager; (4) perspectives on the future of the administrative systems
division; and (5) perspectives on skills vital to administrative systems
managers.

The Administrative Systems Division

Overview

The companies from which the data were drawn for this study
composed a heterogeneous group; five distinct industries were represented.
Of note, three companies, A, A-1 Bank and Trust Company; B, Best Manufac-
turing Company; and C, City Telephone Company, were subsidiaries of
larger organizations. Also, two companies, A, A-1 Bank and Trust
Company, and D, Dixie Insurance Company, directed branch operations.
Company E, Eastern Retail Company, was the Data Processing Center of
a retail establishment.

The researcher defined the administrative systems division as
the managerial unit encompassing responsibility for at least three of
the four components of the administrative systems function (data
processing, word processing, records management, and communications
services). Although responsible for similar functions, titles of the

five administrative systems divisions were diverse. As Table 6
illustrates, "information" was included in Companies A and B's
division titles, although Company A's complete title was Information
Services and Company B's complete title was Information Systems.
"Services" was repeated in Company C's division title, with the
complete title of Administrative Services. Company D's administrative
systems division was titled "Operations" and Company E's division was
labelled "Telecommunications and Administration."

"Site" on Table 6 is the physical facility visited by the
researcher, i.e., home office, corporate office, center. "Total"
indicates the total number of employees in the organization, including
branches, plants, and·retail personnel. In cases where the organiza-
tion was a subsidiary of a larger organization, the total figure is
limited to the company being investigated. Instances in which the
subsidiary had ties with the parent company relative to support systems
management are discussed in appropriate sections. Sites visited ranged
in size from 150 to 1,200 employees; companies ranged in size from 500
to 7,000 employees.

Again referring to Table 6, it should be noted that the size of
administrative systems divisions ranged from 25 to 300 employees with
an average size of 115 employees. Of special interest is the range of
percentages of the number of employees in the administrative systems
division relative to the number of employees at the site. The range
of 7% in Company C to 30.5% in Company D is attributed to the location
of the data processing component. In Company C, data processing was
only minimally the responsibility of the administrative systems

TABLE·6. TITLES AND SIZES OF ADMINISTRATIVE SYSTEMS DIVISIONS

COMPANY* (INDUSTRY)	TITLE OF ADMINISTRATIVE SYSTEMS DIVISION	NUMBER OF COMPANY EMPLOYEES AT SITE	TOTAL	NUMBER OF ADMINISTRATIVE SYSTEMS DIVISION EMPLOYEES	PERCENTAGE OF EMPLOYEES IN ADMINISTRATIVE SYSTEMS DIVISION RELATIVE TO SITE
A (banking)	Information Services	1,200	1,800	300	25
B (manufacturing)	Information Services	250	6,600	44	17
C (utility)	Administrative Services	1,200	5,500	85	7
D (insurance)	Operations	400	500	122	30.5
E (retailing)	Telecommunications and Administration	150	7,000	25	16

*Does not include plants, stores, or branch operations

division; in the other companies with comparatively larger percentage figures, data processing was a major part of the administrative systems division.

In only two organizations, Companies B and C, was any doubt raised about the status of the administrative systems division being equal to the status of other divisions of comparable rank and size. In Company B, administrative systems was a relatively new division. In Company C, administrative systems was described as being associated with "secretarial services," and, therefore, not as important as other divisions. Of note, several users pointed out that the administrative systems division itself generated no income for the organization; it would never be a moneymaker. For this reason, the division was considered to have less status than other divisions. One user in Company B, however, explained that administrative systems was receiving a big share of the operational budget; it was described as <u>having</u> to be important. In both Companies B and C all managers, including users interviewed, said that administrative systems' status, due to the current administrative systems manager's direction, was rising.

Table 7 lists the extent to which the administrative systems divisions were responsible for component management. For ease in discussion, each component is presented separately, beginning with data processing.

Data Processing

For purposes of this study, data processing was subdivided into the following three distinct subsets for discussion: operations, programming, and systems analysis.

TABLE 7. COMPONENTS WITHIN THE ADMINISTRATIVE SYSTEMS DIVISION

Component	Company				
	A	B	C	D	E
DATA PROCESSING					
Operations	+	+	*	+	*
Programming	+	+	–	+	–
Systems Analysis	+	+	–	+	–
WORD PROCESSING					
Operations	+	+	+	+	+
Planning and Development	+	+	+	+	+
RECORDS MANAGEMENT					
Forms Management	+	*	+	+	*
Filing Systems	–	–	+	+	–
Records Retention Schedule	–	*	+	+	*
Inactive Records Storage	–	–	+	+	–
Micrographics	+	/	+	+	/
Reprographics	–	–	+	+	+
COMMUNICATIONS SERVICES					
Mail Services	–	–	+	+	+
Telephone Services	+	–	+	+	+
Electronic Mail Services					
Facsimile Services	–	–	+	+	+
Teletype Services	+	–	+	+	*
Computer-Based Message Switching Services	▪	▪	▪	▪	▪

KEY: + = responsibility within the administrative systems division
* = responsibility partially within the administrative systems
        division
– = responsibility outside the administrative systems division
/ = service not available in company
▪ = service in developmental phase

In Companies A, B, and D, data processing operations, programming, and systems analysis activities were managed within the administrative systems division. The organizational structure was similar in Companies A and B as individuals responsible for each subset reported directly to the administrative systems manager. However, in Company D, the smallest organization visited, individuals responsible for each subset reported to a data processing assistant vice president who, in turn, reported to the administrative systems manager.

In examining the organizational chart for Company C (page 74), the administrative systems division which had a very limited role in data processing management (payroll data entry), note that the data processing division was an organizational division equal in position to the administrative systems division and together with the administrative systems division comprised a distinct organizational unit. The Assistant Treasurer and Assistant Secretary (the immediate superior of the senior administrative systems manager), and the Comptroller (responsible for data processing management) both reported to vice presidents who reported directly to the President. These two vice presidents did not report to the Executive Vice President who was responsible for all other divisions of the organization. Thus, despite their current separation of duties, the administrative systems division and the data processing division were considered sufficiently related in function to warrant being organizationally grouped together.

Company E's administrative systems division was responsible for on-line and batched data entry services for data which came from remote locations. Individuals in other divisions were responsible for programming and systems analysis.

A more specific description of the management and organization of data processing operations, programming, and systems analysis within the administrative systems division follows. In Companies A, B, D, and E, the company hierarchy ranged from managerial level one (low) to level five (high); in Company C, the company hierarchy ranged from managerial level one (low) to level seven (high).

Operations. Data processing operations were centralized in all organizations. In addition, Company E also had a distributed data processing system. The distributed system consisted of computer terminals located in individual departments which interfaced with the main, centrally-operated computer. All administrative systems divisions were responsible, at least in part, for data processing operations. Managers shown in Table 8 as having direct responsibility for data processing operations were all second-level managers; each had a supervisory staff responsible for day-to-day operations.

Programming. Only administrative systems divisions in Companies A, B, and D had responsibility for the data processing programming subset. As Table 9 indicates, managers within administrative systems divisions directly responsible for data processing activities were second- or third-level managers.

Systems Analysis. Table 10 shows that administrative systems divisions in Companies A, B, and D were responsible for systems analysis. Managers responsible for systems analysis were at second- or third-level managerial positions. It is noted from a comparison of Tables 9 and 10 that Company B's Systems and Programming Manager was the only manager charged with both programming and systems analysis.

TABLE 8. ORGANIZATIONAL STRUCTURE OF DATA PROCESSING
OPERATIONS MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	Data Entry/Output Control Manager	2	Vice President, Operations+
B	Manager, Computer Operations	2	Data Processing and Technical Support Manager
C	Staff Manager+*	2	District Manager+
D	Manager, Data Center	2	Assistant Vice President, Data Processing
E	Manager, Network Control* Manager, Data Communications*	2	General Manager, Telecommunications and Administration+

KEY: + = Administrative Systems Manager
      * = Partial responsibility for this service with this manager

TABLE 9. ORGANIZATIONAL STRUCTURE OF DATA PROCESSING
PROGRAMMING ACTIVITIES

Company	Manager Responsible	Level	Reported to
A	Vice President, Technical Services	3	Senior Vice President, Information Services+
B	Systems and Programming Manager	2	Manager, Information Services+
C	--		
D	Manager, Data Center	2	Assistant Vice President, Data Processing
E	--		

KEY: + = Administrative Systems Manager
       - = Complete responsibility for this service outside the
           Administrative Systems Division

TABLE 10. ORGANIZATIONAL STRUCTURE OF DATA PROCESSING
SYSTEMS ANALYSIS ACTIVITIES

Company	Manager Responsible	Level	Reported to
A	Vice President, Systems Development	3	Senior Vice President, Information Services+
B	Systems and Programming Manager	2	Manager, Information Systems+
C	-		
D	Manager, Systems Development	2	Assistant Vice President, Data Processing
E	-		

KEY: + = Administrative Systems Manager
      - = Complete responsibility for this service outside the
          Administrative Systems Division

Word Processing

Word processing, the common denominator of all five administrative systems divisions, was subdivided into two areas: operations and research and development. A discussion of the management structure of both word processing operations and word processing research and development activities in the five divisions follows.

Operations. As Table 11 illustrates, Companies A, C, and D had centralized word processing operations. Two supervisors, each responsible for one of two centers, reported to Company A's Word Processing Manager. Likewise, at Company C, two supervisors each responsible for one of two operating shifts, reported to the Assistant Staff Supervisor. On the other hand, in smaller Company D, a first-level supervisor, the Supervisor of Word Processing and Quality Control reported directly to the junior administrative systems manager.

Companies B and E both had distributed word processing services. Table 11 shows that while the distributed word processing operations were similarly organized in the two companies, these operations were controlled by individuals with completely different position titles.

Company B's distributed system was the responsibility of the Planning Analyst, who operated from a managerial level two levels below the administrative systems manager in the Technologies Management Department. The Planning Analyst had both developed the system and was responsible for all hardware purchases and software applications development. The Planning Analyst held a staff position; he had no line responsibility for dealing with the operators of the system. Working with the Planning Analyst was the Trainer; this individual was responsible for seeing that operatives were trained in the use of word processing equipment.

TABLE 11. ORGANIZATIONAL STRUCTURE OF WORD PROCESSING
OPERATIONS MANAGEMENT

Company	Type of Service	Manager Responsible	Level	Reported to
A	Centralized	Word Processing Manager	2	Manager, Central Information Services
B	Distributed	Planning Analyst	±	Manager, Technologies Management
C	Centralized	Assistant Staff Supervisor	2	Staff Manager I
D	Centralized	Supervisor, Word Processing and Quality Control	1	Assistant Vice President, Administrative Services+
E	Distributed	Executive Assistant and Supervisor, Administrative Services	±	Manager, Human Resource Development

KEY: + = Administrative Systems Manager
      ± = Staff Position

The Executive Assistant and Supervisor, Administrative Services, was responsible for Company E's distributed word processing operations. In reporting to the Manager, Human Resource Development, the Executive Assistant and Supervisor, Administrative Services, was in a staff position responsible for coordinating the use of word processing within the organization and training word processing operatives. Unlike Company B's Planning Analyst, however, this individual had no role in word processing research and development activities.

Research and Development. In all administrative systems divisions there was someone responsible for word processing research and development activities. This individual insured that word processing services were "state of the art" (employed the best hardware and software for the organization's needs). Referring to Table 12, it should be noted that in Companies B, C, and E an individual in a staff position was responsible for these activities. Only in Companies A and D was the individual responsible for word processing research and development activities also responsible for word processing operations.

Records Management

Records management encompasses a wide variety of tasks, all related to the management of a firm's nonelectronic records. For presentation in this study, records management has been divided into the following six subsets: forms management, filing systems, records retention schedule, inactive records storage, micrographics, and reprographics. The records management component of each organization in its entirety is discussed first; then, management of each of the subsets is presented.

TABLE 12. ORGANIZATIONAL STRUCTURE OF WORD PROCESSING
RESEARCH AND DEVELOPMENT ACTIVITIES

Company	Manager Responsible	Level	Reported to
A	Word Processing Manager	2	Manager, Central Information Services
B	Planning Analyst	±	Manager, Technologies Management
C	Staff Associate	±	Staff Manager II+
D	Assistant Vice President, Administrative Services+	2	Vice President, Operations+
E	Manager, Communications Services	±	General Manager, Telecommunications and Administration+

KEY: + = Administrative Systems Manager
± = Staff Position

Only administrative systems divisions in Companies C and D had
an individual designated to be primarily in charge of records management
activities, with titles of Staff Manager III and Assistant Vice President,
Processing, respectively. Both individuals reported directly to the
senior administrative systems manager. In Companies A and B, the
records management component was the responsibility of other divisions;
in Company E, no company-wide records management activities existed.

Forms Management. As Table 13 indicates, administrative systems
divisions in all companies had some responsibility for forms management;
however, only administrative systems divisions in Companies C and D were
responsible for company-wide forms management activities. In Companies
A, B, and E, the administrative systems manager was responsible for all
forms management activities affecting his division.

Filing Systems. Table 14 shows that two individuals in the adminis-
trative systems divisions of Companies C and D shared responsibility
for filing systems management. Company C's Staff Manager II was
responsible for the filing of all active micrographic records and company
manuals; Staff Manager III developed and implemented company-wide filing
procedures for all other documents. Company D's Assistant Vice President,
Processing was responsible for filing systems for all company documents
other than microform documents; the Micrographics Supervisor was respon-
sible for filing microforms.

Records Retention Schedule. As Table 15 illustrates, Companies
A, B, and E's administrative systems managers provided a records retention
schedule, but the schedule was limited to records generated by the
administrative systems division. In Companies C and D, however, where

TABLE 13. ORGANIZATIONAL STRUCTURE OF FORMS
MANAGEMENT ACTIVITIES .

Company	Manager Responsible	Level	Reported to
A	Senior Vice President, Information Services+*	3	President
B	Manager, Information Systems+*	3	Vice President, Planning
C	Staff Manager III	2	District Manager, Administrative Services+
D	Assistant Vice President, Administrative Services+	2	Vice President, Operations+
E	General Manager, Tele-communications and Administration+*	3	Vice President, Management Information Systems

KEY: + = Administrative Systems Manager
* = Partial responsibility for this service with this manager

TABLE 14. ORGANIZATIONAL STRUCTURE OF FILING
SYSTEMS MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	–		
B	–		
C	Staff Manager II+* ·	3	District Manager, Administrative Services+
	Staff Manager III*	3	
D	Assistant Vice President, Processing*	2	Vice President, Operations+
	Micrographics Supervisor*	1	Assistant Vice President, Administrative Services+
E	–		

KEY: + = Administrative Systems Manager
 – = Complete responsibility for this service outside the
     Administrative Systems Division
 * = Partial responsibility for this service with this manager

TABLE 13.   ORGANIZATIONAL STRUCTURE OF RECORDS
RETENTION SCHEDULE MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	Senior Vice President, Information Services+*	3	President
B	Manager, Information Services+*	3	Vice President, Planning
C	Staff Manager III	2	District Manager, Administrative Services+
D	Assistant Vice President, Processing	2	Vice President, Operations+
E	General Manager, Telecommunications and Administration+*	3	Vice President, Management Information Systems

KEY: + = Administrative Systems Manager
       * = Partial responsibility for this service with this manager

an individual was designated as a records manager, the administrative systems division had responsibility for the company-wide records retention schedule.

Inactive Records Storage. Company C's Staff Manager III and Company D's Assistant Vice President, Administrative Services were responsible for inactive records management. As Table 16 illustrates, in Companies A and B, a division other than the administrative systems division was responsible for inactive records storage; in Company E, no company-wide records storage program existed.

Micrographics. As Table 17 shows, micrographics was part of the administrative systems divisions in Companies A, C, and D. In Company A, micrographics was the responsibility of the Central Information Services Manager, a third-level manager. In Company C, Staff Manager II managed the microfilming of active records; Staff Manager III managed the microfilming of inactive records. Of note, at Company C, these micro-filming activities were distinct operations. Active records were micro-filmed at the corporate headquarters; inactive records were microfilmed at the Records Retention Center, a location several miles from the headquarters. Company D's Micrographics Supervisor, a first-level supervisor who reported to the Junior Administrative Systems Manager, was responsible for all micrographic facilities.

Reprographics. From Table 18, it should be noted that reprographics management was the responsibility of administrative systems divisions in Companies C, D, and E. While all three divisions had distributed copiers, only Company C also had a reprographic center. Company C's Staff Manager IV, a third-level manger, was responsible for all reprographic services, including graphics, distributed copiers, and central reproduction.

TABLE 16. ORGANIZATIONAL STRUCTURE OF INACTIVE RECORDS
STORAGE ACTIVITIES MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	-		
B	-		
C	Staff Manager III	2	District Manager, Administrative Services+
D	Assistant Vice President, Administrative Services+	2	Vice President, Operations+
E	-		

KEY: + = Administrative Systems Manager
      - = Complete responsibility for this service outside the
          Administrative Systems Division

TABLE 17. ORGANIZATIONAL STRUCTURE OF MICROGRAPHIC
SERVICES MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	Central Information Services Manager	3	Vice President, Data Processing Operations
B	–		
C	Staff Manager II+* Staff Manager III*	3 3	District Manager, Administrative Services+
D	Micrographics Supervisor	1	Assistant Vice President, Administrative Services+
E	–		

KEY: + = Administrative Systems Manager
      * = Partial responsibility for this service with this manager
      – = Complete responsibility for this service outside the
          Administrative Systems Division

TABLE 18. ORGANIZATIONAL STRUCTURE OF REPROGRAPHIC
SERVICES MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	-		
B	-		
C	Staff Manager IV	3	District Manager, Administrative Services+
D	Assistant Vice President, Administrative Services+	2	Vice President, Operations+
E	Executive Assistant and Supervisor of Administrative Services	1	Manager, Human Resource Development

KEY: + = Administrative Systems Manager
- = Complete responsibility for this service outside the
Administrative Systems Division

Company D's Assistant Vice President, Administrative Services, and
Company E's Executive Assistant and Supervisor of Administrative
Services were responsible for that organization's distributed repro-
graphic services.

Communications Services

Communications services consisted of three major subsets: mail
services, telephone services, and electronic mail (facsimile, teletype,
and computer-based message switching services). Of the five companies
investigated, only administrative systems divisions in Companies C and D
controlled all communications subsets. Following is a discussion of
each communications subset, beginning with mail services management.

Mail Services. Table 19 shows that a first-level administrative
systems supervisor was responsible for incoming/outgoing mail services
in Companies C, D, and E. Note that in Companies C and D, the individual
responsible for mail services reported directly to the junior adminis-
trative systems manager.

Telephone Services. With the exception of Company B, all
administrative systems divisions were responsible for telephone services.
Table 20 indicates that a first-level manager was responsible for tele-
phone services in Companies A and C and a second-level manager in
Companies D and E.

Electronic Mail. Electronic Mail services were subdivided into
three areas: facsimile services, teletype services, and computer-based
message switching services.

Facsimile Services. As Table 21 discloses, administrative systems
divisions in all organizations were responsible for some aspect of

TABLE 19. ORGANIZATIONAL STRUCTURE OF MAIL
SERVICES MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	-		
B	-		
C	Mail Room Supervisor	1	Staff Manager II+
D	Mail Room Supervisor	1	Assistant Vice President, Administrative Services+
E	Executive Assistant and Supervisor, Administrative Services	1	Manager, Human Resource Development

KEY: + = Administrative Systems Manager
      - = Service not within administrative systems division

TABLE 20. ORGANIZATIONAL STRUCTURE OF TELEPHONE
SERVICES MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	Telecommunications Manager	1	Vice President, Data Processing Operations
B	—		
C	Staff Associate	1	Staff Manager II+
D	Assistant Vice President, Administrative Services+	2	Vice President, Operations+
E	Manager, Human Resource Development	2	General Manager, Telecommunications and Administration+

KEY: + = Administrative Systems Manager
— = Service not within administrative systems division

TABLE 21.   ORGANIZATIONAL STRUCTURE OF FACSIMILE
SERVICES MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	Telecommunications Manager	1	Vice President, Data Processing Operations
B	Office Automation Supervisor	2	Technologies Management Manager
C	Staff Associate	1	Staff Manager II+
D	Assistant Vice President, Administrative Services+	2	Vice President, Operations+
E	General Manager, Tele- communications and Administration+*	3	Vice President, Management Information Systems

KEY: + = Administrative Systems Manager
       * = Partial responsibility for this service with this manager

facsimile services management. First-level managers controlled facsimile services in Companies A and C; second-level managers controlled facsimile services in Companies B and D. The administrative systems division in Company E was only accountable for development and implementation of facsimile equipment; actual operations were in another division.

Teletype Services. Teletype services management was within the administrative systems division of Companies A, C, and D. Table 22 indicates that a first-level manager in Companies A and C and a second-level manager in Company D were responsible for teletype services. As with facsimile services, the administrative systems division in Company E played a role in teletype services development and implementation activities, but not in their actual operation.

Computer-Based Message Switching Services. Companies A, C, and D had a computer-based message switching pilot project in operation at the time of this study. While a pilot project did not currently exist in Companies B and E, an individual had been designated to be responsible for researching the possibility of implementing a computer-based message switching service.

Table 23 shows that second-level managers were responsible for the pilot computer-based message switching projects in Companies A and D; in Company C, a third-level manager had responsibility for the project. It should be noted that the project managers in both Companies C and D were the firms' junior administrative systems managers. Computer-based message switching services were in the research stage in Companies B and E; individuals responsible for researching computer-based message switching services in these two organizations were in staff positions.

TABLE 22.   ORGANIZATIONAL STRUCTURE OF TELETYPE
SERVICES MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	Telecommunications Manager	1	Vice President, Data Processing Operations
B	–		
C	Staff Associate	1	Staff Manager II+
D	Assistant Vice President, Administrative Services+	2	Vice President, Operations+
E	General Manager, Tele-communications and Administration+*	3	Vice President, Management Information Systems

KEY: + = Administrative Systems Manager
       * = Partial responsibility for this service with this manager
       – = Complete responsibility for this service outside the
           Administrative Systems Division

TABLE 23. ORGANIZATIONAL STRUCTURE OF COMPUTER-BASED
MESSAGE SWITCHING PROJECT MANAGEMENT

Company	Manager Responsible	Level	Reported to
A	Systems Director	2	Vice President, Technical Services
B	Planning Analyst	±	Technologies Management Manager
C	Staff Manager II+	3	District Manager, Administrative Services+
D	Assistant Vice President, Administrative Services+	2	Vice President, Operations+
E	Manager, Communications Systems Services	±	General Manager, Telecommucations and Administration+

KEY: + = Administrative Systems Manager
      ± = Staff Position

Summary
The Administrative Systems Division

1. The five companies investigated were heterogenous in nature; five distinct industries were represented. Furthermore, the companies constituted a medium to large sample in terms of numbers of employees. The sizes of all administrative systems divisions were comparable, considering that one organization's data processing function was outside the administrative systems division.

2. Data processing was a centralized service in all five organizations investigated. In only one organization was data processing also a distributed service. Operations, programming, and systems analysis subsets were all managed within three administrative systems divisions. Of the remaining two divisions, one administrative systems division was responsible for only a minor role, that of payroll data entry. The other division, with a strong role in telecommunications management, was responsible for the entry of all data transmitted to the centralized operation from remote sites.

3. Word processing was the common denominator of all administrative systems divisions; all five divisions were responsible for word processing operations including planning and development activities. Three of the organizations had distributed word processing operations; two had centralized operations.

4. Records management, defined as the management of nonelectronic records, was an identifiable administrative systems function in two of the five organizations investigated.

5. Communications subsets encompassed a range of electronic and non-electronic services. All five administrative systems divisions were responsible for electronic mail services. In addition, three of the administrative systems divisions were responsible for other communications services, i.e., mail and telephone services.

Job Functions of Administrative Systems Managers

Job descriptions, communications channels employed, and management and operative personnel considerations combine to define the job functions of administrative systems managers.

Job Description

The administrative systems manager, for purposes of this study, was defined as the individual having complete or partial responsibility for at least three of the four components of the administrative systems function (data processing, word processing, records management and communications services). This definition applied to two executives in both Companies C and D, one reporting to the other. These executives have been referred to in this study as the junior administrative systems manager and the senior administrative systems manager.

To better define the position and rank of administrative systems managers across all sites, Table 24 is presented. Table 24 lists the titles of the seven administrative systems managers, their level of management, and the total levels of management within the organization.

TABLE 24. TITLES AND RANKS OF ADMINISTRATIVE SYSTEMS MANAGERS

Company	Title	Level(s) of Management Manager	Total
A	Senior Vice President, Information Services	4	5
B	Manager, Information Systems	4	5
C_1	District Manager, Administrative Services	4	7
C_2	Staff Manager	3	7
D_1	Vice President, Operations	3	5
D_2	Assistant V.P., Administrative Services	2	5
E	General Manager, Telecommunications and Administration	3	5

KEY: 1 = Senior Administrative Systems Manager
2 = Junior Administrative Systems Manager

Evident is a wide diversity of titles among the seven adminis-
trative systems managers. There was a Senior Vice President (A), a
Vice President (D_1), and Assistant Vice President (D_2). The other four
titles included the term "manager," although the title ranged from
Manager (B), to District Manager (C_1), to Staff Manager (C_2) to General
Manager (E).

Figures in Table 24 also show that with the exception of Company
C, all organizations had five levels of management; Company C had
seven levels. An examination of administrative systems managers'
positions across all cases indicates that administrative systems
managers had either mid- or upper-level managerial positions.

Previously, this report discussed the management of data
processing, word processing, records management, and communications
services within the Administrative Systems division. It follows,
therefore, that administrative systems managers (managers responsible
for the administrative systems division) were ultimately responsible
for all such services.

However, to recap responsibility for the four components,
Table 25 is offered. Table 25 lists position responsibilities and charts
the degree of responsibility of administrative systems managers by
company. As the junior administrative systems managers in both
Companies C and D reported to the senior administrative systems managers,
any responsibility listed under the junior administrative systems manager
would ultimately be the responsibility of the senior administrative
systems manager.

TABLE 25. POSITION RESPONSIBILITIES OF ADMINISTRATIVE
SYSTEMS MANAGERS

Responsibility	Administrative Systems Managers						
	A	B	C_1	C_2	D_1	D_2	E
Data Processing	+	+	*	-	+	-	*
Word Processing	+	+	+	*	+	+	+
Records Management	*	*	+	*	+	*	*
Communications Services	*	*	+	+	+	+	*
Personnel	-	-	-	-	+	-	+
Purchasing	-	-	*	*	+	+	-
Travel/Conference Planning	-	-	+	+	+	+	-
Library	-	-	+	+	+	+	-
Security	-	-	-	-	+	+	-
Food Services	-	-	+	+	-	-	-
Office Supplies	-	-	+	+	+	+	+
Facilities Planning	-	-	-	-	+	+	-
Housekeeping	-	-	-	-	+	+	-
Inventory	-	-	+	+	+	+	-

KEY: + = responsible for service
* = responsible in part for service
- = not responsible for service

In addition to the roles administrative systems managers played in regard to the management of data processing, word processing, records management, and communications services, more than half were accountable for a variety of other services. As Table 25 indicates, 71 percent of the administrative systems managers were responsible for office supplies management. Fifty-seven percent were responsible for services including purchasing, travel/conference planning, library services, and inventory management. In addition, nearly 29 percent were responsible for their organization's personnel function, and services including security, facilities planning, and housekeeping. Of note, in organizations having a junior administrative systems manager, the junior manager was generally charged with these additional services.

Communications Channels

Communications channels facilitated the flow of information within each organization. Communications channels included information flow procedures both internal to the administrative systems division and external to the division. A discussion concerning communications channels, both written and oral follows.

Written Communications Channels. Table 26 divides written communications channels into report, correspondence, and newsletter channels.

Managers in Companies A and E reported a. set schedule for formal report preparation. In Company A, managers at each level of supervision prepared written monthly status reports which were sent to immediate superiors. Managers in Company E reported this same writing structure; however, reports were prepared weekly. Also, Company E's administrative

TABLE 26. ADMINISTRATIVE SYSTEMS COMMUNICATIONS CHANNELS

Channel	Administrative Systems Managers						
	A	B	C_1	C_2	D_1	D_2	E
Written							
Written Report Structure	+	-	-	-	-	-	+
Memorandums	-	-	-	-	+	+	-
Company Newsletter	-	-	-	-	+	-	-
Oral							
Formally scheduled meetings							
-between administrative systems manager, superior, and peers	+	+	+	-	+	+	+
-between administrative systems manager and component managers	-	+	-	-	+	+	-
-between component managers and operative personnel	-	+	-	-	+	+	-
Informal, unscheduled personal contact with immediate subordinates and peers	+	+	+	+	+	+	+
Oral Presentations	-	+	+	+	-	-	+

KEY: + = channel utilized regularly
      - = channel not utilized regularly
      1 = senior administrative systems manager
      2 = junior administrative systems manager

systems manager wrote quarterly reports for vice presidents in the
organization.

Managers in Company D reported extensive use of memoranda
throughout the division and the organization. The senior administrative
systems manager reported that memoranda were routed weekly to his
superior and immediate subordinates. The junior administrative systems
manager prepared weekly memoranda for the senior administrative systems
manager and his immediate subordinates twice a week. Also, both junior
and senior administrative systems managers routed memoranda concerning
support services to other divisions on a weekly basis. Of note,
Company D's senior administrative systems manager was the only adminis-
trative systems manager interviewed who reported being a contributing
editor to a company newsletter.

Administrative systems managers in Companies B and C reported
that written communications channels were not utilized on a regular
basis; most communications channels were oral.

Oral Communications Channels. Table 26 depicts oral communi-
cations channels as formally scheduled meetings, informal contact, and
oral presentations. All administrative systems managers utilized oral
communications channels extensively.

In fact, every administrative systems manager except the junior
administrative systems manager in Company C reported attending formally
scheduled meetings with peers (individuals at the same level of manage-
ment) and their mutual immediate superior. These meetings at Company A
were not scheduled at regular intervals; Companies B and E held these
meetings bi-weekly, and such meetings were weekly at Companies C and D.

Such formalized meetings continued at lower levels of management in Companies B and D. In these two organizations, regularly scheduled staff meetings were held at each level of management by managers with the staff immediately below them in the reporting structure. However, the formal process stopped at the top level in Companies A, C, and E; no formal meeting schedule was followed by lower-level managers in these three companies. Only the administrative systems manager in Company B reported a monthly meeting of all staff in the division, including operatives.

Table 26 also shows that all administrative systems managers utilized unscheduled, informal contact channels when communicating with their immediate subordinates and peers. In fact, 86 percent of the administrative systems managers reported such oral contact with their superiors was on a daily basis. At all other levels of administrative systems management, managers and supervisors interviewed reported at least daily informal contact with those immediately below them in the reporting structure. Only managers responsible for night shift supervisors reported less frequent oral contact with subordinates. In addition, all administrative systems managers regularly utilized informal channels when communicating with their peers; such contact occurred at least three times a week.

Administrative systems managers in Companies B, C, and E reported giving frequent oral presentations. The administrative systems manager in Company B, at monthly users' meetings, presented information concerning the division's operations that was of interest to others in the organization. Managers at all levels in Company C's administrative

systems division frequently spoke to groups of managers concerning status reports or special projects. The administrative systems manager in Company E reported that, in addition to writing a quarterly report, he also orally presented the report to all vice presidents in the organization at quarterly meetings.

Personnel Considerations

Personnel considerations are those practices/policies which had a direct bearing on the successful operation of the administrative systems division. A discussion concerning both managerial and operative personnel considerations follows.

Managers. The primary management personnel considerations were user education in how to apply technology and user training in how to use technology. The importance of user education/training was rated high by top managers, administrative systems managers, component managers, users and operatives.

Technology Applications. User education was accomplished in a variety of methods. The previously described scheduled managers' meeting was a primary vehicle for user education. Administrative systems managers meeting with peers from other divisions and their mutual superior disseminated information concerning support services; these (other) division managers were then responsible for disseminating information gathered at the meeting. A second formal method employed by Company B's administrative systems manager was monthly users' meetings. However, most administrative systems managers explained that the majority of user education was through informal, face-to-face information exchange.

In fact, users were part of the technology selection process in Companies A and D. One user in Company A explained that the administrative systems manager was trying to break the "Chinese wall" of computer services; he explained that managers in the administrative systems division were disseminating information to users informally and in terminology that the user could understand.

Training. It is significant that there was an individual in all administrative systems divisions responsible for training users in the use of technology and correct operating procedures. In the two administrative divisions which housed the organization's personnel function, Companies D and E, managerial trainers operated within the personnel departments. In the other three organizations, trainers within Company A's Systems and Development Department, Company B's Planning and Coordination Department, and Company C's Department II were responsible for user training.

In addition, users in Companies B and D explained that vendors often demonstrated the use of new equipment. However, one user commented that he disliked such "sales pitches" and preferred in-house training programs.

Of note, three users in Company C and one user in Company B said they had not received education/training from the administrative systems division in regard to new technology. All other users interviewed expressed general satisfaction with current education/training processes.

Operatives. Operative personnel practices and issues prevalent in administrative systems management are discussed in the following six

categories: unions, selection, training, complaints, performance appraisal, and job satisfaction.

Unions. Of the five organizations investigated, only Company C's operatives were unionized. The union was not a recent phenomenon, having become active in 1944. Managerial attitudes throughout Company C were generally positive on the union's presence. Negative attitudes were presented only in two select instances in which managers related a formal grievance procedure.

Less than six percent of the managers interviewed in the other four organizations reported talk of a union among operative employees. Company A's Word Processing Manager occasionally discussed the topic of unionization with other managers to let them know that unions existed and their existence should be remembered when establishing operative policies, procedures, and salaries. Company D's Supervisor of Word Processing Quality Control reported a neighboring insurance company had just narrowly defeated an operative union drive. While this Supervisor reported a minimum amount of discussion concerning unions among the operative staff, she considered unionization a possibility in the future. Substantiating managerial perception that, currently, operatives were not interested in unionization, only six percent of the operatives surveyed reported talk of unionization at their sites.

Of interest, only two other managers had anything specific to say on the topic of unions. The Data Processing Vice President in Company B reported a clerical union had tried to organize clerical workers ten years ago, but had been ruled out by the courts because of improper representation. Company E's administrative systems manager

explained that a union at the Mail Order Center of the retailing establishment had been narrowly defeated, adding that operative employees at the Data Management Center had never considered a union.

Selection. As background for a discussion of the operative employee selection process, it is noteworthy that administrative systems managers in all organizations reported that due to current national economic conditions, additions to operative staff were either minimal (Companies A, B, D, and E) or nonexistent (Company C). However, this phenomenon was reportedly not impairing the effectiveness of the administrative systems division. Current staff, aided by increased automation, was reportedly able to handle the increased work load.

The general selection practice was for administrative systems division managers to initiate a request for new or replacement personnel. In the case of additions to staff, the initial request was substantiated by evidence showing a need for the new employee. The personnel department either approved or disapproved the request. If approved, the personnel department first advertised for applicants within the organization. If no qualified applicant was found within the company, the personnel department publicly advertised the position. Managers in all five organizations indicated they preferred to promote or transfer employees from within the organization. Promotions and transfers to the administrative systems division were the general practice because salary levels of administrative systems operatives were higher than salary levels of clerical workers in other organizational divisions.

The personnel department did skill testing and initial screening of operative personnel. The personnel departments in Companies A, B, D, and E sent qualified applicants to the requesting supervisor. At these four non-union sites, selection of the best qualified applicant was done by the supervisor involved; the manager immediately above the supervisor generally approved the final choice. Only at unionized Company C did the personnel department make the final selection.

Regarding the effectiveness of the selection process, every manager interviewed expressed the opinion that the process being used was effective and satisfactory to both managers and the operative staff. Even managers in unionized Company C who had no say in the selection process were satisfied with the selection process. The senior administrative systems manager in Company C said that managers should not be in the "hiring game"; he felt employee selection should be left to professionals, i.e., the personnel department.

There was a consensus that finding entry level people was generally not a problem for administrative systems divisions. As to the quality of applicants, one administrative systems manager reported that due to current economic conditions, the company was hiring college graduates as operatives. However, Company A's Word Processing Manager reported a shortage of applicants from which to choose; for every opening, the personnel department could find only two qualified applicants. Company C's junior administrative systems manager commented that finding people who wanted to work hard was difficult.

Training. Operative training (new employee training and the retraining of existing employees) was handled in a variety of programs in the five cases studied: on-the-job training, in-house classroom training, vendor training, and external courses. As Table 27 indicates, in all organizations, operative training consisted of a combination of on-the-job training and in-house classroom training sessions. These techniques were supplemented by vendor training in Companies A and C. Only managers in Company A reported they occasionally sent their operatives to external education/training programs.

Of interest, someone in each organization was responsible for training operative personnel, generally working with the supervisor involved. The operative trainer was within the administrative systems division across all sites, although within the personnel department when personnel was part of the administrative systems division.

Table 28 depicts the role of administrative systems managers with regard to operative training. Across all sites, administrative systems managers were responsible for budgetary decisions affecting training programs. In addition, administrative systems managers in companies A and B had a role in setting goals for training programs. Senior administrative systems managers in Companies C and D reported reviewing and evaluating prospective and existing operative training programs on a regular basis.

Performance Appraisals. Table 29 shows the employee evaluation process to include three factors: methods of evaluation, basis for evaluation, and frequency of evaluation.

TABLE 27. TYPES OF OPERATIVE TRAINING PROGRAMS WITHIN
ADMINISTRATIVE SYSTEMS DIVISIONS

Method	Company				
	A	B	C	D	E
On-the-job	+	+	+	+	+
In-house classroom	+	+	+	+	+
Vendor	+	-	+	-	-
External courses	+	-	-	-	-

KEY: + = method in operation
      - = method not used

TABLE 28. ROLE OF ADMINISTRATIVE SYSTEMS MANAGER IN
OPERATIVE TRAINING PROGRAMS

Role	Manager						
	A	B	C_1	C_2	D_1	D_2	E
Budgeting	+	+	+	+	+	+	+
Setting Goals	+	+	-	-	-	-	-
Reviewing/evaluating	-	-	+	-	+	-	-

KEY: + = responsible for role
      - = not responsible for role
      1 = senior administrative systems manager
      2 = junior administrative systems manager

TABLE 29.   METHODS, BASIS, AND FREQUENCY OF THE
OPERATIVE EVALUATION PROCESS

Process	Company				
Methods	A	B	C	D	E
Formalized process; use of forms	+	+	+	+	+
Interviews with supervisor	+	+	+	+	+
Interviews with personnel department	-	-	-	-	+
Evaluation approved by second-level manager	-	+	-	+	-
Basis					
Established performance standards	+	-	+	+	-
Management by objective	-	+	-	-	+
Frequency					
First three months	-	-	-	-	+
First six months	-	-	+	-	+
Twice a year	+	-	-	-	-
Once a year	-	+	+	+	+

KEY: + = process employed
       - = process not employed

The employee evaluation process in all cases involved the use of standard evaluation forms coupled with interviews conducted by the employee's supervisor. In Companies B and D, these operative evaluations were generally approved by a second-level manager. Additional evaluation interviews with the personnel department occurred in Company E.

Evaluations were based upon performance at all sites. Companies A, C, and D used standard production measurements to determine operative performance levels. Of interest, operatives in Company A's word processing department were evaluated on uniform standards; there was no differential given in the evaluation of employees operating magnetic card typewriters and those operating more sophisticated word processors.

Managers in Company D reported using subjective measures when standards were difficult to establish, as in the micrographic area. Two organizations, Companies B and E, reported the use of management by objectives in determining operative performance levels.

Employee evaluations at Companies B, C, D, and E took place on a yearly basis; at Company A, evaluations were done twice a year. Managers in Company C also conducted employee evaluations after the first six months. Company E's personnel department evaluated employees after their first three months of employment and then again after they had worked for six months.

Complaints. As Table 30 illustrates, the most common complaints managers and supervisors reported hearing from operative employees concerned lack of challenges on the job, attendance regulations, uneven work flow, and interpersonal relationships of employees.

TABLE 30. OPERATIVES' COMPLAINTS AS LISTED BY MANAGERS

Complaint	Company				
Lack of challenges on the job	+	+	+	+	+
Attendance regulations	+	+	-	+	-
Uneven work flow	-	+	-	+	+
Interpersonal relationships	+	-	+	-	+
Problems with user dictation of writing clarity	+	-	+	-	-
Limited possibility for advancement	-	-	+	-	-
Working conditions	-	-	+	-	-
Low job status	-	-	-	+	-
Own lack of technical expertise	+	-	-	-	-
Not enough responsibility	-	-	-	+	-
Problem with equipment	+	-	-	-	-

KEY: + = complaint mentioned
      - = complaint not mentioned

The only complaint reported by operatives responding to the questionnaire at all sites was a lack of challenges on the job. The next most common complaint dealt with users--operatives reported frequent difficulty interpreting user directions, handwriting, and dictation. In only one organization did an operative complain of low wages. (See Table 31.)

Managers and operatives agreed that the best way to handle a complaint was for the complainant to seek recourse first from his/her immediate supervisor. If the complaint was not handled satisfactorily at that level of management, operatives could seek recourse from higher-level managers. All managers interviewed said that second-level managers rarely needed to be involved in operative problems. Because Company C did have a union for operatives, a formal grievance procedure was also an option for recourse to a complaint; however, the grievance procedure was reportedly seldom employed.

Job Satisfaction. When asked to evaluate the level of job satisfaction of operative employees, 72 percent of administrative systems management personnel interviewed responded that operative job satisfaction was high. Only 24 percent of the administrative systems management personnel explained that job satisfaction was sometimes moderate, and, of interest, those managers were directly supervising operatives. Only three percent of administrative systems management personnel considered operative job satisfaction to be low. (See Table 32.)

In defending their ratings, managers who rated job satisfaction as high attributed the high rating to a good work environment,

TABLE 31. OPERATIVES' COMPLAINTS AS LISTED BY OPERATIVES

Complaint	Company				
	A	B	C	D	E
Lack of challenge on the job	+	+	+	+	+
Problems with user dictation or writing clarity	−	−	+	+	+
Interpersonal relationships	−	−	+	+	−
Limited possibility for advancement	−	+	−	+	−
Uneven work flow	+	−	+	−	−
Low job status	−	+	−	−	−
Own lack of technical expertise	−	+	−	−	−
Not enough responsibility	−	−	−	−	+
Work standards too high	+	−	−	−	−
Too much supervision	+	−	−	−	−
Work for too many principals	−	+	−	−	−
Low wages	−	−	−	+	−
Problems with equipment	+	−	−	+	−

KEY: + = complaint listed
     − = complaint not listed

TABLE 32. OPERATIVE JOB SATISFACTION AS PERCEIVED BY MANAGERS

Ranking	Company					Total
	A	B	C	D	E	
High	4	3	4	6	4	21
Moderate	1	1	1	2	2	7
Low	=	=	1	=	=	1
Total	5	4	6	8	6	29

TABLE 33. OPERATIVE JOB SATISFACTION AS REPORTED BY OPERATIVES

Ranking	Company					Total
	A	B	C	D	E	
High	2	5	6	4	4	21
Moderate	8	4	4	5	5	26
Low	-	1	-	1	=	2
Total	10	10	10	10	9	49

advancement opportunities, and good communications between supervisors and operatives. Managers who rated job satisfaction as moderate explained that job satisfaction was usually linked to the length of time the worker was on the job; the longer the worker was on the job, the less satisfied the worker became. The individual reporting low worker satisfaction explained there was little possibility for operative advancement at the current time; operatives were unable to move from their current positions.

Forty-nine operative questionnaires were returned. Forty-three percent of the operatives reported high job satisfaction; fifty-three percent reported moderate job satisfaction, and four percent reported low job satisfaction. Table 33 shows these responses by company.

Operatives reporting high job satisfaction generally reported being challenged by the job and having opportunity to advance in the organization. Those operatives reporting a moderate level of job satisfaction often mentioned lack of challenges and not enough to do. Operatives reporting low job satisfaction listed the desire to be more involved with the work being done and problems with users who failed to provide clear input as a major cause for dissatisfaction.

Summary
Job Functions of Administrative Systems Managers

1. Administrative systems managers in the five cases were found to be either at mid- or upper-level managerial positions. Across all sites, titles of administrative systems managers were not uniform, although the designation of "manager" appeared in a majority of titles.

2. There were two executives in each of two organization who met this researcher's definition of administrative systems manager. In these cases, the executives were on the same career track, with one administrative systems manager reporting to the other.

3. In addition to their roles in data processing, word processing, records management, and communications services, administrative systems managers were responsible for a variety of other support services including the personnel function, purchasing activities, and office supplies and inventory management.

4. Structured communications channels were apparent in all organizations. All companies had formally scheduled staff meetings between the senior administrative systems manager and his superior. In two organizations, there was a structured report writing schedule, and in three organizations, communications often took the form of oral presentations. However, while formal channels were utilized, the majority of all contact was reportedly informal in nature--impromptu meetings and telephone calls.

5. The importance of user education/training was a recurring theme expressed by top management, administrative systems managers, component managers, and users. Managers in administrative systems divisions were aware of user needs and were making efforts to disseminate information. However, in two organizations, users were interviewed who reported they had either no training or inadequate training in the use of support technology.

6. Company C's union was well established; the union had roots and strength in the organization. In the nonunionized firms, managers and supervisors regarded unionization as an undesirable event and had little to say on the topic. Of note, unionization was rarely mentioned by nonunionized operatives responding to the questionnaire as a viable, desirable option.

7. All five administrative systems divisions were responsible for initiating requests for new or replacement personnel. Also, in all five cases, the personnel department recruited, tested, and interviewed (screened) applicants. In Companies A, B, D, and E, the administrative systems division supervisor requesting the employee interviewed applicants and made the employment decision. Company C's personnel department, on the other hand, did all interviewing and made employment decisions.

8. Managers reported that finding qualified people for operative positions was not a problem. In fact, managers reported that many applicants were over-qualified for operative positions. Moreover, because the administrative systems division was considered a desirable place to work, many administrative systems operatives had been transferred from other divisions.

9. All organizations used on-the-job training and in-house classroom training methods in their operative training programs. In addition, two organizations also relied on vendors to supply training. One organization reported occasionally sending operatives outside the organization for additional formal training.

10. The role of the administrative systems manager in regard to operative training consisted, primarily, in setting goals and budgets. Administrative systems managers in two organizations also reviewed and evaluated training programs.

11. All companies used standardized evaluation forms designed to facilitate the evaluation process. In addition, all organizations had set performance standards, with two organizations practicing management by objective. All operatives were evaluated on performance. These evaluations were conducted at least one a year at all sites.

12. Seventy-two percent of the managers interviewed rated operative satisfaction as high. However, only 43 percent of the operatives surveyed rated job satisfaction as high; a majority (53 percent) rated their job satisfaction as moderate.

Background of the Administrative Systems Manager

Personal Information

Referring to Table 34, it should be noted that a total of seven administrative systems managers were interviewed; again, two of the five companies had two individuals each meeting this researcher's definition of administrative systems manager (responsible, at least in part, for three of the four components of the administrative systems function--data processing, word processing, records management, and communications services). As Table 34 depicts, administrative systems

TABLE 34.   DESCRIPTION OF ADMINISTRATIVE SYSTEMS MANAGERS

Company	Age	Sex	Education	Experience	Years position/ company	Salary
A	39	M	2 yrs. Navy DP School	Vice President Systems & Programming Data Processing Mgr. Vice President Syst. (other institution) DP operation in Navy	3/6	>$75,000
B	43	M	B.S. Economics	Data Processing Mgr., Deputy Director Mgr. of Internal Syst. Product Mgr. & Consultant	1/6	$65,000
C_1	52	M	B.S. Secondary Phys. Ed.	Sales Mgr., Trainer Employment Manager	10/28	Confidential
C_2	42	M	B.S. Business	Co-op Student Salesman, Service Engr., Accts. Mgr. Business Office Mgr. Mgr., Comptroller's Division	11/25	Confidential
D_1	55	M	2 yrs. college (Bus. Adm.)	Transfer Supervisor Planning Mgr., Office Mgr., Director of Operations	10/35	$50,000
D_2	45	M	2 yrs. college C.A.M.	DP Manager Accounting Manager	9/26	$45,000
E	35	M	3 yrs. college Training with phone company	Telecommunications Mgr. Data Communications Specialist Industry Mgr., w/phone company	3/8	$50,000

KEY: 1 = Senior Administrative Systems Manager
       2 = Junior Administrative Systems Manager
       M = Male

managers ranged from 35 to 55 years; average age was 44 years. The time administrative systems managers had been with their organizations ranged from 6 to 35 years. Noteworthy is that four administrative systems managers had been in their current positions from one to eleven years. Salaries for the position ranged from $45,000 to $75,000; modal salary was $50,000. All administrative systems managers interviewed were male.

Educational Background

The educational background of administrative systems managers, as Table 34 shows, was diverse. Three of the seven administrative systems managers had bachelor's degrees. These degrees were in economics, secondary education, and business. Of the four remaining administrative systems managers, all reported having at least two years of post secondary formal education. This education was obtained at either a Navy data processing school or a collegiate school of business. Only one administrative systems manager interviewed had earned the Certified Administrative Manager designation.

Work Experience

As Table 34 also depicts, four administrative systems managers had technical (computer-related) work experience. Of the remaining three administrative systems managers, only one had experience in administrative systems, per se. Company D's senior administrative systems manager began at Company D as a Transfer Supervisor and was promoted to Planning Manager, Office Manager, and Director of Operations

before becoming Vice President, Operations. Both administrative systems managers in Company C had backgrounds in sales. In addition, Company C's senior administrative systems manager had previously been Employment Manager. From Employment Manager, he had received a horizontal promotion to his current position.

Professional Development Practices

A variety of professional development practices, including memberships in professional organizations, attendance at company sponsored seminars, vendor training, and the reading of administrative systems related journals was followed by administrative systems managers.

Four of the seven administrative systems managers belonged to and were active in organizations related to administrative systems management. These organizations included the Administrative Management Society, the American Management Association, the Data Processing Management Association, the Indiana Telecommunications Association, and the International Telecommunications Association. In addition, one manager belonged to Guide, an IBM users' organization. Two administrative systems managers also belonged to and were active in organizations related to their industries (the National Association for Independent Insurers and the National Retail Merchants Association). One administrative systems manager was a member of his city's Chamber of Commerce.

All administrative systems managers reported attending seminars and workshops concerning component technology and management. Managers belonging to professional organizations attended those organizations'

educational/training programs. Managers whose organizations were subsidiaries (Companies B and C) attended educational/training programs sponsored by their parent organizations.

Vendors also provided education/training for administrative systems managers. Vendors were reported eager to explain their technology to potential users and were described as a good (but sometimes biased) source of information on new technology.

Appendix C lists journals read on a regular basis by administrative systems managers. Managers considered such journals an excellent medium for staying abreast of administrative systems technology, personnel issues/policies, and new, evolving procedures.

Administrative systems managers were asked to discuss their career aspirations. Five of the seven administrative systems managers interviewed intended to advance within their organizations. Of the two administrative systems managers not intending to advance, one manager intended to retire in the position and the other did not want to leave the geographic area (promotion would probably involve a transfer). Noteworthy is that one of the five administrative systems managers intending to advance within the organization envisioned his current administrative systems position being raised to a vice presidential level in the near future.

Superiors of the administrative systems managers were asked why the current administrative systems manager was chosen for the position. Answers varied, but each superior listed management skills as a deciding factor. In addition to managerial skills, three administrative systems

managers were reportedly chosen because of their experience within the organization and their knowledge of the administrative systems functional area. Only Company C's senior administrative systems manager had acquired his position as a horizontal transfer from another division. An organizational change in Company C had eliminated this manager's position, and because of his excellent managerial skills, he had been transferred to the open position in the administrative systems division.

Summary
Background of the Administrative Systems Manager

1. Administrative systems managers ranged in age from 35 to 55 years. They had been with their current organizations from 5 to 35 years and in their current positions from 1 to 11 years. Salaries ranged from $45,000 to $75,000. All administrative systems managers were male.

2. All administrative systems managers had at least two years of post-secondary education. Four of the seven managers had technical training; only three managers had bachelor degrees.

3. All administrative systems managers had been promoted to their current positions. Four of the seven managers had worked their way into higher-level administrative systems positions with experience in data processing and/or telecommunications. Only one manager had job experience in traditional support services management (office

management). Two managers had entered their positions with no experiential background in administrative systems management.

4. As to professional development practices, mid-level (not upper-level) administrative systems managers belonged to a variety of professional organizations. Some of these groups related to administrative systems management in general; some groups pertained to specific component management or were concerned with the management of a particular industry. In addition, all administrative systems managers attended seminars and workshops and read current journals. Five of the seven administrative systems managers had aspirations of being promoted within their organizations.

5. According to the officers to whom the top ranking administrative systems manager reported, all administrative systems managers had been promoted to their positions because of their high-level managerial skills. Other reasons listed by administrative systems managers' supervisors included experience within the company, and knowledge of the administrative systems area.

Perspectives on the Future of the Administrative Systems Division

To give a more global view of developments expected to affect the administrative systems division in the future, perspectives from four outlooks are presented: administrative systems managers, component managers/supervisors, users, and top management.

Administrative Systems Managers

Administrative systems managers were asked to forecast the future of the administrative systems division in their organizations. All administrative systems managers concurred that the division would be more user oriented. In other words, the administrative systems division would be more involved in all functions of the business, assisting users in maximizing the use of support services.

A second prediction stated by administrative systems managers was that administrative systems components would continue to become more automated. Moreover, as more advanced, integrated support systems came into use, there would be more central control of the systems. Coordination of this advanced technology would have to originate from the administrative systems division.

In addition, administrative systems managers envisioned their divisions becoming centers for all information gathering/disseminating activities of the organization. In fact, the administrative systems manager in Company B explained a utility concept was being considered, whereby the administrative systems division would provide a central information utility which would provide remote sites with enough computer power to handle local needs. Anything not a specific function of the location would be handled centrally. Concurring with this view, the administrative systems manager in Company E predicted his retail establishment would be looking at an information center concept in years ahead. Similarly, other administrative systems managers envisioned users having more control over input and retrieval of information, with

the administrative systems division having central control for the integration of all components.

Only the junior administrative systems manager in Company D predicted the paperless office would occur in the next five years. No other manager predicted automation to this extent.

Because of increased automation, a leveling off or reduction in the numbers of operative employees was predicted by all administrative systems managers. Natural attrition would be the vehicle for reducing the work force.

Data Processing Managers

All data processing managers predicted more computer power in years to come. New, larger computers, enabling the current data processing staff to be more productive were predicted. In addition, data processing managers in all organizations anticipated the data processing department having greater control of the operations of the mainframe computer, with remote sites having input/retrieval capabilities.

Only Company A's Data Processing Manager predicted that _more_ operative personnel would be required. However, all data processing managers agreed that personnel with high-level skills would be needed.

Word Processing Managers

The eventual merger of data processing and word processing as described by Company E's administrative systems manager was a recurring outlook of word processing managers/supervisors interviewed. Merger, these word processing managers/supervisors predicted, would be inevitable; however, no one predicted a merger in the _near_ future.

Word processing managers/supervisors in charge of operating centers (Companies A, C, and D) predicted that the center concept would remain, but only one supervisor predicted that the size of the center itself would grow. The other two managers foresaw the word processing center itself becoming smaller, with word processing equipment distributed throughout the organization.

Company B's Planning Analyst, responsible for the organization's distributed word processing system, predicted continuation of the distributed system but saw it combined with word processing "puddles" (a number of small centers which would act as back-up for secretaries). Only the Executive Assistant and Supervisor of Administrative Services at Company E explained her organization would not utilize a centralized word processing service in the future.

Records Managers

Only Companies C and D had an individual designated as a records manager. Company C's Staff Manager III and D's Assistant Vice President, Processing predicted that paper would not be eliminated for years. It is noted that Company C's Staff Manager III reported that records management as a department would not grow. Major changes in records management would be that record storage and retrieval systems would be electronics-based.

Communications Services Managers

Communications services supervisors/managers interviewed in Companies A and E predicted all data transmissions would eventually merge with a communications center, making communications one very

complete area, encompassing all other components. In addition, all communications managers agreed that electronic mail services would either be initiated or used to a greater degree in the future. More automated services was a general prediction; even the Mail Room Supervisor in Company D predicted the use of technology which would make mail room management more efficient. Only Company E's Manager, Network Control did not foresee her department becoming more automated; the company's communications network was reported to be as automated as it possibly could be.

Users

Eighty-seven percent of the users interviewed predicted that operations of administrative systems services would become more distributed. Only users in Company C predicted that centralized services would continue to be the norm. Those predicting distributed operations agreed, however, that distributed support services would need administrative systems' control.

Eighty-seven percent of the users also indicated that the status of the administrative systems division would remain high. Users not making this prediction explained that the status of the division, currently low, would grow as users began to understand, appreciate, and use the services offered by the administrative systems division.

Top Managers

Company officers to whom the top ranking administrative systems manager reported (top managers) in Companies B and E predicted the title of the administrative systems division would have to change in

In the years ahead, to better describe what the division was doing.
All officers agreed administrative systems as a division would grow.
The officer in Company C explained that centralized services were more
economical and more professionally run than distributed services.
Officers in Companies A, B, and D explained that someone was needed to
control changes in all four component areas; the administrative systems
manager was seen as that agent.

Concurring with managers at other supervisory levels, top managers
envisioned administrative systems divisions becoming more user-oriented.
Managers throughout the organization would eventually have individual
work stations, enabling them to create, store, retrieve, manipulate,
and transfer data.

Summary
Perspectives on the Future of the
Administrative Systems Division

1. Administrative systems managers predicted automated, distributed,

   centrally-controlled support services in the future. A leveling

   of or reduction in the number of operatives was foreseen.

2. Data processing managers foresaw larger, more powerful computers

   centrally controlled by data processing departments. Data processing

   services would become more user-oriented with remote sites throughout

   the organization having input/retrieval capabilities.

3. Word processing managers predicted a merger with data processing

   in the future. Word processing operations were predicted to continue

   to be centrally controlled with, generally, a combination of

   centralized and distributed services.

4. Records managers predicted that records management as a department
   would not grow. Major changes predicted by records managers
   were that records would be more electronics-based.

5. Communications services managers predicted an eventual merger of
   communications technology with technology currently classified as
   data processing or word processing technology.

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Perspectives on Skills Vital to
Administrative Systems Managers

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Administrative systems managers, their supervisors, and users
were asked what skills and knowledges would be vital to the success of
administrative systems managers in the future.

Examining Table 35, it should be observed that every adminis-
trative systems manager interviewed listed communications skills as
vital to success. Five of the seven administrative systems managers
also indicated that a knowledge of general business was necessary.
Four managers specifically reported that management concepts were
desirable. Four administrative systems managers reported the desirability
of having technical (computer) skills. Three managers also explained
that knowledge of the industry would be beneficial. Two administrative
systems managers said that experience from within the organization was
necessary. Lastly, one administrative systems manager explained that
marketing skills and skills incorporated by the Certified Administrative
Manager designation (administrative services, financial management,
information systems, management concepts, and personnel management)
were necessary for success.

TABLE 35. SKILLS AND KNOWLEDGES REPORTED BY ADMINISTRATIVE
SYSTEMS MANAGERS AS VITAL FOR FUTURE MANAGERS

Skills/Knowledges	Manager						
	A	B	C_1	C_2	D_1	D_2	E
Communications Skills	+	+	+	+	+	+	+
General Business Concepts	+	-	+	+	+	+	-
Management Concepts	-	+	+	+	-	+	-
Data Processing/Automation	-	+	-	-	+	+	+
Knowledge of Industry	+	-	-	-	+	+	-
Experience within Organization	-	-	+	-	+	+	-
Marketing Concepts	-	-	+	-	-	-	-
Administrative Services Concepts	-	-	-	-	-	+	-

KEY: + = reported by manager
    - = not reported by manager
    1 = senior administrative systems manager
    2 = junior administrative systems manager

All officers to whom the top ranking administrative systems managers reported described strong managerial skills as important for the administrative systems manager of the future. In addition, these officers in Companies C, D, and E emphasized that managers in administrative systems divisions would need to be able to "sell" their services. Selling techniques, as applied within the organization (persuasion) were considered necessary.

Of special interest, four users explained that if the division is to grow within the organization, administrative systems divisions would need strong managers. Other users explained that administrative systems managers would need to be professional, yet able to explain administrative concepts and applications to users. The success or failure of administrative systems as a division was seen by users as dependent upon the individuals selected to manage the division.

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Summary
Perspectives on Skills Vital to
Administrative Systems Managers

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1. Administrative systems managers concurred that future administrative systems managers would continue to need good communications skills--both speaking and writing skills. Other skills/knowledges mentioned by administrative systems managers as desirable for the future were general business concepts, management skills, and computer skills. In addition, experience, an understanding of the industry, marketing concepts, and administrative services concepts were also recommended by administrative systems managers.

2. In addition to strong managerial skills, three top ranking officers
predicted marketing skills, as applied <u>within</u> the organization, would
be important skills for future administrative systems managers.
Concurring with this view, users of support systems explained
that professional managers, able to articulate administrative
services concepts, would be a primary factor in the growth of the
administrative systems division in their organizations in the years
to come.

CHAPTER VI

SUMMARY, CONCLUSIONS, INFERENCES

This chapter contains (1) a summary of the problem, methodology, and findings of this study; (2) conclusions based upon the findings; and (3) inferences resulting from the investigation, and recommendations for further research.

Summary

The Problem

In business organizations of all sizes, the administrative systems function has emerged as a vital and strategic segment of management. The term administrative systems is used to denote a network of support activities essential to successful management performance, e.g., data processing, word processing, records management, and communications services. Administrative systems is changing and expanding rapidly because of technological applications to basic clerical and managerial operations. The purpose of this study, therefore, was to determine how the administrative systems division operates in modern business. As a by-product, data obtained were used as a basis for structuring a theoretical administrative systems curriculum model.

While the administrative systems manager has been surveyed extensively, little research has added to an understanding of how administrative systems divisions are organized and managed. In fact, most research studies completed in the past 15 years have described attitudes and opinions of a group of people not well defined; generally,

membership in the Administrative Management Society was the sole

criteria of "administrative manager." In addition, researchers have

examined college catalogs to describe what universities are offering

in regard to administrative management curricula and have evaluated

those curricula based upon the opinions of what "administrative managers,"

(roughly defined) considered relevant course offerings.

This study defined the administrative systems division (and

therefore, its manager) as responsible for at least three of the four

components of the administrative systems function (data processing, word

processing, records management, and communications services). More

specifically, this study addressed the following questions:

1. How do administrative systems divisions compare in terms
   of size and responsibility?

2. How are data processing, word processing, records manage-
   ment, and communications services organized and managed
   within the administrative systems division?

3. How do job functions of administrative systems managers
   compare in selected business organizations?

4. What communications channels are utilized within the
   administrative systems division and from the adminis-
   trative systems division to other divisions in the
   organization?

5. How are administrative systems managers providing
   management/training for users of support systems?

6. How are administrative systems divisions' operative
   personnel selected, trained, and evaluated? Are there
   major personnel issues affecting the administrative
   systems division?

7. What is the profile of the administrative systems
   manager in terms of age, sex, salary, education, and
   experience? Why was this individual selected?

8. What are the viewpoints of administrative systems managers,
   users, and top management concerning the future of the
   administrative systems division?

9. What skills and knowledges do administrative systems managers, their superiors, and users of the system regard as vital to the success of an administrative systems manager?

Methodology

In the sample selection phase of this study, attempts were made to insure that (1) only progressive organizations were investigated, and that (2) a diversity of types and sizes of organizations were represented.

To insure a sample of progressive firms, the researcher wrote to the current president and five past presidents of Administrative Management Society chapters in Cincinnati, Ohio; Indianapolis, Indiana; and Louisville, Kentucky, asking these current and past officers to nominate at least five organizations in their areas which they considered to be progressive in terms of support systems managment. Forty-six firms were nominated.

To insure that a diversity of firms would be represented, the researcher chose five firms, based upon the number of times the organization had been nominated, the nature of the organization, and the size of the organization. The willingness of the firm's administrative systems manager was also a factor in selection. Selected organizations had been nominated by at least two Administrative Management Society respondents and represented banking, manufacturing, utilities, insurance, and retailing industries. Organizations ranged in size from 500 to 7,000 employees.

Visiting each organization, the researcher interviewed (1) the administrative systems manager; (2) the administrative systems manager's

immediate superior; (3) supervisors/managers of data processing, word

processing, records management, and communications services; and

(4) three users of the system. In addition, each firm's administrative

systems manager randomly distributed a short questionnaire to ten

operative employees. The researcher also collected company documents

such as organizational charts and job descriptions at each site.

Data collected on the visits were condensed into a case-study

format. The case data were then compiled, organized, and analyzed.

The findings enabled the researcher to profile the administrative systems

division and its manager as well as to make conclusions and inferences

concerning the division and its manager. As a by-product of this

investigation, a curriculum model was structured which indentified key

skills/knowledges required of an administrative systems manager.

Findings

The administrative systems division. Despite the diversity of

types and sizes of organizations, administrative systems divisions were

comparable in terms of relative size and functions performed. Approxi-

mately 20 percent of the total number of employees at a given site were

in the administrative systems division. All divisions had some

responsibility with regard to the management of data processing services,

word processing services, records management, and communications

services. Despite their similarities, however, there was no agreement

in division title.

Data processing was a centralized service in all organizations.

Data processing operations, programming, and systems analysis activities

were completely within administrative systems divisions in three companies. Of the remaining two organizations, one company's administrative systems division was responsible for all on-line data entry services; the other was responsible only for payroll data entry.

All administrative systems divisions were responsible for the management of word processing services. In three organizations, word processing operations were centralized; in the other two organizations, word processing operations were distributed. In three of the five companies investigated, an individual in a staff position performed research and development activities. In the remaining two cases, the individual responsible for operations also was responsible for research and development activities.

Records management, defined in this study as the management of non-electronic records, was a discernible department in only two administrative systems divisions. The other three administrative systems divisions were responsible for selected records management subsets only as they applied within their divisions. In two of the three cases where the administrative systems division was not responsible for company-wide records management services, another division was responsible for the services. In the third organization, records management services were totally distributed, with each individual division completely responsible for its own records management policies.

Communications services management was generally within administrative systems divisions. In only two cases was responsibility for mail room and/or telephone services outside the administrative systems division.

In addition to responsibilities encompassed by the four components (data processing, word processing, records management, and communications services), three of the five administrative systems divisions investigated were responsible for at least one of the following services: personnel, office supplies, and inventory.

Job Functions of Administrative Systems Managers

Administrative systems managers were found to be in either mid- or upper-level managerial positions. In two organizations, two managers met this researcher's definition of administrative systems manager (responsible, at least in part, for three of the four components of the administrative systems function--data processing, word processing, records management, and communications services), one (junior) reporting to the other (senior).

Job description. By definition, administrative systems managers were responsible for the administrative systems division. Therefore, they managed all services outlined in the division description. In cases where there were two administrative systems managers, the junior administrative systems manager was at least partially responsible for all subsets except data processing.

Communications channels. All administrative systems managers attended regularly scheduled meetings with their peers and their mutual superior(s). Such scheduled meetings were held at lower levels of management in two organizations. At lower management levels in two other organizations' administrative systems divisions, a written report structure was followed. One organization relied solely on informal channels (face-to-face contact and telephone calls) for disseminating information at lower levels of management. All administrative systems managers reported daily,

personal contact with managers directly below them in the reporting
structure to supplement any formal communications structure present.

Personnel considerations. All administrative systems managers
were cognizant of managerial needs in terms of training and education in
the use of support technology. In fact, within every administrative
systems division, an individual was responsible for user training/
education.

Operative unions were seen as a possibility, not a threat, at the
four nonunionized organizations. In the unionized organization, the union
had roots and strength in the organization; managers in administrative
systems reportedly worked well with the union.

Operative personnel selection practices were fairly consistent
in all cases. Managers in all five administrative systems divisions
requisitioned the personnel department for new or replacement employees.
The personnel department recruited and did the initial testing of appli-
cants. Only in the unionized firm did the personnel department interview
and choose the applicant; in the other four divisions, supervisors were
responsible for interviewing and choosing from among the screened
applicants.

On-the-job training and in-house classroom training were the
predominant training methods. Two organizations also relied on vendor
training. One organization occasionally sent operatives outside the
organization for additional formal training.

Administrative systems managers were generally responsible for
setting operative training goals and budgeting training programs. Adminis-

trative systems managers in two organizations were also involved in reviewing and evaluating training programs.

Operative performance evaluations were based on predetermined standards in all five organizations; two of those divisions set their standards by management by objectives. Performance evaluations were conducted at least once a year at all organizations.

Seventy-two percent of all managers interviewed rated operative job satisfaction as high. Only 43 percent of the operatives rated job satisfaction as high, with a majority (53 percent) rating their job satisfaction as moderate.

Background of the Administrative Systems Manager

Administrative systems managers ranged in age from 35 to 55 years; all were male. All administrative systems managers had at least two years of post-secondary education. Three administrative systems managers had data processing or telecommunications training. Three administrative systems managers had bachelor's degrees; of these three degrees, only one was in business.

All administrative systems managers had been promoted to their current positions. Four of the seven had worked their way into mid- or upper-level administrative systems management positions with an experiential background in data processing. Only one of the administrative systems managers had job experiences in more traditional support services management (office management). Two administrative systems managers had entered the administrative systems area with experience in personnel and sales.

Five of the seven administrative systems managers interviewed expected to advance to higher managerial positions within their organizations. These managers considered a background in administrative systems management to be a good, viable route to top management.

Perspectives on the Future of the Administrative Systems Division

Administrative systems managers and managers in data processing, word processing, records management, and communications services all predicted that their components would be more automated and that increased automation would entail more centralized control. Managers in administrative systems, top managers, and users concurred that support services operations would be more distributed in the future.

Because of the similarities of data processing and word processing technology, managers in word processing predicted an eventual merger of their services and data processing services. Records management executives predicted the establishment of electronic records management services, although not in the near future. Communications services managers, particularly those managing high-technology related services, anticipated an eventual merger of communications services with the other three components. Top management concurred with these forecasts.

Perspectives on Skills Vital to Administrative Systems Managers

Administrative systems managers were consistent in explaining that administrative systems managers of the future would need good communications skills. Other knowledges/skills reported by administrative systems managers as vitally important included general business concepts, management skills, and a general understanding of what automation can do for a business.

Superiors and users explained that, in addition to strong management skills, marketing skills, as applied <u>within</u> the organization, were necessary for managers in administrative systems. Growth of the division was seen by these two groups as dependent upon how well administrative systems managers would be able to disseminate information and provide user training.

Summary Profiles

This study, concerned with the organization and management of five different business organizations as well as the background and duties of seven administrative systems managers, provided data which can be used to structure general profiles of both the administrative systems division and its manager.

<u>Administrative Systems Division</u>

Titles of administrative systems divisions were diverse. However, two terms, "information" and "services" appeared in at least two divisional titles. Therefore, "administrative" and "services" combine to illustrate "administrative services" as the typical title.

The administrative systems division was typically a mid-level managerial unit equal in size and status to other functional divisions. Approximately 20 percent of the site's employees were part of the administrative systems division.

Typically, the administrative systems division encompassed the management of data processing, word processing, records management, and communications services. If a company-wide records management function

existed in an organization, odds were even that records management was part of the administrative systems division.

In addition, the administrative systems division was likely to encompass management of at least one of the following support areas: personnel management, office supplies management, and inventory management.

Administrative Systems Manager

The typical administrative systems manager was a male, 44 years of age. He had been employed by the company an average of 18 years and had been promoted to his current position (a third-level managerial position) after having served 11 years in the organization. He had a modal salary of $50,000. His title included the term "manager."

The administrative systems manager had a 70 percent chance of coming to the position from an area considered part of administrative systems (data processing, word processing, records management, and communications services).

In addition to his role in the management of data processing, word processing, records management, and communications services, the administrative systems manager was likely to be responsible for at least one of the following services: the personnel function, office supplies management, and inventory management.

The administrative systems manager attended regularly scheduled meetings with his peers and their mutual superior. In addition, he had daily personal contact with managers immediately below and above him in the reporting structure. He was likely to require either a formal report structure or a formal memoranda procedure for disseminating information within his division.

The administrative systems manager had little <u>direct</u> role in the selection, evaluation, and training of operative employees. Nonetheless, he was ultimately responsible for all policies affecting operative personnel.

The mid-level administrative systems manager belonged to at least one professional organization related to administrative systems management. He attended workshops and seminars sponsored by his parent organization or professional organization. He regularly read journals related to administrative systems management.

Conclusions

This investigation was a comprehensive study of the administrative systems divisions in five select business organizations. Developments in administrative systems technology and personnel considerations had left unanswered questions concerning the organization of the administrative systems division as well as questions concerning job functions of its manager. As a result of this study, evidence was compiled which enabled the researcher to profile both the administrative systems division and its manager. The data, moreover, upon careful deliberation and analysis, support the following conclusions:

1. All companies investigated had comparable administrative systems divisions in terms of responsibilities and relative sizes. However, divisional titles were diverse; administrative systems divisions conceivably could benefit from a standard title describing its function, that title to be adhered to by all organizations regardless of industry.

2. The larger the organization's headquarters, corporate office, etc., the more likely the administrative systems division is to be responsible only for automated/electronic administrative support services. Administrative systems divisions in smaller headquarters, corporate headquarters, etc., tend to be responsible for a wider range of automated and nonautomated support services.

3. All administrative systems managers encountered in this study were male. In fact, of the 46 individuals interviewed in five organizations, only 10 percent were female. All women interviewed were responsible for some phase of word processing (either operations or research/development activities). Women, despite their overwhelming majority in operative positions, have not risen to mid- or upper-level administrative systems management positions.

4. According to the literature, business firms are integrating data processing, word processing, records management, and communications services technology. Nonetheless, in all five progressive cases investigated, component functions were organized as distinct services, with predictions for more integrated services in the near future. Business firms today, therefore, are only in the first stages of integrating support systems technology.

5. All administrative systems managers interviewed were in mid- or upper-levels of management. Administrative systems managers had been promoted to their current positions from within the organization. Therefore, at the present time, one does not begin one's career as an administrative systems manager. Administrative systems can be viewed as an entire career track.

6. Seventy percent of the administrative systems managers had backgrounds in administrative systems management (data processing, word processing, records management, and communications services management). Experiential background in administrative systems component areas, therefore, is a viable route to the position of administrative systems manager.

7. Within administrative systems divisions was either a formal meeting or formal report writing schedule for managers at all levels of administrative systems management. In addition, managers reported daily contact with their superiors and subordinates. Managers in administrative systems management, therefore, need strong interpersonal and verbal (written and oral) communications skills.

8. Professional organizations were part of management development programs of only mid-level administrative systems managers. Administrative systems managers in upper-level positions reported little need for such organizations. Professional organizations are related to the needs of the mid-level administrative systems professional.

9. Data processing and word processing share the same technology (computer); merger of the two components is inevitable. Traditional separation of data processing and word processing services now exists (data processing is considered a management service; word processing is considered a secretarial service). Administrative systems managers need to be prepared to handle changes in their organizational structure caused by this merger of two strong administrative systems components.

10. Records management, a medium for control of nonelectronic records, was a distinct company-wide service in four organizations and within two of those organizations' administrative systems divisions. However, because of the predicted increase in the use of microcomputers in records management and because of the literature's prediction that the volume of paper records will increase through the 1980's, the administrative systems division will eventually (if not currently) be responsible for subsets of the records management function.

11. All managers interviewed predicted that there would be more distributed, more user-centered support services found in their future operations. Therefore, administrative systems managers should consider the desirability of having their divisions play a facilitative role within their organizations, instructing managers in the efficient, effective use of office systems. To play this facilitative role, administrative systems managers should have both a strong background in office systems applications as well as a knowledge of the activities of other functional areas.

12. Because of the prediction for more distributed computer operations, users and operatives will be able to accomplish much of what is accomplished in a traditional office in their own offices or homes. Therefore, administrative systems managers may be working with an unconventional work force. The administrative systems manager must adopt managerial techniques applicable to this changing work force.

13. Generally, managers and operatives did not agree on major areas of operative concerns. Managers tended to report that environmental

conditions were the major areas of concern; operatives explained that factors directly related to the work itself were their major areas of concern. In addition, mid- and upper-level managers tended to rate job satisfaction of operatives consistently high. A majority of operatives reported only moderate job satisfaction. Managers apparently are not aware of all operative needs and concerns.

Inferences

The conclusions, based upon the findings of this study, led to the following inferences:

1. Given the variety in titles of organizational divisions and industries, administrative systems divisions were still comparable in functions performed. Therefore, the administrative systems division could best be identified as a distinct corporate function if it were referred to by a standardized title which described its responsibilities. Administrative systems is suggested as that title. The adjective "administrative" describes the types of services rendered by the division; "system" implies separate components working together for a common goal. The term "administrative services," the title presented in the profile as the typical divisional title, denotes separate, distinct "services" or operations. Administrative systems, therefore, is a more descriptive title.

2. Administrative systems divisions often may be considered a company within a company. Users have problems; administrative systems divisions should provide solutions to those problems. Administrative systems divisions should operate in a manner similar to a consultant service. To do this, administrative systems managers must focus on the business/industry, not just on administrative systems procedures.

3. Because of the prediction for distributed services and central control of those services, managers in administrative systems should be versed on management techniques within a matrix structure. The matrix structure is appropriate in the administrative systems area which is constantly changing and which provides centralized as well as distributed services.

4. Operatives at all sites complained of a lack of challenges in their jobs. Administrative systems managers would do well to remember to enrich operative positions. To keep an educated, skilled work force, administrative systems managers should establish job enrichment/development programs and should develop well-defined career tracks.

5. Less than ten percent of the sample interviewed were female. However, given the expressed preference of administrative systems managers to promote from within; and given the data that 86 percent of the administrative systems managers themselves had received vertical promotions to their positions; and given the fact that career paths exist in administrative systems divisions, the percentage of women in managerial positions may be expected to increase in the future.

6. Managers in administrative systems saw union efforts to organize support systems personnel as a possibility, not an immediate threat. However, professional literature shows that, while few companies currently have unionized operatives, unions are organizing operatives nation-wide. It would be advisable for administrative systems managers to be cognizant of the union movement and its implications for their companies.

7. The researcher defined the administrative systems division as the functional division responsible, at least in part, for the management of three of the four components of the administrative systems function: data processing, word processing, records management, and communications services. Because the researcher investigated these components only when they were part of the administrative systems division, component management was not always comprehensively investigated. Additional research is therefore recommended which would describe the management of data processing, word processing, records management, and communications services regardless of their organizational location.

8. Because skills and knowledges of an administrative systems manager can be identified, there is a need for a curriculum model designed to prepare individuals for careers in administrative systems management. Chapter VII provides this curriculum model.

CHAPTER VII

ADMINISTRATIVE SYSTEMS CURRICULUM MODEL

This study has identified a need for business managers trained
in the management of the administrative systems function. Administrative
systems is a distinguishable business function and specific skills have
been identified as required for success in administrative systems
management. Therefore, administrative systems managers should be
educated/trained for their positions in a distinct business school track.

The results of this study led to the development of an administrative
systems curriculum model. This theoretical model differs from models
designed to prepare either computer specialists or general business
managers. The specific skills/concepts required of administrative
systems managers fall into business, technical, and human relations
categories. Of note, this curriculum is essentially future-oriented;
it is managers of the future who are to be educated/trained by collegiate
schools of business. Discussion of the three identified skills/concepts
categories is followed by a recommended framework for actually implement-
ing the theoretical model into programs offered by a collegiate school
of business.

Curriculum Categories

Business

Discernment of the missions of other organizational functions
(accounting, personnel, finance, production, and operations, and marketing)

is necessary if the administrative systems manager is to be able to apply, creatively, administrative systems services to user needs.

In addition, administrative systems managers are involved in policy decisions and service applications which are based upon the very nature of the industry. For this reason, the business category also includes a recommendation that students study industry-related subject areas (e.g., banking, production, utilities, insurance, retailing).

Technical

In mid- and upper-level positions, administrative systems managers participate, but are not directly involved, in technical (computer) operations. In addition to managing computer operations, administrative systems managers are responsible for developing applications for computer usage. Therefore, the administrative systems manager needs an understanding of the use of computers in business. While being operationally expert could be beneficial, the administrative systems manager more specifically should be knowledgeable on "state of the art" office systems technology. Such background provides knowledge on which to base feasibility studies, vendor selection, and technology evaluation.

Human Relations

Administrative systems managers must be capable of relating to poeple at all levels in the organization. The success of an administrative systems manager depends upon his/her ability to (1) manage a dynamic function; and (2) promote services to users in other divisions.

New technology and changing procedures have created a vibrant administrative systems division. In controlling change, the administrative systems manager cannot overlook or minimize the human factor. The administrative systems manager must be capable of alleviating fears of technology (fears that the user/operator will be unable to use technology; fears that the user/operator will be replaced by technology). Human relations skills in administrative systems have at their base the ability to understand the needs of others and the ability to react to those needs in a manner resulting in acceptance of the new technology/procedures and job satisfaction.

Actually, the administrative systems division could be considered a company within a company. The user (customer) has problems; the administrative systems manager must provide solutions (products) for those problems. Relating to managers in other divisions requires an understanding of organizational behavior and the ability to utilize selling techniques within the organization. The manager leading the administrative systems division must be aggressive in promoting administrative systems services.

Moreover, because of the prediction for increased distributed operations, the administrative systems manager will be working with a nontraditional work force. For this reason, the administrative systems manager must be versed in a variety of management techniques appropriate to administrative systems management.

In order to alleviate fears, promote the use of services, and manage the division, the administrative systems manager must utilize

communications channels. The articulate manager utilizes communications channels efficiently and effectively. As information flow (both internal and external to the division) is necessary, skills in writing, speaking, listening, and reading are considered vitally important.

Implementation

The skills/concepts previously identified in this study as required for an administrative systems manager indicate that the administrative systems track, as any business school track, intersects with other academic disciplines. Therefore, it is with support from other disciplines that this curriculum prepares individuals for careers in administrative systems management.

Chart 6 illustrates how an administrative systems track could be implemented within a collegiate school of business. Discussion of the curriculum model is presented in four "phases": (1) introduction; (2) advanced concepts; (3) analysis; and (4) applications. Following the discussion of each phase, courses relative to the phase are described in more detail.

Phase I: Introduction (Sophomore/Junior Level)

Phase I of this curriculum model is designed to give the student a general background in business administration, business communications, and administrative management. As this curriculum model is to be implemented in a collegiate school of business, it is understood that the student has (1) a strong general education background (English, mathematics, social sciences, natural sciences, etc.); and (2) courses

CHART 6. ILLUSTRATED MODEL OF ADMINISTRATIVE SYSTEMS CURRICULUM

Business Commun. I — **Speech** — **Computer Information Systems** — **Accounting Principles** — **Principles of Management**

Admin. Systems I

Computer Languages — **Laboratory in Admin. Systems** — **Office Automation Technology** — **Personnel Concepts in Adm. Systems** — **Financial Management** — **Principles of Marketing**

Methods of Systems Analysis

Adm. Syst. Analysis & Design — **Employee Training Programs** — **Production and Operations**

Bus. Communications II

Personnel Management

Admin. Systems II

Indus. Related Elec.

Prof. Practices — **Principles of Org. Behav.**

KEY

Required Adm. Systems Core Course

Required Course

Elective Adm. Systems Core Course

Elective Course

prerequisite to higher level courses in business administration. The only prerequisite course addressed specifically by this implementation model is accounting; administrative systems managers, as managers of a relatively large functional division, must have a strong accounting background.

Given that the student has this strong academic base, Chart 6 shows the sophomore level of Phase I to consist of skills in written and spoken communications, knowledge of the computer in business, and accounting principles. From this base, the junior level of Phase I consists of an introduction to administrative systems management as well as business administration courses: management, finance, marketing, production and operations, personnel, and organizational behavior. Specifically, courses identified as Phase I are:

Business Communications I. (Introduction to business communications). *Required*. This course includes communications theory as well as basic communications skills (reading, listening, and letter/memorandum/report writing) and interpersonal communication skills.

Speech. (Principles of public speaking). *Required*. This course emphasizes skills in outlining, writing, and delivering oral presentations.

Computer Information Systems. (Introduction to digital computers and their use in business). *Required*. This course explores the use of computers in business as well as provides an overview of programming languages and applications of specific programs.

Accounting Principles. (Concepts and issues of financial reporting for business entities). *Required*. This course involves recording, analyzing, and interpreting a firm's economic transactions.

<u>Administrative Systems I</u>. (Introduction to administrative systems management). *Required*. This course is an overview of the management of data processing, word processing, records management, and communications services. Also covered are basic administrative systems management concepts.

<u>Principles of Management</u>. (Concepts and issues concerning the process of controlling, directing, and leading employees). *Required*. This course centers on the historical development of management theory as well as current management theories and issues.

<u>Financial Management</u>. (Theory concerning the management of financial resources). *Required*. This course provides strategies and frameworks for investing, financing, and making dividend decisions.

<u>Principles of Marketing</u>. (Concepts and issues concerning the buying and selling of goods and services). *Required*. This course is an overview of marketing concepts from both the firm's and customer's perspectives.

<u>Production and Operations Management</u>. (Theory concerning decisions affecting production/operations activities of an organization). *Required*. This course includes forecasting, and production and capacity planning.

<u>Personnel Management</u>. (Concepts and issues concerning the personnel process). *Required*. This course is concerned with the entire personnel process including selection, training and development, evaluation, and termination policies of organizations.

<u>Principles of Organizational Behavior</u>. (Concepts and issues concerning the nature of human behavior in organizations). *Required*.

This course covers general principles of individual and group behavior
with applications in a business environment.

Phase II: Advanced Concepts (Junior Level)

Phase II is designed to provide opportunity for the administrative
systems student to learn advanced concepts in administrative systems
technology and personnel. As Chart 6 indicates, opportunity is made
available for a laboratory experience concurrent with or part of the
office automation course. In addition, an option is available within
this phase for the study of computer languages. Specifically, courses
identified as Phase II are:

Office Automation Technology. (Overview of automation as
applicable to support systems management). Required. This course
includes investigation of electronic and mechanical technology applicable
to data processing, word processing, records management, and communi-
cations services as well as considerations in evaluating and interfacing
technology. ·

Laboratory in Administrative Systems. (Management communications
skills as applied to office automation technology). Required. The
laboratory experience includes origination of documents on and operations
of dictation and transcription equipment, word processing equipment,
microcomputers, and communications technology as well as the use of
reprographic equipment.

Personnel Concepts in Administrative Systems. (Overview of
personnel issues, policies, and procedures governing both operative
employees and management employees). Required. This course covers

topics such as selection, supervision, labor-management relations, performance standards, performance appraisals, etc., in regard to operative employees. Also, regarding management employees, this course includes marketing/training strategies focused on _users_ of administrative systems services.

Computer Programming Language. (Specific skills in COBOL, BASIC, FORTRAN, etc.). _Elective._ This course provides specific skills in computer languages.

Phase III: Analysis (Junior/Senior Level)

Phase III, the analysis phase, is designed to give the administrative systems student an opportunity to examine and analyze administrative systems operations. These operations include the study of administrative systems internal strategies of operations as well as activities related to obtaining managerial and operative acceptance and competent use of administrative systems technology and services. Also included in this phase are options for the study of computer information systems analysis and advanced business communications, as well as an option for the study of an industry related area, chosen from among banking, production, utilities, insurance, retailing, etc. Because these options are electives, the student may choose to study them in either the junior or senior year. Specifically, courses identified as Phase III are:

Administrative Systems Analysis and Design. (Analysis and design of administrative office systems). _Required._ This course covers

administrative systems strategy and problems related to designing, implementing, evaluating, and controlling procedures in administrative systems.

Employee Training Program. (Training methods and strategies applicable to a business environment). *Required.* This course includes organization, methods of instruction, evaluation, and financial planning for training programs.

Methods of Systems Analysis. (Skills and methodology in systems analysis). *Elective.* This course is designed as an overview of strategies and techniques in systems documentation. Included are application and development strategies; applications and development life cycles; and the application of software.

Business Communications II. (Advanced study in business communications). *Elective.* This course emphasizes application of communications skills, including written preparation of letters, memoranda, and business reports, as well as oral presentations.

Industry Related Course. (Study of a particular industry, e.g., banking, production, utilities, insurance, retailing). *Elective.* This course provides business concepts as related to a particular business/ industry.

Phase IV: Application (Senior [Junior] Level)

Phase IV provides opportunity for the student through case study work to apply concepts learned through case study analysis. Case studies are examined and recommendations are drawn from the analysis. Phase IV

also includes an option for a professional practice (co-op experience [junior/senior level] or internship [senior level]). Specifically, courses identifed as Phase IV are:

Administrative Systems II. (Capstone course in administrative systems). *Required.* This course focuses on decision problems relating to administrative systems personnel, technology, and procedures. Using case study methodology, coursework previously taken is integrated to provide solutions to problems.

Professional Practices. (Students placed in actual job experiences). *Elective.* In this course, students are placed with business firms for periods of on-the-job training, either as co-op students or internists. In addition to the work experience, outside research into administrative systems management is required.

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APPENDICES

APPENDIX A

Letters Used in the Study

INDIANA UNIVERSITY

SCHOOL OF BUSINESS
Bloomington/Indianapolis

(Inside address)

Dear (NAME of AMS president/past president)

From time to time educators call on the business community to aid in research projects. I am soliciting your help in a research project with special significance to administrative managers. As a doctoral candidate in administrative systems and business education at Indiana University, I am undertaking a study to understand more about the nature, scope, and functions of administrative systems in modern business. I need your help in contacting business firms in order to obtain data relating to their administrative support systems.

Specifically, I should like to have you, (president, past president) of the (city's name) Administrative Management Society, identify for me specific organizations represented in your membership which have successful administrative systems functions in operation. Would you be kind enough to list for me the names of at least five firms having membership in your AMS chapter that meet the following criteria:

1. The organization must have a manager at mid- or upper-level management with the responsibility of managing support services.

2. The firm, in your judgment, is progressive—quick to implement change in their support systems.

Please send 1) the company name and address; and 2) the name of the administrative manager. Upon receiving this information from you, I shall proceed to contact the organization asking for their participation in this research. Enclosed is a stamped, self-addressed envelope for your response.

Thank you! Your expertise, time, and effort in aiding this research project is definitely appreciated.

Sincerely,

Bridget N. O'Connor
Visiting Faculty Lecturer

Enclosure

INDIANA UNIVERSITY

SCHOOL OF BUSINESS
Bloomington/Indianapolis

(Inside address)

Dear (NAME of administrative systems manager)

Thank you for talking with me (date). I enjoyed our conversation and look forward to meeting you in person on (date).

As I explained, I am doing case studies of progressive administrative systems divisions; I am pleased you and your organization have agreed to participate in the study.

First, I should like to interview you, (NAME). This interview should take approximately two hours. In addition, I should like you to randomly distribute a short questionnaire to ten of your operative staff. Other inverviews I should like you to schedule follow: (no particular order)

Position	Time
Your immediate superior	20 - 30 minutes
Component supervisors	1 hour, each
word processing	
data processing	
records management	
communications services	
Three users of support systems,	20 - 30 minutes
i.e., executives in accounting	
marketing, personnel	

I shall call you early next week (date) to verify the date of the interview. Thank you, (NAME); I appreciate your assistance and look forward to my visit at (NAME of organization).

Sincerely

Bridget N. O'Connor
Visiting Faculty Lecturer

INDIANA UNIVERSITY

SCHOOL OF BUSINESS
Bloomington/Indianapolis

(Inside address)

Dear (NAME of administrative systems manager)

Thank you for aiding me in my research project last (date). Your (Name of division) was a perfect example of fine administrative systems management—and a great source of data for my study.

I have been going through my notes which appear to be thorough. Should I have further questions, I may call again on you for your expertise. Also, as I explained, once the data are in a case study format, I shall send them to you for your inspection and comments.

Thank you, (NAME). Meeting you and the other professionals at (NAME of organization) was a genuine pleasure. You have a very progressive division; thank you for sharing it with me.

Sincerely

Bridget N. O'Connor
Visiting Faculty Lecturer

SCHOOL OF BUSINESS
Bloomington/Indianapolis

(Inside address)

Dear (NAME of administrative systems manager)

The Indiana University research project you and your firm partici-
pated in is currently in its final stages. I have one remaining
favor to ask; would you please review the enclosed "case" for accuracy.
Do you believe it gives a fair description of your division, (NAME),
as it existed at the time of the interviews?

There is no need to return the case; however, I should appreciate a
short statement from you, indicating the validity of the information
presented. A stamped, self-addressed envelope is enclosed for your
response.

It was, indeed, a pleasure to meet you, (NAME), and your fine associates
at (Company Name). Your division proved to be a fine example of
progressive administrative systems management. Thank you for your
cooperation.

Sincerely

Bridget N. O'Connor
Visiting Faculty Lecturer

Enclosures

P.S. In the appendix of this study, your name and organization
will be listed with the names of other managers and organi-
zations participating in this study. Do you have any objections
to being included in this list?

APPENDIX B

Data Collection Instruments

TELEPHONE INTERVIEW GUIDE*   ADMINISTRATIVE SYSTEMS MANAGER

Name of organization

Address

Nature of company

Size of company

Administrative systems manager's position (rank) in the total company hierarchy and title

Support services for which administrative systems manager is responsible

Willingness of the administrative systems manager to participate in this study

*Note: Some of this information may have been received from Administrative Management Society presidents.

GENERAL

Do you have a written job description? May I have a copy? What are
your major duties?

Is an organizational chart available? If not, will you help me diagram
your position in the organization?

What do you see as the purpose of your division (the administrative systems
function)?

BACKGROUND

How long have you been with this organization?

How long have you been in your current position?

What are your previous job titles with this company? With other organizations?

Please describe your educational background: degrees, training, etc.

ORGANIZING

Describe the support functions which are your responsibility in terms
of equipment, personnel, and major duties.

STAFFING

What is the procedure for obtaining new employees? Who interviews? Who
hires?

What decisions are made at your level with regard to training/retraining
practices for personnel?

Are you responsible for employee evaluation? How are personnel evaluated?
How are standards set?

What is the nature of most operative/clerical complaints?

How are complaints handled?

Are your clerical employees unionized?
    If yes, when did the union begin operations?
    If no, is there currently any talk of unionization?

Are you currently having any difficulty finding qualified personnel?
Do you foresee any problem finding qualified personnel in the future?

COMMUNICATIONS

Which communications channels do you utilize the most?

COMMUNICATIONS (cont.)

What are the communication channels between you and (1) your immediate
superior; (2) users of the systems (other function managers); (3) component
supervisors; and (4) the clerical (operative) staff?

Channels--Formal: suggestion box, scheduled meetings, memos, workshops,
                   seminars
          Informal: informal meetings, telephone calls, coffee, lunch

How often are these contacts?

Does any one department/area demand substantially more or less of your
time than others? Why?

TECHNICAL EXPERTISE

How expert are you in computer operations? How expert should you be?

What is the procedure for acquiring new equipment? How are vendors selected?
Who decides whether to lease or buy?

How are users informed of newly purchased/leased equipment capability?

PROFESSIONAL GROWTH

Are you a member of any professional organization? Name them.

Which professional publications do you read regularly? (show list)

In what other ways do you stay informed of current developments in administrative
systems technology/management? Seminars? Workshops?

THE FUTURE

What changes do you see for your division in the immediate future? (bigger,
smaller; more centralized, less centralized; more automated,less automated;
more employees, fewer employees; more status, less status, etc.)

What do you see in the future for yourself in this organization?

Which skills and knowledges are necessary for an administrative systems
manager of the future?

INTERVIEW GUIDE   SUPPORT SERVICES COMPONENT SUPERVISORS

GENERAL

Title

How long have you been in your current position?

How long have you been with this organization?

What are your previous job titles with this company? With other organizations?

Please describe your educational background: degrees, training, etc.

DUTIES

Do you have a written job description? May I have a copy? How would you describe your major responsibilities?

What are the major functions of your department?

Please describe your department in terms of (1) number of employees; (2) equipment.

Is your equipment adequate? Do you have plans for upgrading? Is equipment generally leased or purchased? Are you involved, personally, in choosing the specific model of equipment? Are you aware of equipment which might enable you to do your job better?

What changes have you seen since your appointment to this position?

COMMUNICATIONS

How often do you have contact with the administrative systems manager?
What is the nature of these meetings?

What are the channels of communications you and your subordinates have with the administrative systems manager?

PERSONNEL

What is the process for hiring employees? What role do you play in personnel selection?

Do you ever have difficulty finding qualified workers for your department?

How is training handled in your department? Do you play an active role in the training process?

How would you assess the level of job satisfaction of your personnel? High? Moderate? Low? Why?

INTERVIEW GUIDE   SUPPORT SERVICES COMPONENT SUPERVISORS   Page 2

PERSONNEL (cont.)

What is the nature of most employee complaints?

How are complaints handled?   Union?   Supervisor?   Suggestion Box?

Are your employees unionized?   If so, since when?   If not, is there any talk of unionization?

PROFESSIONAL GROWTH

What are your major qualifications for this position?

Are there any skills you don't have, but wish you did?   What are they?

Do you belong to professional organizations?   If so, which ones?

Which journals do you read on a regular basis?(show list)

What are your predictions for your department in the near future? (Larger, smaller; more automated, less automated; more personnel, less personnel, etc.,)

Where do you see yourself in regard to promotion, within this organization?

INTERVIEW GUIDE

PEERS (OTHER FUNCTION MANAGERS)

GENERAL

Name

Title

Length of time in current position

THE ADMINISTRATIVE SYSTEMS FUNCTION

How would you describe the operation of the administrative systems function in your organization?

What services do you obtain from the administrative systems function?

Are there services not available to you, but you feel should be? What are they? Suggestions for improvement?

How often do you have contact with the administrative systems manager?

What is the nature of this contact? e.g., scheduled staff meetings, telephone conversations, memos, workshops.

Have you had any formal or informal training sessions/seminars in conjunction with support services operation? If so, what was the nature of the training? If not, would you want special training in the area?

How would you describe the rapport you and other managers have with the administrative systems manager?

What do you see in the immediate future for the administrative systems function?

INTERVIEW SCHEDULE   IMMEDIATE SUPERIOR OF THE ADMINISTRATIVE MANAGER

GENERAL

Name
Title

Length of time in current position

Length of time with company

Previous job titles

THE ADMINISTRATIVE SYSTEMS FUNCTION

How would you describe the organization and operation of the administrative systems
function in your organization?
Why is the administrative systems function organized this way?
What is the administrative systems manager's role in company policy formation?

On what basis was the current administrative systems manager chosen for this job?

What is the ideal background for an administrative systems manager?

How often do you personally meet with the administrative systems manager?

What is the format of these meetings? scheduled staff meetings, problems, planning
for the future?

At scheduled staff meetings, does this manager often make presentations?

How would you describe the rapport this manager has with other function managers?

How would you describe the rapport this manager has with subordinates?

What do you see in the immediate future for the administrative systems function?

INDIANA UNIVERSITY

SCHOOL OF BUSINESS
Bloomington/Indianapolis

Dear Sir or Madam:

You have been selected to participate in an Indiana University study concerning support systems operations. As the work you do in your particular department is important to your organization, information concerning your work is important to this research!

Please take a few minutes to fill out the enclosed questionnaire. When you have completed your questionnaire, please return it to me in the envelope provided, sealed. Your answers will be kept in the strictest confidence.

Thank you! Your participation in this project is needed--and appreciated.

Sincerely,

Bridget N. O'Connor
Department of Administrative Systems and
  Business Education
Indiana University

QUESTIONNAIRE

Company _____

Department _____

Title _____

Length of time with this company _____ years _____ months

Length of time in your current position _____ years _____ months

Educational level completed (check one):

_____ less than 12   _____ post secondary _____ years
                                     area studied: _____

_____ high school   _____ college degree
                                     area studied: _____

Please describe your major duties

What equipment are you qualified to operate in this department?

What are your major qualifications for your job?

Describe the training you have had for this position.

What phase(s) of work do you enjoy most?

How would you describe your level of satisfaction with your job?

_____ High _____ Moderate _____ Low _____ Unsatisfactory

Do you have any specific suggestions for improvements which would make your job more satisfying? What are they?

Should you have a complaint concerning hours, wages, working conditions, etc., how would you make it known?

How are you evaluated? Who does the evaluation? How often?

Is your department currently unionized? If it is, are you a member? If not, is there any talk of a union?

What possibilities for advancement do you see for yourself in this organization?

Please use the space below for any additional comments or concerns you may have concerning your position.

PERIODICALS

_____ Administrative Management

_____ Data Management

_____ Datamation

_____ Impact

_____ Information and Records Management

_____ Information Systems News

_____ Infosystems

_____ Management World

_____ Modern Office Procedures

_____ The Office

_____ Office Appliance

_____ Office Products News

_____ Personnel Journal

_____ Records Management Journal

_____ Records Management Quarterly

_____ Word Processing

_____ Word Processing Systems

_____ Others (please specify)

_____

_____

_____

_____

APPENDIX C

Journals Read by Administrative Systems Managers

TABLE 36. JOURNALS READ BY ADMINISTRATIVE SYSTEMS MANAGERS

NUMBER OF READERS	JOURNAL
5	Administrative Management
4	Datamation The Office
3	Infosystems Modern Office Procedures Computer World
2	Management World Information Systems News
1	Business Communications Review Data Communications Data Processor Information and Records Management Office Products News Systems Journal Word Processing Word Processing Systems

VITA

Bridget N. O'Connor was born January 5, 1952, in Louisville, Kentucky. Early years were spent in Clarksville, Indiana; Madison, Indiana; Owensboro, Kentucky; Florence, Kentucky; and Tell City, Indiana. In 1969 she graduated from Tell City High School and entered the University of Evansville (Indiana) where she completed a B. A. in Business Education in March of 1973. In April she accepted a position as Credit Accounting Coordinator for Procter and Gamble in Cincinnal, Ohio. She left that position in December, 1973, to serve as a Peace Corps Volunteer in Kabul, Afghanistan. At Kabul University's Faculty of Letters, Bridget was Chairperson of the Business Program. Upon completion of her Peace Corps contract, Bridget remained in Kabul, working with the Peace Corps Office in the training of new volunteers in business education programs throughout the city and then working in an administrative position for the University of Nebraska Team/Kabul.

Returning to the United States, Bridget accepted a position as a business instructor at North Newton High School, Morocco, Indiana for the school year 1976-77. In the summer of 1977, she enrolled in the Masters program in Business Education at Indiana University. Upon completion of a M. S. in Business Education in 1978, Bridget accepted a position at the International School of Brussels (Belgium). In 1979, she returned to Indiana University to complete work on a doctorate. Since 1979, she has served as an Associate Instructor and Visiting Faculty Lecturer in the Department of Administrative Systems and Business Education, School of Business, Indiana University (Bloomington).