As school principals retire and the principal shortage is predicted to intensify over the next decade, proposals are being made for altering the role of the principal and for providing candidates with realistic and appealing job descriptions. This study was conducted to examine whether specified features of the principal's role influence the attitudes and job-search behaviors of men and women differently. Equal numbers of male (n=84) and female (n=84) public teachers read and rated descriptions of a vacant principal position. The job descriptions emphasized that the successful applicant would be expected to use a specified administrative model and work a specified number of hours per week. Contrary to expectation, an analysis-of-variance procedure revealed that androcentric bias may be declining in recruitment messages in job descriptions as sex-role and gender discrimination disappears. Position announcements depicting a democratic administrative model and shorter work week appealed to males more than to females. These results suggest research on how organizational representatives can reinvent the principalship in ways that will be more appealing to women. (Contains 26 references and 3 tables.) (RT)
Do Teacher Reactions to Features of Principalship Vary by Gender?

Rose Mary Newton  
Assistant Professor  
The University of Alabama

Peter Zeitoun  
Research Assistant  
The University of Alabama

The findings reported in this paper are part of a larger study examining teacher reactions to features of the principalship. Equal numbers of male (n = 84) and female (n = 84) public teachers read and rated descriptions of a vacant principal position. The job descriptions emphasized that the successful applicant would be expected to use a specified administrative model and work a specified number of hours per week. Contrary to our expectations, an analysis of variance procedure revealed that the position announcements depicting a democratic administrative model and a shorter workweek appealed to males more than females.
Do Teacher Reactions to Features of Principalship Vary by Gender?

Several trends have converged to create an alarming shortage of qualified applicants for principal vacancies. Principals are retiring in record numbers, a high number of principals are opting for non-administrative positions, and classroom teachers are increasingly reluctant to fill the vacated positions (Barker, 1997; Doud & Keller, 1998; McAdams, 1998; Muse & Thomas, 1991). Nationwide, superintendents report difficulty in filling vacancies (Adams, 1999; Barker, 1997; Educational Research Service [ERS], 1998) and the shortage is predicted to intensify over the course of the next decade as more than one-third of the current cohort of principals reach retirement age (Doud & Keller, 1998; National Center for Education Statistics [NCES], 1997). Recent proposals include altering the role to provide principals with more realistic job descriptions (Adams, 1999; Anderson, 1991; ERS, 1998; Read, 2000).

Determining which alterations will appeal to prospective applicants is difficult because reactions to aspects of the job are subject to individual differences such as gender (Schwab, Rynes & Aldag, 1987). Educational theorists argue that the traditional model of school administration promotes behaviors that accommodate a male stereotype, and consequently, diminish female attraction for principalship (Barker, 1997; Shakeshaft, 1989, 1999). Furthermore, because women continue to be largely responsible for household duties, expectations for principals to attend evening events in addition to a full workweek may deter females, as prospective applicants, more than males (ERS and others, 1998; Shakeshaft, 1989).

CONCEPTUAL FRAMEWORK

One explanation for gender segregation in the educational workplace is that in an androcentric society, males are more likely to be promoted to prestigious positions.

Androcentrism...is the elevation of the masculine to the level of the universal and the ideal and honoring of men and the male principle above women and the female. This perception creates a belief in male superiority and a masculine value system in which female values, experiences, and behaviors are viewed as inferior. (Shakeshaft, 1989, p. 95)

Some maintain that androcentric bias is embedded in the constructs of present theories in educational administration (Adkison, 1981; Hanson, 1984; Shakeshaft, 1981). An assumption driving this research is that androcentric bias may also become manifest in the content of recruitment messages that implicitly, if not explicitly, accommodate both the male model of school administration and the division of household work assumed by males. To test this hypothesis, we measured the reactions of male and female teachers to principal vacancy announcements specifying a preferred administrative model and designating a number of hours to be worked each week.

BACKGROUND

Differences in male and female approaches to school administration are rooted in the bureaucratic model of schooling adopted in the early years of American education. During the first third of the twentieth century, job descriptions called for principals to implement the intentions of others. Consequently, male principals, drawing on their backgrounds in both business and the military, used an authoritarian and directive approach to supervise the work of female teachers. Such job expectations were “born out of the hierarchical demands of boards of education for school-site agents, nourished by the early twentieth century romance with the corporate manager, and weaned on the dream of scientific management” (Cuban, 1988, p. 57). Females, on the other hand, joined organizations such as the National Congress of Mothers where they learned to use democratic and egalitarian styles of decision making and leadership.
that were incompatible with the authoritarian approaches characteristic of the bureaucratic model
of schooling (Burstyn, 1980).

In the last decades of the twentieth century, changes in society, the economy, and the
political arena are compelling educational organizations to move away from the traditional
management models of school administration designed to maintain organizational stability in
favor of emerging leadership models designed to effect organizational change. Metaphors used
to describe today's principals (e.g., community servants, organizational architects, social
architects, moral educators) convey the notion that successful principals initiate more than they
implement, reshape schools to be responsive to all students rather shape children to fit the
school, and establish new purposes of schooling rather than manage the existing ones (Murphy &
Shipman, 1999). These images appear to be consistent with the ways that women perceive the
principal's role.

A second feature of principalship, time commitment, may deter individuals, from seeking
principal vacancies. Today's principals spend more time completing paperwork, supervising
after-school activities, marketing their schools, becoming politically involved to generate
financial support, and working with social service agencies (Doud & Keller, 1998). Furthermore,
community members continue to expect principals to attend every after-school event.
Consequently, the typical elementary school principal works at least 50 hours per week and the
typical high school principal works 60-80 hours per week (Doud & Keller, 1998; Read, 2000;
Yerkes & Guaglianone, 1998). Such expectations overload the role, compromise the ability of
principals to balance family and work life, and detract from administrator efforts to improve
student learning (Doud & Keller, 1998; ERS & others, 1998; Read, 2000). Evidence is mounting
that excessive time requirements deter prospective applicants, particularly women, from seeking
principalship and, at least partially, account for the high turnover rate among principals (Barker,
1997; Read, 2000).

The purpose of the study was to examine whether specified features of the principal's role
influence the attitudes and job search behaviors of men and women differently. We anticipated
that the administrative model of schooling in use for much of this century and the ever
lengthening workweek represent androcentric bias by accommodating the work behaviors of
men more than women.

METHODOLOGY

Equal numbers of male (n = 84) and female (n = 84) public school teachers read and
evaluated an announcement of a position vacancy. The independent variables manipulated in the
position announcements were administrative model (traditional, emerging) and time commitment
(45 hours, 55 hours, 65 hours). Gender (male, female) was an inactive independent variable. The
dependent variable was a composite score representing teacher attraction to, and willingness to
pursue, principalship. Given the levels of the independent variables, we used a 2 x 3 x 2
completely-crossed fixed-factor analysis of variance design which yielded 12 cells (n = 14).

SAMPLING PROCEDURE

Using a random process to assign the participants to treatment conditions, we mailed a
demographic data form, one version of an announcement of a principal vacancy, and an
evaluation instrument to a national sample of male (n = 300) and female (n = 300) public school
teachers acquired from Market Data Retrieval. Two weeks after the initial contact, we mailed a
postcard to encourage non-participants to return the completed instruments. Three weeks later,
we mailed replacement instruments to all non-respondents. This process yielded 242 useable
instruments representing a 40% response rate.
We determined the sample size by performing a power analysis according to procedures recommended by Cohen (1988). Based on a desired minimum effect size (omega squared = .06), a defined level of significance (alpha = .05), and a specified power level (.80), the minimum number of participants needed was 168. To achieve the desired sample size, we sorted the returned instruments into their appropriate cells (e.g. female, emerging, 45 hours per week) and used a table of random numbers to select the minimum number of participants (n = 14) needed in each cell. This process yielded equal numbers of males (n = 84) and females (n = 84) and equal cell sizes.

According to the National Center of Education Statistics (2000), the median age of the participating teachers (46 years) was only slightly higher than the median age of public school teachers nationally (44 years). In terms of ethnicity, the profile of the participating teachers (White = 85.7%; Minority = 14.3) was also quite similar to the ethnic profile of teachers nationally (White = 90.7%; Minority = 9.3). Over 90% of participants reported that they have either a bachelors (41.3%) or a masters (55.4%) as their highest degree. Interestingly, 42.9% of the returned instruments came from the elementary level, while middle (25.6%) and high school (28%) participants completed the rest of the remaining returned instruments.

INDEPENDENT VARIABLES

The independent variables were administrative model, time commitment, and gender. Each version of the job description depicted the administrative model as either traditional or emerging and the time commitment as 45 hours per week, 55 hours per week, or 65 hours per week. Gender was an assigned independent variable determined by the self-report of the participating teachers.

To establish content validity for the administrative model we performed the following steps. First, we reviewed the literature to identify the style(s) of leadership purported to be characteristic of men (directive, authoritative, managerial) and women (instructional, transformational, moral, democratic, participative). We used the term "administrative model" to accommodate the multiple leadership styles ascribed to men and women. We identified the administrative model ascribed to males as "traditional" and the administrative model ascribed to women as "emerging". Next, we identified 71 discrete leadership behaviors performed by principals. We provided a panel of professors in Educational Administration (N = 5) with definitions of the traditional and emerging models of school administration and the 71 identified behaviors. Members of the panel used a matrix to categorize each behavior as characteristic of either the traditional or emerging model of school administration. We retained statements that panel members categorized unanimously for use in the study instruments (see Table 1). The definitions provided to members of the panel follow:

Principals who adopt the traditional model of school administration function as organizational bureaucrats and scientifically-trained managers who value efficiency, focus on technical and clerical issues, carry out the wishes of individual above them in the organizational hierarchy, and assure that teachers are carrying out the prescribed curriculum (Cuban, 1988).

Principals who adopt the emerging model of school administration value learning, focus on initiating change, reconstruct conceptions of authority and school structure to make them instrumental to teaching and learning, invent ways to make schools fit children, and invest heavily in establishing purposes (Murphy & Shipman, 1999).
Manipulating the levels of the independent variables yielded six versions of announcements for a position vacancy. Each version, identical in length and format, contained general information held constant across all versions, behaviors characteristic of a specified administrative model (either traditional or emerging), and a required time commitment (either 45 hours per week, 55 hours per week, or 65 hours per week).

**DEPENDENT VARIABLE**

The dependent variable for this study was teacher attraction to and willingness to pursue principalship. The composite score of the participant responses to four questions represented a measure of overall job attraction: (1) "How would you rate the overall attractiveness of the description of the principal vacancy?" (2) "How likely would you be to apply for the principal job described?" (3) "How likely would you be to accept an interview for the principal as described?" and, (4) "How likely would you be to accept the job of principal as described?" The participants recorded their responses on 5-point Likert-type scales with 5 representing a more favorable rating.

**PILOT STUDY**

Experienced teachers (N = 31) participated in a pilot study to ascertain whether they perceived the manipulations as intended and to assess the reliability of the dependent variable. We retained the piloted instruments for use in the actual study because most participants (93%) accurately perceived the manipulations and because the coefficient alpha for the four-item measure of job attractiveness (.91) was within the acceptable range for use in social science research.

**HYPOTHESES**

The null hypotheses tested in this study related to three independent variables: (a) administrative model; (b) the time devoted to the job; and (c) gender. These variables and the three-way anova design permitted testing with seven sources of variance: three main effects, three two-way interactions, and one three-way interaction. The hypotheses addressing the main effects were stated as follows:

Hypothesis 1. There is no difference in teaching ratings of a recruitment message emphasizing a specified administrative model (traditional, emerging) associated with teacher ratings of the job.

Hypothesis 2. There is no difference in teacher ratings of a recruitment message emphasizing a specified number of hours to be worked per week (45 hours, 55 hours, 65 hours) associated with teacher ratings of the job.

Hypothesis 3. There is no difference in teacher ratings of a recruitment message associated with the gender of the participant.

In addition to testing for these main effects, we tested for all two-way and three-way interactions between and among the independent variables.

**LIMITATIONS**

The study results should be interpreted within the parameters of two limitations. The response rate (40%) for this study was somewhat disappointing. In addition, the study is limited to the examination of two variables purported to influence the job search behaviors of males and females differently. An open-ended question inviting the participants to explain their reactions to the announcements may have enriched the study findings by unearthing other variables of interest.
RESULTS
Table 2 contains the cell means and standard deviations for participant ratings of the position announcement. The cell means reflect several trends: (1) overall, men rated the position announcements more positively than women, (2) both men and women rated the emerging or democratic administrative model more positively than the traditional administrative model, and (3) attraction for the job increased as the number of hours to be worked decreased.

An analysis of variance procedure ANOVA (Table 3) revealed a significant main effect for administrative model ($F = 5.39, p < .02$) with both males and females rating the emerging or democratic model more favorably than the traditional model of school administration. Also, statistical testing revealed a significant main effect for gender ($F = 22.60, p < .00$) with males rating the position announcements significantly more favorably than females. Finally, statistical testing detected a three-way interaction ($F = 3.25, p < .04$). Further analysis revealed that the three-way interaction was between gender and administrative model across hours per week ($F = 3.9, p < .02$). Because the number of hours worked per week had three levels, we computed Tukey's HSD test to determine the precise nature of the interaction effect (see Keppel, 1991). When the position announcement emphasized a traditional administrative model, males responded significantly more positively to the 55-hour workweek than they did to the 65-hour workweek.

DISCUSSION
Our findings failed to support our first null hypothesis. There was a significant difference in teachers' ratings of depictions of the principal's job associated with a specified administrative model. Overall, teachers rated recruitment messages emphasizing the emerging or democratic administrative model more positively than they rated recruitment messages emphasizing the traditional or more authoritarian administrative model. This finding is consistent with others (e.g., Mertz & McNeely, 1997) who suggest that differences in the leadership styles of men and women may be lessening. Barber and Daly (1996) speculated that reductions in sex role differentiation, gender discrimination, and occupational segregation in the past decade have lessened the differences in the leadership styles of males and females. While other explanations for the no-difference finding are possible, the most optimistic interpretation of the favorable male ratings of the administrative model previously ascribed to women is that the democratic administrative behavior ascribed to women may no longer be considered inferior. In other words, androcentrism may be on the wane.

The study results supported the second null hypothesis. We detected no significant main effect of the hours to be worked per week on ratings of the position. This result was surprising because the literature (e.g. Lortie, 1975; Shakeshaft, 1989; Read, 2000) is replete with statements that the time requirement discourages individuals from seeking the position and contributes to job turnover. Perhaps principals who complain about excessive time requirements are actually responding to the "Superprincipal" or "Great Expectations" syndrome described by Michael Copland (2000). Because the effective schools literature heightened recognition of the principal's role in school improvement efforts, the role of the principal became central in the reform initiatives and accountability movements of the 1980's. During the final three decades of the 20th century, scholars devoted considerable time to developing conceptions of educational leaders (community servants, organizational architects, social architects, moral educators). Copland contends that "when considered en masse rather than separately, these myriad views create unintended dark consequences that fuel the current problems of supply and quality in the principalship" (p. 531).
The study results did not support our third null hypothesis. There was a significant difference in teacher ratings of the position announcements associated with gender with males rating the recruitment messages significantly more positively than females. This finding was detected even when the position announcement emphasized the democratic administrative model ascribed to women generally and a 45 hour workweek designed to be compatible with home responsibilities. These results question whether reinventing principalship along these lines would attract more female applicants and, therefore, provide sufficient leverage for ending gender segregation in the educational workplace. The challenge for researchers is to continue to explore how the principalship can be reinvented in ways that will appeal to more women.

The results supported our null hypotheses for all two-way interactions between the independent variables. However, we found no support for our null hypothesis regarding the three-way interaction among the independent variables. Males rated the recruitment messages emphasizing the traditional administrative model and a 55 hour workweek significantly more positively than they did the traditional administrative model emphasizing a 65 hour work week. A practical implication of this finding is that males who prefer the traditional administrative model are significantly more likely to apply for administrative positions requiring them to work 55 hours per week than for administrative positions requiring them to work 65 hours per week. Stated another way, reinventing principalship in ways that reduce the length of the workweek by ten hours may be an effective recruitment technique for men who endorse the traditional approach to school administration.

If the recruitment goal is to reinvent principalship in ways that will increase the diversity of the applicant pool, our results are both promising and perplexing. The results are promising because it appears that the democratic administrative style ascribed to women is valued by both male and female teachers. The results are perplexing because, despite depictions of a democratic working environment and a 45 hour workweek, women were significantly less attracted to the principalship than were males. Women represent a large untapped reservoir of talent for positions in educational administration. The research challenge remains. How can organizational representatives reinvent the principalship in ways that will be more appealing to women?
REFERENCES


Table 1
Principal Behaviors Consistent with the Emerging and Traditional Administrative Models of School Administration

Emerging Administrative Model
Empower teacher to become involved in school affairs.
Develop, articulate, implement, and exercise stewardship of a vision of learning that is shared/supported by the school community.
Lead in reflective and self-critical processes and assure that teachers assist students in constructing knowledge.
Engage teachers and community members in decision making.

Traditional Administrative Model
Exercise control over all school procedures and processes.
Spend the majority of the workweek engaged in school activities related to the day-to-day planning, coordination, control, and overall operation of the school.
Closely supervise the teachers.
Issue direct orders to individuals under his or her supervision when needed.

Table 2
Summary of Cell Means and Standard Deviations

<table>
<thead>
<tr>
<th>Administrative Model</th>
<th>Emerging</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours per Week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>8.79</td>
<td>8.86</td>
</tr>
<tr>
<td>SD</td>
<td>3.45</td>
<td>4.57</td>
</tr>
<tr>
<td>55 Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>8.29</td>
<td>7.50</td>
</tr>
<tr>
<td>SD</td>
<td>5.14</td>
<td>4.05</td>
</tr>
<tr>
<td>65 Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>7.29</td>
<td>6.15</td>
</tr>
<tr>
<td>SD</td>
<td>2.49</td>
<td>1.75</td>
</tr>
</tbody>
</table>

Note. Means and standard deviations are based on additive composite scores.
Coefficient alpha = .91.
N = 168. n = 14.
Table 3
Analysis of Variance for the Reactions of Males and Females to Administrative Model and Hours per Week

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours per Week</td>
<td>2</td>
<td>102.16</td>
<td>51.08</td>
<td>3.01*</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>384.02</td>
<td>384.02</td>
<td>22.60**</td>
</tr>
<tr>
<td>Administrative Model</td>
<td>1</td>
<td>91.52</td>
<td>91.52</td>
<td>5.39*</td>
</tr>
<tr>
<td>Hours per Week x Gender</td>
<td>2</td>
<td>9.44</td>
<td>4.72</td>
<td>.28</td>
</tr>
<tr>
<td>Hours per Week x Administrative Model</td>
<td>2</td>
<td>85.03</td>
<td>42.54</td>
<td>2.50</td>
</tr>
<tr>
<td>Gender x Administrative Model</td>
<td>1</td>
<td>27.52</td>
<td>27.52</td>
<td>1.62</td>
</tr>
<tr>
<td>Hours per Week x Gender x Administrative Model</td>
<td>2</td>
<td>110.37</td>
<td>55.19</td>
<td>3.25*</td>
</tr>
<tr>
<td>Error</td>
<td>165</td>
<td>2651.00</td>
<td>16.99</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>167</td>
<td>3461.12</td>
<td>20.73</td>
<td></td>
</tr>
</tbody>
</table>

Coefficient Alpha for Four-Item Composite Score = .91.

* p < .05.  ** p < .01.
Title: Do Teacher Reactions to Features of Principalship Vary by Gender?

Author(s): Newton, Rose Mary and Zeitoun, Peter

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign in the indicated space following.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and

http://ericfac.piccard.csc.com/reprod.html

3/4/2002
other service agencies to satisfy information needs of educators in response to discrete inquiries.

<table>
<thead>
<tr>
<th>Signature:</th>
<th>Rose Mary Newton, Assistant Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization/Address:</td>
<td>The University of Alabama Wilson Hall Box 870302 Tuscaloosa, AL 35487-0302</td>
</tr>
<tr>
<td>Telephone:</td>
<td>205-348-1160</td>
</tr>
<tr>
<td>Fax:</td>
<td>205-348-2161</td>
</tr>
<tr>
<td>E-mail Address:</td>
<td><a href="mailto:rnewton@bamaed.ua.edu">rnewton@bamaed.ua.edu</a></td>
</tr>
<tr>
<td>Date:</td>
<td>03/05/02</td>
</tr>
</tbody>
</table>

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

<table>
<thead>
<tr>
<th>Publisher/Distributor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
</tr>
<tr>
<td>Price:</td>
</tr>
</tbody>
</table>

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

<table>
<thead>
<tr>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
</tr>
</tbody>
</table>

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse: **Educational Management**

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

**ERIC Processing and Reference Facility**
4483-A Forbes Boulevard
Lanham, Maryland 20706
Telephone: 301-552-4200
Toll Free: 800-799-3742
e-mail: ericfac@net.ed.gov
WWW: http://ericfacility.org

EFF-088 (Rev. 2/2001)