Women Chief Academic Officers of Public Community Colleges: Significant Predictors for Their Career Paths.

Texas Tech Univ., Lubbock. Coll. of Education.

2000-04-07


Reports - Research (143) -- Speeches/Meeting Papers (150)

*Academic Deans; *Careers; *Community Colleges; *Decision Making; Two Year Colleges; *Women Administrators

As women now comprise 39% of the chief academic officer (CAO) positions, the focus of this investigation was the career paths and mobility factors of women CAOs in public comprehensive community colleges. This survey of 142 women resulted in eight distinct, common pathways by which women attain this rank. The typical profile of a female CAO is a married Caucasian woman who is 51 years old and has held her current position for about five years. Her career path began as a faculty member, she held two administrative appointments, and her immediately prior position was as a primary academic administrator. A Chi-Square Automatic Interaction Detector (CHAID) analysis of CAOs revealed the most significant career path predictors to be entry port, number of higher education positions held, and the immediately prior position. When focusing specifically on women CAOs, the first prior position is the most significant predictor. Career paths are determined by a wide array of personal and environmental factors. Included at the end of this report are a chart of the most common three-position career paths for women CAOs, CHAID analysis tree for the career path of women CAOs, and tables of women CAO's: first prior position, number of positions held, years served, frequency distribution (%) of mobility type, ethnic representation, and current marital status. (Contains 31 references.) (VWC)
Women Chief Academic Officers of Public Community Colleges:

Significant Predictors for Their Career Paths

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Paper Presented at the 42nd Annual Conference of the Council for the Study
Of Community Colleges, April 7-8, 2000, Washington, D.C.

Support for this project was provided through a State Organized Research Grant from
the College of Education at Texas Tech University
Abstract

The chief academic officer (CAO) is generally recognized as the highest-ranking academic administrator of an institution. Previous studies concerning career paths of academic administrators have not specifically focused on women holding the position of CAO. As women now comprise 39% of the CAOs, the focus of this investigation was the career paths and mobility factors of women CAOs in public comprehensive community colleges belonging to the American Association of Community Colleges (AACC). The profile of this CAO is a married Caucasian woman who is 51 years old and has held her current position for about five years. Her career path began as a faculty member, she had held two administrative appointments, and her immediately prior position was as a primary academic administrator. A CHAID analysis of CAOs in comprehensive community colleges revealed the most significant career path predictors to be entry port, number of higher education positions held and the immediately prior position. When focusing specifically on women CAOs, the first prior position is the most significant predictor. Career paths are determined by a wide array of personal and environmental factors; thus, further research into these areas is recommended.
Women Chief Academic Officers of Public Community Colleges:

Significant Predictors for Their Career Paths

The chief academic officer (CAO) is generally recognized as the highest-ranking academic administrator of an institution. This position is also the one most commonly held prior to assuming a presidency (Lynch, Bowker, & McFerron, 1986; Plotts, 1998; Ross & Green, 1998; Twombly, 1986). Vaughan (1989) reported that 50% of the presidents in community colleges held the CAO position immediately prior to the presidency. Twombly (1988) also confirms the importance of the CAO position in the career path leading to the community college presidency. Given their impact on the academic programs of their institutions and the likelihood that they will advance to the presidency, investigations into the career paths of these academic professionals are warranted.

According to Twombly (1999), examinations of the status of women in faculty and administrative positions have recently shifted focus. Initial studies identified women, described their experiences, and then compared their experiences to those of men (Bayer & Astin, 1975; Graham, 1974; Moore & Sagaria, 1991; Ross & Green, 1986; Tidball, 1976; Townsend, 1993; Twombly, 1993). The new focus, termed feminist critical policy studies (Marshall, 1997) suggests a complexity much greater than did earlier research on women's role in higher education. Moreover, this new scholarship has demonstrated that well-meaning equal opportunity policies have not worked to bring the number of women into line with their representation as students or to end discrimination or unequal work
experiences (Brooks, 1997; Eggins, 1997; Ferber & Loeb, 1997). As a method, feminist critical policy studies:

1) pose gender as a fundamental category of attention and analysis;
2) focus on differences, local context, and specificity;
3) are concerned with the lived experiences of women;
4) have institutional transformation as a goal;
5) are openly political and change oriented.

A key aspect leading to the shift in the scholarship on academic women is the fact that they make up an increasing proportion of faculty and administrators, especially in the community college sector. Clark (1998) cites data indicating that women make up 38% of the total faculty at community colleges, a higher percentage than in any type of four-year institution. Townsend (1998) adds that there are more women administrators at community colleges than in the four-year sector. In examining representation, Kanter (1977) identified 35% as a minimal level necessary to reach ‘critical mass’, the point at where a category of individuals moves from ‘token’ representation to a collective ‘group’. This concept of critical mass has continued to be incorporated in research focusing on academic women (Riger, Stokes, Raja, & Sullivan, 1997; Twombly, 1999). Recognizing the demographic evidence, Clark called for research on women faculty and administrators in the community college that moves beyond male-versus-female comparisons to in-depth investigations of their experiences and professional advancement.

Given these parameters, this study addresses women CAOs as a group unto themselves in the community college setting. Of the criteria Marshall (1997)
outlines, the investigation also demonstrates a concern for the actual experiences of women and consideration for the specific context of the public comprehensive community college. The theoretical framework for this study is grounded in the concept of an organizational career and the theory of internal labor markets. We define an organizational career as a sequence of positions within an organization. From labor market theory, we conceptualize the organization as all public comprehensive community colleges holding membership in AACC. Finally, the definition of comprehensive community college follows that of the North Carolina State Department of Community Colleges (1969), those that provide college transfer, general education, occupational education, occupational extension, continuing education, and community service.

Purpose

The purpose of this study was twofold. First, we wanted to gather personal and professional data concerning the career experiences of women CAOs in public comprehensive community colleges. Second, we hoped to use this data to identify significant career path predictors to facilitate the advancement of women who aspire to the community college CAO position.

Methodology

Data used in this study came from a national survey of CAOs in public comprehensive community colleges. In order to gather information, permission was secured from Dr. Marlene Ross to revise and use the survey from the ACE National Presidents' Study (M.R. Ross, personal communication, October, 1998).
The mail survey design was selected for its flexibility and versatility in format allowing for an efficient way to contact people across the country (Alreck & Settle, 1995). The survey consisted of a series of questions designed to illicit institutional type, mode of movement, number of years in the position, type of contract, and title of the position for the five jobs held prior to the office of CAO. In addition, demographic information including age, gender, race, marital status, and degrees attained was garnered to create a profile of the current CAO. The questionnaire was pilot tested and minimal changes were made.

The sample was drawn from the population of 1487 AACC member institutions. Limiting the population to: 1) accredited institutions that are state or locally controlled, and 2) institutions matching the definition of a comprehensive community college resulted in a sample of 628 administrators functioning in the capacity of CAO. These individuals were surveyed by mail during the 1998-1999 academic year. A total of 369 usable questionnaires were returned yielding an overall response rate of 60%. Of these 369 responses, 142 (38.5%) were received from women CAOs.

Descriptive statistics along with CHAID analysis (Chi-Square Automatic Interaction Detector) (Statistical Innovations, Inc., 1994) was used to identify and analyze the data. The CHAID analysis created a visual "tree structure" or dendrogram identifying what factors made a significant impact on the career paths (Perreault & Barksdate, 1980).
To determine career paths for the CAOs in this study, position titles were grouped according to HEGIS classifications. These classifications were determined after reviewing position titles, thus, not all of the HEGIS classifications were utilized. The nine classifications and their definitions are:

**Vice President**—Responsible for all or most functions and operations of an institution under the direction of the Chief Executive Officer [President].

**Chief Academic Officer**—Directs the academic program of the institution. Includes those individuals who were listed as both Academic and Student Affairs Officer.

**Chief Student Affairs Officer**—Responsible for the direction of student life programs.

**Primary Academic Officer**—Responsible for a specific component of the organization [college, division] or a specific function or operation [associate provost for technology] under the direction of the Chief Academic Officer.

**Chair or Head**—Responsible for a specific course of study [department, program] under the direction of either the Primary Academic Officer or the Chief Academic Officer.

**Other Higher Education**—Administrative position within an institution of higher education that does not fit any of the classifications listed.

**Faculty**—Responsible for delivering the academic program.
K-12—Positions in educational institutions serving students from kindergarten through the 12th grade.

Other—Positions held outside of educational organizations.

Results

A frequency distribution of the four-position career paths resulted in 117 different paths for the 142 respondents. It was then decided to develop a three-step career path, utilizing 5% as a minimum level necessary for consideration. This three-step grouping provided 26 career paths with eight meeting the minimal 5% level. As shown in Figure 1, three career paths of women CAOs represented more than 10% of the sample, Faculty-Chair-CAO (12%), Faculty-PAO-CAO (11.3%), and Chair-PAO-CAO (10.6%).

To identify significant predictors for the career paths, a CHAID analysis and the associated dendrogram were generated (Figure 2). The analysis provided evidence that the most important factor that significantly predicts the career path of CAOs in community colleges was the immediate previous position. The second most important factor affecting the career paths was the career entry port. Third and finally, the remaining significant predictor was the number of higher education positions in the career sequence. As the most significant predictor of career path, a distribution frequency for the first prior position was created. Table 1 reveals that the most common prior position was as a Primary Academic Officer (32.6%), followed by serving as the Chief Academic Officer at another institution (25.5%).
Entry port was identified through CHAID analysis as the second most important significant predictor to the career path of women CAOs. To determine these entry ports, a frequency distribution of the initial position in higher education for the women CAOs in comprehensive community colleges was created. The overwhelming majority entered higher education as a faculty member (52.8%). This one position served as the entry port for more future CAOs than all other positions combined. The position of primary academic officer (PAO) was the next most important entry port (17.6%), followed by the position of chair or head (13.4%).

The CHAID analysis identified the number of higher education positions as the third and final significant predictor for career path. In order to examine the differences in the number of positions held by these women, three means were computed: 1) the total number of all positions held, 2) the number of faculty positions held and 3) the number of administrative positions held. These means are summarized in Table 2. Women CAOs in comprehensive community colleges generally hold two administrative positions in their career and one faculty position.

To determine the number of years women serve in faculty and administrative positions, descriptive statistics were used to compute seven means: 1) the total number of years held in all positions, 2) the total number of years held in all faculty positions, 3) the total number of years held in all administrative positions, 4) the number of years in the CAO position 5) the number of years held in the first
prior position, 6) the number of years held in the second prior position, 7) the number of years held in the third prior position, and 8) the number of years held in the fourth prior position. The results from this analysis are summarized in Table 3 and indicate that women CAOs served more years as administrators than as faculty members. In addition, the number of years served in prior positions gradually increases with each sequential position.

We characterized mobility as four types: 1) internal to the institution, 2) movement within the state, 3) movement outside of the state, and 4) movement outside of higher education. To determine whether there is a difference in the mode of movement during the careers of CAOs, a frequency distribution of the women CAOs experiences was created and is presented in Table 4. The results support internal mobility at the strongest type of movement for the three previous positions, with within state movement as the most common type for the fourth prior position. Movement outside of state is the greatest at the point of assuming the CAO position. We do not know, however, whether out-of-state movement occurred by choice, or because in-state CAO vacancies were limited.

In order to develop a profile of the women CAO, demographic characteristics were also examined. For the 142 female respondents, the mean age was 51.36 (range 36-64, S.D. 5.36). The racial distribution of the women CAOs are shown in Table 5. The Caucasian component of the sample was predominant (84.4%) followed by African-American (8.2%), Hispanic (3.3%), American Indian (3.3%) and Asian (0.8%).
In order to review educational credentials, a frequency distribution of the highest degree attained query was completed (142 respondents). The Ph.D. represented the highest credential obtained by the greatest number of CAOs (41.4%) followed by the Ed.D. (34.9%). The remaining portion of the CAOs completed a Master's (22.6%) or a professional or other type of degree (less than 1%). No CAOs reported the baccalaureate degree as their highest credential.

The final demographic aspect was current marital status. Table 6 provides the frequency distribution that indicates the majority of these professionals are married. It is interesting to note that no women reported that they were single.

Discussion and Conclusions

The profile of a woman CAO in a public community college portrays a 51-year-old Caucasian female who is married and has earned a Ph.D. She has served in her current position for a little over five years. The entry port she used to gain employment in the community college was a faculty position. She has held approximately three positions in higher education of which two were administrative and one was faculty. Her immediate prior position was as a PAO or a CAO at another institution. Her profile differs from her male peers in several ways. First, she is one-year younger than her male peers. Second, she has served in her current position for less time than her male colleagues. Third, she has held more positions in her career and she has held the majority of her academic and administrative positions for fewer years than her male colleagues.
As a point of comparison, it is interesting to note the similarity between the percentage of women in the community college faculty (38%) and the percentage of women among the CAOs in this study (39%). In contrast, Clark (1998) described that minority women comprise 3.6% of the total faculty in community colleges. Our data reveals that minority women comprise 6% of the CAOs in public comprehensive community colleges. This result might be explained, in part, by the fact that 14% of the total sample and 14% of the women respondents chose not to reveal their ethnic background. It does, however, provide at least a hint of optimism and most certainly points to the need for additional studies.

The analysis of career paths proved to be the most challenging component of this study. Vaughan (1990) recognized this diversity when he identified the path to the position of CAO as fairly wide with many branches. Likewise, Twombly (1986) found that top-level administrative careers in community colleges did not always follow structured career lines. Even so, we were able to develop eight, three-position career paths that represent almost two-thirds (64%) of the sample. Three of the common career paths included 10% or more of the sample. In a similar effort, Twombly (1988) utilized 10% as the minimal limit for the first previous position, resulting in 6 categories, and 5% as the minimal limit for the second previous position, resulting in only one category.

Our findings support previous conclusions that an individual’s career history influences their success in obtaining a CAO appointment. Specifically, the CHAID analysis indicated that the immediate previous position and the entry port
were the two most important factors that affected the CAO position. Having the first prior position as a significant predictor supports the previous work on career paths that frequently focus on this variable (Moore, 1982; Ross & Green, 1998).

A faculty position emerged as the primary entry port, reported in 53% of the women CAOs' career paths. PAOs (17.6%) and chair or head (13.4%) emerged as the next two most frequent entry ports. Thus, these three positions served as the entry ports for virtually four-fifths (83.8%) of the CAOs. This finding supports previous research on initial positions that provide access to community college careers (Arman, 1986; Boggs, 1988, Twombly, 1988).

The study also supports the notion of flexibility in the community colleges as it allows academic administrative careers to begin without requiring an initial faculty position. Only two of the eight common career paths began with a faculty appointment, illustrating the concept that there are different career paths and an individual may have a faculty career as well as have an administrative career.

The career paths of these administrators are not as straight as the three predictors might seem to indicate. Prior to their current position, 55% of the respondents served either as the CAO for another institution or as a primary academic officer. This indicates many of these administrators have made lateral moves during their careers and supports Twombly's (1988) assertion that administrative experience rather than a particular position is an important determinant in the path to the CAO in community colleges. She states, "It is
possible that type of experiences or positions held are more important than the
order in which they were held” (p. 685).

Summary

This study was an initial investigation of the career paths of women CAOs as a group
unto themselves in the community college setting. In completing the investigation we
answered the call for research on women administrators in the community college that
moved beyond male-versus-female comparisons. Using CHAID analysis we were able to
indicate three significant predictors of the career paths of CAOs and, further, the most
significant predictor for women CAOs. A frequency distribution also allowed us to
identify three common, three-position career paths comprised of 10% or more of the
sample. Finally, descriptive statistics allowed us to develop a profile of the woman CAO.

As 39% of the responding CAOs are women, the critical mass necessary for
group consideration has indeed been reached. We are also guardedly optimistic
about the representation of minority female CAOs. No different than earlier
investigations that include both men and women, we found that the paths that
women follow to arrive at the position of CAO are not clearly defined. Absent is
a sequential set of positions through which the candidate desiring the position
should gradually advance. Instead, it would appear that for women a variety of
credentials and experiences have become the medium of exchange. Classroom
experiences, obtaining a Ph.D., and holding an administrative appointment as a
primary or chief academic officer are part of this value system.
We urge additional research on the experiences of women in both faculty and administrative roles. While certainly a beginning, our study was not an exhaustive investigation of administrative careers. Nor did we consider the entire gamut of personal, organizational, and external variables. In addition, a longitudinal study of women in this and other administrative positions in comprehensive community colleges is needed to identify the unique factors, to determine changing dynamics, and to lead to institutional transformation and change.
References


<table>
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<tr>
<th>PATH</th>
<th>FREQ.</th>
<th>POSITION 1</th>
<th>POSITION 2</th>
<th>POSITION 3</th>
</tr>
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<tbody>
<tr>
<td>PATH 1:</td>
<td>12.0%</td>
<td>Faculty</td>
<td>Chair</td>
<td>CAO</td>
</tr>
<tr>
<td>PATH 2:</td>
<td>11.3%</td>
<td>Faculty</td>
<td>PAO</td>
<td>CAO</td>
</tr>
<tr>
<td>PATH 3:</td>
<td>10.6%</td>
<td>Chair</td>
<td>PAO</td>
<td>CAO</td>
</tr>
<tr>
<td>PATH 4:</td>
<td>7.0%</td>
<td>Other HE</td>
<td>PAO</td>
<td>CAO</td>
</tr>
<tr>
<td>PATH 5:</td>
<td>6.3%</td>
<td>CAO</td>
<td>Other HE</td>
<td>CAO</td>
</tr>
<tr>
<td>PATH 6:</td>
<td>6.3%</td>
<td>CAO</td>
<td>PAO</td>
<td>CAO</td>
</tr>
<tr>
<td>PATH 7:</td>
<td>5.6%</td>
<td>Chair</td>
<td>Other HE</td>
<td>CAO</td>
</tr>
<tr>
<td>PATH 8:</td>
<td>5.6%</td>
<td>Faculty</td>
<td>Other HE</td>
<td>CAO</td>
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Figure 1. The Most Common Three-Position Career Paths for Women CAOs.
Figure 2. CHAID analysis tree for the career path of women CAOs.
Table 1

First Prior Position of Women CAOs

<table>
<thead>
<tr>
<th>Title</th>
<th>Frequency</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Chief Academic Officer</td>
<td>36</td>
<td>25.5</td>
</tr>
<tr>
<td>Vice President</td>
<td>8</td>
<td>5.7</td>
</tr>
<tr>
<td>Chief Student Affairs Officer</td>
<td>6</td>
<td>4.3</td>
</tr>
<tr>
<td>Primary Academic Officer</td>
<td>46</td>
<td>32.6</td>
</tr>
<tr>
<td>Chair or Head</td>
<td>15</td>
<td>10.6</td>
</tr>
<tr>
<td>Faculty</td>
<td>7</td>
<td>5.0</td>
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<tr>
<td>Other Higher Education Position</td>
<td>19</td>
<td>13.5</td>
</tr>
<tr>
<td>K-12 Experience</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td>100</td>
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### Table 2

**Number of Positions Held By Women CAOs.**

<table>
<thead>
<tr>
<th>Type of Position</th>
<th>N</th>
<th>Mean Number Held</th>
<th>Standard Deviation</th>
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<tbody>
<tr>
<td>Higher Education</td>
<td>142</td>
<td>3.42</td>
<td>.878</td>
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<tr>
<td>Faculty</td>
<td>101</td>
<td>1.73</td>
<td>.823</td>
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<tr>
<td>Administrative</td>
<td>112</td>
<td>2.41</td>
<td>1.136</td>
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### Table 3

**Years Served by Women CAOs.**

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<th>Position</th>
<th>N</th>
<th>Mean Years</th>
<th>Standard Deviation</th>
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<tr>
<td>CAO</td>
<td>142</td>
<td>5.05</td>
<td>4.04</td>
</tr>
<tr>
<td>First Previous</td>
<td>141</td>
<td>5.43</td>
<td>4.61</td>
</tr>
<tr>
<td>Second Previous</td>
<td>134</td>
<td>5.02</td>
<td>4.17</td>
</tr>
<tr>
<td>Third Previous</td>
<td>96</td>
<td>4.73</td>
<td>3.12</td>
</tr>
<tr>
<td>Fourth Previous</td>
<td>86</td>
<td>3.64</td>
<td>2.36</td>
</tr>
<tr>
<td>Total Faculty</td>
<td>124</td>
<td>13.39</td>
<td>9.88</td>
</tr>
<tr>
<td>Total Administrative</td>
<td>124</td>
<td>15.23</td>
<td>9.57</td>
</tr>
<tr>
<td>Total all Positions</td>
<td>141</td>
<td>28.32</td>
<td>13.09</td>
</tr>
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Table 4

Frequency Distribution (%) of Mobility Type for Women CAO Positions

<table>
<thead>
<tr>
<th>Mobility Type</th>
<th>Current Position</th>
<th>1st Prior Position</th>
<th>2nd Prior Position</th>
<th>3rd Prior Position</th>
<th>4th Prior Position</th>
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<tr>
<td>Internal</td>
<td>54.9</td>
<td>66.9</td>
<td>48.9</td>
<td>43.3</td>
<td>34.0</td>
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<td>Within State</td>
<td>18.3</td>
<td>14.8</td>
<td>26.7</td>
<td>31.7</td>
<td>37.0</td>
</tr>
<tr>
<td>Outside State</td>
<td>25.4</td>
<td>16.9</td>
<td>22.9</td>
<td>19.2</td>
<td>21.0</td>
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<tr>
<td>Outside Higher Ed</td>
<td>1.4</td>
<td>1.4</td>
<td>1.5</td>
<td>5.8</td>
<td>8.0</td>
</tr>
</tbody>
</table>
Table 5

**Ethnic Representation of Women CAOs.**

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>African American</td>
<td>10</td>
<td>8.2</td>
</tr>
<tr>
<td>American Indian</td>
<td>4</td>
<td>3.3</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>.8</td>
</tr>
<tr>
<td>Caucasian</td>
<td>103</td>
<td>84.4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4</td>
<td>3.3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>122</strong></td>
<td><strong>100</strong></td>
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**Table 6**

**Current Marital Status of Women CAOs.**

<table>
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<tr>
<th>Marital Status</th>
<th>Frequency</th>
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<td>Single</td>
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<tr>
<td>Religious Order</td>
<td>5</td>
<td>4.2</td>
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<tr>
<td>Married</td>
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<td>66.9</td>
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<tr>
<td>Separated</td>
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<td>2.5</td>
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<tr>
<td>Divorced</td>
<td>30</td>
<td>25.4</td>
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<tr>
<td>Widowed</td>
<td>1</td>
<td>.8</td>
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<td>Total</td>
<td>118</td>
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<td>Cynthia B. Mc Kenney, Brent D. Cejka</td>
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<td>Corporate Source:</td>
<td>College of Education, Texas Tech University</td>
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