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Color of Money as Compared to Color of Principals: An Assessment of Pay for Male Elementary School Principals Varying in Surname (Hispanic vs. Non-Hispanic)

I. Phillip Young
Jose M. Castaneda

Background: Pay is an important human resource function that has attracted considerable interest within the professional literature and this study addresses pay discrimination.

Purpose(s): To address pay for a particular protected group unaddressed in existing literature (Hispanic-surnamed principals).

Setting: The setting for this study is public school districts located in the state of California.

Subjects: All-male public school elementary principals served as potential participants.

Interventions: Different models for pay discrimination are explored in this study.

Research Design: A randomized group design involving a single independent variable (surname of principals) is used in this study.

Data Collection: Within this study, data are obtained from an archival source and through self-reported measures.

Findings: A regression analysis indicates that pay discrimination is a multifaceted concept that must consider not only protected status of individuals along with traditional control variables (organizational and human capital endowments) but the interaction of these effects on pay outcomes when assessing pay discrimination.

Conclusions: By examining pay from a main effect as well as from an interaction effect, a new definition for pay discrimination is provided, and specific methodological advancements are suggested.

Keywords: equity, pay discrimination, Hispanics, elementary school principals

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Pay is a topic of interest within the professional literature both for private industry and for public school districts. It is noted as one of the many human resource functions performed by organizations and is defined by an exchange relationship between employers and employees (Heneman & Judge, 2005). In fact, some researchers indicate that “among the many properties characterizing work in formal organizations, pay is one of the most important” (Rice, Phillips, & McFarlin, 1990, p. 386), and Gerhart and Milkovich (1992) suggest that pay “is at the core of the employment exchange between organizations and employees” (p. 481).

Concerns about pay have legal, organizational, and personal implications. From a legal perspective, concerns about pay are rooted in federal legislation. “The right of employees to be free from discrimination in their compensation is protected under several federal laws, including the following enforced by the U.S. Equal Employment Opportunity Commission (EEOC): the Equal Pay Act of 1963, Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act of 1967, and Title I of the Americans with Disability Act of 1990” (Equal Employment Opportunity Commission, n.d.). Pivotal to these acts are certain groups of individuals being afforded a protected class status based on defined characteristics (e.g., age, cultural groups, national origin, race, sex) and underlying these acts is the principle that pay should not be a function of protected class status either in private or in public sector organizations.

For many organizations as employers, pay is the largest line-item category in an operational budget. In fact it has been suggested that pay may account for as much as 85% of a total operational budget, especially in public school districts (Owings & Kaplan, 2006; Webb & Norton, 2003). Because pay for school districts is funded from public coffers, pay is used in some instances as a barometer for assessing school districts relative to efficiency of operation and linked to outcome measures such as standardized test scores (Currall, Towler, Judge, & Kohn, 2005; Young, 2007).

Further noted in this body of literature, individuals as employees have a vested interest in pay (Heneman, 1985), and “pay matters to most employees” (Terpstra & Honoree, 2003, p. 67). Pay for employees determines, to a large extent, the quality of life enjoyed through the purchase of goods (e.g., housing) and of services (e.g., recreation). In addition to economic benefits for quality of life issues associated with goods and services, pay has psychological implications as well for employees. Reinforcing this point concerning psychological implications for pay, literature suggests “It has been during the past 3 decades, for instance, that pay satisfaction has become an intensive area of inquiry” (Currall et al., 2005, p. 614) for industrial and for organizational psychologists.

To assess pay and pay practices in the public school setting, a stream of research has emerged focusing largely on a single protected class group as defined by federal legislation (i.e., females). Rates of pay for females have been assessed relative to rates of pay for males in several studies focusing specifically on educational administrators (Pounder, 1988; Stone, 1985; Young & Brown, 1996). Educational administrators have been chosen as a focal group to investigate pay discrimination within the public school setting for several reasons.

Supporting this choice as a focal group for investigating pay discrimination, administrators, unlike teachers, are seldom covered by labor contracts (Young, 2008). As such, pay amounts for educational administrators are subjectively determined on an individual basis within the employment setting, whereas pay amounts for teachers are negotiated on a collective basis by a bargaining agent of their choosing. Results from these studies addressing pay for administrators indicate that females receive typically a lower rate than received by males even when organizational characteristics of the employer and when human capital endowments of the employee are controlled.

However, overlooked entirely in this published body of literature within the educational setting is the pay for other protected class groups as defined by federal acts, and these other groups warrant investigation in this body of literature. One particular group overlooked in this body of literature is individuals with Hispanic surnames, and this group is the focus of our study. Because Hispanic surname individuals are afforded the same level of protection from discrimination in pay as provided to females by federal statutes, the theoretical framework for this study is "equal pay for equal work" as defined by federal guidelines (e.g., Equal Pay Act, 1963; Title VII of the Civil Rights Act, 1964).

BACKGROUND INFORMATION

Pay in general has been purported, at least in part, to be a function of several factors, and these factors must be considered both from an experimental design as well from as a statistical model to capture pay outcomes as well as pay practices in a meaningful manner. At minimum, these factors purported to influence pay include occupations (e.g., Huffman, 2004), organizations (e.g., Kmec, 2005), and human capital variables (e.g., Wang & Holton, 2005). Suggested by these studies is that protected-class individuals may receive a lower rate of pay because they are more likely employed in lower paid occupations (service vs. manufacturing), in lesser paying

organizations (public vs. private), in lower paid positions (nonsupervisory vs. supervisory), and to possess less endowments on human capital variables because of restricted opportunities (e.g., job experience).

In light of these factors reported in the private sector to influence pay, each of these factors is addressed in this study, and some of these factors are refined to capture specific nuances associated with pay in the public school setting (see Figure 1). Addressed specifically in our study are pay source (state funding formula) as well as pay decision (local school board), school district and building-level variables (expenditures and work unit characteristics), focal-position type (elementary school principal), human-capital endowments of position holders (education and experience), and a certain personal attribute (sex) bearing on pay outcomes. These variables, as found in Figure 1, are addressed in our research either through sampling procedures and/or through statistical techniques.

That is, all sources purported to influence pay as noted in Figure 1 are addressed in the following section, highlighting their implication for pay in the public-school setting and used to bridge the gap in current knowledge about pay in this important area for a yet-to-be-explored protected class group in this body of literature (i.e., Hispanic surname elementary school principals). More specifically, pay of public-school elementary principals is investigated when holding constant source of pay, pay decision, focal position, and a personal attribute via the sampling frame used to collect data. In addition to sampling constraints from a design perspective, certain statistical controls are invoked relative to the empirical model used in this study.

Statistical techniques are used to control both for organizational characteristics of employers and for personal characteristics of employees. Organizational characteristics include wealth of a school district as a proxy defined by per-pupil expenditures, whereas a work-unit characteristic is controlled by considering student enrollment. Personal characteristics of employees controlled statistically are education and experience.

LITERATURE AND ADVANCEMENTS

Research addressing pay in the general industrial and in the organizational literature as well as in the educational literature has evolved over several decades from a univariate to a multivariate methodology. Early research viewed pay from a univariate perspective devoid of those effects depicted in Figure 1 and focused largely only on females and on males relative to pay outcomes. That is, the average pay received by females was compared to the average pay received by males, and as noted by Pounder

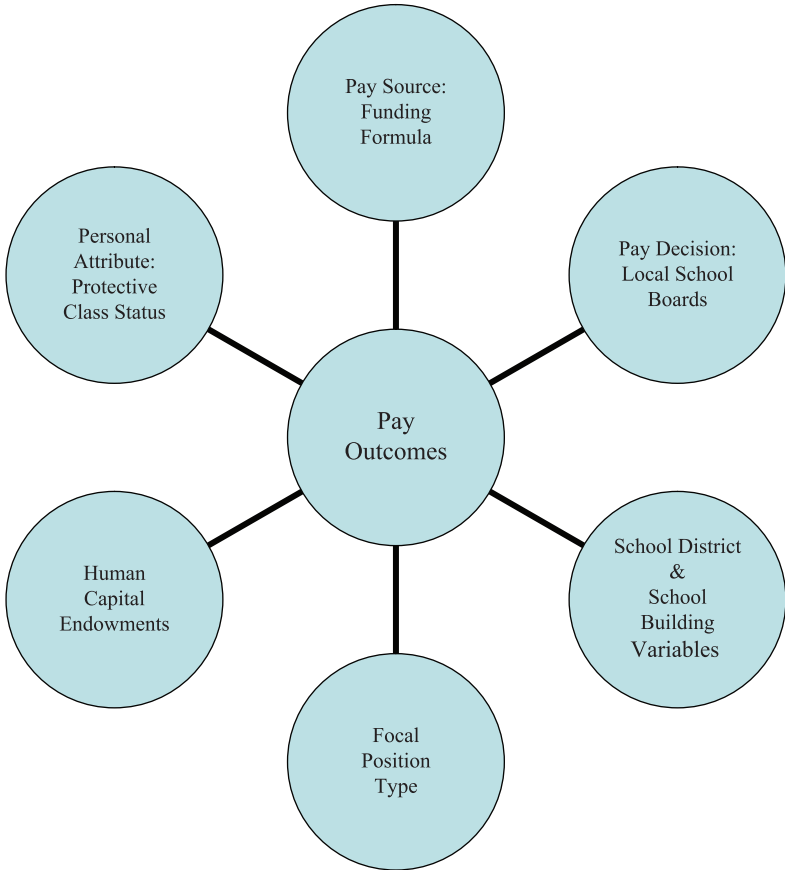


Figure 1. Factors Influencing Pay of Educational Administrators

(1988) with few if any exceptions, females are reported to be paid less than males based on a sole global central tendency measure (e.g., mean and/or median annual salary or an hourly rate of pay).

Surprisingly, this univariate approach for assessing pay is used currently by the popular press and may well be misleading by failing to consider those factors noted in Figure 1. To illustrate this possibility in the popular press, Parade (2007) as well as others (House Hennessy-Fiske, 2006) reported recently the hourly wages for women and for men across occupational groups. These findings mirror earlier results of professional studies

suggesting lower rates for women in general as compared to men in general but failed to address other protected class groups as well as those factors noted in Figure 1.

The traditional univariate approach viewing pay only as an outcome variable without considerations of other factors (see Figure 1) purported to influence pay has many shortcomings, especially in the educational setting. Within the educational setting, the pay received by employees is dependent in part on a state's formula funding process because pay rates for educators vary considerably across states (e.g., Connecticut pays more than South Dakota, National Education Association [2006]). To address this source of variation relative to pay across states, research should control for funding source relative to pay, and this can be accomplished by sampling within only a single state, holding constant the formula funding process (see Figure 1).

Empirical data suggest some districts pay more than other districts for their employees within any particular state (Webb & Norton, 2003). Based on this observation, pay for educators is, at least in part, a local prerogative in the public-school setting. As such, pay is under the discretion of a local board of education as an employer, especially for educational administrators (Young, 2008).

So noted by several investigators, Schwab, Rynes, and Aldag (1987) indicated that pay is determined ultimately by employers in the private sector. This same practice is followed by public school districts (Webb & Norton, 2003), especially for the focal position under consideration in this study (elementary school principals). Indeed, the National Association of Elementary School Principals indicates, via personal contact (M. Hahn, personal communication, August 23, 2007), that a mandated salary schedule fails to exist in any state and that the salaries for principals are a local concern determined "in part" or "in whole" by a local school board.

More specifically, these points are reinforced more recently in the public-school setting by Currall et al. (2005). These investigators indicate that pay studies must control both for source of funds (state formula) and for origin of pay decisions (local school boards) in empirical investigations addressing the pay of public-school employees (see Figure 1). As suggested by this body of research, different decisions mechanisms are used across school districts lacking a state-mandated salary schedule for principals but evidence fails to exist that explores if these differences are associated with the protected class status of employees.

Beyond concerns about the funding source (state formula) and about the pay decisions (employers, i.e., local school boards), empirical research addressing pay must give attention to organizational characteristics even within a state as well as across local school districts. Within the published

pay literature, organizational characteristics are noted initially by private as compared to public-sector differences when Schwab et al. (1987) indicated that private-sector organizations pay more than public-sector organizations. Expanding on this observation within the public sector is the fact that some school districts pay more than other school districts and that school district characteristics should be considered when assessing the pay process (Webb & Norton, 2003).

Empirical support for the effects of organizational characteristics on pay is noted within the published literature. One organizational characteristic found to influence pay received by educators is student enrollments of the employing district (Stone, 1985; Young, 1997; Young & Brown, 1996). Previous research relying on regression equations indicate that student enrollments account for a significant amount of variance in pay for superintendents (Young, 1997), for treasurers (Young & Brown, 1996), and for public school principals (Stone, 1985).

Another organizational characteristic found to influence pay in the public school setting is wealth of a school district as measured by various indices and pertains to the economic principle "ability to pay" and/or "willingness to pay" (Young, 1997; Young & Brown, 1996; Young, Delli, Miller-Smith, & Alhadeff, 2004; Webb & Norton, 2003). Although most states use an equalization process for allocating state funds to public school districts, all states allow local school boards the opportunity to augment state allocations relative to pay. Again, ability and/or willingness to pay has been found to account for variance in salaries received by superintendents (Young, 1997) and by treasurers (Young & Brown, 1996) but has been largely overlooked for building-level principals.

In addition to sources of pay (state funding formula), to decisions about pay (local school board), and to school-district characteristics (size and wealth), pay is a function of the focal position held by employees (see Figure 1). More specifically, Schwab et al. (1987) noted that "the pay rate obtained is partially a function of the job (i.e., middle managers earn more than entry level managers)" (p. 131). These same observations reported for the private sector are applicable to educational organizations when consideration is afforded to pay rates relative to organizational level of employees.

Well established within the educational setting is that pay is a function of organizational level for school administrators. That is, superintendents earn more than principals, and high school principals earn more than elementary school principals (Williams, 2005). Consequently, pay studies must be sensitive to particular types of focal positions under consideration (see Figure 1) as related to protected class groups, especially if these groups hold different types of focal positions.

Further noted in this body of literature, pay for individuals holding the same focal position (equal work) may well vary by personal qualifications in that persons holding the same focal position differ in several ways that may influence their pay. These variables are referred to generally in this body of literature as human capital endowments possessed by position holders (Wang & Holton, 2005). "Likewise, even when job and organization are held constant, some position holders possess certain attributes with more market value than other position holders (i.e., experienced persons tend to be paid more than inexperienced persons)" (Young & Brown, 1996, p. 143).

Particular human capital endowments of position holders found to influence pay of educators are reported in the published literature. Most notably, these variables include job experience as well as educational attainment. These findings exist for superintendents (Young, 1997), for school treasurers (Young & Brown, 1996), for principals in general (Stone, 1985) as well as for elementary school principals (Pounder, 1988).

Research addressing pay for principals within the educational setting has approached pay concerning the above-mentioned recommendations in varying degrees relative to the components as depicted in Figure 1. Without exception, sources of pay (state funding formula), district characteristics, focal positions, human capital endowments, and certain personal attributes (sex of employees) have been addressed at least in part to varying degrees (Pounder, 1988; Stone, 1985). However, ignored by this research is any consideration for decisions about pay as exercised by local school boards for principals even though these concerns are addressed for other focal positions having only a single job incumbent in a public school district (superintendents and treasurers, Young, 1997, and Young and Brown, 1996, respectively).

Evidence, for this omission involving decisions of local school boards about pay for principals, is apparent by an examination of the sampling design in published studies. Although the focus in these studies is on pay received by a specific protected class group (females) holding constant building-level positions in the K-12 setting (e.g., Pounder, 1988; Stone, 1985), the number of individuals sampled exceeds the number of school boards making decisions about pay (see Figure 1) without exception. Because principals and school boards are not equal, are not weighted, or are not controlled in these analyses, observations for pay fail to be independent either within a protected class group or between protected class and non-protected class groups as required by the ordinary least square (OLS) estimation process used in these studies to assess pay discrimination.

This oversight in the sampling design renders potentially bias estimates of pay for building-level principals because of the unit of analysis used in

existing studies. More pointedly, the unit of analysis fails to focus exclusively either on school districts from a policy capturing perspective while controlling for individual salaries or on position holders from an individual perspective while controlling for pay policies and/or practices of school districts. Consequently, effects for the overall model denoting variance in pay accounted for by the equation (R^2) or for the regression coefficient for protected class status (b) may be less than accurate.

Further assumed by the current research stream addressing pay in the educational setting is that both organizational characteristics of school districts and human capital endowments of employees have a constant value for all employees regardless of their protective class status. This assumption is noted by the regression analyses used to assess pay outcomes in these studies (Pounder, 1988; Stone, 1985; Young & Brown, 1996). Collectively, these studies focus only on a dummy-coded variable for protective class status of administrators and examine only possible intercept differences of the regression equation as a means for defining pay discrimination.

However, it is quite possible that organizational characteristics and human capital endowments may interact with the personal attributes (protective class status) of position holders with important implications for assessing pay discrimination (an assessment of slopes via interaction terms). Specifically noting this omission in pay research relying only on a main effect model is Barrett, Alexander, Anesgart, and Doverspike (1986) but these authors' recommendation has seldom been heeded in this body of literature. "In predicting salary, the assumption is made that any interactions between variables—either merit variables or merit variables and sex—are unimportant" (p. 145), and this consideration is unaddressed in the current literature but would provide another indication of pay discrimination than addressed by existing studies via consideration of a main effect (intercept) as well as interaction terms (slope effects) within regression analyses.

To control for pay decisions of employers (see Figure 1) as omitted in existing research (local school boards) for principals, to assess potential interaction effects involving district characteristics and human capital endowments with the protected class status of employees (as proposed in this study), and to address another protected class group in this body of literature (male Hispanic elementary school principals yet to receive any attention in this body of literature) are the purposes of this study. These purposes are accomplished by using the same statistical method (OLS) used by others within this body of literature (Pounder, 1988; Stone, 1985; Young & Brown, 1996), by affording special attention to the sampling design ignored by studies within this body of literature through controlling for decision of employers (public school boards), and by expanding the main effect regression

model assessing only an intercept difference to include interaction terms assessing slopes. Building on this existing research addressing pay in the educational setting for building-level principals varying only in surname (Hispanic or non-Hispanic), submitted to empirical test are the following hypotheses.

Hypothesis 1: It is hypothesized that public school districts will be in compliance with federal legislation relative to protected class status of employees when pay outcomes are analyzed via the traditional main effect regression model as used in previous research. More specifically, this hypothesis tests if the amount of pay varies by protective class status of the employees when protective class status is included within the statistical model. It does so by testing for a difference in intercepts as moderated by protective class status of elementary school principals varying in surname.

Hypothesis 2: It is hypothesized that public school districts will be in non-compliance with federal legislation relative to protected class status of employees when pay outcomes are analyzed via an interactional-effects regression model. In addition to the intercept assessment involving the regression coefficient for national origin of principals, the second hypothesis addresses slope coefficients. As such, amount of pay (intercept) as well as rate of pay (slope) is explored through the inclusion of interaction terms.

METHOD

The population for this study is drawn from all male public elementary principals employed in California during the 2005-06 academic year. A particular state was chosen to control for source of pay as per the formula funding process (see Figure 1), and California was chosen for a specific reason. Most notably, California has a larger population of male Hispanic elementary school principals than any other state and provides the best venue for testing our hypotheses as set forth in this study.

Manipulation checks. Underlying the basic foundation of this study is the strength of the manipulation for the levels of the independent variable addressing national origin as a protective class status denoted by surname of elementary school principals. To address this concern, two steps were taken in the conduct of this study for insuring the strength of our manipulation for the independent variable based on surnames of principals. One step occurred prior to actual data collection, and the other step occurred within the data collection process as an additional manipulation check for assessing the accuracy of surnames.

Prior to actual data collection, a panel of experts relative to knowledge about surnames and about national origins was constituted according to

procedures as set forth by *Standards for Educational and Psychological Testing* (American Educational Research Association, 1999). This panel of experts was balanced according to sex ($n = 6$), varied in educational level (Ph.D. through BA), and with all members of the panel having extensive experience in teaching and in working with persons of varying national origins, especially those with Hispanic surnames. As charged within the research protocol, all individuals comprising the panel of experts worked independently to classify potential participants according to national origin based on surname.

This panel of experts classified 242 male elementary school principals as having Hispanic surnames and 1,532 as having non-Hispanic surnames. Based on this outcome, a proportional sampling strategy was used (1:2 ratio) to provide adequate statistical power (described below). Broken down by national origin within the sampling process, 80 were elementary school principals with Hispanic surnames and 160 were individuals with non-Hispanic surnames.

Sampling procedure. This study utilizes a multistage sampling process with school districts serving as the unit of analysis. Because previous research suggests that pay for elementary school principals is determined at the school-district level (e.g., Currall et al. 2005), stage 1 of the sampling process involves the selection of school districts. By focusing on school districts as the unit of analysis, independence as required by OLS is maintained from a policy and/or practice perspective in that the number of school districts equals the number of observation used for the OLS statistical analyses.

To maintain the independence of policy and/or practice across school districts relative to pay outcomes for Hispanic and non-Hispanic elementary school principals as required by OLS, a single statistic is required for each district. This OLS requirement could be satisfied by calculating the average pay for all elementary school principals of a particular national origin within a given district, by calculating the average pay for a subset of elementary school principals sharing a particular national origin within a given district, or by selecting only a single individual of a given national origin from each school district as a reflection of pay policy and/or practice. Regardless of the approach used (all principals of a particular national origin within a district, a proportion of the principals sharing a common national origin within a district, or a sole principal of a designated national origin within a district), only a single pay-outcome measure (pay for elementary school principals) should be used for each public school district if independence is to be maintained both among school districts as well as between and/or within protected class groups as per OLS requirements.

From these different options for obtaining a single, albeit independent estimate of pay policy and/or practice for school districts as well as for national origin, we chose the last tack by selecting, in stage 2 of our sampling process, only a single elementary school principal having a particular national origin (Hispanic or non-Hispanic) from any school district. Although this approach is by no means an exclusive approach, it is the most efficient when compared to other options. Most important for our multistage sampling process, a vital assumption of the OLS regression is better met in this study as compared to previous research addressing pay for elementary school principals because independence is maintained both between and/or within a classification level (Hispanic or non-Hispanic surname individuals) as well as between and/or within classification levels (school districts) for pay received by elementary school principals varying in surname.

Using procedures suggested by Cohen (1988) and following an OLS estimation process based on a power analysis considering an *alpha* level of .05, a medium effect size of .13, a regression model containing 11 variables, and a statistical power of at least .80 as well as anticipating only a 50% return rate; a total of 240 male elementary school principals were selected and were requested to take part in this study. Of those requested to participate, 131 elementary school principals provided usable data. This number of respondents represents a response rate of 55% for the total sample.

Further verification of the strength for our manipulation for national origin of elementary school principals was obtained from self-reports of actual participants. As part of the data-collection process, participants were requested to indicate their national origin as well as their sex on a biographical and/or experiential questionnaire. Self-reports of principals failed to differ from the classification of the panel of experts or with respect to gender purported to be held constant via the sampling frame for those that responded. Human capital endowments of those that responded along with characteristics of school districts employing these position holders are found in Table 1.

Although this response rate (55%) is within the acceptable range for survey research, exceeds our projected rate of return (50%), and affords adequate statistical power as determined by procedures suggested by Cohen (1988) using a general linear model with least squares estimation properties, further assessments are made with these data prior to any inferential analyses. Of particular concern with these data is whether response rates differ by the classification involving surnames of elementary school principals. To test this possibility of a response by national origin effect for return rates, a chi-square statistic was computed.

TABLE 1
Descriptive Data for School Districts and Participants

	<i>n</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
Per-pupil expenditure	131	5,214.0	16,689.0	7034.200	1,580.4500
Building enrollment	131	66.0	1,666.0	513.500	284.1970
Current job experience	131	1.0	37.0	4.630	6.1550
Prior teaching experience	131	0.0	30.0	10.496	6.1580
Education level	131	1.0	4.0	2.240	0.6920

The chi-square statistic indicates that response rates fail to differ by classification levels between principals with either Hispanic or non-Hispanic surnames ($X^2 = 2.91$, $df = 1$, $p \geq .05$). Based on this nonsignificant chi-square statistic, we concluded that response rates differing by national origin vary only due to sampling fluctuations and not according to national origin of principals. Consequently, further analyses were performed with these data and following is a description of the data-collection process.

PROCEDURE

Data for this study were collected from two separate sources: (a) archival and (b) self-reports. The archival source is a basic database maintained by the California State Department of Education (CSDE) (2006), and this source of information was used to obtain names, contact information for principals, and pertinent characteristics of school districts suggested by Figure 1. Included among the latter information for public school districts are data pertaining to expenditures per pupil as reported by the CSDE and reported to influence pay outcomes in previous research addressing pay (see Figure 1).

Because this archival database, as maintained by CSDE, is insensitive to salary information for an individual principal, work year of the principal, national origin of the individual as well as experiential data for the principal, a survey was conducted. Within this survey, all principals received by U.S. mail a basic instrument soliciting the above-mentioned information in addition to an addressed and stamped envelope for return of the requested information.

As a motivation for participation in this study, principals were provided certain incentives. First, all principals were assured that their responses

would be kept confidential and would be summarized in a manner not linkable to them. Second, principals were offered and were provided feedback at their request through returning a preaddressed post card separate from the survey.

Predictor variables. Within this study using an OLS regression analyses, each predictor variable can be classified as an independent variable (variable of interest), as a control variable (main effect), or as a process variable (interaction effect). Only a single independent variable was assessed. This independent variable is national origin and was effect coded to reflect “1” for principals with Hispanic surnames and “-1” for principals with non-Hispanic surnames.

Control variables in our study are defined as main effects according to the traditional research approach. These variables include a district characteristic pertaining to ability and/or willingness to pay (per-pupil expenditures), a work unit characteristic for school buildings (student enrollment), and human capital endowments of principals (experience as a teacher, experience in the principalship, and education obtainment). Experience was decomposed because Pounder (1988) noted that “separate teaching and administrative experience for each principal may have serious implications for the results of data analysis” (p. 15).

Educational obtainment for elementary school principals is assessed on a continuum as a control variable. Points on this continuum consisted of (a) B.A., (b) M.A., (c) Ed.S., or (d) Ph.D./Ed.D. Each point was afforded unit weighting with a higher score being more indicative of additional educational achievement than a lower score.

Interaction effects used in this study are defined by the cross products of national origin both with organizational characteristics and with human capital endowments (see Figure 1). These interaction variables include per-pupil expenditures by national origin, school building enrollment by national origin, experience in current position by national origin, former teaching experience by national origin, and education attainment by national origin. Collectively, these interaction terms may be sensitive to pay and provide a means for testing our second null hypothesis, addressing pay through a better specified regression model (containing slope estimates) than found in existing research (focusing only an intercept via a dummy-coded variable) addressing pay received by building level male elementary school principals.

Dependent variable. The dependent variable within this study is a daily rate of pay. A daily rate of pay was used in lieu of an annual rate of pay

because elementary school principals within our target state were employed for different work years varying in length as required by and as defined by local school district policies and/or procedures. To calculate the daily rate of pay, the annual salary reported by elementary school principals was divided by the total number of workdays reflected in their employment contract.

STATISTICAL ANALYSES

To assess both the conventional approach involving traditional main effects (test of intercept for different protected class groups) as well as the interactional perspective (test of slopes moderated by protected class groups) for capturing pay within the public school setting at the school building level, an OLS regression analysis is used involving a hierarchical order of variable entry. This process was chosen over other procedures (i.e., structural equation modeling) for several reasons. Included among these reasons are our sampling procedures, and the focus of this study.

Foremost, we seek to generalize from an obtained sample to a defined population of public school districts. Our sample includes male elementary school principals within a specific focal state (population) varying in national origin (Hispanic vs. non-Hispanic). Based on this sampling strategy, Hardy (1993) noted "If the purpose of the research is to generalize from a sample to the population, it is always necessary to couple considerations of a point estimate with the error associated with that estimate" (p. 50), and the OLS regression analysis provides this option when coupled with our sampling approach.

From a structural equation modeling (SEM) perspective, separate equations would be calculated for principals with Hispanic surnames and for principals with non-Hispanic surnames (Arbuckle & Wothke, 1999). In contrast to this approach, the full-model estimate, as per the OLS regression analyses, uses all observations for the error term rather than observations associated with specific surnames in separate stratum for each level of the independent variable. As such, "it is based on more information than either of the subgroup estimates, because each subgroup estimates only a proportion of the observations" (Hardy, 1993, p. 54).

Still other differences exist between the SEM and the OLS approach in this body of literature relative to a criterion of comparison. For the SEM approach, the goal is to minimize the difference between what was observed and what is hypothesized through testing a residual matrix addressing the compensation process for elementary school principals via the maximum likelihood criterion. In contrast, the OLS approach tests if

TABLE 2
Test of the Overall Models for Pay Equity for Hypotheses: Model Summary

Model	Change Statistics					Sig. F
	R	R Square	F	df1	df2	
1 ^a	.30	.09	2.08	6	124	.060
2 ^b	.48	.23	3.30	11	119	.001

a. Predictors: (Constant), Main effects (Model 1, see Hypothesis 1).

b. Predictors: (Constant), Main effects plus interaction terms (Model 2, see Hypothesis 2).

pay differentials are subject to sampling influences or are systematically related to a protected class status of employees.

Given these different models for assessing pay discrimination, the OLS approach is followed in this manuscript, and a daily rate of pay serves as the dependent variable that is regressed on control variables (Hypothesis 1) and on interaction effects (Hypothesis 2) through a hierarchical process considering order of variable entry with attention afforded to national origin of principals by utilizing effect coding (-1 or $+1$) for national origin of elementary school principals. As such, contained in Table 2 is the result of the regression analyses for each model addressed by our hypotheses as previously set forth and as viewed from an effect coding perspective.

As can be observed in Table 2, the amount of variance in pay outcomes accounted for by this specific combination of variables as specified in the first hypothesis and as expanded in the second hypothesis is noted. The initial R-square (9%, $p \geq .05$) involves a main-effects model similar to models considered by past research, and the subsequent R-square (23%, $p \leq .01$) involves an interactional-effects model considering slopes as well as the intercept proposed in this research. Importantly, the interactional-effects model accounts for additional unique variance in pay outcomes (23%) over the traditional main-effects model (9%) as reflected by the significance associated with the f -change statistic (.06 vs. .001, $p \leq .01$, see Table 2).

Both the main-effect and the interaction-effect models are deconstructed and are reported in Table 3. For the traditional approach used in existing research involving only a main-effect assessment for national origin, no significant differences are detected for national origin ($t = -1.1$, $p \geq .05$, see Table 3). So observed for model 1, a statistical difference is detected only for student enrollments ($b = .035$, $t = 2.04$, $p \leq .05$, see Table 3) whereby principals in larger school buildings are paid more than principals in smaller school buildings even though both the overall main effect model

TABLE 3
Organizational and Human Endowments Considered as a Two Stage Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Significance
		B	Standard Error	Beta		
1 ^a	Constant	395.530	28.79		13.738	.000
	Per-pupil expenditures (A)	-0.003	0.003	-.081	-0.888	.376
	Enrollment (B)	0.035	0.017	.195	2.042	.043
	Teacher experience (C)	0.120	0.711	.015	0.169	.866
	Principal experience (D)	0.779	0.707	.095	1.01	.273
	Education level (E)	8.648	6.508	.118	1.329	.186
	Nation origin (F)	-5.459	4.985	-.097	-1.095	.276
2 ^b	Constant	388.65	27.87		13.95	.000
	Per-pupil expenditures (A)	0.001	0.003	.031	0.339	.735
	Enrollment (B)	0.032	0.017	.180	1.925	.057
	Teacher experience (C)	-0.735	0.857	-.090	-0.858	.393
	Principal experience (D)	0.525	0.669	.064	0.785	.434
	Education level (E)	7.322	6.272	.100	1.167	.245
	F (NO)XA (cost)	0.002	0.002	.227	0.879	.381
	F (NO)XB (Enroll)	-0.051	0.017	-.564	-3.065	.003
	F (NO) X C (Tec)	-1.79	0.854	-.395	-2.09	.038
	F (Nor) X D (Prin)	-0.63	0.721	-.101	-0.876	.383
	F (NO) X E (Ed)	-6.20	6.26	-.265	-0.991	.324
	Nation origin (F)	47.14	23.70	.837	1.99	.050

a. Predictors: (Constant), Main effects (Model 1, see Hypothesis 1).

b. Predictors: (Constant), Main effects plus interaction terms (Model 2, see Hypothesis 2).

c. Dependent Variable: Daily Rate of Pay.

(see Table 2) and the effect for national origin fail to be significant (see Table 3, Model 1).

Because the amount of variance accounted for in pay is a function of the variables considered in the prediction equation, additional insight is revealed by consideration of model 2 involving both main as well as interaction effects (see Table 3, Model 2). A inspection of model 2 indicates an overall significance for this model (see Table 2) and three statistically significant predictor variables: (a) a main effect for national origin ($b = 47.14$, $t = 1.99$, $p \leq .05$, see Table 3), (b) an interaction effect involving national origin by student enrollment ($b = -.051$, $t = -3.07$, $p \leq .05$, see Table 3), and (c) an interaction effect involving national origin by prior teacher experience ($b = -1.79$, $t = -2.09$, $p \leq .05$, see Table 3). Important to note is the unique contribution from a practical perspective as measured by each effect given the other variables in the equations.

To recast these findings from statistical outcomes to practical significances, “The most popular standardized effect size measure is the squared semipartial correlation for the product term holding constant its components. This value reflects the proportion of variance in the dependent variable that is accounted for uniquely by the interaction effect” (Jaccard & Turris, 2003, p. 28).

Based on the recommendations of Jaccard and Turris (2003), semipartial coefficients were calculated for the statistically significant main effect involving national origin as well as for the interaction terms. For national origin, 2.5% of unique variance was accounted for and with respect to the interaction term involving enrollments and national origin of principals, approximately 6% of the unique variance associated with pay outcomes could be accounted for by this interaction. The percentage of unique variance accounted for with respect to pay outcomes by the interaction involving prior teaching experience and national origin is 3%.

Important to note for these statistical effects is the bidirectional signage for these predictors with national origin carrying a positive sign and with interactions having negative signs (see Table 3). In light of the particular effect coding scheme used in this study (Hispanic “1” and non-Hispanic “-1”), these findings, at first glance, indicate that Hispanic elementary school principals are paid a greater amount than non-Hispanic elementary school principals.

However, the surfacing of interaction terms carrying a negative sign indicate that the rate of pay relative to student enrollments and to prior teacher experience favors non-Hispanic elementary school principals (coded “-1”). To cast further insights about the amount of pay favoring Hispanic principals and the rate of pay favoring non-Hispanic principals, special attention is afforded to the pattern of interaction terms. Of particular interest is whether the interactions are ordinal or are disordinal.

If the interactions are found to be ordinal, then the slopes for pay rate will fail to cross within the range of interest for those variables assessed in this study and will indicate that Hispanic principals continue to make more than non-Hispanic principals albeit at a declining rate. On the other hand, if the interactions are found to be disordinal, then the slopes for pay rate will cross within the range of interest for those variables assessed in this study and will indicate Hispanic principals make less than non-Hispanic principals for specific levels of student enrollments and of prior teacher experience. To provide this insight requires the computation of different equations for separate groups (Hispanic and non-Hispanic) relative to each interaction effect and to determine if the intersections of regression lines cross within the range of interest in this study.^{1,2}

TABLE 4
Statistics for Levels of Enrollment by Pay for National Origin

<i>Building Enrollments</i>	<i>Pay for Hispanics</i>	<i>Pay for Non-Hispanics</i>	<i>Difference</i>
Minimum level	436.65	349.10	87.55
Below average (-1 SD)	438.77	367.88	70.89
Average enrollment	442.47	400.56	41.90
Above average (+1 SD)	446.16	433.25	12.91
Maximum level	457.45	533.10	-75.65

The intersection of regression lines indicates that point where Hispanic and non-Hispanic principals are paid the same amount relative to a specific interaction effect. For student enrollments, the point of intersection is 924 students and for prior teaching experience, the point of intersection is approximately 26 years of prior teaching experience. Because the point of intersection (924 ADA) is within the range of interest for student enrollment (minimum = 66 and maximum = 1,666, see Table 1) as well as within the range of interest (26.26 years) for prior teaching experience (minimum = 0 and maximum = 30, see Table 1), both interactions are disordinal and indicate the reversal of pay amount by national origin within the range of interest for this particular sample of principals.

To examine disordinal interaction effects, tables and graphs are provided that reflect specific values within the range of interest as defined by this sample. These values for building-level enrollment and for teacher experience are as follow: (a) minimum level as assessed, (b) low level as defined by -1 standard deviation, (c) average level as defined by the mean, (d) high level as defined by +1 standard deviation, and (e) maximum level as assessed with these principals (see Table 1 for levels defining this particular classification scheme). Contained in Table 4 are statistics for each level relative to student enrollment and to national origin of principals along with differences in pay amount.³

An examination of data within Table 4 indicates that Hispanic principals are paid more than non-Hispanic principals in smaller school buildings. That is, as the student enrollment in a school building increases, the difference in amount of pay between Hispanic and non-Hispanic principals decreases. For extremely large school buildings, Hispanic elementary school principals are paid less than non-Hispanic, and this relationship is depicted by the graph found in Figure 2.

A similar outcome is noted for the value afforded prior teaching experience of Hispanic and of non-Hispanic elementary school principals

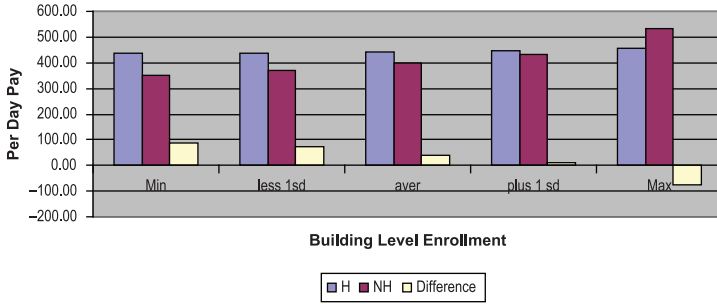


Figure 2. Interaction for Building Level Enrollment by National Origin

TABLE 5
Statistics for Levels of Prior Teacher Experience by Pay for National Origin

Prior Teacher Experience	Pay for Hispanics	Pay for Non-Hispanics	Difference
Minimum level	435.79	341.51	94.28
Below average (-1 SD)	428.07	349.23	78.84
Average experience	416.94	360.36	56.59
Above average (+1 SD)	405.81	371.49	34.33
Maximum level	381.94	395.36	-13.42

in Table 5.⁴ Minimum prior teaching experience yields a greater rate of pay for Hispanic than non-Hispanic elementary school principals. However, maximally experienced non-Hispanic principals enjoyed a greater rate of pay than Hispanic principals. These differences in relative pay and prior teaching experience are noted in Table 5 and depicted by Figure 3.

CONCLUSIONS

Consistently noted in the professional literature is the importance of pay relative to the human resource functions performed by all organizations (Gerhart & Milkovich, 1992; Heneman & Judge, 2005; Rice et al., 1990). According to this literature, pay has legal (EEOC, n.d.), organizational (Owings & Kaplin, 2006; Webb & Norton, 2003), and personal ramifications (Currall et al., 2005; Terpstra & Honoree, 2003; Young, 2007), and within this study, pay is examined both from a legal perspective as defined

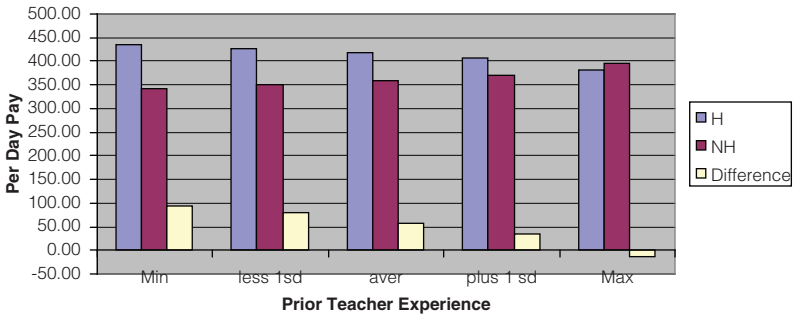


Figure 3. Interaction for Prior Teacher Experience by National Origin

by federal statutes (e.g., Equal Pay Act of 1963; Title VII of the Civil Rights Act of 1964) and from an applied perspective involving a particular protected class group (i.e., Hispanic surnamed individuals). Following these foci, we make several advances in current knowledge for this particular body of educational literature addressing pay practices for an unaddressed protected class group as well as for assessing pay discrimination through a different lens than viewed by existing research.

Foremost, we address a group of protected class individuals yet to receive any attention with respect to pay by research in the public school setting. Past educational research addressing pay has focused mainly only on sex of employees as a protected class group characteristic (Pounder, 1988, 1989; Stone, 1985; Young & Brown, 1996) and has afforded less attention to other protected class groups receiving similar entitlements by federal statutes (e.g., Equal Pay Act of 1963; Title VII of the Civil Rights Act of 1964). Although sex has been and continues to be an important protected class group characteristic worthy of attention, public school districts continue to diversify, and these changes in diversity require a broader scope of research addressing other protected class individuals, especially Hispanic-surnamed individuals.

For this study as well as for any study addressing pay, a major concern is always specification errors relative to the model examined. Simply stated, specification errors concern the appropriateness of the variables considered by the research either in design or with respect to the statistical model. According to Darlington (1990), specification errors can occur in two ways, both of which should be addressed in this type of research: (a) undercontrol and/or (b) overcontrol.

Undercontrolled studies fail to consider important variables influencing pay outcomes relative to the hypotheses of interest (national origin in this study), and these variables can be addressed either by design or by statistical controls. On the other hand, overcontrolled studies include variables unrelated to the hypotheses of interest (national origin in this study) even when these variables contribute to the overall R^2 because "if a variable adds nothing to the relevant theory, one does not add it to the equation even if it improves the fit or is statistically significant" (Achen, 1982, p. 52). That is, specification errors of both types are defined ultimately from a theoretical perspective as opposed to an empirical outcome such as an overall R^2 for the full model (Achen, 1982; Berry & Feldman, 1985; Darlington, 1990; Pedhazur, 1982).

To capture pay and factors influencing pay applicable to any protected class group from a theoretical perspective relative to the experimental design and to the statistical equation, a model is presented that identifies important variables from a specification perspective (see Figure 1), and this model can be used as well as may be expanded by other researchers addressing pay and pay discrimination within the public school setting. Components of this model, as found in Figure 1, were derived from private-sector as well as from public-sector research (Barrett et al., 1986; Currall et al., 2005; Hollenbach, Ilgen, Ostroff, & Vancouver, 1981; Huffman, 2004; Kmec, 2005; Pounder, 1988; Schwab et al., 1987; Stone, 1985; Wang & Holton, 2005; Young, 1997; Young & Brown, 1996) and reflect those variables particularly important for administrative positions in the public school setting relative to current knowledge. By considering these variables in this study (see Figure 1) via sampling frame holding constant certain variables (i.e., funding source, pay decision, focal position, and sex) and through model inclusion controlling statistically for certain variables (i.e., organizational characteristics and human capital endowments), pay discrimination is assessed better (but not completely) from a specification perspective than found in most educational studies published to date (Pounder, 1988; Stone, 1985; Young & Brown, 1996).

Beyond the sampling frame and the statistical controls focusing on factors purported to influence pay for educational administrators, a different regression approach is used in this study than found in existing educational research. Past educational research has relied on main-effect regression models sensitive only to an intercept difference for protected class groups via a dummy-coded variable for groups (Pounder, 1988, 1989; Stone, 1985; Young & Brown, 1996) as the means for testing the hypothesis of interest (pay discrimination), and these regression models ignore any potential effects for interactions between variables purported to influence pay

(see Figure 1) and protected class status of individuals (Barrett et al., 1986). By addressing both main (intercept differences for a protected class group) and interaction terms (slope differences for a protected class group) in this study, an alternate definition of pay discrimination emerged that has been masked in previous research, and this approach casts new insights about operational definitions for pay discrimination worth considering in future studies.

Although Hispanic and non-Hispanic individuals are found to receive the same amount of pay as suggested by our first hypothesis involving only a main effect model as used in traditional research ($b = -5.46, p \geq .05$, see Table 3), these different groups are found to vary on certain variables depicted in Figure 1 within our second model encapsulating interaction terms. A statistically significant main effect involving national origin ($b = 47.14, p \leq .05$) as well as interaction terms involving the protected class status of individuals were detected for building-level enrollment by national origin ($b = -.05, p \leq .05$, see Table 3 model 2) and for teaching experience by national origin ($b = -1.79, p \leq .05$, see Table 3 model 2). An examination of these effects indicates mixed outcomes via disordinal interactions (see Tables 4 and 5 as well as Figures 3 and 4) and expands the current knowledge about pay discrimination albeit for a specific protected class group (i.e., Hispanic-surnamed elementary school principals).

In some instances, Hispanic principals received higher rates of pay than non-Hispanic principals, whereas in other instances, non-Hispanic principals received higher rates of pay than Hispanic principals as noted by disordinal interactions so depicted in Figures 2 and 3. That is, pay amount was found to differ not only by national origin but to be moderated both by an organizational characteristic (enrollment of the school building) and by a human capital endowment (prior teacher experience) of principals. As such, these findings suggest several implications from a legal as well as from an applied perspective.

From a legal perspective, pay discrimination is defined strictly from an amount of pay by federal as well as by state guidelines without any attention being afforded to statistically significant differences. The intention of these legislations is to make individuals "whole" for amount of pay and not for the rate of pay. According to the Equal Pay Act (1963) for undercompensated protected class individuals (amount), a specific remedy is provided. "In correcting a pay differential, no employee's pay may be reduced. Instead, the pay of the lower paid employee(s) must be increased" (EEOC, n.d.).

By considering both amount of pay and rate of pay in this study from an interactional perspective, certain "red flags" are signaled albeit only under specific circumstances (building-level enrollments) and only for a certain

human capital endowment (prior teaching experience). These red flags suggest that special attention must be given to Hispanic elementary school principals possessing a high level of prior teaching experience and/or assigned to high-enrollment elementary school buildings. Failure to consider these human capital and organizational characteristics could well mask an indication of pay discrimination for this particular protected class group.

From an applied perspective, a concern for many teachers desiring to become principals is when they should seek this administrative assignment. From an economic perspective, our data indicate “the sooner the better” for Hispanic-surnamed individuals. The longer they stay in a teacher position, a lower rate of return is suggested for each additional year of prior teacher experience (see Figure 2).

For long-term Hispanic teachers, their pay amount can turn from a beneficiary status awarding early entry into administration to a victim of pay discrimination relative to pay for non-Hispanics (see Figure 2). On the other hand, non-Hispanic-surnamed individuals experience just the opposite effect. For non-Hispanic elementary school principals, every year of prior teaching experience has a positive effect on pay outcomes at the elementary school level as a building-level principal (see Figure 2).

Turning from entry to the principalship to organizational assignment of the principal within a school district, national origin was found to make a difference in pay amounts with respect to student enrollments (see Figure 3). Hispanic principals are found to be higher paid in lower enrollment buildings, whereas non-Hispanic-surnamed principals are found to be higher paid in higher enrollment buildings. This finding suggests that future studies of pay equity for protected class groups should consider the scope of a job assignment as well as the prior teaching experience of job incumbents (see Figures 2 and 3).

Collectively, our data indicate pay discrimination for Hispanic-surnamed individuals holding elementary school principalships relative to certain levels of a specific human capital endowment (prior teacher experience, see Figure 2) and to the scope of a job assignment (building-level enrollment, see Figure 3) under specific situations, especially if computed for annual pay rather than for per diem pay as assessed in this study. Important to note, these findings are based on estimates derived from random sampling procedures and apply only to male elementary principals in California when holding constant other variables within the equation and are not specific to any particular individual. Furthermore, our results as well as our data are largely insensitive as to causes of pay differences and/or discrimination for several reasons.

First, we use a correlational as opposed to a true experimental design whereby the later approach is better suited for assessing cause and effect. Second, we focused on definitions of pay discrimination by examining differences in intercepts (main effects) as well as slopes (interaction terms) for a limited number of variables (see Figure 1). As such, it goes almost without stating that additional research should be given to reasons for pay discrimination, and reasons for pay discrimination require a true experimental design manipulating specific variables purported to influence pay outcomes.

In concluding, our study indicates the absence as well as the presence of discrimination in pay for male Hispanic surname individuals holding elementary school principalships. Pay amounts were found “to wax and to wane” depending on certain organizational characteristics (student enrollment) and human capital endowments (prior teacher experience) as moderated by the national origin of elementary school principals. To quote Gardner (1968) relative to these sources of variation intertwined with pay, “It is not going to be a better world for any of us until it is a better world for all of us” (p. 68). Insuring equal pay for equal worth relative to specific organizational characteristics as well as to particular human capital endowments for all individuals is certainly one way of making it a better world for all of us, and this will come about most likely only through continued investigations in this area.

NOTES

1. Separate regression lines for Hispanic and for non-Hispanic principals relative to each interaction effect.

Student Enrollment

Intercept	Hispanic = $388.65 + (47.14) = \mathbf{435.79}$ Non-Hispanic = $388.65 - (47.14) = \mathbf{341.51}$
Slope	Hispanic = $.032 + (-.051) = \mathbf{-.019}$ Non-Hispanic = $.032 - (-.051) = \mathbf{.083}$

Prior Teacher Experience

Intercept	Hispanic = $388.65 + (47.14) = \mathbf{435.79}$ Non-Hispanic = $388.65 - (47.14) = \mathbf{341.51}$
Slope	Hispanic = $-.735 + (-1.79) = \mathbf{-2.53}$ Non-Hispanic = $-.735 - (-1.79) = \mathbf{1.06}$

2. Intersection of regression lines.

Student enrollment	$(435.79 - 341.51)/(-.019 - .083) = \mathbf{924.31}$	(Disordinal)
Prior teacher experience	$(435.79 - 341.51)/(-2.53 - 1.06) = \mathbf{26.26}$	(Disordinal)

3. Values for Table 4 (building level enrollment by national origin).

Enrollment Levels

- Minimum enrollment (66)
- Low enrollment (-1 SD) (229.3)
- Average enrollment (513.5)
- High enrollment (1 SD) (797.7)
- Maximum enrollment (1,666)

Regression Equation for Hispanic Elementary School Principals

$$Y = 435.79 + .032 (\text{Enrollment}) + (-.019) (\text{Interaction})$$

	<i>Intercepts</i>	<i>Building Enrollment</i>	<i>Interaction Effect</i>	<i>Total Day Pay</i>
Minimum Enrollment	435.79	2.11	-1.254	436.65
- 1sd Enrollment	435.79	7.34	-4.3567	438.77
Average Enrollment	435.79	16.43	-9.7565	442.47
+1 sd Enrollment	435.79	25.53	-15.1563	446.16
Maximum Enrollment	435.79	53.31	-31.654	457.45

Regression Equation for Non-Hispanic Elementary School Principals

$$Y = 341.51 + .032 (\text{Enrollment}) + .083 (\text{Interaction})$$

	<i>Intercepts</i>	<i>Building Enrollment</i>	<i>Interaction Effect</i>	<i>Total Day Pay</i>
Minimum Enrollment	341.51	2.11	5.478	349.10
- 1sd Enrollment	341.51	7.34	19.0319	367.88
Average Enrollment	341.51	16.43	42.6205	400.56
+1 sd Enrollment	341.51	25.53	66.2091	433.25
Maximum Enrollment	341.51	53.31	138.278	533.10

4. Values for Table 5 (prior teacher experience by national origin).

Prior Teacher Experience

- Minimum level of teacher experience (0.0)
- Low level of teacher experience (-1 SD) (4.3)
- Mean level of teacher experience (10.5)
- High level of teacher experience (+ 1 SD) (16.7)
- Maximum level of teacher experience (30.0)

Regression Equation for Hispanic Elementary School Principals

$$Y = 435.79 + .735 (\text{Prior T. E.}) + (-2.53) (\text{Interaction})$$

	<i>Intercepts</i>	<i>Teacher Experience</i>	<i>Interaction Effect</i>	<i>Total Day Pay</i>
Minimum Enrollment	435.79	0.000	0.00	435.79
- 1sd Enrollment	435.79	3.161	-10.88	428.07
Average Enrollment	435.79	7.718	-26.57	416.94
+1 sd Enrollment	435.79	12.275	-42.25	405.81
Maximum Enrollment	435.79	22.050	-75.90	381.94

Regression Equation for Hispanic Elementary School Principals

$$Y = 435.79 + .735 (\text{Prior T. E.}) + 1.06 (\text{Interaction})$$

	<i>Intercepts</i>	<i>Teacher Experience</i>	<i>Interaction Effect</i>	<i>Total Day Pay</i>
Minimum Enrollment	341.51	0.00	0.00	341.51
- 1sd Enrollment	341.51	3.161	4.56	349.23
Average Enrollment	341.51	7.718	11.13	360.36
+1 sd Enrollment	341.51	12.275	17.70	371.49
Max. Enrollment	341.51	22.050	31.80	395.36

REFERENCES

- Achen, C. H. (1982). *Interpreting and using regression*. Newbury Park, CA: Sage.
- American Educational Research Association. (1999). *Standards for educational and psychological testing*. Washington, DC: American Educational Research Press.
- Arbuckle, J. L., & Wothke, W. (1999). *Amos 4.0 user's guide*. Chicago: SmallWaters Corporation.
- Barrett, G. V., Alexander, R. A., Anesgart, M. A., & Doverspike, D. (1986). Frequently encountered problems in the application of regression analysis to investigation of sex discrimination in salaries. *Public Personnel Management, 15*(2), 143-157.
- Berry, W. D., & Feldman, S. (1985). *Multiple regression in practice*. Newbury Park, CA: Sage.
- California State Department of Education. (2006). *California public schools directory information*. Sacramento, CA: California Department of Education Press.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New York: Academic Press.
- Currall, S. C., Towler, A. J., Judge, T. A., & Kohn, L. (2005). Pay satisfaction and organizational outcomes. *Personnel Psychology, 58*(3), 613-640.
- Darlington, R. D. (1990). *Regression and linear models*. New York: McGraw-Hill.
- Equal Employment Opportunity Commission. (n.d.). Equal pay and compensation discrimination. Retrieved September 3, 2007, from www.eeoc.gov/types/epa.html
- Equal Pay Act, 29 U.S.C. § 206(d) (1963).
- Gardner, J. W. (1968). *No easy victories*. New York: Harper and Row.
- Gerhart, B., & Milkovich, G. T. (1992). Employee Compensation: Research and practice. In M. D. Dunnette & L. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., pp. 481-570). Palo Alto, CA: Consulting Psychologist Press.

- Hardy, K. (1993). *Regression with dummy variables*. Newbury Park, CA: Sage.
- Heneman, H. G. (1985). Pay satisfaction. *Research in Personnel and Human Resources Management*, 3, 115-139.
- Heneman, H. G., & Judge, T. A. (2005). *Staffing organizations* (6th ed.). Middleton, WI: Mendota.
- Hollenbeck, J. R., Ilgen, D. R., Ostroff, C., & Vancooover, J. B. (1987). Sex differences in occupational choice, pay, and worth: A supply-side approach to understanding the male-female wage gap. *Personnel Psychology*, 40(4), 715-743.
- House Hennessy-Fiske, M. (2006, December 3). Gender earnings gap narrows. *Los Angeles Times*. Retrieved December 5, 2006, from <http://www.latimes.com/news/printedition/asection/la-na-wagegap3dec03,1,4524631.story?ctrack=1&cset=true>
- Huffman, M. L. (2004). Gender inequality across local wage hierarchies. *Work and Occupations*, 31(3), 323-344.
- Jaccard, J., & Turrissi, R. (2003). *Interaction effects in multiple regression*. Newbury Park, CA: Sage.
- Kmec, J. A. (2005). Setting occupational sex segregation in motion. *Work and Occupations*, 32(3), 322-354.
- National Education Association. (2006). *Educational statistics: Rankings and estimates 2006*. Retrieved September 5, 2007, from <http://www.nea.org/edstats/index.html>
- Owings, W. A., & Kaplan, L. S. (2006). *American public school finance*. Belmont, CA: Thomson Wadsworth Corporation.
- Parade. (2007). What people earn. *Fresno Bee*.
- Pedhazur, E. J. (1982). *Multiple regression in behavioral research: Explanation and prediction* (2nd ed.). New York: Holt, Rinehart & Winston.
- Pounder, D. G. (1988). The male/female salary differential for school administrations: Implications for career placement of females. *Educational Administration Quarterly*, 24(1), 5-19.
- Pounder, D. G. (1989). The gender gap for salaries of educational administration professors. *Educational Administration Quarterly*, 25(21), 181-201.
- Rice, R. W., Phillips, S. M., & McFarlen, D. B. (1990). Multiple discrepancies and pay satisfaction. *Journal of Applied Psychology*, 75(4), 368-393.
- Schwab, D. P., Rynes, S. L., & Aldaq, R. J. (1987). Theories of research on job search and choice. *Personnel and Human Resource Management*, 5, 129-166.
- Stone, J. A. (1985). Determinants of administrators' salaries in public schools: Differences for men and women. *Economics of Education Review*, 4(2), 105-109.
- Terpstra, D. E., & Honoree, A. L. (2003). The relative importance of external, internal, individual and procedural equity to pay satisfaction. *Compensation Benefits Review*, 35, 67-74.
- Title VII of the Civil Rights Act of 1964. 42 U.S.C. § 1981-2000h-6 (Lexis-Nexis 2006).
- Wang, G. G., & Holton, E. F. (2005). Neoclassical and institutional economics as foundation for human resource development theory. *Human Resource Development Review*, 4(1), 86-108.
- Webb, L. D., & Norton, M. S. (2003). *Human resources administration, personnel issues and needs in education*. Upper Saddle, NJ: Merrill Prentice Hall.
- Williams, A. R. (2005). Principals' salaries, 2004-05. *Principal – Training Tomorrow's Principals – Research Supplement*, 84(5), 45-50. Retrieved September 5, 2007, from <http://www.naesp.org/ContentLoad.do?contentId=1605>
- Young, I. P. (2007). Salaries for new superintendents: A public relations concern for many school boards. *Journal of School Public Relations*, 28(2), 124-136.
- Young, I. P. (2008). *The human resource function in educational administration* (9th ed.). Upper Saddle, NJ: Prentice Hall.

- Young, I. P. (1999). Salary discrimination: A test of the paradoxical female hypothesis. *Educational Administration Quarterly*, 35(3), 379-397.
- Young, I. P., & Brown, J. (1996). Compensation bias in educational administration: Female and male equity. *Educational Administration Quarterly*, 32(1), 142-149.
- Young, I. P., Delli, D. A., Miller-Smith, K. A., & Alhadeff, A. B. (2004). An evaluation of the relative efficiency for various relevant labor markets: An empirical approach for establishing teacher salaries. *Educational Administration Quarterly*, 40(3), 66-387.

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