

379
N816
No. 4702

WOMEN IN HIGHER EDUCATION ADMINISTRATION:

AN ANALYSIS FOR 1983-1998

DISSERTATION

Presented to the Graduate Council of the

University of North Texas in Partial

Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

Sandra Jane Muskopf, B.B.A., M.B.A.

Denton, Texas

August, 1998

200

Muskopf, Sandra Jane, Women in Higher Education Administration:

An analysis for 1983-1998. Doctor of Education (Higher Education), August, 1998,

97 pp., 36 tables, references, 40 titles.

The objective of this study was to identify if women have made statistically significant increases as top-level administrators in institutions of higher education during the period 1983-98.

The research focused on the following areas: (1) Have women made significant increases as administrators during 1983-98? (2) Have women made significant increases in their proportion of total administrators during 1983-98 in the following areas:

(a) comprehensive institutions, (b) doctoral institutions, (c) liberal arts institutions, and (d) research institutions? (3) Has the proportion of women administrators in private institutions increased significantly more than the proportion of women administrators in public institutions for 1983-98?

Two, stratified, random samples, one consisting of 200 institutions for 1983 and one consisting of 200 institutions for 1998, were evaluated to determine the number and proportion of women in top-level administration in each type of institution and in each Carnegie classification. Top-level administration positions were defined as Chancellor,

President, Chief Executive Officer, Provost, Vice-President, Assistant Vice-President or Associate Vice-President.

The findings from this study indicate that women have made statistically significant increases in institutions of higher education from 1983-98. Women have increased in proportion in every category and in every type institution. There was not a significant difference found between the gains made by private institutions and public institutions.

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ACKNOWLEDGMENTS

To my husband, Howard and our children, Spencer, Justin, Stephanie, Lauren and Taylor, I owe eternal gratitude for your undying patience and selflessness while we pursued my doctorate. You are the wind that kept me afloat. Stephanie, thank you.

Kathleen, my editor, I would have never finished without you. Thank you for everything.

To my mom, grandparents, and in-laws, thank you for your gracious support and encouragement. There were countless times you kept me pursuing my dream and gave me the strength I needed to endure.

I extend warm thanks to each of the members of my committee for their guidance and valuable contributions, for which I am eternally grateful.

Finally, I thank the staff and administration at Southern Methodist University for the support and patience they displayed during my quest.

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CHAPTER I

INTRODUCTION

Several laws and changes in laws were enacted in the 1960s and the 1970s to help ensure equal rights in the work place for women. Two such changes were the addition of sexual discrimination in Title VII of the Civil Rights Act, and the inclusion of higher education institutions in the Equal Pay Act of 1963. Examples of the new laws enacted were the Public Health Service Act of 1971, Title IX of the Education Amendments of 1972, and Section 408 of the Education Amendments of 1974. In a conscious effort to examine the equity of women in the workplace, President Kennedy appointed the Commission on the Status of Women. This commission prepared a report titled "American Women" that documented the low status of women in education and work (Astin and Snyder, 1982). In the 1970s and 1980s numerous organizations conducted studies, such as the National Identification Program survey (1984), the Modern Language Association Commission on the Status of Women in the Profession (1974), and the Office of Communication Services of the National Association of State Universities and Land Grant Colleges (1978), to determine if the newly enacted laws resulted in women

becoming top level administrators in institutions of higher education. During this time period, The American Council on Education's Office of Women in Higher Education also decided to begin accumulating and publishing annually a record of the number of women chief executive officers (presidents) in American colleges and universities. The studies and ACE's tables showed minimal increase with one study reporting only an increase of nine-tenths of one percent from 1968-1972 (Bayer, 1973) in the number of women in higher education administration. In 1980, Howard and Downey wrote that women continued to be underrepresented in upper-level administration even though the percentage of women occupying top-level administration positions has increased slightly since the 1970s. Frances and Mensel (1981) found that the changes in employment for women in more than 50 higher level administrative positions had been minimal between 1975 and 1978. Green (1984) found that while a woman may make it to the presidency in higher education it is much more likely that she will be found in the low and middle levels of administration.

The laws, programs, and studies that were implemented were designed mostly to help women as a protected class against gender discrimination enter into positions. Few people, men or women, enter into higher education, or any other industry, in the highest level positions offered, presidents or vice presidents. Research (Astin, 1974; Moore,

1983) shows clear career paths exist in which people advance into top-level administration positions in higher education institutions. If these laws, commission formations, and studies did help open the doors of higher education positions to women, the effect would just recently be seen due to the time it would take for women to be promoted into these higher level administration positions from the entry-level positions where most of them entered into higher education institutions.

Have women continued to make gains into top-level administration positions in higher education since 1983? In fact, evidence shows that time has helped increase the number of women in administrative positions in higher education. Follow up studies performed in the 1980s showed that women were making progress in joining the ranks of administration but the numbers were still not equitable with men (Frances & Mensel, 1981; Shavlik & Touchton, 1983; Touchton & Shavlik, 1985). Community colleges witnessed a 200% gain in their number of women presidents in the 1970s which represents an increase that no other type of postsecondary institutions has ever exceeded (Taylor, 1981). Touchton and Ingram (1995) found that women comprised 17% of the Vice Presidents for Academic Affairs, which Moore (1983) considered the prelude to the presidency. With many factors, such as the laws, addendums to laws, and attention to institutional barriers of equity, having been in existence for over 20 years and the evidence

that the number of women in administrative positions in higher education institutions has increased, it is relevant to determine if significantly more women are employed in higher education institutions at high-level administration positions in 1998 than were employed in these positions in 1983.

The Problem

Does a statistically significant difference exist between the proportion of women administrators in higher education institutions in the United States in 1998 than the proportion of women administrators in higher education institutions in the United States in 1983?

Purposes of the Study

This study determines if: (1) the proportion of women employed as higher education administrators has significantly increased in the past fifteen years from 1983 to 1998 and (2) any statistically significant differences exist among institutions within the Carnegie classifications in the proportion of women employed as high-level administrators from 1983 to 1998 and (3) any statistically significant differences exist in the United States between private institutions and public institutions over the time period of 1983 to 1998 in the proportion of women administrators.

Hypotheses

The following hypotheses were tested:

(1) The proportion of women administrators in higher education institutions has significantly increased during the period 1983 to 1998.

(2) A significantly higher proportion of female administrators are serving in high-level administration positions in 1998 than in 1983 for each of the following Carnegie classifications:

(a) Research institutions have a significantly higher proportion of female administrators serving in high-level administration positions in 1998 than in 1983;

(b) Doctoral institutions have a significantly higher proportion of female administrators serving in high-level administration positions in 1998 than in 1983;

(c) Comprehensive institutions have a significantly higher proportion of female administrators serving in high-level administration positions in 1998 than in 1983;

(d) Liberal arts institutions have a significantly higher proportion of female administrators serving in high-level administration positions in 1998 than in 1983.

(3) A significantly higher proportion of women serve as top level administrators in private institutions than in public institutions for the period 1983 to 1998.

Significance of the Study

An analysis to determine if a significant increase in the proportion of women as top-level administrators in higher education institutions had not been performed for the period of 1983 to 1998.

Today there is still discussion (Johnson, 1991) of a glass ceiling that exists in higher education institutions against women being promoted into positions of high-level administration. It is important to determine if women have made significant strides as higher education administrators. This study, therefore, is potentially significant in that it (1) determines if the proportion of women higher education administrators has significantly increased over the past 15 years; (2) provides a rationale for continuing to support legislation that protects women employees and assists them in gaining equal access to higher education institutions as employees; (3) results in implications for Carnegie classification types of higher education institutions if statistically significant differences are found.

Definition of Terms

United States Institutions of Higher Education: all community colleges, colleges, and universities in the United States listed in the 1998 Carnegie classification as identified by the Carnegie Foundation for the Advancement of Teaching.

Public Institutions: those institutions of higher education funded and supported by their state government and regulated by the state in which they operate.

Private Institutions: those institutions of higher education that are not operated by or primarily funded by the state in which they operate.

Carnegie Classification: A list of institutions separated into categories based on the institution's types of degrees awarded, majors offered and amount of funding received.

Administrative positions: positions in institutions of higher education that have the title of one of the following: Chancellor, President, Chief Executive Officer (CEO), Provost, Vice President, Associate Vice President, and Assistant Vice President. The title can be in combination with any other title such as Dean.

Delimitations

Due to the type of information available in the resource to be used, the race/ethnicity of high-level administrators will not be determined in this study. Many other studies are available that have examined the race issue. The issues of race and ethnicity are beyond the scope of this study.

Assumptions

The foundation of the study assumes that equity for entry into higher education institutions for women also means they are equitable for promotion. Equal opportunity exists for women to be promoted into high-level positions of administration as for men, once women have gained entry as professionals in higher education institutions.

CHAPTER II

LITERATURE REVIEW

The founding of Oberlin College for women in 1833 was considered a milestone in higher education history. In the History of Oberlin College in the Civil War, however, Fletcher (1943), writing from a 20th century perspective, concluded that Oberlin College perpetuated women as "helpmates". Fletcher claimed the college's attitude was that women were to be mothers and that stepping out of that role would leave their offspring suffering from the lack of devoted and undistracted mother care. After the Civil War more colleges opened for the education of women including Vassar, Smith, and Bryn Mawr. As a result of the opening of the additional women's colleges and increasing interest from women in attending higher education, people began to fear that women's presence in higher education would cause a decrease in admission standards and less rigorous course offerings. Due to this fear, separate degree offerings and different graduation requirements were established for women.

The first documented demand by women for equal access to education and the educational profession was in Seneca Falls, New York in 1848. In November, 1881, 17

women gathered for an organizational meeting of women college graduates to discuss their future prospects. This was considered a highly unique organization since few women went to college in the late 1800s and even fewer received advanced degrees (Scott, 1980). According to Eddy (1977), the first meeting of the Deans of Women organization was held in 1903, and in 1916 women formed the National Association of Deans of Women. Both of these organizations were formed within the field of student affairs before any men's organizations existed. The first formal graduate course in student affairs was offered in 1916 entitled, "The Dean of Women in Higher Education" (Eddy, 1977). In 1919, the country witnessed a decrease in the advances of feminist concerns with the decrease in the focus on suffrage. The decrease in women's concerns continued through the 1920s due to the passage of the Nineteenth Amendment in 1919 and World War I. By the 1930s, the opportunities available for women graduating from college differed from the opportunities available for college women that had graduated earlier in the century. The economic crisis caused the positions that had traditionally provided employment opportunities for women such as teaching, social work, and nursing to close and women graduates were virtually without employment. After the creation of the one organization of women that existed in 1881, only two more women's organizations came into existence by 1931. The lack of progress made by women could also be seen in Willard Waller's

statements when he wrote in 1932 that minorities and women are never fully accepted in the traditionally white male's world.

In 1943, Fletcher wrote of the progress women had made during the 1900s that no easily identifiable differences existed in employment for women, such as printed dual wage scales, but women were still in a separate world in education.

The decrease in interest and focus on women's issues of equality continued until the issue was almost nonexistent in the 1950s while women either stayed at home or returned to traditionally stereotypical roles. The 1960s and the 1970s witnessed a radical change from the lack of interest in women's rights when women's groups such as the American Association of University Women (AAUW) turned to new, visible, and aggressive strategies. Legislation was passed during these decades to increase equal rights and opportunities for women.

To help with the promotion of women, President Kennedy appointed the Commission on the Status of Women in 1963, which prepared a report titled "American Women". In this report the Commission documented the low status of women in education and work. During this time, legislation began being enacted to help alleviate discrimination based on sex. In the early 1960s, gender was added to the Title VII of the Civil Rights Act. The Equal Pay Act of 1963 was amended to include higher education

institutions and prohibited discrimination of salaries based on the gender of the employee.

The Public Health Service Act of 1971 was the first legislation forbidding sex discrimination against students and in admissions to certain professional schools. Title IX of the Education Amendments of 1972 also opened the doors of educational institutions to women by prohibiting sex discrimination against students and employees in all federally assisted programs including financial aid, admissions, and student services. About this time, Congress declared that educational programs in the United States were greatly inequitable and therefore, limited the full participation of women in American society. Congress subsequently passed Section 408 of the Education Amendments; the Women's Education Equity Act in 1974. The purpose of this act was to provide equitable educational access for women.

With the wave of legislation came an increase in the number of studies concerning women and their role in education as students, faculty, and administrators. The American Council on Education began compiling and publishing a record of the number of women who were chief executive officers in higher education institutions in the United States. They found that female appointments to any position in university employment increased only nine-tenths of one percent during 1968 to 1972 (Touchton and Davis, 1991). In 1975, the Higher Education Research Institute performed studies to assess the types and

extent of sex discrimination in postsecondary institutions (Harway and Astin, 1977). In 1977, Astin performed another study of women administrators and found that in the mid 1970s women accounted for eight-tenths of one percent of the presidents of higher education institutions and one and one-tenth percent of the chief officers of administrative divisions. The study concluded that women were extremely under-represented in top administration positions in American colleges and universities. In the study, 15.7 percent of all deans in 1975 were found to be women but more than half were deans of either home economics or nursing schools. The study also determined that the already small percentage of women was a misrepresentation because of the high number of women administrators who were working in colleges for women; showing that women had not made much headway in entering into male-dominated higher education institutions. During this same time period, members of the president's appointed commission and the Office of Women in Higher Education staff began documenting the relative and sometimes total absence of women in top-level administration positions. They found the number of women in administration decreased in the upper-level administrative ranks. As students, women accounted for almost 50% of the college population but women only comprised 25% of the faculty and only 5% of all presidents (Richardson, 1975). The Modern Language Association Commission on the Status of Women in the Profession also

reported that within the university, women remained at the bottom of the academic hierarchy.

In Sexism in Higher Education, Richardson (1975) wrote of the traditionally unwelcoming environment female students found in higher education. Even as late as 1984, this attitude was still permeating society. In 1984, Fennema and Ayer in Women and Education: Equity or Equality, concluded that women's work outside of the home was less valued and their employment was viewed as problematic. Fennema claimed that laws forced women to be allowed into the higher education profession but women were still not accepted by their male colleagues. She reported that the female professor is unaccepted in higher education institutions. Richardson (1975) was also concerned over the definition of administration in many studies of the time. In one study performed in the early 1970s, Purdue University listed 43 women as administrators but many of these were workers in the residence hall kitchens and many others were administrative assistants (support staff).

Several other studies were performed at this time and many articles written to disclaim any doubts about women's subservient position in higher education (Stacey, Bereaud, & Daniels, 1974). Women were all but locked out of the position of college president except in small Catholic women's schools where the headmaster was a nun. Less than 12 other types of four-year institutions' offices of the president were held by women

and five of those were women's colleges. In the presidency of co-educational institutions there was not a single woman president. Very few women were even found in a top-level administrative position (Chamberlain, 1990; Furniss & Graham, 1974).

Astin and Snyder (1982) found that despite a nearly doubled number of women awarded with a Ph.D. compared to 1972, there was only a 3.7% increase in women in academic personnel positions. In 1983, Moore determined the orderly career path of administrators was faculty member, department chair, provost, and then president.

Hetherington and Barcelo (1985) found that the higher the rank in higher education, the fewer the women, the higher the prestige of the position, the fewer the women, and that women are promoted more frequently than men but in smaller increments.

In 1985, Touchton and Shavlik determined 17% of chief academic division officers were women and that this position was the prelude to the presidency. They were optimistic, however, that more women would be seen as presidents and continue to be promoted through the ranks. Mark found that men continued to dominate the administration of institutions in higher education in 1986 but that women were making slow progress. He determined the number of women senior administrators had increased 90% from 1975 to 1983 but that the actual number of women was still unimpressive. Mark and others also found that women in higher education tended to be clustered in

entry and middle-level administrative positions and not top-level positions (Mark, 1986; Moore and Sagaria, 1982). In 1987, some researchers were optimistic that opportunities for women might be increasing. More appropriately experienced women were available and were holding more high-level positions. In that year, women composed 27% of deans in academic areas, 25% of chief student affairs officers, 20% of chief development officers, 17% of chief academic affairs officers, 10% of chief business officers, and 10% of chief executive officers of institutions (Touchton and Shavlik, 1991). In 1988, Fobbs found that despite women having received degrees and having prepared for careers, they continued to struggle to get high-level administrative positions but she also found that leadership roles and gender composition in American higher education top-level positions were gradually changing. She reported a 93% increase in the number of women chief executive officers from 1975 to 1984 and determined that women were more likely to be assistants or associates than directors, deans, or vice presidents.

Many of the studies performed in the 1990s were limited to snapshots of women at a given time and did not review trends. Furthermore, these studies were generally limited to the office of the presidency. Some states performed intra-state surveys to determine how women in their state fared in higher education positions (Featherman, 1993; New Jersey State Department, 1987). Gragasin (1992) performed a national study limited to

presidents and determined that of the nearly 190 chief executive officers in employment in the first half of 1992, approximately 28% of these were women. Touchton and Davis (1991) looked at trends in the office of the presidency. They performed a longitudinal study of women college presidents and found that the number had more than doubled from 1975 to 1989.

Action has been taken by various groups to increase the status of women in higher education. The American Council on Education's Office of Women in Higher Education has been active in identifying and promoting talented women to head higher education institutions. This organization also began the National Identification Program for the Advancement of Women in higher education administration in order to develop state based networks of leaders to promote and continue equal opportunity for women. Other strategies have been utilized in the 1980s and 1990s to help promote women in higher education (Etaugh, 1985). Etaugh hoped the strategies being utilized and recommended would be more useful in increasing the number of women in top-level positions over the next decade (1985-1995) than in the past decade (1975-1985).

Some authors believed that increased legislation for women and increased education of women should have already led to a significant increase in the number of women as administrators in higher education institutions by 1980 (Howard and Downey,

1980). Men were earning degrees for years, however, when women could not even attend higher education institutions, and more men earned degrees than women for many years after women were admitted into a degree program. More women entered into higher education institutions than men for the first time in the mid 1970s and the retention rates of women students have continued to increase (Gragasin, 1992; Ottinger & Skinner, 1993; Roberts, 1974). This was only 22 years ago and these women were just being accepted into baccalaureate programs, not advanced degree programs. In order to be employed in top-level administration most positions require a minimum of a master's degree and many, especially presidency positions, require a doctorate. These women then, would have to graduate from three degree programs and then start in a mid-level administration position before being promoted into top-level administration. The chances that a person is going to graduate with a doctorate and go straight into a vice presidency position or higher are minimal.

Given the fact that promotion takes time and legislation was just recently enacted in the 1970s, with the most recent legislation affecting women enacted within the last 20 years, it was too early in 1980 when many studies were performed, to expect significant change although the studies did show some increase in the number of women top-level administrators. To determine if this number will continue to increase it is necessary to

look at the numbers of women and trends of women in all administrative positions leading to the presidency since women were achieving top-level administration positions by being promoted through the ranks. With an increased number of documented women having achieved the Ph.D. there should be larger numbers of women in administrative positions (Moore, 1985; Richardson, 1975; Taylor, 1981; Walsh, 1978).

Despite some positive signs that more women have moved into higher education administrative positions, there continues to be a noticeable discrepancy between the number of professional men and women in similar, high-level administration positions in higher education. This discrepancy will continue for many decades because men were well entrenched in higher education positions many decades before women even began striving for degrees. Success of women in administrative positions can only be measured then, by looking at longitudinal, comparative data of women within a given time period. The time period needs to be relevant and long enough to allow for women to have made a measurable impact. No recent, longitudinal studies of national comparative data that look at all top-level administration positions have been reported. The data need to be from the same database so that the comparison is of the same data. Since many studies were performed in the 1980s but few have been done since that time, a study measuring the difference of the proportion of women in higher education administration positions from

1983 to 1998 would be appropriate and the time period long enough to expect to see significant change, if it exists. The year 1983 was purposefully chosen based on the activity and studies occurring in the 1970s and the early 1980s.

Many of the studies performed in the 1980s used numbers of administrators that were reported by the institution. These numbers were sometimes inflated by the lack of a set definition for top-level administration. As already mentioned, some institutions defined cooks as top-level administrators which is a different definition than the one defined in this study.

The number of women administrators reported in the studies was also potentially skewed by the high number of women in all female and private Catholic institutions. Without a breakdown by institution type the actual progress of women in all institutions of higher education is hard to determine. In the 1990s, a large discrepancy existed between private and public institutions and their number of female top-level administrators. There was also a difference between the larger public institutions such as research colleges and universities who had a significant lag behind the liberal arts private colleges and universities in the number of women employed as administrators in the 1980s. It is relevant to determine if these gaps, and others, still exist.

CHAPTER III

METHODOLOGY

Research Design

This study utilized a descriptive research design. It was a comparative, survey study which analyzed primary data. The samples for both 1998 and 1983 were chosen from higher education institutions listed in the 1994 Carnegie Foundation's A Classification of Institutions of Higher Education. The proportion of women employed as top-level administrators at the selected sample institutions was derived from the Directory of Higher Education for 1998 and 1983. This directory came into existence in 1983 as a result of the disbandment of the Department of Education's Education Directory: Colleges and Universities (Higher Education Publications, 1983). Data is collected and published annually in the directory.

The year 1983 was selected for the study for several reasons. A large number of studies regarding women administrators in higher education had been performed in the 1970s but relatively few had been performed in the early 1980s. Also, in the early 1980s,

the focus on women's issues was not as much in the forefront as it was in the 1970s.

Furthermore, in order to perform a comparative study using the same database and mode of collection of data the same directory was used. The earliest year this organization compiled and published the data was in 1983.

Population

The sample was derived from the entire population of U.S. higher education institutions listed by the Carnegie Foundation in A Classification of Institutions of Higher Education (1994). Two hundred institutions for 1998 and two hundred institutions for 1983 were chosen from the A Classification of Institutions of Higher Education (1994) using a systematic, stratified sample. For each set of 200 institutions selected for each of the two years, the number representative of the proportion of the number of schools within the Carnegie classification to the entire population of higher education institutions was randomly selected.

The Carnegie classification was divided into the following main categories: research, doctoral, comprehensive, and liberal arts, also referred to as baccalaureate I and II. The sample of two hundred institutions for each year was proportionally divided so that if public, research institutions make up 10% of the population of public higher education institutions, the sample size for that year of 200 institutions includes 10%

public, research institutions from the Directory of Higher Education for each 1998 and 1983 (Table 1, Appendix, p.65).

Procedure for Data Collection

The institutions defined as the population are listed by the Carnegie Foundation in A Classification of Institutions of Higher Education (1994). The institutions were listed in this publication as they are divided into the Carnegie classifications. A systematic, stratified sample was determined from the listed population using the every nth procedure of selection. The stratification was proportional so that each Carnegie classification was comprised of the same percentage of institutions in the sample as they had in the population.

Selected Institutions

Once the number of each type of institution was determined the actual process of selecting the school began. The first systematic, stratified sample was drawn from the A Classification of Institutions of Higher Education (1994) which lists institutions. All institutions were chosen using the every nth method. The first sample chosen was liberal arts institutions. Once its percentage was drawn the sample of comprehensive institutions was drawn followed by doctoral and then research institutions. These institutions were used for the 1983 sample of 200 institutions.

The second systematic, stratified sample was then drawn from the A Classification of Institutions of Higher Education (1994) beginning with liberal arts institutions. Once its percentage of institutions was chosen, comprehensive institutions were determined followed by doctoral and finally, research institutions. This sample of institutions was used for the 1998 sample of 200 institutions.

Gender Identification

Once the institutions were identified and the sample comprised, the 1983 Higher Education Directory and the 1998 Higher Education Directory were consulted for their respective years to determine the number of women and the number of men in positions of upper-level administration at the chosen institutions that were in the representative sample. The positions were pre-defined and identified through a job classification code to eliminate confusion and inequity in differing job titles. The actual position of the person was recorded along with the person's gender to allow for an analysis by each pre-defined job title. The gender of the person in the position was identified through the person's name. Traditionally gender specific names were counted as their identifiable gender. Names that were listed as initials and names that were not traditionally gender specific, along with any questionable names, were tracked to their institutions. The institution was

then directly contacted via telephone to determine if the person in question was a male or female.

For the 1983 sample, 11 institutions were called to determine if the administrator was a male or female. For the 1998 sample, eight institutions were contacted to determine the gender of the administrator. In every instance, the administrator was able to be identified as either male or female. Every original institution chosen for each sample was able to be used in the final analysis for a total sample size of 400 institutions of higher education divided into two independent samples of 200 (one sample for 1998 and one for 1983). From this data, the number of men and women in positions of top-level administration was then calculated thereby leading to a proportion of women in upper-level administration.

Instrument

The data were collected from the Directory of Higher Education (1998) and the Directory of Higher Education (1983). The Department of Education published a similar directory until 1982 when it was discontinued. Several associations in education desired for the directory to continue so the Higher Education Publications was founded in September, 1982 (Higher Education Publications, 1998). The directory is considered a reference source as accuracy is one of its major goals. Higher Education Publications

gathers information by calling all institutions, associations, and accrediting agencies to verify the correctness of the information. The Directory of Higher Education (1998) lists the criteria for being in the directory as the following:

"(1) They are legally authorized to offer and are offering at least a one-year program of college-level studies leading toward a degree;

(2) They have submitted the information required for listing; and

(3) They meet one of the following criteria for listing:

A. The institution is accredited at the college level by an agency that has been listed as nationally recognized by the U.S. Secretary of Education;

B. The institution holds preaccredited status at the college level with a designated nationally recognized accrediting agency;

C. If the institution is public or nonprofit, it has qualified under the "three-institutions certification method". This certification method has been abolished by legislation and is no longer recognized by the U.S. Secretary of Education as of September 1, 1992. For the purposes of this study, only those institutions fitting one of the predefined Carnegie classifications and accredited by a nationally recognized accrediting agency were considered.

Data Analysis

The data were compiled and entered into a database. Frequency tables were constructed to analyze each institutional categories' proportion of women administrators by each position's title. A statistical comparison of proportions for each type of institution was performed and reported. The statistical test of difference of proportions between independent samples was used to test for statistical significance between the various proportions.

CHAPTER IV

PRESENTATION OF RESULTS

The data obtained regarding the institutions of higher education have been compiled, analyzed, and presented by the institution's Carnegie classification. Two hundred institutions for each year were chosen and all top-level administrators were identified by name either from the listed data or through directly contacting the institution.

Type of Institution

The 200 institutions chosen for each year were selected proportionately by their Carnegie classification. For 1983 and 1998 the same proportions were used to derive the number of institutions from each classification that were needed. In 1994, according to the Classification of Institutions of Higher Education there were a total of 1399 institutions of higher education. Research public institutions comprised 85 of these institutions, a percentage of six. Therefore, for each year (1998 and 1983) 12 public, research institutions were selected so that their sample size was proportional to the actual number of public, research institutions in the population. Likewise, there were 40 research private institutions in 1994, a percentage of three. Six private research

institutions were selected from the sample for each 1998 and 1983. There were 66 public doctoral institutions in 1994 for a percentage of five out of the population of higher education institutions. Therefore, nine public doctoral institutions were chosen from the sample of 200 for each year. Six private doctoral institutions were chosen for the sample because they make up three percent of higher education institutions with 45 institutions classified as private, doctoral. There are 275 public comprehensive institutions comprising 20 percent of the population, therefore 39 of them were chosen for each sample. Comprehensive private institutions make up 18 percent of the population with 253 institutions. Thirty-six comprehensive private institutions were chosen as part of each sample. Public liberal arts institutions account for 86 of the higher education institutions, a total of 6 percent. Twelve public liberal arts were chosen for each year's sample. Finally, there are 549 private liberal arts institutions for a total of 39 percent. Therefore, 78 private liberal arts institutions were chosen for each year. Table 1 (Appendix, p.65) shows the types of institutions and the number of each chosen for 1983 and 1998.

Number of Administrators

The number of female and male top-level administrators was determined for each institution in the sample so that the proportion of top-level female administrators could be determined and the proportions analyzed through the test of proportions for independent

samples. Hypothesis one states that the proportion of women administrators has significantly increased during the period 1983 to 1998. To evaluate this hypothesis, the data were calculated for all of the 1983 institutions in the sample and all of the institutions in the 1998 sample of higher education institutions. The 1983 sample consisted of 200 institutions of higher education whose data are displayed in Table 2 (Appendix, p.66). The total of women top-level administrators in these 200 institutions was 57 with a total of 717 men administrators meaning 7.36 % of top-level administrators in 1983 were women. There were 12 female presidents with 195 male presidents. Vice-presidents were comprised of 35 females and 487 males. There were 10 assistant or associate female vice-presidents with 35 male associate or assistant vice-presidents.

In 1998 there were also 200 institutions sampled. These data are displayed in Table 3 (Appendix, p.72). There were 306 females employed in these institutions with 924 males employed as top-level administrators for a percentage of 24.88, a noticeable increase from the 7.36% found in 1983. In the 1998 sample, there were 40 female presidents with 166 male presidents. Females accounted for 182 of the vice-presidents with 599 males. Eighty-four assistant or associate vice presidents were female with 159 male assistant or associate vice presidents. Table 4 shows the summary data for the institutions for each year.

Table 4

Proportion of Women Administrators in All Institutions, 1983-1998

All Institutions	1998	1983
Number of Women	306	57
Number of Men	924	717
Proportion of Women	24.88%	7.36%
Significance Found		yes @.01

Hypothesis one was supported. With a critical test statistic (z) of 5.85, there was a significant increase at the .01 level in the proportion of women administrators employed in top-level positions in higher education institutions from 1983 to 1998. The implication of the significance that was found is discussed in chapter five.

In order to examine hypothesis two it was necessary to divide the higher education institutions into their Carnegie classifications. Table 5 is a summary table of each classification's proportion of women administrators for 1983 and 1998. Each classification is discussed independently.

Table 5

Institutions Broken Down by Classification

Type of Institution	1998	1983	Significance
Research	22.66%	3.85%	unable to det.
Doctoral	29.5%	5.49%	unable to det.
Comprehensive	24.17%	8.41%	YES at .01
Liberal Arts	25.17%	8.14%	YES at .01

Hypothesis 2a purports that there was a significant increase in the proportion of women top-level administrators in research institutions from the year 1983 to 1998.

Research institutions in 1983 had the lowest percentage of women employed as top-level administrators with just 3.85% of their administration being women. There were 18 institutions that made up the sample of research institutions. These schools had a total of four women administrators with two assistant or associate vice-presidents and not a single woman president as seen in Table 6.

Table 6

Administrators in Research Institutions in 1983

Gender	Position of Administration			
	Presidents	Vice Presidents	Assoc/Assist VP	Totals
Male	18	75	7	100
Female	0	2	2	4
Percentage Female				3.85%

Research institutions in 1998 also had the lowest percentage of women administrators with 22.66%. They were still, however, much higher than their 1983 counterparts who had just 3.85%, as already indicated. Table 7 shows the data for the 1998 research institutions of which there were 18. They had a total of 46 female administrators with two female presidents, 22 vice-presidents and 22 assistant or associate vice-presidents.

Table 7

Administrators in Research Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	18	100	39	157
Female	2	22	22	46
Percentage Female				22.66%

While the data show an obvious increase in the proportion of women administrators, the actual proportion (.0385) of women in the 1983 research institutions is too small to be able perform the test of independent proportions. The hypothesis, therefore, went untested. The implications of the raw data will be discussed in chapter five.

Hypothesis 2b stated that a statistically significant increase in the proportion of women would be seen in doctoral institutions over the time period of 1983 to 1998. Table 8 shows the numbers of top-level administrators in the 1983 doctoral institutions. This category of institutions for 1983 had the next to lowest percentage of women with 5.49% of their top-level administrators being women. This classification consisted of 16 institutions. There were a total of 5 female top-level administrators with one female assistant or associate vice-president, four vice-presidents and no female presidents.

Table 8

Administrators in Doctoral Institutions in 1983

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	16	65	5	86
Female	0	4	1	5
Percentage Female				5.49%

For 1998, the doctoral institutions, of which there were 16, had the largest proportion of women with 29.5% as witnessed in Table 9, compared to the 1983 percentage of 5.49 women administrators. The 1998 percentage included 41 females, 14 female assistant or associate vice-presidents, 23 vice-presidents, with 4 female presidents.

Table 9

Administrators in Doctoral Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	12	61	25	98
Female	4	23	14	41
Percentage Female				29.5%

The doctoral institutions went from the next to lowest percentage of women in the 1983 categories of institutions to the highest percentage of female administrators among the institutions in 1998. The actual proportion of .0549 for 1983 is too low to assume normality in the distribution. Each sample's proportion multiplied by its respective sample size must be greater than 5. The test of independent proportions can not, therefore, be run and this hypothesis went untested. The differences in the raw data will be discussed in chapter five.

Comprehensive institutions (public and private) consisted of 76 schools. This classification had the largest proportion of women administrators in 1983 with a percentage of 8.41% derived from a total of 27 females and 294 males. There were five female presidents, 16 female vice-presidents and six female assistant or associate vice presidents. Table 10 shows the number of female and male administrators as well as the percentage of female administrators for comprehensive institutions in 1983.

Table 10

Administrators in Comprehensive Institutions in 1983

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	72	201	21	294
Female	5	16	6	27
Percentage Female				8.41%

Comprehensive institutions in 1998 employed a proportion of women administrators of 24.17% as displayed in Table 11. There were 76 institutions in this category. In 1998, they had a total of 109 females as top-level administrators, 15 of these were female presidents. Females accounted for 63 vice presidents while the remaining 31 females were assistant or associate vice-presidents.

Table 11

Administrators in Comprehensive Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	65	207	70	342
Female	15	63	31	109
Percentage Female				24.17%

In order to examine hypothesis 2c the two independent proportions of comprehensive institutions, .0841 for 1983 and .2417 for 1998, were tested for significance of independent proportions. This analysis supported hypothesis 2c because it shows that a significant increase exists at the .01 level in the proportion of women administrators in comprehensive institutions from 1983 to 1998. The critical test statistic (z) equaled 3.17. The significance of this finding will be discussed in chapter five.

Liberal arts institutions had the second largest percentage of women (8.14%) in 1983 as shown in Table 12. For 1998, they reported a total of 21 females, with 7 female presidents, 13 female vice-presidents, and one female assistant or associate vice-president.

Table 12

Administrators in Liberal Arts Institutions in 1983

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	89	146	2	237
Female	7	13	1	21
Percentage Female				8.14%

In 1998, the number of administrators in each position in liberal arts institutions is shown in Table 13 with a total of 110 females with 19 of those presidents, 74 vice-presidents, and 17 female assistant or associate vice-presidents.

Table 13

Administrators in Liberal Arts Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	71	231	25	327
Female	19	74	17	110
Percentage Female				25.17%

The proportion of women liberal arts administrators in 1998 of .2517 was tested against the 1983 proportion of women liberal arts administrators of .0814 with the test of independent proportions. The difference in proportions was found to be significant at the .01 level with a critical test statistic (z) of 17.22. This finding supported hypothesis 2d which stated that there was a significant increase in the proportion of women top-level administrators in liberal arts institutions over the time period of 1983 to 1998.

For the year 1983, the institutions were also divided by Carnegie classification for both private institutions and public institutions. Within the private institutions for 1983, the comprehensive classification of institutions employed the highest percentage of women with 10.26% of its top-level administration being women as displayed in Table 14. There were a total of 36 comprehensive private institutions in the 1983 sample. These institutions employed 16 female administrators with three female presidents, 10 female vice-presidents, and three female assistant or associate vice-presidents.

Table 14

Administrators in Private Comprehensive Institutions in 1983

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	34	100	6	140
Female	3	10	3	16
Percentage Female				10.26%

In 1983, private liberal arts institutions had the next highest proportion of their top-level administration being women with 8.18 percent. Table 15 shows the number of administrators in the 78 private liberal arts institutions. Together they had 18 females with six female presidents, 11 female vice-presidents, and one female assistant or associate vice-president.

Table 15

Administrators in Private Liberal Arts Institutions in 1983

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	77	123	2	202
Female	6	11	1	18
Percentage Female				8.18%

The six institutions comprising the doctoral classification of private institutions for 1983 had the next to lowest percentage of their administration as women with 5.56% which is shown in Table 16. There were a total of two females with zero female presidents, two female vice-presidents, and zero female assistant or associate vice-presidents.

Table 16

Administrators in Private Doctoral Institutions in 1983

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	6	28	0	34
Female	0	2	0	2
Percentage Female				5.56%

The private research institutions had the lowest number of women administrators for 1983. Six institutions were randomly selected for the 1983 stratified sample; out of these institutions none of them had a single woman top-level administrator. The numbers of administrators for each identified position are shown in Table 17.

Table 17

Administrators in Private Research Institutions in 1983

Gender	Position of Administration			
	Presidents	Vice Presidents	Assoc/Assist VP	Totals
Male	6	30	3	39
Female	0	0	0	0
Percentage Female				0%

The 1983 institutions were also divided into just the public institutions and then further classified by their Carnegie status. The percentages of each category are relatively close to each other. The public liberal arts institutions had the highest percentage of women administrators in 1983 with 7.89% as seen in Table 18. Twelve institutions comprised this category. They had a total of three female administrators with no assistant or associate vice-presidents, two female vice-presidents, and one female president.

Table 18

Administrators in Public Liberal Arts Institutions in 1983

Gender	Position of Administration			
	Presidents	Vice Presidents	Assoc/Assist VP	Totals
Male	12	23	0	35
Female	1	2	0	3
Percentage Female				7.89%

Table 19 displays the number of administrators in the second highest ranking of the percentage of women in administrator positions. These institutions are public comprehensive institutions which accounted for 40 of the 200 institutions in the 1983 sample. Their percentage was close to the percentage seen for the public liberal arts (7.89%). Public comprehensives had 6.67% of their administrators in 1983 as women with two female presidents, six female vice-presidents, and three female assistant or associate vice-presidents.

Table 19

Administrators in Public Comprehensive Institutions in 1983

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	38	101	15	154
Female	2	6	3	11
Percentage Female				6.67%

Public research institutions had the next to highest percentage with 6.15% of their top-level administration consisting of women. Twelve institutions were included in this part of the sample. Table 20 shows the numbers of administrators by gender for each position within the percentage of women administrators. They had zero female presidents and two female vice-presidents. A few of these institutions had associate and assistant vice presidents with 2 females in that role.

Table 20

Administrators in Public Research Institutions in 1983

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	12	45	4	61
Female	0	2	2	4
Percentage Female				6.15%

Table 21 displays the gender of administrators and the percentage of female administrators employed in the 10 public doctoral institutions in 1983. There were zero female presidents with two female vice presidents. There was one female employed as either an assistant or associate vice president for a percentage of 5.45 of their administrators being women.

Table 21

Administrators in Public Doctoral Institutions in 1983

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	10	37	5	52
Female	0	2	1	3
Percentage Female				5.45%

The 1998 institutions were also divided into private and public institutions within each Carnegie classification. Within the private institutions for 1998, the doctoral private

institutions had the highest percentage of women administrators with 33.33%, much higher than their 1983 percentage of 5.56, which was next to the lowest of the classifications. There were 6 doctoral private institutions. Table 22 shows the number of women administrators for 1998 in this category with a total of 22 females administrators including one female president, 13 vice-presidents, and 8 associate or assistant vice-presidents who were female.

Table 22

Administrators in Private Doctoral Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	5	26	13	44
Female	1	13	8	22
Percentage Female				33.33%

Private liberal arts institutions had the next highest percentage of women administrators in 1998 with 24.4%. The specific numbers of each position are displayed in Table 23 with a total of 91 females, including 11 female assistant or associate vice presidents, 66 female vice-presidents, and 14 female presidents. A total of 78 institutions comprised this category.

Table 23

Administrators in Private Liberal Arts Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	65	203	14	282
Female	14	66	11	91
Percentage Female				24.4%

The private comprehensive institutions in 1998 consisted of 50 females with 13 female assistant or associate vice-presidents, 32 vice-presidents, and five female presidents. There were a total of 36 private comprehensive institutions with a percentage of female administrators of 23.36 as seen in Table 24.

Table 24

Administrators in Private Comprehensive Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	33	106	25	164
Female	5	32	13	50
Percentage Female				23.36%

Private research institutions continued to have the lowest percentage of women administrators in 1998, just as research institutions as a whole had the lowest percentage

in both 1983 and 1998. They did have an increase over the zero percent in 1983 of private research institutions to 18.57. These data are reflected in Table 25 and the institutions include 13 females with 4 female assistant or associate vice-presidents and nine female vice-presidents. There were no female presidents.

Table 25

Administrators in Private Research Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	8	39	10	57
Female	0	9	4	13
Percentage Female				18.57%

The 1998 institutions were also divided into just the public institutions and then analyzed for their number of women administrators by classification. Table 26 displays the administrators in the public liberal arts classification which had the highest percentage of female administrators. This is the same category that had the highest percentage of female administrators in 1983. There were 12 institutions in this classification in 1998 with 19 female administrators, including five female presidents, eight vice-presidents, and six associate or assistant vice-presidents.

Table 26

Administrators in Public Liberal Arts Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	6	28	11	45
Female	5	8	6	19
Percentage Female				29.69%

The administrators in doctoral public institutions in 1998 are shown in Table 27.

Ten institutions comprised this sample. This category had the next to highest percentage of women administrators among the 1998 sample of public institutions with a percentage of 26.03 which was an increase from their 1983 percentage of 5.45. They had three women who served as presidents in 1998 compared to zero female presidents in 1983 public doctoral institutions. They also had six female assistant or associate vice presidents in 1998 compared to zero in 1983.

Table 27

Administrators in Public Doctoral Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	7	35	12	54
Female	3	10	6	19
Percentage Female				26.03%

In 1998, the next lowest percentage of female administrators in public institutions was in the comprehensive institutions. In 1983 this same classification was the second highest in its percentage of female administrators with a percentage of 6.67. In 1998 the comprehensive public institutions had ten female presidents compared to two in 1983. The 1998 institutions had 18 female assistant or associate vice presidents compared to three females in these positions in 1983. The numbers from these 40 comprehensive public institutions are displayed in Table 28.

Table 28

Administrators in Public Comprehensive Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	32	101	45	178
Female	10	31	18	59
Percentage Female				24.89%

Research public institutions had the lowest percentage of female administrators in 1998 with 24.81% which was still an increase from their 1983 percentage of 6.15. The 1998 institutions had two female presidents while their 1983 counterparts had zero female presidents. The 1998 institutions also had 18 female assistant or associate vice presidents while the 1983 public research institutions had two assistant or associate vice presidents

that were female. Table 29 shows the numbers of administrators in the 12 public research institutions for 1998.

Table 29

Administrators in Public Research Institutions in 1998

Gender	Position of Administration			Totals
	Presidents	Vice Presidents	Assoc/Assist VP	
Male	10	61	29	100
Female	2	13	18	33
Percentage Female				24.81%

Table 30 is a summary table of the proportion of women in administration found in each of the classifications of institutions broken down by private and public institutions for each year, 1998 and 1983.

Table 30

Private and Public Classifications of Institutions

Institution Type	1983 Priv.	1998 Priv.	1983 Public	1998 Public
Research	0%	18.57%	6.15%	24.81%
Doctoral	5.56%	33.33%	5.45%	26.03%
Liberal Arts	8.18%	24.4%	7.89%	29.69%
Comprehensive	10.26%	23.36%	6.67%	24.89%

All of the top-level administrators were calculated along with percentage of female administrators for the private institutions in 1998 and 1983 as well as the public

institutions for 1998 and 1983. Table 31 (Appendix, p.78) lists the numbers of administrators for each institution within the private classification and the summary data for private schools for the year 1983 while Table 32 (Appendix, p.82) shows the administrators in all private institutions in the sample in 1998. In 1983 the 126 private institutions had a total of 36 female top-level administrators and 415 males so that 7.98% of their top-level administrators were female. The institutions combined had nine female presidents, 23 female vice-presidents, and four assistant or associate vice-presidents. In 1998 the private institutions in the sample had 176 females with 547 males which meant that 32.20% of their administrators were female. In 1998, the institutions reported 20 female presidents, 120 female vice-presidents, and 36 assistant or associate vice-presidents. The increase in female vice-presidents numbered almost 100. Table 33 displays the numbers of administrators in private institutions for each year.

Table 33

Comparison of Private Institutions for 1998 and 1983

	1998 privates	1983 privates
Women	176	36
Men	547	415
Proportion	0.322	0.08
Difference		0.242

Table 34 (Appendix, p.86) displays the number of administrators in the 1983 public institutions in the sample and their summary data. Table 35 (Appendix, p.89) shows the number of administrators in all public institutions for 1998. The number of female vice-presidents increased by 50. In 1983 there were 12 female vice-presidents and in 1998 the number of women in this position had increased to 62 women. In 1983, there were six assistant or associate vice presidents and in 1998 there were 48 female assistant or associate vice presidents. The 1983 public institutions had a total of 21 women compared to 302 men for a percentage of 19. The 1998 public institutions had a combined total of 130 women with 377 men administrators for a percentage of 25.64 female top-level administrators. Table 36 shows the summary data for public institutions for 1983 and 1998.

Table 36

Comparison of Public Institutions for 1998 and 1983

	1998 publics	1983 publics
Women	130	21
Men	377	302
Proportion	0.256	0.19
Difference		0.066

In order to test hypothesis 3, the difference of the proportions for public institutions between the years 1998 and 1983 was tested against the difference in the

proportions of private institutions for the years 1998 and 1983, respectively. The test of independent proportions was used to determine if the increase in the proportion of women administrators in private institutions was significantly more than the increase in the proportion of women in public institutions from 1983 to 1998. This hypothesis was not supported. Both public institutions and private institutions had increases but the increases in each category of institutions were not significantly different from each other. The public institutions saw an increase in their proportion of women administrators of 6.6% from 1983 to 1998. The private institutions witnessed an increase in the proportion of women administrators of 24.20% over the same period.

CHAPTER V

DISCUSSION OF FINDINGS, CONCLUSIONS, AND IMPLICATIONS

Comparison of All Institutions 1983 to 1998

The increase in the proportion of women in higher education institutions from 1983 to 1998 was found to be statistically significant. Women are making gains in positions of upper-level administration. In the positions of president and vice-president, the number of women administrators increased more than the increase in the number of men in those positions. In the position of president, the number of women more than tripled from 12 to 40 female presidents. The number of male presidents during the same period actually decreased from 195 to 166. The number of female vice-presidents increased a little more than five times from 35 females to 182. Men vice-presidents only increased in number by 12, less than two percent. Women as assistant or associate vice-presidents increased eight times, from 10 assistant/associate vice-presidents in 1983 to 84 in 1998. while men increased a little less than five times.

The literature showed that in the mid 1980s women were more likely to be employed as assistants or associates than as vice-presidents or deans. In 1998, however

there were more female vice presidents than female assistant or associate vice-presidents by more than double the number. The increases in the number of women were witnessed in all positions; president, vice-president, associate vice-president, and assistant vice-president.

Women are making gains in higher education institutions in all positions. As the number of women earning doctorates continues to rise and the proportion of women employed as assistant and associate vice-presidents continues to increase these reported gains can be expected to continue into the future. Positive steps are witnessed by the increase in the number of women in top-level administration and the increase in the proportion of women in top-level administration.

Women in Research Institutions

While the numbers were too small to allow for a statistical comparison of the data, the raw data shows increases did occur. Women administrators in research institutions increased from 3.85% in 1983 to 22.66% in 1998. The increases in female administrators were seen in every position. One-ninth of the institutions in the 1998 sample had female presidents, an increase of two, while the number of men as presidents remained the same. The number of vice-presidents and assistant or associate vice-presidents that were female increased by 20. The total number of men employed by these institutions in these

positions increased by 57, while the total number of women in these positions increased by 42. Research institutions appear to be continuing to hire more men than women but women do comprise more of their top-level administration positions than in 1983, showing that slow progress is being made.

Research institutions tend to be the large, co-educational institutions that were significantly lacking in their number of women in past studies, with no female presidents being reported as recent as the mid 1970s. This study showed that women are now occupying positions of that nature in research institutions. Their increase of 18.81% was the second largest in the increase of proportion of women hired from 1983 to 1998 in the Carnegie classifications of all institutions.

Women in Doctoral Institutions

The other category of traditionally large, co-educational institutions is doctoral colleges and universities. This classification had the largest increase in the proportion of female top-level administrators with an increase of 24.01%. They increased their number of female presidents from zero to four while the number of male presidents also increased by four. In the position of vice-president however, females increased in greater number than the males. Their number of female vice-presidents increased by 19 while males in that position only increased by four. Females in the assistant or associate vice-president

role increased by 13 while men increased in that role by 20. Females increased in number in every position within the doctoral institutions. They made progress at the same rate as males in the presidency positions and at a greater rate than males in the position of vice-president. The number of female vice-presidents increased five times. Perhaps, the most promising sign of improvement for female administrators is seen in the proportion of female presidents within this classification which was 33.33%, the highest proportion of all of the classifications. These numbers should continue to increase as women become even more accepted in these positions and continue to be promoted through the ranks.

Women in Comprehensive Institutions

Females made significant gains in every position within the comprehensive institutions. The number of women more than tripled in the office of the president and vice-president. In the positions of assistant or associate, they increased more than five times. In relation to men in the same positions, the number of male presidents actually dropped in number by seven and only increased by six in the role of vice-president. Again, it appears that women are being hired more often than men in these roles. Men increased in greater number than women in the assistant/associate role but at a lesser percent.

Women in Liberal Arts Institutions

Women showed an increase of 17.03% in the liberal arts schools and had increases in number in every top-level position. In none of the positions however, did women increase in number more than the increase in men. Even with increases less than the number of men, these institutions have the second largest proportion of women in the classifications in 1998.

All of the Carnegie classifications witnessed an increase in their proportion of women administrators from 1983 to 1998. The increase in the proportion of women administrators is not just occurring in private, all female institutions. Even as late as the mid 1970s the literature showed that the total number of women administrators was skewed due to the large number of women administrators in small Catholic women schools and colleges and universities for women. These schools would traditionally be classified as private liberal arts institutions. As this study shows, the numbers no longer appear to be skewed by that classification with the highest percentage of increase of female administrators witnessed in doctoral institutions, traditionally large, co-educational institutions. Doctoral institutions also had one-third of their sample headed by female presidents. The increase in female administrators appears to be across the board in all

types of institutions; research, doctoral, liberal arts and comprehensives. Women are increasingly becoming top-level administrators in all types of higher education institutions.

Women in Private Institutions

Historically women have fared better at smaller private institutions such as liberal arts but in 1998 women appear in greater numbers in every position in all types of private institutions, except for private research institutions. The private, research institutions, which are traditionally some of the largest institutions of higher education did not have a single female president. It appears this is an area women continue to need to make improvement. In 1998, the percentage of women in private, research institutions was 18.57% and still the lowest among the classifications of private institutions. Women were best represented in private, doctoral institutions with a percentage of 33.33 of their top-level administrators being female. Overall, the private institutions had 20 female presidents for a percentage of 15.26 of their presidents being female. While each classification within the private institutions had an increase in its number of women top-level administrators, none of the private classifications have more females than males in any position.

Women in Public Institutions

Within the public institutions, every classification had an increase in the proportion of women administrators. For each classification, except for public, doctoral institutions the public classification had a higher proportion of female administrators than its private counterpart. Private, liberal arts institutions had 24.4% of its administration made up of females while in the public, liberal arts institutions 29.69% of their administrators were female. Private, comprehensive institutions had 23.36% while their public counterparts had 24.89%. Private, research institutions had female administrators totaling 18.57% of their administrators while public, research institutions had 24.81%. The literature from the 1960s and 1970s shows that many women administrators were limited to positions of administration in small, single sex or church related schools. In the late 1990s however, it appears the public institutions have surpassed the private institutions and women are now better represented in the public institutions except for the public, doctoral institutions whose private counterparts had a percentage of 33% of its administration as female. The doctoral category was still the second highest classification within the public institutions with 26.03% of female administrators. Due to the large increase public institutions have made in their percentages of female administrators, significant differences were not found between the private and public institutions.

The employment of women administrators is not just a priority or concern to small, women, or church related colleges. All types of institutions are employing and promoting more women into their administrative ranks.

Conclusions

Institutions of higher education are making progress in the number of women top-level administrators. More women served as top-level administrators in 1998 than in 1983. Women, however, continue to be employed in smaller numbers than men. It appears that many institutions used the new positions of assistant and associate vice-presidents to employ women in the ranks of administration. These women are now able to be promoted into vice-president positions and potentially, presidencies. More women served as presidents in 1998 than in 1983. Women are being promoted through the ranks of higher education. The increases in women administrators were not seen earlier due to the length of time it has taken for women to gain their doctorate degrees and experience in order to be qualified for the top-level administrative ranks. The future should witness even greater proportions of women being employed in the administration of higher education institutions as more continue to earn their doctorates and gain experience which readies them for the upper-level administrative ranks.

Institutions of higher education had more positions of top-level administration in 1998 than in 1983. This increase was due in large part to the addition of many assistant and associate vice-presidents.

Implications

Until women have had the opportunity to be employed at the same rate as men, institutions of higher education must continue to make the hiring and promotion of women a priority. This will be especially important as changes occur in the current affirmative action laws, as has happened in Texas and California. In these states where affirmative action has been abolished, the impact the change in the law will have on the hiring and promotion of women needs to be closely monitored.

Institutions of higher education also must ensure the environment is as welcoming and friendly to women as it is to men in order to have women stay in positions of employment in higher education so that they may be promoted into the top-level administration positions. The retention of women administrators is as important as the hiring and promotion of women in order to have a truly non-discriminatory work-place.

Women in the 1990s have more options available to them than at any other time in the history of the United States. The most recent trend has been towards women earning degrees and subsequent employment. If the trend reverts back to women choosing to stay

home this will certainly affect the numbers of women employed in higher education institutions.

Recommendations for Future Research

A cause and effect study could be performed to determine the explicit reasons for the significant increases witnessed in the proportion of women in institutions from 1983 to 1998. If the exact causes could be determined this information could be used to ensure the increases in proportion of women administrators continue in the future.

Replication of this study in fifteen more years would be relevant to determine if the increases in the proportion of women have continued and if so, at what rate. That information could be used in comparison to the number of women who have earned doctorates over the next fifteen years and compared to this study to determine if the results are as one would expect.

A trend study of each year over the same time period of 1983 to 1998 would be relevant to determine if there was a particular year or period of years that significant increases were witnessed and impacted the time period more than other years.

Environmental conditions such as, legislation or a focus on women's issues, in existence at that time period could also be analyzed to help determine variables that may have attributed to the increase in the proportion of women administrators.

This study analyzed women in upper-level administration positions without regard to divisions within the university or college. It would be relevant to determine within each institution divisions that have a higher proportion of women employed as top-level administrators. Tests of proportions could be run to determine if the differences between the divisions are statistically significant. Additional information in these areas would provide important information to decision makers and women in higher education in their personnel decisions and the effect those decisions have on women becoming top-level administrators.

Two areas exist that were beyond the scope of this study but are important and need be studied. The ethnicity of women administrators needs to be reviewed to describe the progress of minorities in positions of upper-level administration in higher education institutions. The salary women receive in these upper-level administration positions could also be studied in its relation to the salary males receive in the same positions. These studies would help further the field of study regarding women in top-level administration in higher education institutions.

APPENDIX

Table 1

Number and Types of Institutions Sampled 1983-1998

<u>Institution Type</u>	<u>Number</u>	<u>Total</u>	<u>Percent</u>	<u>Number Chosen</u>
Res 1: Public	59			
Res 2: Public	26	85	0.06	12
Res 1: Private	29			
Res 2: Private	11	40	0.03	6
Doc 1: Public	28			
Doc 2: Public	38	66	0.05	10
Doc 1: Private	23			
Doc 2: Private	22	45	0.03	6
Comp 1: Public	249			
Comp 2: Public	26	275	0.2	40
Comp 1: Private	185			
Comp 2: Private	68	253	0.18	36
Lib Arts 1: Public	7			
Lib Arts 2: Public	79	86	0.06	12
Lib Arts 1: Private	158			
Lib Arts 2: Private	391	549	0.39	78
Total Institutions	1399	1399	100%	200

Table 2

Administrators in all Institutions 1983

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
a	1	0	5	0	0	0	6	0	0
a	0	1	0	0	0	0	0	1	1
a	1	0	2	0	0	0	3	0	0
a	1	0	2	0	0	0	3	0	0
a	0	1	3	0	0	1	3	2	0.4
a	2	0	3	0	0	0	5	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	4	1	1	1	6	2	0.25
a	1	0	1	0	0	0	2	0	0
a	1	0	0	0	0	0	1	0	0
a	1	0	1	2	0	0	2	2	0.5
a	1	0	3	1	0	0	4	1	0.2
a	1	0	3	1	0	0	4	1	0.2
a	1	0	4	1	0	0	5	1	0.17
a	1	0	2	1	0	0	3	1	0.25
a	1	0	4	0	0	0	5	0	0
a	0	1	0	0	0	0	0	1	1
a	1	0	0	1	0	0	1	1	0.5
a	1	0	7	0	0	0	8	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	0	0	0	0	1	0	0
a	1	0	6	0	0	0	7	0	0
a	1	0	2	1	0	0	3	1	0.25
a	1	0	1	1	0	0	2	1	0.33
a	1	0	4	0	2	0	7	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	0	0	0	0	1	0	0
a	1	0	2	0	0	0	3	0	0
a	1	0	2	0	1	1	4	1	0.2
a	1	0	5	0	0	0	6	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	5	0	0	0	6	0	0
a	1	0	6	0	2	0	9	0	0
a	1	0	2	0	0	0	3	0	0
b	1	0	2	0	0	0	3	0	0

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
b	1	0	0	0	0	0	1	0	0
b	1	0	3	0	0	0	4	0	0
b	1	0	4	0	0	0	5	0	0
b	1	0	5	1	0	0	6	1	0.14
b	1	0	3	1	0	0	4	1	0.2
b	1	0	1	0	0	0	2	0	0
b	1	0	2	1	0	0	3	1	0.25
b	1	0	5	0	1	1	7	1	0.13
b	1	0	5	1	1	0	7	1	0.13
b	1	0	2	0	0	0	3	0	0
b	1	0	3	0	4	0	8	0	0
b	1	0	3	1	0	0	4	1	0.2
b	1	0	0	0	0	0	1	0	0
b	1	0	4	0	0	0	5	0	0
b	1	0	0	0	0	0	1	0	0
b	1	0	0	0	0	0	1	0	0
b	1	0	3	0	0	0	4	0	0
b	1	0	4	0	0	0	5	0	0
b	1	0	1	0	0	0	2	0	0
b	1	0	2	0	0	0	3	0	0
b	1	0	4	0	0	0	5	0	0
b	1	0	3	0	0	0	4	0	0
b	1	0	3	0	0	0	4	0	0
b	1	0	1	0	0	0	2	0	0
b	1	0	2	0	0	0	3	0	0
b	1	0	2	0	0	0	3	0	0
b	1	0	3	0	0	0	4	0	0
b	1	0	2	0	0	0	3	0	0
b	1	0	1	1	2	0	4	1	0.2
b	1	0	5	0	0	0	6	0	0
b	1	0	3	0	0	0	4	0	0
b	1	0	3	0	0	0	4	0	0
b	1	0	3	0	1	0	5	0	0
b	0	1	1	0	3	0	4	1	0.2
b	1	0	1	0	2	1	4	1	0.2
b	1	0	1	0	1	1	3	1	0.25
b	1	0	4	0	0	0	5	0	0
b	1	0	3	0	0	0	4	0	0
b	0	1	4	0	0	0	4	1	0.2
c	1	0	5	1	0	0	6	1	0.14
c	1	0	5	1	0	0	6	1	0.14

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
c	1	0	3	0	0	0	4	0	0
c	1	0	5	0	0	0	6	0	0
c	1	0	6	0	0	0	7	0	0
c	1	0	4	0	0	0	5	0	0
d	1	0	5	0	0	0	6	0	0
d	1	0	2	1	1	0	4	1	0.2
d	1	0	4	0	0	0	5	0	0
d	1	0	4	0	0	0	5	0	0
d	1	0	3	0	0	0	4	0	0
d	1	0	5	0	4	1	10	1	0.09
d	1	0	4	0	0	0	5	0	0
d	1	0	2	0	0	0	3	0	0
d	1	0	4	0	0	0	5	0	0
d	1	0	4	1	0	0	5	1	0.17
e	1	0	0	0	0	0	1	0	0
e	1	0	2	1	0	0	3	1	0.25
e	2	0	2	0	0	0	4	0	0
e	2	0	4	0	0	0	6	0	0
e	1	0	1	0	0	0	2	0	0
e	1	0	4	0	0	0	5	0	0
e	1	0	1	0	0	0	2	0	0
e	0	1	0	0	0	0	0	1	1
e	1	0	1	0	0	0	2	0	0
e	2	0	0	0	0	0	2	0	0
e	1	0	5	0	0	0	6	0	0
e	1	0	2	0	0	0	3	0	0
e	1	0	4	0	1	0	6	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	1	0	0	0	2	0	0
e	1	0	2	0	0	0	3	0	0
e	1	0	1	0	0	0	2	0	0
e	0	1	0	0	0	0	0	1	1
e	1	0	1	0	0	0	2	0	0
e	0	1	1	0	0	0	1	1	0.5
e	1	0	1	0	0	0	2	0	0
e	1	0	1	0	0	0	2	0	0
e	1	0	2	2	0	0	3	2	0.4
e	1	0	0	0	0	0	1	0	0
e	1	0	3	0	0	0	4	0	0
e	2	0	1	0	0	0	3	0	0
e	1	0	4	0	0	0	5	0	0

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
e	1	0	3	0	0	0	4	0	0
e	1	0	3	0	0	0	4	0	0
e	1	0	2	0	0	0	3	0	0
e	1	0	1	0	0	0	2	0	0
e	1	0	1	0	1	0	3	0	0
e	1	0	3	0	0	0	4	0	0
e	1	0	3	0	0	0	4	0	0
e	1	0	2	1	0	0	3	1	0.25
e	1	0	0	0	0	0	1	0	0
e	1	0	1	0	0	0	2	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	0	1	0	0	1	1	0.5
e	1	0	3	0	0	0	4	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	3	0	0	0	4	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	2	0	0	0	3	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	0	1	0	0	1	1	0.5
e	1	1	0	0	0	0	1	1	0.5
e	1	0	0	0	0	0	1	0	0
e	1	0	3	1	0	0	4	1	0.2
e	1	0	4	0	0	0	5	0	0
e	0	1	1	1	0	0	1	2	0.67
e	1	0	0	0	0	0	1	0	0
e	1	0	0	1	0	0	1	1	0.5
e	0	1	0	0	0	0	0	1	1
e	1	0	5	0	0	0	6	0	0
e	1	0	2	1	0	0	3	1	0.25
e	1	0	3	0	0	0	4	0	0
e	1	0	4	0	0	0	5	0	0
e	1	0	4	0	0	0	5	0	0
e	1	0	4	0	0	1	5	1	0.17
e	1	0	1	0	0	0	2	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	2	0	0	0	3	0	0
e	1	0	2	0	0	0	3	0	0

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
e	1	0	1	0	0	0	2	0	0
e	1	0	3	0	0	0	4	0	0
e	1	0	4	1	0	0	5	1	0.17
e	1	0	2	0	0	0	3	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	2	0	0	0	3	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	3	0	0	0	4	0	0
e	1	0	2	0	0	0	3	0	0
f	1	0	3	0	0	0	4	0	0
f	1	0	0	0	0	0	1	0	0
f	1	0	3	0	0	0	4	0	0
f	1	0	1	2	0	0	2	2	0.5
f	1	0	3	0	0	0	4	0	0
f	0	1	2	0	0	0	2	1	0.33
f	1	0	2	0	0	0	3	0	0
f	1	0	3	0	0	0	4	0	0
f	1	0	3	0	0	0	4	0	0
f	1	0	3	0	0	0	4	0	0
f	2	0	0	0	0	0	2	0	0
f	1	0	0	0	0	0	1	0	0
g	1	0	4	0	1	0	6	0	0
g	1	0	7	0	0	0	8	0	0
g	1	0	7	0	1	0	9	0	0
g	1	0	6	0	1	0	8	0	0
g	1	0	3	0	0	0	4	0	0
g	1	0	3	0	0	0	4	0	0
h	1	0	5	0	0	0	6	0	0
h	1	0	1	0	0	0	2	0	0
h	1	0	3	0	1	0	5	0	0
h	1	0	3	1	0	0	4	1	0.2
h	1	0	1	0	2	0	4	0	0
h	1	0	5	0	0	0	6	0	0
h	1	0	5	0	0	0	6	0	0

<u>TYPE</u>	<u>PM</u>	<u>PF</u>	<u>VPM</u>	<u>VPF</u>	<u>AVPM</u>	<u>AVPF</u>	<u>M</u>	<u>F</u>	<u>PROP</u>
h	1	0	6	0	0	0	7	0	0
h	1	0	3	0	0	0	4	0	0
h	1	0	4	0	1	2	6	2	0.25
h	1	0	4	0	0	0	5	0	0
h	1	0	5	1	0	0	6	1	0.14
Totals	195	12	487	35	35	10	717	57	7.36%

Note. Institutional Type:

a = Comprehensive Private
b = Comprehensive Public
c = Doctoral Private
d = Doctoral Public
e = Liberal Arts Private
f = Liberal Arts Public
g = Research Private
h = Research Public

Note. Position Titles:

PM = Presidents/Male
PF = Presidents/Female
VPM = Vice Presidents/Male
VPF = Vice Presidents/Female
AVPM = Assistant Vice Presidents/Male
AVPF = Assistant /Vice Presidents/Female

Table 3

Administrators in all Institutions 1998

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
a	1	0	6	0	0	0	7	0	0
a	1	0	3	0	1	1	5	1	0.17
a	1	0	2	1	0	1	3	2	0.4
a	1	0	3	0	0	0	4	0	0
a	1	0	3	1	2	1	6	2	0.25
a	1	0	1	0	0	0	2	0	0
a	0	1	1	3	0	0	1	4	0.8
a	1	0	2	0	0	0	3	0	0
a	1	0	3	1	0	0	4	1	0.2
a	1	0	2	0	0	0	3	0	0
a	1	0	6	1	1	1	8	2	0.2
a	1	0	4	1	1	1	6	2	0.25
a	1	0	1	1	3	2	5	3	0.38
a	1	0	1	2	3	2	5	4	0.44
a	1	0	0	0	0	0	1	0	0
a	1	0	3	1	0	0	4	1	0.2
a	1	0	4	2	1	0	6	2	0.25
a	0	1	4	0	0	0	4	1	0.2
a	2	0	3	1	0	0	5	1	0.17
a	1	0	4	0	1	1	6	1	0.14
a	1	0	2	1	0	0	3	1	0.25
a	1	0	5	1	3	0	9	1	0.1
a	0	1	0	3	0	0	0	4	1
a	1	0	4	1	0	0	5	1	0.17
a	1	0	4	1	0	0	5	1	0.17
a	0	1	3	0	0	0	3	1	0.25
a	2	0	5	0	4	0	11	0	0
a	1	0	1	3	2	0	4	3	0.43
a	1	0	4	1	0	1	5	2	0.29
a	0	1	3	1	0	1	3	3	0.5
a	1	0	4	1	0	0	5	1	0.17
a	1	0	4	0	0	0	5	0	0
a	1	0	5	0	3	1	9	1	0.1
a	1	0	1	2	0	0	2	2	0.5
a	1	0	3	0	0	0	4	0	0
a	1	0	2	2	0	0	3	2	0.4
b	1	0	2	0	0	1	3	1	0.25
b	0	1	4	0	0	2	4	3	0.43

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
b	1	0	2	2	4	0	7	2	0.22
b	0	1	0	0	0	0	0	1	1
b	1	0	2	0	0	0	3	0	0
b	0	1	3	1	1	1	4	3	0.43
b	1	0	5	0	0	0	6	0	0
b	1	0	4	1	1	0	6	1	0.14
b	1	0	1	2	0	0	2	2	0.5
b	0	1	2	2	3	0	5	3	0.38
b	1	0	3	2	0	0	4	2	0.33
b	0	1	1	3	2	0	3	4	0.57
b	1	0	2	3	3	2	6	5	0.45
b	1	0	3	1	0	0	4	1	0.2
b	0	1	2	1	0	1	2	3	0.6
b	1	0	3	1	0	0	4	1	0.2
b	0	1	2	1	1	1	3	3	0.5
b	1	0	3	0	0	0	4	0	0
b	1	0	4	1	2	0	7	1	0.13
b	1	0	5	0	0	0	6	0	0
b	0	1	4	1	1	1	5	3	0.38
b	1	0	0	0	3	0	4	0	0
b	1	0	3	0	0	1	4	1	0.2
b	1	0	2	1	0	0	3	1	0.25
b	1	0	4	0	0	0	5	0	0
b	1	0	4	2	6	0	11	2	0.15
b	1	0	4	0	4	1	9	1	0.1
b	1	1	2	0	4	0	7	1	0.13
b	1	0	2	0	2	3	5	3	0.38
b	1	0	4	0	0	0	5	0	0
b	1	0	4	0	0	0	5	0	0
b	1	0	2	2	1	0	4	2	0.33
b	1	0	1	0	0	0	2	0	0
b	1	0	1	0	3	2	5	2	0.29
b	1	0	1	1	1	0	3	1	0.25
b	1	0	3	0	0	0	4	0	0
b	2	0	1	2	2	1	5	3	0.38
b	1	0	3	0	0	0	4	0	0
b	0	1	0	0	0	0	0	1	1
b	1	0	3	1	1	1	5	2	0.29
c	1	0	3	2	0	0	4	2	0.33
c	1	0	3	2	2	2	6	4	0.4
c	1	0	8	4	5	6	14	10	0.42

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
c	1	0	4	2	0	0	5	2	0.29
c	0	1	3	2	1	0	4	3	0.43
c	1	0	5	1	5	0	11	1	0.08
d	1	0	4	0	0	2	5	2	0.29
d	1	0	5	0	3	1	9	1	0.1
d	1	0	3	0	1	0	5	0	0
d	1	0	3	0	0	0	4	0	0
d	0	1	4	1	4	0	8	2	0.2
d	1	0	5	5	1	0	7	5	0.42
d	1	0	3	1	2	2	6	3	0.33
d	0	1	2	1	0	0	2	2	0.5
d	1	0	5	0	0	0	6	0	0
d	0	1	1	2	1	1	2	4	0.67
e	1	0	1	0	0	2	2	2	0.5
e	1	0	1	1	0	0	2	1	0.33
e	0	1	1	1	0	0	1	2	0.67
e	1	0	1	1	0	0	2	1	0.33
e	1	0	4	1	0	0	5	1	0.17
e	1	0	4	0	0	0	5	0	0
e	1	0	5	0	0	0	6	0	0
e	1	0	4	0	0	0	5	0	0
e	1	0	4	0	0	0	5	0	0
e	1	0	3	1	1	0	5	1	0.17
e	1	0	2	0	0	0	3	0	0
e	1	0	5	0	0	0	6	0	0
e	1	0	0	0	0	0	1	0	0
e	0	1	0	1	0	0	0	2	1
e	1	0	3	1	0	0	4	1	0.2
e	1	0	4	0	0	0	5	0	0
e	1	0	3	1	0	0	4	1	0.2
e	1	0	3	0	0	0	4	0	0
e	1	0	1	0	0	0	2	0	0
e	0	1	0	4	0	0	0	5	1
e	1	0	2	0	1	2	4	2	0.33
e	1	0	3	2	0	0	4	2	0.33
e	1	0	0	0	0	0	1	0	0
e	1	0	3	0	0	0	4	0	0
e	1	0	5	1	0	0	6	1	0.14
e	1	0	2	1	0	0	3	1	0.25
e	1	0	4	0	1	0	6	0	0
e	1	0	3	2	0	1	4	3	0.43

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
e	1	1	0	0	0	0	1	1	0.5
e	0	1	2	3	0	0	2	4	0.67
e	1	0	2	1	0	0	3	1	0.25
e	0	1	4	0	1	0	5	1	0.17
e	1	0	5	1	0	0	6	1	0.14
e	0	1	3	2	0	0	3	3	0.5
e	1	0	3	0	0	0	4	0	0
e	1	0	3	1	1	0	5	1	0.17
e	1	0	5	0	0	0	6	0	0
e	1	0	4	1	0	0	5	1	0.17
e	0	1	2	1	1	0	3	2	0.4
e	1	0	2	4	0	0	3	4	0.57
e	0	1	1	1	0	1	1	3	0.75
e	1	0	4	1	0	0	5	1	0.17
e	1	0	4	0	0	0	5	0	0
e	1	0	4	1	0	0	5	1	0.17
e	1	0	4	1	0	0	5	1	0.17
e	1	0	5	0	0	0	6	0	0
e	1	0	3	1	1	0	5	1	0.17
e	1	0	5	0	0	0	6	0	0
e	0	1	1	3	0	0	1	4	0.8
e	1	0	3	0	0	0	4	0	0
e	1	0	2	3	1	0	4	3	0.43
e	1	0	2	1	0	0	3	1	0.25
e	1	0	4	1	0	0	5	1	0.17
e	1	0	2	3	0	0	3	3	0.5
e	1	0	0	0	0	0	1	0	0
e	1	0	0	0	0	0	1	0	0
e	1	0	2	2	0	0	3	2	0.4
e	1	0	3	0	0	0	4	0	0
e	0	1	0	0	0	0	0	1	1
e	1	0	4	0	0	0	5	0	0
e	1	0	5	0	1	2	7	2	0.22
e	1	0	5	0	1	1	7	1	0.13
e	1	0	1	1	0	0	2	1	0.33
e	1	0	1	2	0	1	2	3	0.6
e	1	0	2	1	1	0	4	1	0.2
e	0	1	0	1	0	0	0	2	1
e	1	0	5	0	0	0	6	0	0
e	1	0	3	1	0	0	4	1	0.2
e	0	1	2	3	0	1	2	5	0.71

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
e	1	0	1	0	0	0	2	0	0
e	0	1	4	0	1	0	5	1	0.17
e	1	0	1	1	0	0	2	1	0.33
e	1	0	3	0	1	0	5	0	0
e	1	0	5	0	0	0	6	0	0
e	1	0	2	1	0	0	3	1	0.25
e	1	0	2	1	1	0	4	1	0.2
e	1	0	1	2	0	0	2	2	0.5
e	1	0	1	2	0	0	2	2	0.5
f	0	1	3	0	4	1	7	2	0.22
f	0	1	3	0	0	0	3	1	0.25
f	1	0	0	4	1	1	2	5	0.71
f	1	0	3	1	0	0	4	1	0.2
f	1	0	3	0	0	0	4	0	0
f	1	0	5	0	1	1	7	1	0.13
f	0	1	3	0	2	2	5	3	0.38
f	0	1	3	1	2	1	5	3	0.38
f	1	0	2	1	1	0	4	1	0.2
f	0	0	0	1	0	0	0	1	1
f	1	0	0	0	0	0	1	0	0
f	0	1	3	0	0	0	3	1	0.25
g	1	0	4	3	2	1	7	4	0.36
g	1	0	7	1	0	0	8	1	0.11
g	1	0	5	1	1	1	7	2	0.22
g	3	0	9	2	6	1	18	3	0.14
g	1	0	4	1	0	1	5	2	0.29
g	1	0	10	1	1	0	12	1	0.08
h	1	0	5	1	0	0	6	1	0.14
h	1	0	10	1	5	3	16	4	0.2
h	1	0	5	1	2	0	8	1	0.11
h	1	0	6	0	4	1	11	1	0.08
h	1	0	2	1	0	1	3	2	0.4
h	1	0	4	0	3	1	8	1	0.11

<u>TYPE</u>	<u>PM</u>	<u>PF</u>	<u>VPM</u>	<u>VPF</u>	<u>AVPM</u>	<u>AVPF</u>	<u>M</u>	<u>F</u>	<u>PROP</u>
h	0	1	6	3	5	3	11	7	0.39
h	1	0	5	2	4	4	10	6	0.38
h	0	1	4	0	3	0	7	1	0.13
h	1	0	1	0	2	3	4	3	0.43
h	1	0	5	2	0	1	6	3	0.33
h	1	0	8	2	1	1	10	3	0.23
Totals	166	40	599	182	159	84	914	303	24.9%

Note. Institutional Type:

a = Comprehensive Private
b = Comprehensive Public
c = Doctoral Private
d = Doctoral Public
e = Liberal Arts Private
f = Liberal Arts Public
g = Research Private
h = Research Public

Note. Position Titles:

PM = Presidents/Male
PF = Presidents/Female
VPM = Vice Presidents/Male
VPF = Vice Presidents/Female
AVPM = Assistant Vice Presidents/Male
AVPF = Assistant /Vice Presidents/Female

Table 31

Administrators in Private Institutions 1983

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
a	1	0	5	0	0	0	6	0	0
a	0	1	0	0	0	0	0	1	1
a	1	0	2	0	0	0	3	0	0
a	1	0	2	0	0	0	3	0	0
a	0	1	3	0	0	1	3	2	0.4
a	2	0	3	0	0	0	5	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	4	1	1	1	6	2	0.25
a	1	0	1	0	0	0	2	0	0
a	1	0	0	0	0	0	1	0	0
a	1	0	1	2	0	0	2	2	0.5
a	1	0	3	1	0	0	4	1	0.2
a	1	0	3	1	0	0	4	1	0.2
a	1	0	4	1	0	0	5	1	0.17
a	1	0	2	1	0	0	3	1	0.25
a	1	0	4	0	0	0	5	0	0
a	0	1	0	0	0	0	0	1	1
a	1	0	0	1	0	0	1	1	0.5
a	1	0	7	0	0	0	8	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	0	0	0	0	1	0	0
a	1	0	6	0	0	0	7	0	0
a	1	0	2	1	0	0	3	1	0.25
a	1	0	1	1	0	0	2	1	0.33
a	1	0	4	0	2	0	7	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	0	0	0	0	1	0	0
a	1	0	2	0	0	0	3	0	0
a	1	0	2	0	1	1	4	1	0.2
a	1	0	5	0	0	0	6	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	5	0	0	0	6	0	0
a	1	0	6	0	2	0	9	0	0
a	1	0	2	0	0	0	3	0	0

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
b	1	0	5	1	0	0	6	1	0.14
b	1	0	3	0	0	0	4	0	0
b	1	0	5	0	0	0	6	0	0
b	1	0	6	0	0	0	7	0	0
b	1	0	4	0	0	0	5	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	2	1	0	0	3	1	0.25
c	2	0	2	0	0	0	4	0	0
c	2	0	4	0	0	0	6	0	0
c	1	0	1	0	0	0	2	0	0
c	1	0	4	0	0	0	5	0	0
c	1	0	1	0	0	0	2	0	0
c	0	1	0	0	0	0	0	1	1
c	1	0	1	0	0	0	2	0	0
c	2	0	0	0	0	0	2	0	0
c	1	0	5	0	0	0	6	0	0
c	1	0	2	0	0	0	3	0	0
c	1	0	4	0	1	0	6	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	1	0	0	0	2	0	0
c	1	0	2	0	0	0	3	0	0
c	1	0	1	0	0	0	2	0	0
c	0	1	0	0	0	0	0	1	1
c	1	0	1	0	0	0	2	0	0
c	0	1	1	0	0	0	1	1	0.5
c	1	0	1	0	0	0	2	0	0
c	1	0	1	0	0	0	2	0	0
c	1	0	2	2	0	0	3	2	0.4
c	1	0	0	0	0	0	1	0	0
c	1	0	3	0	0	0	4	0	0
c	2	0	1	0	0	0	3	0	0
e	1	0	4	0	0	0	5	0	0
c	1	0	3	0	0	0	4	0	0
c	1	0	3	0	0	0	4	0	0
c	1	0	2	0	0	0	3	0	0
c	1	0	1	0	0	0	2	0	0
c	1	0	1	0	1	0	3	0	0
c	1	0	3	0	0	0	4	0	0

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
c	1	0	3	0	0	0	4	0	0
c	1	0	2	1	0	0	3	1	0.25
c	1	0	0	0	0	0	1	0	0
c	1	0	1	0	0	0	2	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	0	1	0	0	1	1	0.5
c	1	0	3	0	0	0	4	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	3	0	0	0	4	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	2	0	0	0	3	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	0	1	0	0	1	1	0.5
c	1	1	0	0	0	0	1	1	0.5
c	1	0	0	0	0	0	1	0	0
c	1	0	3	1	0	0	4	1	0.2
c	1	0	4	0	0	0	5	0	0
c	0	1	1	1	0	0	1	2	0.67
c	1	0	0	0	0	0	1	0	0
c	1	0	0	1	0	0	1	1	0.5
c	0	1	0	0	0	0	0	1	1
c	1	0	5	0	0	0	6	0	0
c	1	0	2	1	0	0	3	1	0.25
c	1	0	3	0	0	0	4	0	0
c	1	0	4	0	0	0	5	0	0
c	1	0	4	0	0	0	5	0	0
c	1	0	4	0	0	1	5	1	0.17
c	1	0	1	0	0	0	2	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	2	0	0	0	3	0	0
c	1	0	2	0	0	0	3	0	0
c	1	0	1	0	0	0	2	0	0
c	1	0	3	0	0	0	4	0	0
c	1	0	4	1	0	0	5	1	0.17

<u>TYPE</u>	<u>PM</u>	<u>PF</u>	<u>VPM</u>	<u>VPF</u>	<u>AVPM</u>	<u>AVPF</u>	<u>M</u>	<u>F</u>	<u>PROP</u>
c	1	0	2	0	0	0	3	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	2	0	0	0	3	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	3	0	0	0	4	0	0
c	1	0	2	0	0	0	3	0	0
d	1	0	4	0	1	0	6	0	0
d	1	0	7	0	0	0	8	0	0
d	1	0	7	0	1	0	9	0	0
d	1	0	6	0	1	0	8	0	0
d	1	0	3	0	0	0	4	0	0
d	1	0	3	0	0	0	4	0	0
Totals	123	9	281	23	11	4	415	36	7.98%

Note. Institutional Type:

a = Comprehensive Private

b = Doctoral Private

c = Liberal Arts Private

d = Research Private

Note. Positions:

PM=Presidents/Male

PF = Presidents/Female

VPM = Vice Presidents/Male

VPF = Vice Presidents/Female

VPM=Vice Presidents/Male

AVPM = Assistant Vice Presidents/Male

AVPF = Assistant Vice Presidents/Female

Table 32

Administrators in Private Institutions in 1998

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
a	1	0	6	0	0	0	7	0	0
a	1	0	3	0	1	1	5	1	0.17
a	1	0	2	1	0	1	3	2	0.4
a	1	0	3	0	0	0	4	0	0
a	1	0	3	1	2	1	6	2	0.25
a	1	0	1	0	0	0	2	0	0
a	0	1	1	3	0	0	1	4	0.8
a	1	0	2	0	0	0	3	0	0
a	1	0	3	1	0	0	4	1	0.2
a	1	0	2	0	0	0	3	0	0
a	1	0	6	1	1	1	8	2	0.2
a	1	0	4	1	1	1	6	2	0.25
a	1	0	1	1	3	2	5	3	0.38
a	1	0	1	2	3	2	5	4	0.44
a	1	0	0	0	0	0	1	0	0
a	1	0	3	1	0	0	4	1	0.2
a	1	0	4	2	1	0	6	2	0.25
a	0	1	4	0	0	0	4	1	0.2
a	2	0	3	1	0	0	5	1	0.17
a	1	0	4	0	1	1	6	1	0.14
a	1	0	2	1	0	0	3	1	0.25
a	1	0	5	1	3	0	9	1	0.1
a	0	1	0	3	0	0	0	4	1
a	1	0	4	1	0	0	5	1	0.17
a	1	0	4	1	0	0	5	1	0.17
a	0	1	3	0	0	0	3	1	0.25
a	2	0	5	0	4	0	11	0	0
a	1	0	1	3	2	0	4	3	0.43
a	1	0	4	1	0	1	5	2	0.29
a	0	1	3	1	0	1	3	3	0.5
a	1	0	4	1	0	0	5	1	0.17
a	1	0	4	0	0	0	5	0	0

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
a	1	0	5	0	3	1	9	1	0.1
a	1	0	1	2	0	0	2	2	0.5
a	1	0	3	0	0	0	4	0	0
a	1	0	2	2	0	0	3	2	0.4
b	1	0	3	2	0	0	4	2	0.33
b	1	0	3	2	2	2	6	4	0.4
b	1	0	8	4	5	6	14	10	0.42
b	1	0	4	2	0	0	5	2	0.29
b	0	1	3	2	1	0	4	3	0.43
b	1	0	5	1	5	0	11	1	0.08
c	1	0	1	0	0	2	2	2	0.5
c	1	0	1	1	0	0	2	1	0.33
c	0	1	1	1	0	0	1	2	0.67
c	1	0	1	1	0	0	2	1	0.33
c	1	0	4	1	0	0	5	1	0.17
c	1	0	4	0	0	0	5	0	0
c	1	0	5	0	0	0	6	0	0
c	1	0	4	0	0	0	5	0	0
c	1	0	4	0	0	0	5	0	0
c	1	0	3	1	1	0	5	1	0.17
c	1	0	2	0	0	0	3	0	0
c	1	0	5	0	0	0	6	0	0
c	1	0	0	0	0	0	1	0	0
c	0	1	0	1	0	0	0	2	1
c	1	0	3	1	0	0	4	1	0.2
c	1	0	4	0	0	0	5	0	0
c	1	0	3	1	0	0	4	1	0.2
c	1	0	3	0	0	0	4	0	0
c	1	0	1	0	0	0	2	0	0
c	0	1	0	4	0	0	0	5	1
c	1	0	2	0	1	2	4	2	0.33
c	1	0	3	2	0	0	4	2	0.33
c	1	0	0	0	0	0	1	0	0
c	1	0	3	0	0	0	4	0	0
c	1	0	5	1	0	0	6	1	0.14
c	1	0	2	1	0	0	3	1	0.25
c	1	0	4	0	1	0	6	0	0
c	1	0	3	2	0	1	4	3	0.43
c	1	1	0	0	0	0	1	1	0.5
c	0	1	2	3	0	0	2	4	0.67
c	1	0	2	1	0	0	3	1	0.25

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
c	0	1	4	0	1	0	5	1	0.17
c	1	0	5	1	0	0	6	1	0.14
c	0	1	3	2	0	0	3	3	0.5
c	1	0	3	0	0	0	4	0	0
c	1	0	3	1	1	0	5	1	0.17
c	1	0	5	0	0	0	6	0	0
c	1	0	4	1	0	0	5	1	0.17
c	0	1	2	1	1	0	3	2	0.4
c	1	0	2	4	0	0	3	4	0.57
c	0	1	1	1	0	1	1	3	0.75
c	1	0	4	1	0	0	5	1	0.17
c	1	0	4	0	0	0	5	0	0
c	1	0	4	1	0	0	5	1	0.17
c	1	0	4	1	0	0	5	1	0.17
c	1	0	5	0	0	0	6	0	0
c	1	0	3	1	1	0	5	1	0.17
c	1	0	5	0	0	0	6	0	0
c	0	1	1	3	0	0	1	4	0.8
c	1	0	3	0	0	0	4	0	0
c	1	0	2	3	1	0	4	3	0.43
c	1	0	2	1	0	0	3	1	0.25
c	1	0	4	1	0	0	5	1	0.17
c	1	0	2	3	0	0	3	3	0.5
c	1	0	0	0	0	0	1	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	2	2	0	0	3	2	0.4
c	1	0	3	0	0	0	4	0	0
c	0	1	0	0	0	0	0	1	1
c	1	0	4	0	0	0	5	0	0
c	1	0	5	0	1	2	7	2	0.22
c	1	0	5	0	1	1	7	1	0.13
c	1	0	1	1	0	0	2	1	0.33
c	1	0	1	2	0	1	2	3	0.6
c	1	0	2	1	1	0	4	1	0.2
c	0	1	0	1	0	0	0	2	1
c	1	0	5	0	0	0	6	0	0
c	1	0	3	1	0	0	4	1	0.2
c	0	1	2	3	0	1	2	5	0.71
c	1	0	1	0	0	0	2	0	0
c	0	1	4	0	1	0	5	1	0.17
c	1	0	1	1	0	0	2	1	0.33

<u>TYPE</u>	<u>PM</u>	<u>PF</u>	<u>VPM</u>	<u>VPF</u>	<u>AVPM</u>	<u>AVPF</u>	<u>M</u>	<u>F</u>	<u>PROP</u>
c	1	0	3	0	1	0	5	0	0
c	1	0	5	0	0	0	6	0	0
c	1	0	2	1	0	0	3	1	0.25
c	1	0	2	1	1	0	4	1	0.2
c	1	0	1	2	0	0	2	2	0.5
c	1	0	1	2	0	0	2	2	0.5
d	1	0	4	3	2	1	7	4	0.36
d	1	0	7	1	0	0	8	1	0.11
d	1	0	5	1	1	1	7	2	0.22
d	3	0	9	2	6	1	18	3	0.14
d	1	0	4	1	0	1	5	2	0.29
d	1	0	10	1	1	0	12	1	0.08
Totals	111	20	374	120	62	36	547	176	24.34%

Note. Institutional Type:

a = Comprehensive Private

b = Doctoral Private

c = Liberal Arts Private

d = Research Private

Note. Positions:

PM=Presidents/Male

PF = Presidents/Female

VPM = Vice Presidents/Male

VPF = Vice Presidents/Female

VPM=Vice Presidents/Male

AVPM = Assistant Vice Presidents/Male

AVPF = Assistant Vice Presidents/Female

Table 34

Administrators in Public Institutions 1983

<u>TYPE</u>	<u>PM</u>	<u>PF</u>	<u>VPM</u>	<u>VPF</u>	<u>AVPM</u>	<u>AVPF</u>	<u>M</u>	<u>F</u>	<u>PROP</u>
a	1	0	2	0	0	0	3	0	0
a	1	0	0	0	0	0	1	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	5	1	0	0	6	1	0.14
a	1	0	3	1	0	0	4	1	0.2
a	1	0	1	0	0	0	2	0	0
a	1	0	2	1	0	0	3	1	0.25
a	1	0	5	0	1	1	7	1	0.13
a	1	0	5	1	1	0	7	1	0.13
a	1	0	2	0	0	0	3	0	0
a	1	0	3	0	4	0	8	0	0
a	1	0	3	1	0	0	4	1	0.2
a	1	0	0	0	0	0	1	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	0	0	0	0	1	0	0
a	1	0	0	0	0	0	1	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	1	0	0	0	2	0	0
a	1	0	2	0	0	0	3	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	1	0	0	0	2	0	0
a	1	0	2	0	0	0	3	0	0
a	1	0	2	0	0	0	3	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	1	1	2	0	4	1	0.2
a	1	0	5	0	0	0	6	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	3	0	0	0	4	0	0
a	1	0	3	0	1	0	5	0	0
a	0	1	1	0	3	0	4	1	0.2
a	1	0	1	0	2	1	4	1	0.2
a	1	0	1	0	1	1	3	1	0.25

TYPE	PM	PF	VPM	VPF	AVPM	AVPE	M	F	PROP
a	1	0	4	0	0	0	5	0	0
a	1	0	3	0	0	0	4	0	0
a	0	1	4	0	0	0	4	1	0.2
b	1	0	5	0	0	0	6	0	0
b	1	0	2	1	1	0	4	1	0.2
b	1	0	4	0	0	0	5	0	0
b	1	0	4	0	0	0	5	0	0
b	1	0	3	0	0	0	4	0	0
b	1	0	5	0	4	1	10	1	0.09
b	1	0	4	0	0	0	5	0	0
b	1	0	2	0	0	0	3	0	0
b	1	0	4	0	0	0	5	0	0
b	1	0	4	1	0	0	5	1	0.17
c	1	0	3	0	0	0	4	0	0
c	1	0	0	0	0	0	1	0	0
c	1	0	3	0	0	0	4	0	0
c	1	0	1	2	0	0	2	2	0.5
c	1	0	3	0	0	0	4	0	0
c	0	1	2	0	0	0	2	1	0.33
c	1	0	2	0	0	0	3	0	0
c	1	0	3	0	0	0	4	0	0
c	1	0	3	0	0	0	4	0	0
c	1	0	3	0	0	0	4	0	0
c	2	0	0	0	0	0	2	0	0
c	1	0	0	0	0	0	1	0	0
d	1	0	5	0	0	0	6	0	0
d	1	0	1	0	0	0	2	0	0
d	1	0	3	0	1	0	5	0	0
d	1	0	3	1	0	0	4	1	0.2
d	1	0	1	0	2	0	4	0	0

<u>TYPE</u>	<u>PM</u>	<u>PF</u>	<u>VPM</u>	<u>VPF</u>	<u>AVPM</u>	<u>AVPF</u>	<u>M</u>	<u>F</u>	<u>PROP</u>
d	1	0	5	0	0	0	6	0	0
d	1	0	5	0	0	0	6	0	0
d	1	0	6	0	0	0	7	0	0
d	1	0	3	0	0	0	4	0	0
d	1	0	4	0	1	2	6	2	0.25
d	1	0	4	0	0	0	5	0	0
d	1	0	5	1	0	0	6	1	0.14
Totals	72	3	206	12	24	6	302	21	6.5%

Note. Institutional Type:

a = Comprehensive Public

b = Doctoral Public

c = Liberal Arts Public

d = Research Public

Note. Positions:

PM=Presidents/Male

PF = Presidents/Female

VPM = Vice Presidents/Male

VPF = Vice Presidents/Female

VPM=Vice Presidents/Male

AVPM = Assistant Vice Presidents/Male

AVPF = Assistant Vice Presidents/Female

Table 35

Administrators in Public Institutions 1998

<u>TYPE</u>	<u>PM</u>	<u>PF</u>	<u>VPM</u>	<u>VPF</u>	<u>AVPM</u>	<u>AVPF</u>	<u>M</u>	<u>F</u>	<u>PROP</u>
a	1	0	2	0	0	1	3	1	0.25
a	0	1	4	0	0	2	4	3	0.43
a	1	0	2	2	4	0	7	2	0.22
a	0	1	0	0	0	0	0	1	1
a	1	0	2	0	0	0	3	0	0
a	0	1	3	1	1	1	4	3	0.43
a	1	0	5	0	0	0	6	0	0
a	1	0	4	1	1	0	6	1	0.14
a	1	0	1	2	0	0	2	2	0.5
a	0	1	2	2	3	0	5	3	0.38
a	1	0	3	2	0	0	4	2	0.33
a	0	1	1	3	2	0	3	4	0.57
a	1	0	2	3	3	2	6	5	0.45
a	1	0	3	1	0	0	4	1	0.2
a	0	1	2	1	0	1	2	3	0.6
a	1	0	3	1	0	0	4	1	0.2
a	0	1	2	1	1	1	3	3	0.5
a	1	0	3	0	0	0	4	0	0
a	1	0	4	1	2	0	7	1	0.13
a	1	0	5	0	0	0	6	0	0
a	0	1	4	1	1	1	5	3	0.38
a	1	0	0	0	3	0	4	0	0
a	1	0	3	0	0	1	4	1	0.2
a	1	0	2	1	0	0	3	1	0.25
a	1	0	4	0	0	0	5	0	0
a	1	0	4	2	6	0	11	2	0.15
a	1	0	4	0	4	1	9	1	0.1
a	1	1	2	0	4	0	7	1	0.13
a	1	0	2	0	2	3	5	3	0.38
a	1	0	4	0	0	0	5	0	0
a	1	0	4	0	0	0	5	0	0
a	1	0	2	2	1	0	4	2	0.33
a	1	0	1	0	0	0	2	0	0
a	1	0	1	0	3	2	5	2	0.29
a	1	0	1	1	1	0	3	1	0.25
a	1	0	3	0	0	0	4	0	0
a	2	0	1	2	2	1	5	3	0.38

TYPE	PM	PF	VPM	VPF	AVPM	AVPF	M	F	PROP
a	1	0	3	0	0	0	4	0	0
a	0	1	0	0	0	0	0	1	1
a	1	0	3	1	1	1	5	2	0.29
b	1	0	4	0	0	2	5	2	0.29
b	1	0	5	0	3	1	9	1	0.1
b	1	0	3	0	1	0	5	0	0
b	1	0	3	0	0	0	4	0	0
b	0	1	4	1	4	0	8	2	0.2
b	1	0	5	5	1	0	7	5	0.42
b	1	0	3	1	2	2	6	3	0.33
b	0	1	2	1	0	0	2	2	0.5
b	1	0	5	0	0	0	6	0	0
b	0	1	1	2	1	1	2	4	0.67
c	0	1	3	0	4	1	7	2	0.22
c	0	1	3	0	0	0	3	1	0.25
c	1	0	0	4	1	1	2	5	0.71
c	1	0	3	1	0	0	4	1	0.2
c	1	0	3	0	0	0	4	0	0
c	1	0	5	0	1	1	7	1	0.13
c	0	1	3	0	2	2	5	3	0.38
c	0	1	3	1	2	1	5	3	0.38
c	1	0	2	1	1	0	4	1	0.2
c	0	0	0	1	0	0	0	1	1
c	1	0	0	0	0	0	1	0	0
c	0	1	3	0	0	0	3	1	0.25
d	1	0	5	1	0	0	6	1	0.14
d	1	0	10	1	5	3	16	4	0.2
d	1	0	5	1	2	0	8	1	0.11
d	1	0	6	0	4	1	11	1	0.08
d	1	0	2	1	0	1	3	2	0.4
d	1	0	4	0	3	1	8	1	0.11
d	0	1	6	3	5	3	11	7	0.39
d	1	0	5	2	4	4	10	6	0.38

<u>TYPE</u>	<u>PM</u>	<u>PF</u>	<u>VPM</u>	<u>VPF</u>	<u>AVPM</u>	<u>AVPF</u>	<u>M</u>	<u>F</u>	<u>PROP</u>
d	0	1	4	0	3	0	7	1	0.13
d	1	0	1	0	2	3	4	3	0.43
d	1	0	5	2	0	1	6	3	0.33
d	1	0	8	2	1	1	10	3	0.23
Totals	55	20	225	62	97	48	377	130	25.64%

Note. Institutional Type:

a = Comprehensive Public

b = Doctoral Public

c = Liberal Arts Public

d = Research Public

Note. Positions:

PM=Presidents/Male

PF = Presidents/Female

VPM = Vice Presidents/Male

VPF = Vice Presidents/Female

VPM=Vice Presidents/Male

AVPM = Assistant Vice Presidents/Male

AVPF = Assistant Vice Presidents/Female

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