Factors Accounting for Variability in Superintendent Ratings of Academic Preparation

Theodore J. Kowalski  
*University of Dayton*, tkowalski1@udayton.edu

Ila Phillip Young  
*University of South Carolina - Columbia*

Robert S. McCord  
*University of Nevada, Las Vegas*

Follow this and additional works at: [http://ecommons.udayton.edu/eda_fac_pub](http://ecommons.udayton.edu/eda_fac_pub)

Part of the Educational Assessment, Evaluation, and Research Commons, Educational Leadership Commons, Education Economics Commons, Elementary and Middle and Secondary Education Administration Commons, Higher Education Administration Commons, Other Educational Administration and Supervision Commons, Special Education Administration Commons, and the Urban Education Commons

**eCommons Citation**

[http://ecommons.udayton.edu/eda_fac_pub/24](http://ecommons.udayton.edu/eda_fac_pub/24)

This Article is brought to you for free and open access by the Department of Educational Leadership at eCommons. It has been accepted for inclusion in Educational Leadership Faculty Publications by an authorized administrator of eCommons. For more information, please contact frice1@udayton.edu, mschlangen1@udayton.edu.
Factors Accounting for Variability in Superintendent Ratings of Academic Preparation

Theodore J. Kowalski, PhD
Professor and Kuntz Family Chair in Educational Administration
School of Education and Allied Professions
University of Dayton
Dayton, OH

I. Phillip Young, EdD
Professor and Director Joint Doctoral Program in Educational Leadership
School of Education
University of California, Davis
Fresno, CA

Robert S. McCord, EdD
Associate Professor
Department of Educational Leadership
College of Education
University of Nevada, Las Vegas
Las Vegas, NV

Abstract

This study utilized findings from the 2010 decennial study of the school superintendent to determine the extent to which four predictor variables (courses, professor credibility, size [enrollment of employing school district], and gender) accounted for variability in superintendent overall ratings of their academic preparation. The standardized regression coefficients indicate that most of the variance accounted for in the linear equation was due to ratings of professor credibility and ratings of the perceived value of courses. Neither the institutional variable, school district size, nor the personal variable, gender, accounted for meaningful variance in the overall ratings. Recommendations are made for extending this line of inquiry.

Keywords

Superintendent Preparation, Education Leadership, Superintendent Certification
Traditionally, school district superintendents have been prepared academically in schools of education. From a policy perspective, their professional education has been inextricably tied to state licensing but in a manner unique to most other professions. In high-status professions, such as medicine and law, scholars and practitioners have set academic standards and enforced them through rigorous program accreditation; state licensing criteria were aftereffects (Connelly & Rosenberg, 2003).

In education, however, licensing criteria were developed first, primarily by policymakers; professional preparation curricula and accreditation standards were the aftereffects (Wise, 1994). This atypical alignment allowed states to establish highly dissimilar licensing policies, a condition that then produced highly dissimilar academic preparation programs among and even occasionally within states (Kowalski, 2006, 2008). Moreover, resource allocation and rigor have been found to vary substantially among superintendent preparation programs (Murphy, 2002, 2007).

Over the past two decades, deregulation advocates (e.g., Broad Foundation and Thomas B. Fordham Institute, 2003; Hess, 2003) have argued that inconsistencies and deficiencies provide evidence that traditional licensing and academic preparation are at best inconsequential.

To no one’s surprise, the vast majority of professors preparing superintendents disagreed with them; however, their underlying reasons for opposing deregulation have not been homogeneous. Some professors, for example, have contended that the purported deficiencies in academic preparation are invalid; therefore, they have argued that traditional approaches to preparation and licensing should not be altered.

Others have contended that the deficiencies are valid; these professors opposed deregulation on the grounds that making licensing policy uniform and making academic studies more rigorous are more socially responsible and advantageous alternatives (Kowalski, 2004).

In light of prevailing concerns and opposing views on how to address them, there is a need to broaden the knowledge base concerning the effectiveness of superintendent preparation. This study was designed to serve this purpose, specifically by analyzing superintendent perceptions of the pre-service academic experiences.

Data analyzed were obtained from the American Association of School Administrators 2010 decennial study of superintendents (Kowalski, McCord, Petersen, Young, & Ellerson, 2011). The specific objective was to determine if a linear combination of four predictor variables accounted for substantial variance in superintendents’ overall ratings of their pre-service academic preparation.

In order to provide a theoretical context for the topic, the literature on preparation was reviewed with respect to content, criticisms, and prevailing opinions. Then methods and findings in this study are discussed. Outcomes reveal that two program variables (professor credibility and courses) accounted for higher levels of variability in the overall ratings than did either an organizational variable (size of the employing school district) or an individual variable (superintendent sex).
Theoretical Framework

Nature of Superintendent Preparation

Logically, academic preparation in a profession is based on essential knowledge, dispositions, and skills. With respect to school district superintendents, extant literature addresses these factors in relation to five role conceptualizations. The first four—instructional leader, manager, democratic leader, and applied social scientist—were identified and described by Callahan (1964). The fifth, effective communicator, evolved in the context of the current information age and was identified and described by Kowalski (2001, 2005).

Expectedly, accreditation of professional preparation programs validates standards of institutional quality, integrity, and worthiness by ensuring that the curriculum is congruent with conceptualizations of practice (Seldon, 1977; Young, Chambers, Kells, & Associates, 1983). Moreover, this standing is intended to protect public interests (Kaplin, 1982; Millard, 1983; National Council for the Accreditation of Teacher Education [NCATE], 1990; Wise 1992).

In education, preparation programs may be accredited institutionally (e.g., North Central Association of Colleges and Schools) and professionally (e.g., by the National Council for the Accreditation of Teacher Education [NCATE]). A decade ago, NCATE (2001) adopted new standards for preparing all district and school administrators. They include 11 knowledge and skill areas integrated under four broad categories of leadership (strategic, instructional, organizational and political-community) and an internship. The standards are stated as outcomes and therefore, they neither prescribe nor require a specific curriculum.

Consequently, the nature of principal and superintendent preparation can vary substantially even among programs holding the same accreditation (Young, Petersen, & Short, 2002). This condition is accepted by many on the grounds that knowledge and skills can be acquired in numerous ways.

Concurrently, however, program variability has elevated political vulnerability and produced skepticism regarding the value of and need for traditional preparation and licensing (Kowalski, 2009). Conceptually, most institutions have treated superintendent preparation as an extension of principal preparation by merely requiring students to complete several additional courses.

This practice continues even though district and school administration have become increasingly dissimilar (Glass, Björk, & Brunner, 2000; Glass & Franceschini, 2007). Moreover, some programs have gone so far as to permit students to personalize a course of study (e.g., they are allowed to select the requisite number of courses from a long list of courses). The generalizations about this process commonly found in the literature are clearly precarious given the variability in state licensing policy, the effects of state policies on academic preparation, and the absence of a national curriculum to prepare superintendents. (Kowalski, 2008).

Criticisms

The need for and quality of the academic preparation of superintendents have been deliberated ever since states began issuing licenses for the position (Orr, 2006; Young, 2005). In part, opposing views stem from perceptions of practice. Those promoting deregulation have tended to view the position as one requiring a mix of efficient management and political savvy.
In its Manifesto, the Broad Foundation and Thomas B. Fordham Institute (2003), for example, contended that courses in educational administration are unessential for persons who already have proven themselves as business executives, elected officials, or military officers.

Other critics (e.g., Hess, 2003) have maintained that professional preparation requirements are unnecessary because they do not stem from a valid knowledge base nor are they especially relevant to managerial work. Such assertions, however, are dubious for several reasons.

For instance, they fail to consider the literature on role conceptualizations; they are, at best based on anecdotal evidence; they fail to consider the fact that the vast majority of superintendents are employed in very small systems where they have little or no district-level support staff (Kowalski, 2004).

Superintendent preparation also has been criticized from within the profession. As examples, Björk, Kowalski, and Browne-Ferrigno, 2005, Grogan and Andrews (2002), and Murphy (2002; 2007) agree that many preparation programs have given inadequate attention to the instructional leadership role. Foskett, Lumby, and Fidler (2005), and Heck and Hallinger (2005) maintain that many preparation programs have failed to prepare superintendents to apply research to problem solving.

Other scholars (e.g., Clark, 1989; Elmore, 2007; Guthrie & Sanders, 2001) have contended that educational administration programs were established as, or evolved to become, “cash cows”—programs with low admission, retention, and completion requirements that generate substantial revenue.

In his study of administrator preparation, Levine (2005) concluded that many university-based programs were (a) inattentive to problems of practice, (b) operated by faculty who had profoundly different philosophies (that they were unwilling to debate and reconcile), and (c) characterized by low standards and curricular inconsistencies.

He also reported that new and supposedly creative programs were in some ways worse than their traditional counterparts. He found that many of them were created at institutions that previously had no mission to prepare administrators, and, as a result, their courses frequently were void of theoretical content, taught by part-time faculty (largely local principals and superintendents), and based solely on instructors’ personal experiences.

In addition, a myriad of commission reports, books, and articles have called for massive reforms for all administrator preparation programs. Analyzing this literature, Willower and Forsyth (1999) identified two recurring recommendations: programs should embrace higher academic standards and there should be fewer, but higher, quality programs. Dubious policymakers, however, have not been inclined to support suggestions that potentially elevate state funding or reduce the supply of administrator applicants.

In his studies of teacher preparation, Ingersoll (2001) pointed out that states intentionally have overproduced educators (including administrators) to ensure that school boards could set salaries politically rather than economically; that is, an abundance of applicants allowed boards to set compensation at politically acceptable levels. Although astute policymakers may espouse more rigorous preparation programs as part of educational reforms, some have actually promulgated
antipodal policy, such as encouraging entrepreneurial or low-cost programs (Kowalski, 2009). Despite calls for reform, limited evidence suggests that many preparation programs have not changed over the past few decades (e.g., King, 2010).

Opinion Studies
Much of what is known about academic preparation has been derived from opinion studies conducted with program graduates. Broadly, findings from this body of research provide two types of information: overall ratings of academic preparation and ratings of specific elements of academic preparation. Not uncommonly, studies found the former to be high and the latter to be mixed. Moreover, they reported the view that selected aspects of academic programming need to be changed.

As an example, Dance (2007) found three recommendations to be pervasive among Virginia superintendents: making courses more applicable to practice, placing less emphasis on theory, and employing instructors with superintendent experience. In a Texas study, Iselt (1999) reported finding that courses should be more practice-based and taught by instructors who have been superintendents.

Over the past two decades, several national studies (e.g., Glass, Björk, & Brunner, 2000; Glass & Francesschini, 2007; Kowalski et al., 2011) found that although most superintendents were satisfied or highly satisfied with the overall quality of academic preparation, their ratings of program aspects (e.g., courses, instruction) fluctuated.

Analysis of Predictor Variables
Data Source
Data analyzed in this paper were generated as part of the 2010 decennial study of the American superintendent (Kowalski et al., 2011). These studies began in 1923 and have been replicated every succeeding decade except during the 1940s. All studies prior to 2010 were conducted with population samples via written surveys.

In 2000, for example, the sample size was 5,336 and the return rate was 42.4% (2,262). In 2010, the total population of superintendents in districts actually enrolling and educating students was estimated to be approximately 12,600. Because some superintendents are employed by more than one district (in one instance, for example, a single superintendent served six rural districts), the actual head count of district superintendents in 2010 was less than that figure.

All district superintendents for whom e-mail addresses could be obtained were invited by the American Association of School Administrators (AASA) to complete an online survey. The instrument, developed by the authors (Kowalski et al, 2011) and subsequently reviewed by a panel of experts (current or former professors who previously had served as district superintendents), was available to respondents in December, 2009 and January, 2010. Responses were tabulated by K-12 Insight, a private consulting firm serving as agent for AASA; the data then were analyzed by the authors.

A total of 1,867 surveys was completed and analyzed. All states were represented in the returns providing a national perspective without disproportionate overrepresentation from any state, region, or district student enrollment configuration. Responses to large population studies, and especially those conducted electronically, are often low. Analysis of such studies, however, indicates that a low response rate does not guarantee low accuracy; instead, it indicates a risk of lower accuracy (Holbrook, Krosnick, & Pfent, 2008). Thus, it should be noted that findings of the 2010 decennial study
are representative of those who responded and caution should be exercised in making inferences to all superintendents.

**Method of Analysis**
The statistical analysis of perceptions of academic preparation was intended to address the following research question: *Did a linear combination of predictor variables account for substantial variance associated with superintendents’ overall evaluation of their academic preparation?* The criterion (or dependent) variable in this analysis is the superintendents’ overall ratings of their academic preparation.

In the 2010 decennial study (Kowalski et al., 2011), the overall evaluation was measured on a 4-point Likert-type scale with a higher rating reflecting a more positive perception than a lower rating. The anchors and percentage of respondents selecting each of them in the 2010 decennial study were as follows: *poor* coded as “1” (3.6%); *fair* coded as “2” (17.9%); *good* coded as “3” (53.7%); *excellent* coded as “4” (24.8%).

Four predictor (or independent) variables were analyzed as potential sources accounting for systematic variance in superintendents’ ratings of their overall academic preparation. They were (a) respondents’ composite ratings of *courses*, (b) respondents’ ratings of *professor credibility*, (c) the *size* (enrollment) of respondents’ employing districts, and (d) respondents’ *sex*.

The first stage of analysis was the development of a composite score for the perceived value of courses. Courses were rated on a 3-point scale as follows: *extremely important* rated “3,” *moderately important* rated “2,” and *unimportant* rated “1.” The total points for each course listed on the survey were determined based on the ratings and number of respondents who completed the courses. The number of respondents for each course varied because curricula for superintendent preparation are not homogeneous.

Data then were used to calculate a composite score. Reliability of the composite score was assessed by coefficient *alpha* and was found to be .88, a value well within an acceptable range (Nunnally, 1994). Specific course rating data and the composite score (scaled to the same values, i.e., 1-3) are in Table 1.
Table 1

**Descriptive Statistics for Academic Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>School law</td>
<td>1847</td>
<td>1.00</td>
<td>3.00</td>
<td>2.71</td>
<td>.49</td>
</tr>
<tr>
<td>School finance</td>
<td>1824</td>
<td>1.00</td>
<td>3.00</td>
<td>2.70</td>
<td>.59</td>
</tr>
<tr>
<td>Human resources</td>
<td>1773</td>
<td>1.00</td>
<td>3.00</td>
<td>2.48</td>
<td>.58</td>
</tr>
<tr>
<td>Public relations, school-community relations</td>
<td>1747</td>
<td>1.00</td>
<td>3.00</td>
<td>2.48</td>
<td>.60</td>
</tr>
<tr>
<td>Curriculum</td>
<td>1837</td>
<td>1.00</td>
<td>3.00</td>
<td>2.36</td>
<td>.60</td>
</tr>
<tr>
<td>Decision making</td>
<td>1721</td>
<td>1.00</td>
<td>3.00</td>
<td>2.32</td>
<td>.65</td>
</tr>
<tr>
<td>District administration</td>
<td>1734</td>
<td>1.00</td>
<td>3.00</td>
<td>2.25</td>
<td>.63</td>
</tr>
<tr>
<td>Instructional methods, pedagogy</td>
<td>1817</td>
<td>1.00</td>
<td>3.00</td>
<td>2.20</td>
<td>.64</td>
</tr>
<tr>
<td>School facility planning/management</td>
<td>1627</td>
<td>1.00</td>
<td>3.00</td>
<td>2.19</td>
<td>.63</td>
</tr>
<tr>
<td>Politics of education</td>
<td>1617</td>
<td>1.00</td>
<td>3.00</td>
<td>2.17</td>
<td>.67</td>
</tr>
<tr>
<td>Organizational theory</td>
<td>1809</td>
<td>1.00</td>
<td>3.00</td>
<td>2.10</td>
<td>.66</td>
</tr>
<tr>
<td>Tests and measurements</td>
<td>1755</td>
<td>1.00</td>
<td>3.00</td>
<td>2.09</td>
<td>.63</td>
</tr>
<tr>
<td>Research methods</td>
<td>1808</td>
<td>1.00</td>
<td>3.00</td>
<td>2.02</td>
<td>.65</td>
</tr>
<tr>
<td>Diversity</td>
<td>1509</td>
<td>1.00</td>
<td>3.00</td>
<td>1.90</td>
<td>.66</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>1236</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Single item scales were used to assess the three remaining predictor variables (professor credibility, size [enrollment] of respondents’ employing districts, and respondents’ sex).

*Credibility of professors* was measured on a 4-point scale with higher rating noting more credibility than lower ratings. Anchor points on this scale were *excellent* rated as “4,” *good* rated as “3,” *fair* rated as “2,” and *poor* rated as “1.”

The *size* scale was based on a student enrollment classification scheme included in previous AASA-sponsored decennial studies (e.g., Glass et al., 2000; Kowalski et al., 2011). The codes applied were: *less than 300 students* coded as “1,” *300-2,999* coded as “2,” *3,000-24,999* coded as “3,” and *25,000 or more* coded as “4.”
Superintendent sex was dummy coded by using either “0” or “1.” Females were coded as “0” and males were coded as “1,” and females served as the referent group in the regression analyses.

Superintendent perceptions of overall academic preparation were regressed on the four predictor variables. Because all data were obtained from a defined population (rather than a sample), a descriptive (rather than an inferential) regression analysis was calculated. Within this regression analysis, a simultaneous method of variable entry was used that included all predictor variables in the linear equation.

Findings
The analysis revealed that 47% of the variance in superintendent perceptions of overall academic preparation was due to a linear combination of the predictor variables. According to most methodological authorities (e.g., Cohen, 1977), 47% is a substantial amount of variance. As a descriptive statistic, this finding constitutes a large effect having practical implications.

Additional analysis was conducted for each of the four predictor variables. Table 2 contains results of the deconstructed linear equation reflecting un-standardized regression (b) coefficients (unique to their scale of measurement) and standardized regression (β) coefficients (having a common scale of measurement). The standardized regression coefficients, i.e., β, reveal the relative contribution of each of the predictor variables in this particular linear equation and are the focal points of this study.

Table 2

Predictors of Superintendents’ Ratings of Overall Academic Preparation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Un-standardized Coefficients (b)</th>
<th>Standardized Coefficients (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Composite course score</td>
<td>0.03</td>
<td>0.22</td>
</tr>
<tr>
<td>District size*</td>
<td>0.04</td>
<td>0.03</td>
</tr>
<tr>
<td>Professor credibility</td>
<td>0.57</td>
<td>0.58</td>
</tr>
<tr>
<td>Superintendent sex**</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>R²</td>
<td>.10</td>
<td>0.22</td>
</tr>
</tbody>
</table>

*Based on total district enrollment
**Females coded “0” and males coded “1.”

The standardized regression coefficients (β) indicate that most of the variance accounted for in the linear equation was due to ratings of professor credibility (β = .58) and to ratings of the perceived value of courses (β = .22). Neither the institutional variable, school district

...
size (β = .03), nor the personal variable, sex (β = .01), accounted for meaningful variance in the ratings of the value of overall academic preparation.

**Discussion**

The national decennial studies of superintendents (e.g., Glass et al., 2000; Kowalski et al., 2011) as well as many single state studies (e.g., Dance, 2007; Iselt, 1999) have rather consistently found high ratings for overall academic preparation. Nevertheless, variability in ratings for specific program elements and recommendations for program improvements also has been common. Considered collectively, these findings prompt the consequential question: What accounts for variability in superintendents’ ratings of their overall academic preparation?

The purpose here was to examine the influence of four predictor variables on the satisfaction ratings of overall academic preparation. Two of them, professor credibility and courses, are program variables; one, size (enrollment) of the employing school district, is an institutional variable; one, sex, is an individual variable.

Findings indicate that much of the variability in ratings of overall preparation were due to the two program variables, with professor credibility clearly being the most influential. This outcome is understandable in light of the fact that preparation nationwide differs in terms of curriculum (Kowalski, 2006, 2008), quality of instruction (Murphy, 2002, 2007), and program standards (Clark, 1987; Levine, 2005).

The fact that the institutional variable (size of the employing school district) accounted for little of the variance in ratings of overall satisfaction is noteworthy because the literature (e.g., Lamkin, 2006; Tobin, 2006) often depicts the work of large and small district superintendents as being very different. Thus, one might expect that superintendents’ ratings are influenced by the nature of the employing system. Ratings of overall academic preparation might be influenced by what superintendents are required to do than by the context in which these roles are performed.

Likewise, the finding that the individual variable (sex) accounted for little of the variance in ratings of overall satisfaction is noteworthy because the literature often depicts male and female superintendents as having dissimilar foci and leadership styles (e.g., Grogan, 2000; Wallin & Crippen, 2007; Washington, Fiene, & Miller, 2007), such as men preferring to be managers and women preferring to be instructional leaders. Thus, one might assume men and women would rate their academic preparation differently. Based on data reported here, an explanation regarding the individual variable is not readily apparent.

Additional research probing factors that influence superintendent ratings of academic preparation is needed. Specifically, effort should be made to determine the extent to which other characteristics of preparation programs (e.g., traditional versus nontraditional, face-to-face versus online, university-based versus other) influence opinions.

Additional research based on institutional characteristics also is warranted. Specifically, ratings of preparation programs can be compared on the basis of variables such as program resources, rigor, and curriculum.

Last, qualitative studies of dissatisfaction could enhance the knowledge base by providing detailed explanations of why some superintendents found their academic preparation to be ineffective or irrelevant.
Author Biographies

Theodore Kowalski is a professor of educational administration at the University of Dayton where he holds the Kuntz Family Endowed Chair. A former superintendent and college dean, his primary areas of research are superintendent behavior, decision-making, and communication in education. E-mail: tkowalski1@notes.udayton.edu

I. Phillip Young is a professor of education at the University of California at Davis. His area of interest is human resource management in the public school setting, and he is a frequent publisher on such topics as recruitment, selection, and compensation. E-mail: ipyoung@ucdavis.edu

Robert McCord is an associate professor at the University of Nevada at Las Vegas. His scholarship is focused on education law and policy. He serves as research professor-in-residence at the 13,000-member American Association of School Administrators where he edits two journals devoted to new superintendents. He also serves on the board of directors of WestEd. E-mail: rsmccord@earthlink.net
References


