



GENDER DIFFERENCES IN PAY EXPECTATIONS: THE ROLES OF JOB INTENTION AND SELF-VIEW

Mary Hogue, Cathy L. Z. DuBois, and Lee Fox-Cardamone
Kent State University

Because pay expectations play a role in the persistent gender pay gap, we surveyed 435 undergraduate students to examine the impacts of gender, job intentions, and self-views on the pay expectations of pre-career women and men. Our findings showed a gender gap in which women expected to be paid less than men expected to be paid at the beginning and at the peak of their careers. Findings also showed a gap in job intentions such that women and men who intended to hold female-dominated jobs expected to be paid less than those pursuing male-dominated jobs at both time periods. Further exploration showed that job intentions fully mediated the link between gender and entry-level pay expectations but did not mediate the link between gender and peak-career pay expectancies. After controlling for the gender type of the intended job, self-esteem did not moderate the relationship between gender and pay expectations at either career point, but self-efficacy did at both points. Increased self-efficacy raised the entry-level pay expectations of women and reduced the peak-career pay expectations of men. Our results highlight the importance of encouraging cross-stereotypic job pursuits for both women and men and indicate the importance of self-efficacy in curbing the gap in pay expectations.

The persistence of the gender wage gap (Blau & Kahn, 2007) has real consequences for women and for those who depend on the incomes of women. These consequences can be seen in the disproportionate number of women and families headed by women who live in poverty in the United States (U.S. Census Bureau, 2005), in the increasing number of households at all income levels that have difficulty making ends meet with the wages of just one earner (Meyers & Gornick, 2001), and in the growing number of families relying on the wages of only women as more men than women lose their jobs in the current U.S. recession (U.S. Bureau of Labor Statistics, 2010). Thus, understanding the gender wage gap is important for resolving simple matters of fairness, and it is crucial for improving the situations of those dependent on women's pay.

Understanding the gender pay gap often begins with a consideration of human capital differences. Human capital is the value held in a worker's skill set (e.g., a worker's experience, training, education, and ties to organized

labor). Traditionally, the human capital of men has surpassed that of women (Blau & Kahn, 2007), but analyses by the U.S. government estimate that gender differences in human capital variables only account for roughly 60% of the gender pay gap (Blau & Kahn, 2007). In the present research, we explore another variable that affects a worker's pay but that is not captured by government data—workers' pay expectations.

The impact of pay expectations on salary starts before an individual even begins working. When job applicants convey low pay expectations, they often receive low pay offers relative to equally qualified applicants who convey higher pay expectations (O'Shea & Bush, 2002), and starting salaries can have a career-long impact on actual pay (Gerhart & Rynes, 1991). Unfortunately, the pay expectations of women tend to be lower than those of men (Heckert et al., 2002; Jackson, Gardner, & Sullivan, 1992).

A five-factor model developed by Major and Konar (1984) has informed much of the research examining gender differences in pay expectations. This model asserts that the pay expectations of women are lower than those of men because women and men have different social comparison standards, make different career path decisions, have different perceptions regarding the value of their job inputs, sometimes have real differences in the actual value of their job inputs, and place different levels of importance on job facets tied to pay.

Mary Hogue and Cathy L. Z. DuBois, Management and Information Systems Department, Kent State University; Lee Fox-Cardamone, Department of Psychology, Kent State University.

Address correspondence and reprint requests to: Mary Hogue, Management and Information Systems Department, Kent State University, Kent, OH 44240. E-mail: mhogue@kent.edu

Two variables that cross each of these factors are the individual and the job the individual intends to hold. When determining the value of their own job inputs or deciding which job facets are personally important, for example, people must have in mind *themselves* in a particular *job*. Thus, it is necessary to explore whether or how the individual's understanding of both variables affects pay expectations. Our goals with the present study are to determine whether the previously demonstrated gender gap continues, to assess the role of intended job in the connection between gender and pay expectations, and to determine how thoughts of the self are implicated in pay expectations.

Pay Expectations Across Time

In the 1980s, with a sample of 50 management students, Major and Konar (1984) found that when pre-career women and men gauged the level of pay they expected to receive upon entering their careers and at career peak, the expectations of women were lower than those of men for both time periods. Their research found that the early-career pay expectations of women were only 83.5% of what men expected to be paid, and women's peak-career pay expectations were only 54% of men's.

In the 1990s, Jackson and her colleagues (1992) found a similar pattern. With a sample of 447 college seniors, these researchers found that the career-entry pay expectations reported by women were just 93.4% of what men said they expected to be paid, and their peak-career pay expectations did not quite reach 73% of what men expected. This same pattern was repeated by Heckert and her colleagues (2002), who surveyed 371 college students and found that women reported entry-level pay expectations that were approximately 80% of those reported by men and peak-career pay expectations that were only 60% of men's.

Given the persistence of the gender gap in college students' pay expectations with no sign of attenuation, we hypothesize that this pattern persists for college students today. Specifically, we predict that the women in our study will expect lower pay than the men in our study at both career entry and career peak.

Job Intention

Because women and men cluster into different types of jobs (U.S. Department of Labor, 2005), when each group thinks of themselves within a particular job, the jobs each considers will likely differ. Through socialization, both gender stereotypes and occupational stereotypes are internalized (White & White, 2006) so that, when individuals are asked to state their preference for different jobs, they tend to report jobs that are gender appropriate (Gadassi & Gati, 2009).

Women and men also understand that pay is distributed differently across female- and male-dominated jobs in ways that disadvantage women (Denmark, Rabinowitz, &

Sechzer, 2000). When people gauge the level of pay they expect to receive in the future, they must consider the level of pay typically tied to the job they intend to hold. Earlier research used students' college major as a proxy for their future job, finding that it explained a significant amount of variance in pay expectations (Jackson et al., 1992). In the present research, we will examine actual job intentions, expecting that the gender typing of intended jobs will influence pay expectations, with those participants intending to hold female-typed jobs expecting less pay than those intending to hold male-typed jobs at both career entry and career peak.

Thus far, we have predicted (a) that gender will have a significant effect on both pay expectations and job intentions and (b) that job intentions will have a significant effect on pay expectations. Consequently, we are hypothesizing a relationship in which job intention at least partially mediates the link between gender and pay expectations.

Self-Views

Understanding how people think of themselves within a particular job requires an understanding of the self. The psychology literature is rich with self-related theories, but in large part, scientists generally have not been successful in connecting theoretical investigations of the self to problems in everyday life (Owens, 2003). We concur with Owens's (2003) speculation that these disappointing linkages may be hampered by the complexity of the structure of the self. Because the self is central to all social knowledge (Greenwald et al., 2002), it can be viewed on multiple levels and across multiple dimensions. Our examination specifically focuses on the self-concept and self-views.

On a global level, self-concept is the totality of thoughts a person has about her- or himself (Owens, 2003). It varies both across and within cultures (Gardner, Gabriel, & Dean, 2004), and its complexity is evident in the myriad of information it contains. To illustrate just a small subset, research suggests that the self-concept contains information related to personal motives (e.g., for self-verification or self-enhancement; Swann, Chang-Schneider, & McClarty, 2007), cultural identification (e.g., individual- or group-level focus; Sedikides & Brewer, 2001), identification of oneself in relation to others (Hogg, 2006), stereotypic information related to group membership (Kao, 2000), and an understanding of one's own personality (Owens, 2003).

The global self-concept also contains self-views, which are specific ideas of oneself within particular contexts (Chen, English, & Peng, 2006; Swann et al., 2007). When people think of themselves in a particular job in the future, they create a specific self-view drawn from pertinent information held within their global self-concept. Our interest is in discovering what information in an individual's self-concept is considered pertinent to their self-view in the context of their anticipated occupation.

In forming a self-view, situational factors—such as contextual cues or the presence of others—often act as cues to activate information held in the self-concept (Greenwald et al., 2002). Such priming can lead specific self-views to be informed by gender-stereotypic knowledge (Greenwald et al., 2002; Kao, 2000). Gender stereotypes tend to associate success and goal achievement with being male more readily than with being female (Kao, 2000), and because pay is an indication of achievement and success, information from gender stereotypes makes it more difficult for women than for men to generate a conception of a future self who receives high pay.

Although the impact of gender stereotypes on self-concept is robust (Greenwald et al., 2002), they are not the only aspect of the self-concept that influences self-views (Erikson, 2007). One's ability to generate a conception of the person one will be in the future can change with current ideas about personal strengths and abilities (Erikson, 2007), so, although gender stereotypes make it difficult for women to see themselves receiving high pay in the future, there may be other aspects of the self-concept that can ameliorate that dampening effect.

To pinpoint which aspects of the self-concept those might be, we heed the suggestions of previous researchers who offered three guidelines for investigating the self. The first is to use attributes that are easily accessible (Gelfand, Major, Raver, Nishii, & O'Brien, 2006), with accessibility determined through a concept's connection to the outcome being examined. The second guideline is to consider more than one attribute (Swann et al., 2007), and the third is to match the specificity of the attribute with the specificity of the outcome under investigation (Swann et al., 2007). Two such concepts that are culturally and cognitively connected to expected pay, and that can be assessed at the appropriate level of specificity, are self-esteem and competence (Berger & Webster, 2006).

Self-esteem. Self-esteem is a judgment of personal value (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). It can be viewed on a global or more specific level with specific types, such as organization-based self-esteem, more useful predictors of specific outcomes such as merit-based pay raises (Scott, Shaw, & Duffy, 2008). However, because expectations for pay that will be received from some yet-to-be-performed future job are less precise, global self-esteem seems more appropriate for our study.

Global self-esteem is one of the most widely researched psychological constructs (Salmela-Aro & Nurmi, 2007), and, although it may not follow the same pattern across cultures (Cai, Brown, Deng, & Oakes, 2007), research conducted in the United States shows a very clear trajectory of systematic changes in self-esteem throughout the life-span age (Kling, Hyde, Showers, & Buswell, 1999). Overall, self-esteem tends to be high in childhood and low in adolescence. It begins to rise during young adulthood, continues to rise through middle age, and then drops again during old

age. This trajectory is followed by both women and men, but at each age period, the self-esteem of women tends to be lower than that of men.

Gender, global self-esteem, pay, and pay-related variables have all been empirically connected. Self-esteem measured during college predicts actual salary received 10 years after graduation (Salmela-Aro & Nurmi, 2007), even when gender and education level are controlled (Kammeyer-Mueller, Judge, & Piccolo, 2007). For men given the opportunity to decide their own pay, higher levels of self-esteem lead to higher self-pay (Pelham & Hetts, 2001), and for women, higher levels of self-esteem can strengthen the relationship between task persistence and task success (McFarlin, 1985).

Moreover, previous research has shown that self-esteem moderates the relationship between various predictors and specific work-related self-views. For example, when people perceive their organizations to be fair, they are more likely to view themselves as committed workers, but that connection is eliminated for people with low self-esteem (Wiesenfeld, Swann, Brockner, & Bartel, 2007). Additionally, women employed in traditionally male occupations tend to view themselves as experiencing a higher level of gender-role conflict than men in traditionally female occupations, but both women and men with low self-esteem identify themselves as especially gender-role conflicted (Rustemeyer, 2001).

Together, this research suggests self-esteem may be one aspect of the global self-concept that can interact with gender to influence the image people have of themselves receiving pay in the future. Therefore, we predict that global self-esteem will moderate the relationship between gender and pay expectations such that the gender gap in pay expectations will be reduced when women have higher self-esteem.

Self-efficacy. Self-efficacy is an appraisal of one's competence (Bandura, 1997), and it too may impact one's ability to generate a view of oneself receiving high pay. Like self-esteem, self-efficacy can be assessed at various levels—with specific forms better at predicting specific outcomes, such as negotiation efficacy predicting negotiation success (Stevens, Bavetta, & Gist, 1993), and general forms better at predicting general outcomes, such as expectations for future pay.

Self-efficacy develops largely through personal accomplishments, through observations of accomplishments by a similar other, and by hearing another person with higher status express confidence in one's capabilities (Bandura, 1997). Generalized self-efficacy is the belief that one is generally competent, and it is the result of successes across a wide range of tasks (Judge & Bono, 2001). It can vary by culture (Xie, Roy, & Chen, 2006), but because it is dependent on experience, self-efficacy does not follow a predictable trajectory across the life span. In the United States, traditional gender-role socialization often leads boys to have

more opportunities than girls for personal accomplishment, resulting in higher self-efficacy across most tasks (Bandura, 1997). Research with adults also shows higher general self-efficacy in men compared with women (Buchanan & Selmon, 2008), but this difference is not universal (Stevens et al., 1993).

Self-efficacy is linked to gender, pay, and pay-related variables. It is related to pay satisfaction (Kim, Mone, & Kim, 2008) and to elevated expectations for financial rewards (Kim et al., 2008). It is also associated with objective career success (Betz & Hackett, 2006), and it moderates the relationship between gender and task performance (Lee & Farh, 2004).

Self-efficacy also moderates the relationship between various predictors and specific work-related self-views. For example, in an investigation of rescue workers, researchers found a link between stress appraisal and whether people viewed themselves as experiencing a high-quality work life, but this pattern was only shown for those rescue workers with low self-efficacy (Prati, Pietrantonio, & Cicognani, 2009). Similarly, self-efficacy moderated the path between job demands and views of one's own psychological health (Van Yperen & Snijders, 2000).

Together, this research suggests self-efficacy may be one aspect of the global self-concept that can interact with gender to alter the image women and men have of themselves receiving pay in the future. Therefore, we predict that self-efficacy will moderate the relationship between gender and pay expectations such that the gender gap in pay expectations will be reduced when women have higher levels of self-efficacy.

Distinctions between self-esteem and self-efficacy. As aspects of the self-concept, self-esteem and self-efficacy have many similarities (e.g., both are related to gender and both act as moderators between many predictors and particular self-views). In psychology's literature, the relationship between self-esteem and self-efficacy has been characterized in many ways: as clearly different because self-efficacy is more dynamic whereas self-esteem is a more stable, trait-like construct (Chen et al., 2006); as nearly impossible to distinguish as separate (Chen, Gully, & Eden, 2004); as hierarchical, with self-efficacy considered a component of self-esteem (Locke, McClellan, & Knight, 1996); and as indicators (together with locus of control and neuroticism) of a single core self-evaluation construct (Judge & Bono, 2001).

Our view is that self-esteem and self-efficacy are distinct yet related constructs. Their meanings are distinct (value and competence, respectively), but because competence (efficacy) is valued (esteemed), especially in connection to future pay, this distinction is not wholly separate. Moreover, as aspects of the global self-concept, they are necessarily conceptually related. Thus, although researchers suggest that meaningful investigations of the self should include more than one self-relevant concept (Swann et al., 2007), at the same time, we must be careful that our investigations

account for the interrelatedness of those concepts. Toward that end, we will examine both variables simultaneously, thus allowing us to control the impact of the nonfocal variable while the focal variable is examined.

Summary of Hypotheses

Our review of the literature resulted in the following hypotheses:

Hypothesis 1: A gender gap exists in career-entry and peak-career pay expectations such that those of women are lower than those of men for both career points.

Hypothesis 2: A job-based gender-typing gap exists in career-entry and peak-career pay expectations such that the pay expectations of women and men choosing female-typed jobs are lower than those of people choosing male-typed jobs for both career points.

Hypothesis 3: Job intention will at least partially mediate the relationship between gender and pay expectations at both career points.

Hypothesis 4: Self-esteem will moderate the relationship between gender and pay expectations at both career points such that the gender gap in pay expectations will be reduced as women's self-esteem rises.

Hypothesis 5: Self-efficacy will moderate the relationship between gender and pay expectations at both career points such that the gender gap in pay expectations will be reduced as women's self-efficacy rises.

METHOD

Participants

Participants were 458 undergraduate students at a suburban branch campus of a large university in the mid-western United States. Twenty-three students (10 women, 13 men) did not report pay expectations, so our usable sample comprised 435 surveys (272 from women, 163 from men). Students reported 45 different majors ranging from Anthropology to Zoology, with 23 students reporting no declared major. The most commonly reported major was Business Management ($n = 93$; 46 women, 47 men).

The average age of students was 19.67 years ($SD = 1.61$, range 17–23). Most participants ($n = 236$; 54%) were first-year students, with 94 (22%) sophomores, 59 (14%) juniors, and 46 (11%) seniors. In response to an open-ended ethnicity question, the majority of participants (94%) reported that they were White (255 women, 154 men), with the remainder of responses as follows: Black (5 women, 2 men), Asian (3 women), Hispanic (1 woman), Mixed (5 women, 4 men), Middle Eastern (1 woman, 1 man), Native American (1 woman), no response (1 woman, 2 men). There were no significant differences between women and men with respect to age, $t(433) = -.94$, $p = .35$, educational

attainment, $t(433) = .66$, $p = .51$, or race/ethnicity, $\chi^2(6) = 3.56$, $p = .74$.

Materials and Procedure

After securing Institutional Review Board approval, students were asked to complete a paper-and-pencil survey in class for extra course credit. Classes were chosen by convenience. Students were assured that their participation and responses would be anonymous and were asked to respond as honestly as possible. In addition to the previously mentioned demographic questions, the survey contained the following items in the order listed below.

Self-esteem. Rosenberg et al.'s (1995) 10-item scale was used to measure global self-esteem. Items were rated on a 4-point Likert scale ranging from 1 (*I totally disagree*) to 4 (*I totally agree*) and with statements such as "I have a number of good qualities" and "At times I think I'm no good at all" (reverse coded). Responses were averaged to create an overall self-esteem score where high scores indicated high global self-esteem. Coefficient alphas were .88 for the total sample, .88 for women, and .87 for men.

General self-efficacy. The General Self-Efficacy Scale (Sherer et al., 1982) comprises 17 items rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale includes items such as "When I make plans, I am certain I can make them work" and "When unexpected problems occur, I don't handle them well" (reverse coded). Responses were averaged to create an overall general self-efficacy score such that high scores indicated high general self-efficacy. Coefficient alphas were .86 for the total sample, .87 for women, and .85 for men.

Gender-typing of job. Two open-ended questions gauged students' plans for a postgraduation job. The first asked, "The field (i.e., medicine, retail, etc.) I hope to work in after college is: _____." The second asked, "The job (i.e., nurse, production manager, pharmaceutical sales representative, etc.) I hope to have after college is: _____." Instructions told students to write "Unsure" if they were not clear about their plans; 45 respondents, 23 women and 21 men, reported being unsure.

Two student assistants coded jobs according to U.S. Department of Labor (2005) statistics specifying the percentage of women in various occupations. The percentage of women in the occupation was placed on a 0–10 continuous scale, where 10 indicated that precisely 100% of the workers in that occupation were women; in this way, higher scores represented increasingly female-type jobs. Jobs were fitted to Department of Labor listings by looking first at the stated job and then, if further clarification was needed, at the stated field.

For example, if a student responded that the intended job was "human resources manager," which exists on the

list, the job would be located and coded (6.44) according to the percentage of women holding that job, 64.4%. If the intended job was "manager," the coder would look to the chosen field for clarification. If the intended managerial field was human resources, the job would be coded the same, 6.44. On the other hand, if the job was manager and the field was retail, the coder would locate the job of retail manager, see that 46% of retail managers were women in 2004, and code the job 4.60. Inter-rater reliability across the two coders was 86% agreement. For the 61 cases where discrepancies existed, the final coding decision was made by the first author.

Expected pay. Directly following the questions asking about future job plans, students were asked to complete two statements about their pay expectations. The first was "The annual salary (i.e., \$20,000 per year, \$40,000 per year, etc.) I expect after college graduation when I enter my chosen field is: (Please report a salary that you realistically expect to have, not one that you hope to have.) _____." The second was "The annual salary I expect at the *peak* of my career is: (Again, please report your realistic expectation, not your desire.) _____."

RESULTS

Statistical Analyses

The complex relationships that exist among our variables suggest the importance of examining all possible connections. Thus, our analyses followed a three-part process. First, a one-way analysis of variance (ANOVA) explored gender differences in entry-level pay expectations, peak-career pay expectations, self-esteem, and self-efficacy, and two linear regressions explored the effects of each predictor on both pay expectations.

Second, Baron and Kenny's (1986) three-step approach was used to explore whether job-intention, self-esteem, and/or self-efficacy mediates the relationship between gender and pay expectations. Mediation is demonstrated when: (a) the independent variable is a significant predictor of the dependent variable, (b) the independent variable is a significant predictor of the proposed mediator, and (c) prediction of the dependent variable by the independent variable is reduced or eliminated when the mediator is added to the equation.

The third part of our analyses gauged whether the relationship between gender and each pay expectation was moderated by job intentions, self-esteem and/or self-efficacy. Aiken and West (1991) provide a method for determining moderation that protects against Type I error, guards against multicollinearity, and allows the examination of single predictors while restraining the impact of others. Accordingly, continuous variables are centered, categorical variables are either dummy or effect coded (we dummy coded gender so that 0 = men and 1 = women), and an

Table 1
Means, Standard Deviations, and Intercorrelations Among the Study Variables by Gender

Variable	Women	Men	1	2	3	4	5
1. Entry-level pay							
<i>M</i>	\$40,681.99	\$44,379.31*	—	.70***	-.10	.02	-.08
<i>SD</i>	(18,344.92)	(20,840.41)					
2. Peak-career pay							
<i>M</i>	\$67,347.43	\$100,350.90***	-.36***	—	-.03	.008	-.16*
<i>SD</i>	(30,778.40)	(73,130.13)					
3. Gender type of intended job							
<i>M</i>	5.66	4.06***	-.11	-.36***	—	.07	-.007
<i>SD</i>	(2.15)	(2.41)					
4. Self-esteem							
<i>M</i>	2.04	2.21***	-.14**	.11	.07	—	.52**
<i>SD</i>	(.50)	(.50)					
5. Self-efficacy							
<i>M</i>	3.61	3.71 ⁺	.17**	.13*	.002	.56***	—
<i>SD</i>	(.53)	(.50)					

Note. Intercorrelations among the study variables are presented below the diagonal for women (coded 1) and above the diagonal for men (coded 0). Mean differences in study variables by gender were tested with one-way analysis of variance.

* $p < .05$. ** $p < .01$. *** $p < .001$.

interaction term is created using the recoded variables. Then, all focal variables and their interaction terms are regressed onto the criterion. A significant interaction term indicates moderation. To tease apart closely related self-relevant constructs, all variables were entered into the same regression equation.

Gender Differences and Direct Effects

The one-way ANOVAs showed significant gender differences in entry-level, $F(1,433) = 4.06$, $p = .045$, $\eta^2 = .019$, and peak-career pay, $F(1,433) = 28.93$, $p < .001$, $\eta^2 = .063$, supporting Hypothesis 1. The entry-level pay expectations of women (range: \$15,000–\$175,000) were just 91.7% of men's (range: \$19,000–\$200,000), and the peak-pay expectations of women (range: \$18,000–\$250,000) were 67.1% of men's (range: \$30,000–\$550,000).

The one-way ANOVAs also revealed significant gender differences in gender-typed job intentions, $F(1,389) = 43.05$, $p < .001$, $\eta^2 = .092$, and self-esteem, $F(1,433) = 12.2$, $p = .001$, $\eta^2 = .027$, and found a trend toward significance for self-efficacy, $F(1,433) = 3.78$, $p = .052$, $\eta^2 = .009$. Table 1 reports means, standard deviations, and bivariate correlations among all variables for women and men.

ANOVA results for Hypothesis 2 showed a significant difference in the pay expectations of students intending to hold a female-typed job and those intending to hold a male-typed job. The entry-level pay expectations for students intending to hold a female-typed job (range: \$15,000–\$175,000) are just 82.2% of those for students intending to hold a male-type job (range: \$20,000–\$200,000), and the peak-career pay expectations of students intending to hold a female-typed job (range: \$18,000–\$375,000) are only 71%

of those for students intending to hold a male-typed job (range: \$20,000–\$200,000), supporting Hypothesis 2.

Because we found both a gender and a job-intention gap in pay expectations, we explored the job-intention gap to see whether within-gender differences existed across job-type intentions. Within the subsample of students reporting a job intention ($n = 391$), there were 246 women (133 female-typed jobs, 113 male-typed jobs) and 145 men (38 female-typed jobs, 107 male-typed jobs). Pay expectations for women intending female-typed jobs were significantly lower than those of women intending male-typed jobs at both career points, but the same cannot be said as definitively for men. Results are presented in Table 2.

To examine direct effects, we regressed entry-level pay expectations on job-intention, gender, self-esteem, and self-efficacy. Results showed that only job-intention, $b = -.12$, $p = .02$, was a significant predictor (gender, $b = -.05$, $p = .369$; self-esteem, $b = .08$, $p = .159$; self-efficacy, $b = .03$, $p = .593$). When we regressed peak-career pay expectations on the same predictors, two significant predictors emerged: job-intention, $b = -.14$, $p = .01$, and gender, $b = -.20$, $p < .001$ (self-esteem, $b = .10$, $p = .072$; self-efficacy, $b = .09$, $p = .088$). Tolerance statistics were all greater than .69, and Variance Inflation Factor statistics were all less than 1.5. Therefore, although many of the variables appear to have strong bivariate correlations, multicollinearity did not impact our regression results.

Tests of Mediator Effects

Job intention. Gender was a significant predictor of entry-level pay expectations, $b = -.10$, $p = .042$, of peak-career pay expectations, $b = -.25$, $p < .001$, and

Table 2
One-Way Analyses of Variance Examining Pay Expectation Across Female- and Male-Typed Jobs

<i>Pay/Group/Job Type</i>	<i>Mean</i>	<i>(SD)</i>	<i>F(df)</i>	<i>p</i>	<i>η²</i>
Entry pay—Full subsample			3.93(1,389)	.001	.191
Female-type job	\$38,882.35	(\$17,061.44)			
Male-type job	\$45,115.91	(\$20,419.32)			
Peak pay—Full subsample			6.21(1,389)	<.001	.271
Female-type job	\$64,107.06	(\$35,402.45)			
Male-type job	\$90,193.18	(\$53,010.88)			
Entry pay—Women			3.58(1,244)	<.001	.231
Female-type job	\$38,879.70	(\$17,550.77)			
Male-type job	\$43,846.49	(\$19,906.65)			
Entry pay—Men			1.21(1,143)	.052	.208
Female-type job	\$38,891.89	(\$15,399.38)			
Male-type job	\$46,327.10	(\$20,926.77)			
Peak pay—Women			5.40(1,244)	<.001	.312
Female-type job	\$58,127.82	(\$20,749.56)			
Male-type job	\$79,802.63	(\$37,424.24)			
Peak pay—Men			1.87(1,143)	.096	.305
Female-type job	\$85,600.00	(\$60,812.70)			
Male-type job	\$101,168.20	(\$63,844.33)			

Note. These results are for the subsample of respondents reporting a job intention, examined as a full sub-sample ($N = 391$) and also divided by gender (246 women: 133 female-typed jobs, 113 male-typed jobs; 145 men: 38 female-typed jobs, 107 male-typed jobs).

of job intention, $b = .30$, $p < .001$. When job-intention was added as a potential mediator of the relationship between gender and entry-level pay, the link between gender and entry pay was no longer significant, $b = -.07$, $p = .208$, indicating possible mediation. We probed this possibility using the Sobel test (Preacher & Hayes, 2004) and found a Sobel statistic of -2.12 , $p = .031$, suggesting a significant change in paths and indicating that job-type intention did carry the effect of gender to entry-level pay expectations. Next, when job-intention was added as a potential mediator of the link between gender and peak-career pay expectations, the effect of gender was essentially unchanged, $b = -.21$, $p < .001$, indicating no mediation.

Hypothesis 3 was only partially supported. However, because the effect of job-intention on entry- and peak-career pay expectations was significant, its impact was controlled in subsequent analyses.

Self-esteem. After controlling for job-intention, gender no longer predicted entry-level pay expectancies, leaving no connection for self-esteem to mediate. Gender remained a significant predictor of peak-career pay expectations, and it was a significant predictor of the proposed mediator, self-esteem, $b = -.17$, $p = .002$. However, when self-esteem was added as a potential mediator between gender and peak-career pay expectations, the path was essentially unchanged, $b = -.20$, $p < .001$, indicating no mediation.

Self-efficacy. After controlling for job-intention, gender no longer predicted entry-level pay expectancies, leaving no connection for self-efficacy to mediate. Gender was a significant predictor of peak-career pay expectations, but it was not a significant predictor of the proposed mediator, self-efficacy, $b = .09$, $p = .052$. To complete the analyses, we examined the relationship between gender and peak pay expectations with self-efficacy added to the equation and found the relationship between gender and peak-career pay expectations was essentially unchanged, $b = -.22$, $p < .001$, indicating no mediation.

Tests for Moderator Effects

Self-esteem. For entry-level pay expectancies, there was no main effect for gender or self-esteem, $b = .04$, $p = .822$, and no interaction between the two, $b = .04$, $p = .789$. For peak pay expectancies, there was a main effect for gender, no main effect for self-esteem, $b = -.09$, $p = .514$, and no interaction, $b = .04$, $p = .184$. Self-esteem did not moderate the relationships between gender and either entry-level or peak-career pay expectations. Hypothesis 4 was not supported.

Self-efficacy. For entry-level pay expectancies, there was no main effect for gender. There was a main effect for self-efficacy, $b = .38$, $p = .027$, and a significant interaction, $b = -.37$, $p = .030$. The simple slope of entry-level pay expectations on self-efficacy for women was not a

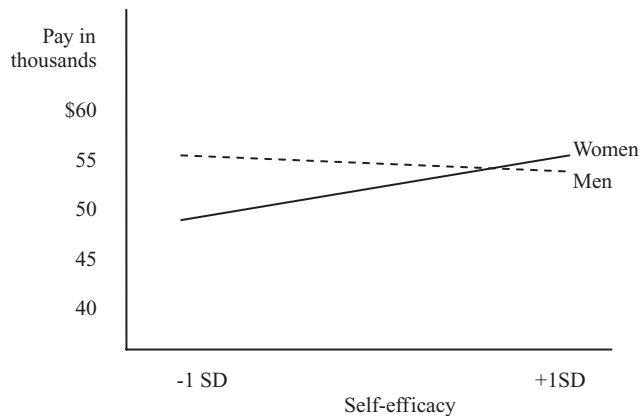


Fig. 1. Entry-level pay: Interaction between gender and self-efficacy.

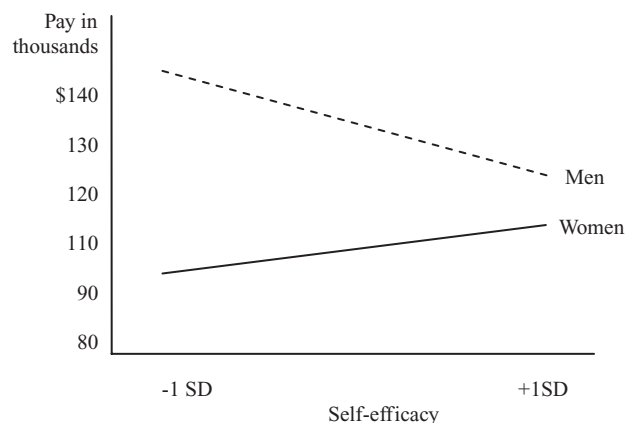


Fig. 2. Peak-career pay: Interaction between self-efficacy and gender.

significant change from zero, $t(451) = 1.70, p = .052$. The simple slope of entry-level pay expectations on self-efficacy did not differ from zero for men, $t(451) = -1.46, p = .15$. The interaction is depicted in Figure 1.

For peak pay expectations, there was a main effect for gender, but no main effect for self-efficacy, $b = .42, p = .012$. There was a significant interaction, $b = -.536, p = .001$. The simple slope of peak-career pay expectations on self-efficacy for women was not significantly different from zero, $t(451) = .58, p = .56$, but for men it was, $t(451) = -3.70, p < .01$. The interaction is depicted in Figure 2. Together, these results provide support for Hypothesis 5.

DISCUSSION

We accomplished the three goals we set at the start. First, our results show both a gender and a job-intention gap in pay expectations so that women and those intending to hold female-dominated jobs expect lower pay than men and those intending to hold male-dominated jobs,

respectively. Next, our results show that the link between gender and early-career pay expectations is fully mediated by job intention, but the same is not true for peak-career pay expectations. And finally, we found that self-efficacy—but not self-esteem—moderates the relationship between gender and pay expectations.

The Gap in Pay Expectations: Gender and Job Intention

The gender gap in pay expectations found in the 1980s and 1990s (Heckert et al., 2002; Jackson et al., 1992; Major & Konar, 1984) remains in the 21st century. Consistent with previous research, the gender gap we found was such that the expectations of men were higher than those of women, and the gap was larger for peak-career than early-career pay. Examining the data differently, we also found a job-intention gap in pay expectations such that women and men choosing male-dominated jobs expected higher pay than those choosing female-dominated jobs.

After uncovering both a gender and a job-intention gap in pay expectations, we were curious to know how the job-intention gap manifested when women and men were examined separately. This exploratory analysis showed that the pay expectations of women choosing male-dominated jobs were significantly higher than those of women choosing female-dominated jobs for both career entry and career peak, but the same cannot be said as definitively for men. The results suggest that women believe holding a male-dominated job creates a pay advantage, and in reality, holding a male-dominated job boosts the pay of women by almost 26% over the pay of women who hold female-dominated jobs (U.S. Department of Labor, 2008). On the other hand, our results also indicate that men do not necessarily consider holding a female-typed job as a comparable pay detriment. Again, these expectancies are realistic in that holding a female-dominated job reduces the pay of men by only about 12% relative to the pay of men in male-dominated jobs (U.S. Department of Labor, 2008).

Our participants recognized that jobs can have a real impact on future pay, but at the same time, our results showed that gender differences still exist in job aspirations—with each group intending to hold gender-appropriate jobs. Unfortunately, the present research offers no clear explanation for this disparity, but because pay expectations are strongly influenced by job intentions, our research does suggest the importance of future explorations into how women and men decide the jobs they will pursue.

The Self-View in Pay Expectations

Expectations for future pay are informed by thoughts of oneself within a particular job. Those thoughts are informed by knowledge from the comprehensive self-concept, and activation of information in the self-concept occurs through contextual priming (Greenwald et al., 2002). We asked participants to report a level of pay they expect to receive at two different career points in the future. Our results

suggest that we may have primed two different contexts, resulting in the development of two arguably different self-views.

Early-career self-views. When our participants formed a view of themselves receiving pay at the beginning of their careers, thoughts of the job they will hold (i.e., the context) seemed to dominate gender-based information stored in their self-concept (i.e., stereotypic information). To interpret this pattern, we must understand how mental representations such as self-views are formed. Research on mental representation distinguishes between different levels of abstraction—with the level of abstraction used partly dependent on the time frame involved (Kivetz & Tyler, 2007). Representations formed for a temporally close context are more concrete and are drawn from specific features of the situation, whereas those formed for a temporally distant context are more abstract and are drawn from general features that convey the essence of the event (Kivetz & Tyler, 2007). When college students imagine themselves beginning their careers, the image is rich with information about the job they are training to perform, so the job becomes key. The effect of gender is less direct, but because gender stereotypes almost always play some role in the generation of particular self-views (Kao, 2000), it becomes important to learn what other aspects of the self-concept might ameliorate their impact.

We examined both global self-esteem and self-efficacy, and we found that, after the variance of the other variable is accounted for, only self-efficacy impacts the link between gender and early-career pay expectations. Viewing oneself as personally valuable (i.e., having high self-esteem) does not allow a change in the way gender stereotypes inform pay-related self-views, and we suppose that this finding may be due to the fact that there is not a component to the gender stereotype that is analogous to self-esteem. Gender stereotypes do not necessarily suggest that women are less valuable than men. In fact, they seem to suggest that the roles women are understood to fill and the characteristics women are assumed to have are valuable to society (Eagly & Mladinic, 1989). Because stereotypes do not directly devalue women, there is nothing within the stereotype to be countered by the value-based characteristic of self-esteem.

On the other hand, a primary component of gender stereotypes is competence. Gender stereotypes hold that women are not as competent as men (Cikara & Fiske, 2009), and because cultural norms tie competence to pay (Berger & Webster, 2006), this aspect of the stereotype makes it difficult for women to project high pay for themselves. However, even though group-level stereotypes hold that competence is the domain of men, individuals do not necessarily apply such group-level beliefs to themselves. Self-efficacy is the belief that one is personally competent (Bandura, 1997), so for women, a belief in personal competence can counter the idea that their group as a whole lacks abundant competence.

The early-career pay expectations of women and men differ from each other as a function of their self-efficacy. This difference arises because increased self-efficacy for women brings with it increased pay expectations, but increased self-efficacy for men does not. Although we reported nonsignificance above, we should note that our results approached significance ($p = .052$); however, we caution against interpreting a lack of statistical significance as a lack of meaningfulness (Cohen, 1994; Pedhazur & Schmelkin, 1991). When investigating a construct as complicated as the self to explain a practical problem as complex as the gender pay gap, important insights may be gleaned from results that do not quite reach statistical significance.

Our findings indicate that when people *think of themselves* receiving pay at the beginning of their careers, the self they imagine is grounded in the context of the job. Women tend to see themselves receiving lower pay than men project for themselves. When women are able to see themselves receiving high pay, it tends to be because they have chosen a male-dominated job. Above and beyond the effects of job intentions and self-esteem, women who believe themselves to be personally competent anticipate higher pay than women who do not have the same belief.

Peak-career self-views. The image formed for oneself receiving pay at the peak of one's career is slightly different. For peak-career pay expectations, the impact of gender is not carried by the job the person intends to hold. Rather, both gender and job-intention have their own unique direct effects on peak pay expectations. The direct effect of gender is likely because the impact of contextual variables on mental representations decreases as the context itself becomes less clear, which happens with temporal distance (Kivetz & Tyler, 2007).

When we primed college students to think of the peak of their career, it was likely difficult for them to form a clear picture of either the job they would be performing or the person they would be in that job. With respect to the job, government data show that working adults will average 10.8 jobs between the ages of 18 and 42 (U.S. Department of Labor, 2009a). Thus, the job an individual holds at the peak of her or his career may not be the job for which the person trains in college. With respect to the person they will be at that time, one personal quality that is not likely to change is gender. When the context provides less specific information, individuals tend to rely on stored knowledge, often depending on schematic summaries (Kivetz & Tyler, 2007), explaining the increased impact of stereotypic information on peak-career pay expectations and highlighting the increased importance of discovering other aspects of the self-concept that may ameliorate that effect.

Once again, when both self-esteem and self-efficacy were examined together, self-esteem did not change the link between gender and pay expectations, but self-efficacy did. The significant interaction term shows that the pay

expectations of women and men differ from each other as a function of their self-efficacy. The test of the simple slopes shows that this is not because the peak pay expectations of women rise with increased self-efficacy. Rather, it is because the peak pay expectations of men fall as their self-efficacy increases. This pattern may occur because women know that between college and the peak of their careers, their competence may show in other areas not tied to pay. Women continue to interrupt their careers for family obligations more than men (U.S. Department of Labor, 2009b), and the women in our study may have recognized this additional influence when they were imagining themselves at the peak of their careers. Further research is needed to explore this possibility.

That increased self-efficacy brought reduced peak-career pay expectations for men was unexpected, but our data give rise to an interesting explanation. The mean peak-career pay expectations for men in our study exceeded \$100,000, and although we know of no clear figures on the peak-career pay of male college graduates, recent government data show the median wage for all men between the ages of 45 and 54 working full-time to be only \$37,804 (U.S. Bureau of Labor Statistics, 2009a) and the median wage for all men working full-time in management and professional occupations to be only \$62,950 (U.S. Bureau of Labor Statistics, 2009b). Developing self-efficacy requires successful experiences and observations of role models (Bandura, 1997), so the men with higher self-efficacy may have had more career-relevant experiences and role models relative to men with lower self-efficacy. Thus, the former may have gathered more realistic information about the pay they can expect to receive, thereby forming a more realistic view of themselves at the peak of their careers. Further research should explore this possibility as well.

Our results suggest that, when people think of themselves receiving pay at the peak of their careers, the self they imagine is informed by both the job they anticipate holding and by their gender. Women tend to see themselves receiving lower pay than men see themselves receiving, even after the effects of job intention are held constant. Moreover, after also accounting for the impact of self-esteem, self-efficacy does not provide the same boost to women's peak-career pay expectations that it provided for career entry, but it does attenuate those of men.

Implications of self-views on pay expectations. Previous researchers have suggested that the self is a crucial contributor to many practical problems, including the problem of social stratification, and that its complexity often makes it difficult to clearly understand its impact (Hogg, 2006; Owens, 2003). Gender and gender stereotypes are an important part of the self-concept that influences specific self-views (Kao, 2000), but other aspects of the self-concept can moderate their impact (Erikson, 2007). Our research suggests that with respect to pay expectations, self-efficacy is one such aspect, but global self-esteem is not.

The fact that self-efficacy can ameliorate the drag that gender places on the early-career pay expectations of women and can attenuate the boost it gives to men is particularly important because, as noted previously, self-efficacy can be changed. Enhancing the self-efficacy of women has been the subject of a great deal of research in a wide array of fields (for explanations and examples, see Bandura, 1997, and Fassinger, 2001). All suggestions derived from this research (e.g., providing individuals with a wide array of experiences to encourage success and increasing access to similar role models) are important and necessary, especially for women, because encouraging women to believe in their own competence goes against deeply engrained gender stereotypes, which specify that competence is the domain of men more than women (Cikara & Fiske, 2009). Early-career pay experiences have a lasting impact on pay received over the course of one's career (Gerhart & Rynes, 1991), so enhancing women's self-efficacy may be an important way to boost their pay over their lifetimes.

Although increased self-efficacy did not enhance the peak-career pay expectations of women in our study, it did reduce those of men. Reducing the gender gap in pay expectations need not occur simply by focusing on ways to elevate the expectancies of women. It is also important that the expectations of men are realistic. Because gender influences pay expectancies, as the expectations of women rise, those of men may rise as well to maintain the status quo. Increasing exposure to work experiences and role models may encourage men to form a pay-related self-view that is more in line with reality, and this trend, too, may be an important element in leveling the actual pay differences between women and men.

Our finding that global self-esteem did not impact pay expectations is important as well. Our results mirror previous research showing that men have significantly higher self-esteem than women, but after controlling for job intentions and accounting for the effect of self-efficacy, self-esteem had no impact on pay expectations. These results add to research attempting to clarify the relationship between self-efficacy and self-esteem. As part of the self-concept, these two constructs are clearly related, but the prudence of practices such as combining them to form a single construct (Judge & Bono, 2001) may require further study (Chen et al., 2004). Researchers have warned against lumping related constructs together to improve predictability, arguing that two constructs can be highly related and yet not reflective of the same overarching phenomenon (Chen et al., 2004). Our results suggest the importance of including these variables separately to determine the unique impact of each on focal outcomes.

The present results indicate that examining self-views can provide useful information about pay expectations, and they highlight the importance of expanding this line of research to discover how other aspects of the self-concept may also be involved. Much of our research focused on gender stereotypes, but other researchers have

explained that although most people will act in accord with gender stereotypes, some choose to actively oppose them (Bandura, 1997). Their use can be influenced by perceived norms or personal goals (Bandura, 1997) or even the presence of others (Sinclair & Lun, 2006) and so other aspects of the self-concept should be explored as potential moderators of the link between gender stereotypes and pay expectations.

It is important to note that although the present research provides crucial information about pay expectations, our work is limited by the sample we recruited. Our research focused on college students, and although most research on pay expectations has involved college student participants (Heckert et al., 2002; Jackson et al., 1992; Major & Konar, 1984), care should be taken in generalizing results to other populations. Moreover, the college students to whom we had access were primarily White. Self-views and pay expectations may change as individuals are faced with actual jobs and as they gain career experience, and they may not follow the same pattern across different ethnicities within the United States or across different countries. Consequently, future research should explore whether our findings hold across different populations.

Conclusion

Expectations both shape and are shaped by experience (Kirsch, 1999). This cycle means that change in pay expectations can effect change in future pay experiences. The present research provides important insights about how to reduce the gender gap in pay expectations. Specifically, it supports the importance of the movement to attract more girls and women to traditionally male occupations (for a review, see Watt & Eccles, 2009); however, current pay practices (U.S. Census Bureau, 2005) suggest this diversification may not be enough. When it comes to changing pay expectations, it is important to encourage women to recognize their own competence and to encourage men to be more realistic. Doing so can potentially change actual pay experiences in ways that benefit women and those who depend on the incomes of women.

Initial submission: February 1, 2009

Initial acceptance: October 10, 2009

Final acceptance: January 27, 2010

REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks: Sage.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Berger, J., & Webster, M., Jr. (2006). Expectations, status, and behavior. In P. J. Burke (Ed.), *Contemporary social psychological theories* (pp. 268–300). Stanford, CA: Stanford University Press.
- Betz, N. E., & Hackett, G. (2006). Career self-efficacy theory: Back to the future. *Journal of Career Assessment*, 14, 3–11.
- Blau, F. D., & Kahn, L. M. (2007). The gender pay gap: Have women gone as far as they can? *Academy of Management Perspectives*, 21, 7–23.
- Buchanan, T., & Selmon, N. (2008). Race and gender differences in self-efficacy: Assessing the role of gender role attitudes and family background. *Sex Roles*, 58, 822–836.
- Cai, H., Brown, J. D., Deng, C., & Oakes, M. A. (2007). Self-esteem and culture: Differences in cognitive self-evaluations and affective self-regard? *Asian Journal of Social Psychology*, 10, 162–170.
- Chen, G., Gully, S. M., & Eden, D. (2004). General self-efficacy and self-esteem: Toward theoretical and empirical distinction between correlated self-evaluations. *Journal of Organizational Behavior*, 25, 379–395.
- Chen, S., English, T., & Peng, K. (2006). Self-verification and contextualized self-views. *Personality and Social Psychology Bulletin*, 32, 930–942.
- Cikara, M., & Fiske, S. T. (2009). Warmth, competence and ambivalent sexism: Vertical assault and collateral damage. In M. Barreto, M. K. Ryan, & M. T. Schmitt (Eds.), *The glass ceiling in the 21st century: Understanding barriers to gender equality* (pp. 73–96). Washington, DC: American Psychological Association.
- Cohen, J. (1994). The earth is round ($p < .05$). *American Psychologist*, 49, 997–1003.
- Denmark, F., Rabinowitz, V., & Sechzer, J. (2000). The world of work. In F. L. Denmark, J. A. Sechzer, & V. Carulli (Eds.), *Engendering psychology* (pp. 197–227). Needham Heights, MA: Allyn & Bacon.
- Eagly, A. H., & Mladinic, A. (1989). Gender stereotypes and attitudes toward women and men. *Personality and Social Psychology Bulletin*, 15, 543–558.
- Erikson, M. G. (2007). The meaning of the future: Toward a more specific definition of possible selves. *Review of General Psychology*, 11, 348–358.
- Fassinger, R. (2001). Women in non-traditional occupational fields. In J. Worrell (Ed.), *Encyclopedia of women and gender: Sex similarities and differences and the impact of society on gender* (Vol. 2, pp. 1169–1180). San Diego: Academic Press.
- Gadassi, R., & Gati, I. (2009). The effects of gender stereotypes on explicit and implicit career preferences. *The Counseling Psychologist*, 37, 902–922.
- Gardner, W. L., Gabriel, S., & Dean, K. (2004). The individual as “melting pot”: The flexibility of bicultural self-construals and worldviews. *Current Psychology of Cognition*, 22, 181–201.
- Gelfand, M. J., Major, V. S., Raver, J. L., Nishii, L. H., & O'Brien, K. (2006). Negotiating relationally: The dynamics of the relational self in negotiations. *Academy of Management Review*, 31, 427–451.
- Gerhart, B., & Rynes, S. (1991). Determinants and consequences of salary negotiations by male and female MBA graduates. *Journal of Applied Psychology*, 76, 256–262.

- Greenwald, A. G., Banaji, M. R., Rudman, L. A., Farnham, S. D., Nosek, B. A., & Mellott, D. S. (2002). A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review*, 109, 3–15.
- Heckert, T. M., Droste, H. E., Adams, P. J., Griffin, C. M., Roberts, L. L., Mueller, M. A., et al. (2002). Gender differences in anticipated salary: Role of salary estimates for others, job characteristics, career paths, and job inputs. *Sex Roles*, 47, 139–151.
- Hogg, M. A. (2006). Social identity theory. In P. J. Burke (Ed.), *Contemporary social psychological theories* (pp. 111–136). Stanford, CA: Stanford University Press.
- Jackson, L., Gardner, P., & Sullivan, L. (1992). Explaining gender differences in self-pay expectations: Social comparison standards and perceptions of self-pay. *Journal of Applied Psychology*, 77, 651–663.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluation traits—self-esteem, general self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance. *Journal of Applied Psychology*, 86, 80–92.
- Kammeyer-Mueller, J. D., Judge, T. A., & Piccolo, R. F. (2007). Self-esteem and extrinsic career success: Test of a dynamic model. *Applied Psychology: An International Review*, 57, 204–224.
- Kao, G. (2000). Group images and possible selves among adolescents: Linking stereotypes to expectations by race and ethnicity. *Sociological Forum*, 15, 407–430.
- Kim, S., Mone, M. A., & Kim, S. (2008). Relationships among self-efficacy, pay-for-performance perceptions, and pay satisfaction: A Korean examination. *Human Performance*, 21, 158–179.
- Kirsch, I. (1999). *How expectancies shape experience*. Washington, DC: American Psychological Association.
- Kivetz, Y., & Tyler, T. R. (2007). Tomorrow I'll be me: The effect of time perspective on the activation of idealistic versus pragmatic selves. *Organizational Behavior and Human Decision Processes*, 102, 193–211.
- Kling, K. C., Hyde, J. S., Showers, C. J., & Buswell, B. N. (1999). Gender differences in self-esteem: A meta-analysis. *Psychological Bulletin*, 125, 470–500.
- Lee, C., & Farh, J. (2004). Joint effects of group efficacy and gender diversity on group cohesion and performance. *Applied Psychology: An International Review*, 53, 136–154.
- Locke, E. A., McClelland, K., & Knight, D. (1996). Self-esteem and work. *International Review of Industrial and Organizational Psychology*, 11, 1–32.
- Major, B., & Konar, E. (1984). An investigation of sex differences in pay expectations and their possible causes. *Academy of Management Journal*, 27, 777–792.
- McFarlin, D. B. (1985). Persistence in the face of failure: The impact of self-esteem and contingency information. *Personality and Social Psychology Bulletin*, 11, 153–163.
- Meyers, M. K., & Gornick, J. C. (2001). Gendering welfare state variation: Income transfers, employment supports and family poverty. In N. Hirschmann & U. Liebert (Eds.), *Women and welfare: Theory and practice in the United States and Europe* (pp. 215–243). New Brunswick, NJ: Rutgers University Press.
- O'Shea, P. G., & Bush, D. F. (2002). Negotiation for starting salary: Antecedents and outcomes among recent college graduates. *Journal of Business and Psychology*, 16, 365–382.
- Owens, T. J. (2003). Self and identity. In J. Delamater (Ed.), *Handbook of social psychology* (pp. 205–232). New York: Kluwer Academic/Plenum.
- Pedhazur, E. J., & Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach*. Hillsdale, NJ: Erlbaum.
- Pelham, B. W., & Hetts, J. J. (2001). Underworked and overpaid: Elevated entitlement in men's self-pay. *Journal of Experimental Social Psychology*, 37, 93–103.
- Prati, G., Pietrantonio, L., & Cicognani, E. (2009). Self-efficacy moderates the relationship between stress appraisal and quality of life among rescue workers. *Anxiety, Stress & Coping*, 23, 1–8.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimated indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36, 717–731.
- Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review*, 60, 141–156.
- Rustemeyer, R. (2001). Interrelations among gender-role conflict, typicality of occupations, and self-esteem. *Psychological Reports*, 89, 489–494.
- Salmela-Aro, K., & Nurmi, J. (2007). Self-esteem during university studies predicts career characteristics 10 years later. *Journal of Vocational Behavior*, 70, 463–477.
- Scott, K. I., Shaw, J. D., & Duffy, M. K. (2008). Merit pay raises and organization-based self-esteem. *Journal of Organizational Behavior*, 29, 967–980.
- Sedikides, C., & Brewer, M. B. (2001). *Individual, self, relational self, collective self*. New York: Psychology Press.
- Sherer, M., Maddux, J. E., Mercadante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and validation. *Psychological Reports*, 51, 663–671.
- Sinclair, S., & Lun, J. (2006). Significant other representations activate stereotypic self-views among women. *Self and Identity*, 5, 196–207.
- Stevens, C. K., Bavetta, A. G., & Gist, M. E. (1993). Gender differences in the acquisition of salary negotiation skills: The role of goals, self-efficacy, and perceived control. *Journal of Applied Psychology*, 78, 723–735.
- Swann, W. B., Chang-Schneider, C., & McClarty, K. L. (2007). Do people's self-views matter? Self-concept and self-esteem in everyday life. *American Psychologist*, 62, 84–94.
- U.S. Bureau of Labor Statistics. (2009a). *Economic news release: Median usual weekly earnings of full-time wage and salary workers by age, race, Hispanic or Latino ethnicity, and sex, third quarter 2009, not seasonally adjusted*. Retrieved January 18, 2010, from http://www.bls.gov/news.release/archives/wkyeng_10162009.htm
- U.S. Bureau of Labor Statistics. (2009b). *Economic news release: Median usual weekly earnings of full-time wage and salary workers by occupation and sex, quarterly averages, not seasonally adjusted*. Retrieved January 18, 2010, from <http://www.bls.gov/news.release/wkyeng.t03.htm>
- U.S. Bureau of Labor Statistics. (2010). *Economic news release: Employment situation summary*. Retrieved January 18,

- 2010, from <http://www.bls.gov/news.release/empsit.nr0.htm>
- U.S. Census Bureau. (2005). *Poverty in the United States: A snapshot*. Retrieved January 14, 2009, from <http://www.ncej.org/poverty-in-the-us.php>
- U.S. Department of Labor. (2005). *Women in the workforce: A databook*. Retrieved June 21, 2006, from <http://www.bls.gov/cps/wlf-databook2005.htm>
- U.S. Department of Labor. (2008). *Number of jobs held, labor market activity, and earnings growth among the youngest baby boomers: Results from a longitudinal survey*. Retrieved October 28, 2008, from <http://www.bls.gov/news.release/pdf/nlsoy.pdf>
- U.S. Department of Labor. (2009a). *National longitudinal surveys: Frequently asked questions*. Retrieved December 9, 2009, from <http://www.bls.gov/nls/nlsfaqs.htm#anch41>
- U.S. Department of Labor. (2009b). *Women and retirement savings*. Retrieved December 9, 2009, from <http://www.dol.gov/ebsa/Publications/women.html>
- Van Yperen, N. W., & Snijders, T. A. B. (2000). A multilevel analysis of the demands-control model: Is stress at work determined by factors at the group level or the individual level? *Journal of Occupational Health Psychology*, 5, 182–190.
- Watt, H. M. G., & Eccles, J. S. (Eds.). (2009). *Why so few women? Explaining gendered occupational outcomes in science, technological, engineering, and mathematics fields*. Washington, DC: American Psychological Association.
- White, M. J., & White, G. B. (2006). Implicit and explicit occupational gender stereotypes. *Sex Roles*, 55, 259–266.
- Wiesenfeld, B. M., Swann, W. B., Brockner, J., & Bartel, C. A. (2007). Is more fairness always preferred: Self-esteem moderates reactions to procedural justice. *Academy of Management Journal*, 50, 1235–1253.
- Xie, J. L., Roy, J., & Chen, Z. (2006). Cultural and individual differences in self-rating behavior: An extension and refinement of the cultural relativity hypothesis. *Journal of Organizational Behavior*, 27, 341–364.