# Marriage, Children, and Aging Parents: the Role of Family-Related Factors in Faculty Job Satifsfaction 

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#### Abstract

Due to changes in the academic market, faculty job satisfaction is especially critical. Using a multi-step framework, this study explores the role of family and stress related "pull factors" on a measure of overall job satisfaction for a large nationally representative sample of college and university faculty members. These "pull factors" include, but are not limited to, care for a child, spouse or elder, as well as other responsibilities and duties not directly related to one's academic career.


Attracting and retaining good faculty is critical in maintaining institutional quality and strength (Howard, Snyder, \& McLaughlin, 1992)
$\mathbf{W}_{\text {ithin both the business organization and }}$ higher education literature, job satisfaction is a highly studied concept (Agho, 1993). There is little doubt that job satisfaction is linked with many important outcomes for postsecondary faculty including recruitment, turnover, morale, scholarly productivity, promotion, and tenure (Barnes, Agago, \& Coombs, 1998; Caldwell \& O'Reilly, 1990; Hagedorn, 1996; Olsen, 1993; Olsen, Maple, \& Stage, 1995; Rausch, Ortiz, Douthitt, \& Reed, 1989). In light of its outcomes as well as recent predictions of future faculty shortages, the importance of job satisfaction of college faculty is especially critical (WICHE, 1992; Barnes, Agago, \& Coombs, 1998). Moreover, as the American work
force continues to include more women and people of color, postsecondary institutions should strive to create faculties that will better relate to and reflect the gender and ethnic distribution of students (Olsen et al., 1995). Along with this directive comes the responsibility of maintaining appropriate satisfaction levels among the new ranks of students and faculty. However, the comparably slim financial rewards, high stress environment, and the extensive involvement of academic careers complicate the task of producing and maintaining adequate levels of job satisfaction for faculty as well as attracting qualified, young prospective academics (Clague, 1992; Morgan, 1996; Strober \& Others, 1993; Teevan \& Others, 1992).

Despite its importance there remains an aspect of job satisfaction that has not been sufficiently studied - namely the role, extent, and influence of external and family-related "pull factors" such as mar-
riage, children, and aging parents. The term "pull factors" has previously been used in the literature to describe group activities, responsibilities, and situations that detract students from an academic focus. With respect to faculty, we apply the term "pull factors" to those activities that may interfere or be in direct conflict with an academic career.

It is interesting that older, previous research framed family-related variables as positive or enhancers of job satisfaction. For example, in a review of the literature prior to 1972, Astin and Bayer (1972) reported that marriage and a large family were positively related to higher salaries despite controls for degree, field, productivity, and work activities. Of course, studies at that time were conducted with samples that reflected the high majority of males in academe. But in light of the changing gender and ethnic distributions, the increases of women with young children in the workforce, and increases in life-expectancy coupled with turmoil in the health-care industry, it appears that workers (including faculty) may face increasing levels of family-related stress that may create more than trivial obstacles to success and job satisfaction.

We explore the role of family and stress related "pull factors" on a measure of overall job satisfaction for a large nationally representative sample of college and university faculty members. The model is useful in the design of appropriate faculty development specifically for female faculty. The research design is such that the sample is observed, tested, and partitioned in an effort to better understand female faculty members. We chose to concentrate (but not limit) our efforts on women because we know that despite many positive changes in societal norms, on average, women continue to carry a larger portion of daily family responsibilities (Hensel, 1991; Hunter, 1999; Rausch, Ortiz, Douthitt, \& Reed, 1989). We hypothesize that the disproportionate weight of "pull factors" create a person-environment-fit problem that creates higher levels of stress which in turn create obstacles to women's overall job satisfaction.

## Number and Role of Women

Despite past affirmative action efforts as well as sincere institutional concerns for equity, the num-
ber of female faculty remains low (Blackburn \& Lawrence, 1995; Rausch, et. al., 1989). According to the latest data from the National Center of Educational Statistics, only thirty-five percent of the nation's tenured/tenure-track faculty are female (National Center for Education Statistics, 2002). However, since trends charted for the last fifty years indicate that the number of female doctoral degree recipients and subsequently women entering academe has steadily and consistently increased, it appears likely that the proportion of academic women will increase (Gunderson, 1989; National Center for Educational Statistics, 1997; Dwyer, Flynn, \& Inman, 1991). Reflective of patterns of general female employment, it follows that the number of female faculty with family responsibilities including dependent children will also rise.

Although women continue to perform the lion's share of the domestic household duties including care of children and/or elders, it is important to acknowledge that men are also impacted by family-related responsibilities. Hughes and Galinsky (1988) reported working fathers experienced higher levels of stress than did men without children. Regardless of gender approximately one-half of the U. S. labor force reports responsibilities for dependent children or elderly adults (Galinsky, Bond, \& Friedman, 1993) and forty percent of employees cite problems in balancing work and family (Raabe, 1996). Thus, a large proportion of workers regardless of gender or job position may experience the effects of family-related "pull factors".

The family-related "pull factor" that has received the least amount of attention is the care of elderly parents or other relatives. National statistics on how many faculty are responsible for the care of elderly family members is not routinely collected or available but we do know that the need for elder care is growing rapidly (Herndon, 1995). It is estimated that twenty-five million Americans provide care for family members who are unable to care for themselves (About Women and Marketing, 1998). Moreover, the growth of the proportion of the population over the age of sixty-five years has greatly exceeded that of the country in general (Hobbs, 1999; U. S. Census Bureau, 2003). Further, since the likelihood of chronic illness, disability, and dependency increases with age, it is likely that increasing numbers
of workers, including proportional numbers of college faculty, will experience stress from the care and/ or concern for elderly parents and relatives.

## The Role of Stress

Most researchers have included measures of stress in their models of job satisfaction as a detractor or negative predictor (Brooke, Russell, \& Price, 1988; Hagedorn, 1996; House, 1981; Tack \& Patitu, 1992). Faculty lead stress-filled lives. Contrary to popular opinion, faculty work long hours (Gappa \& McDermid, 1997). Bailyn (1993) reported that faculty work on average 60 hours per week while a significant minority (ten percent) work much longer. The balancing of teaching, nurturing students, committee and other service work, as well as an active research agenda for many faculty add up to long workdays and work-filled weekends. In addition, junior faculty must struggle with the stressful journey to tenure, often concurrent with the most intense years of child-care.

There is little doubt that the tenure process brings about stress. And, according to the research, the road to tenure may be even more stressful for women (Gmelch, 1993). The additional stresses on women may account for their higher levels of attrition among faculty. For example, one study of tenure track faculty between 1977 and 1980 found that fortyseven percent of the women and thirty-eight percent of the men left the institution prior to the tenure decision date (Rausch et. al., 1989). Blackburn and Wylie (1985) similarly found tenure-track women leaving academe at a higher rate than their male counterparts. Further, women may experience the tenure track stress for longer periods of time because they tend to be tenured more slowly than men.

Further complicating the nature of stress is its ambiguity and generality in form and definition. Broad descriptions of stress are consistent with accepted definitions, including what Bebbington (1973) describes as "a general response of a system undergoing strain which is source-specific" (p. 9). Most studies of job satisfaction of college faculty operationalize stress as a composite measure including perceptions of time crunches, personal upheaval, and job-related issues. But sweeping generalities may
mask important distinctions such as the effect of daily life conflicts (i. e., family, marital, financial, etc.) which have been found to be more stressful than major life events (DeLongis, et. al., 1982; Gmelch, Lovrich, \& Wilke, 1984; Gmelch, 1993). Thus, to add to our understanding of faculty stress and subsequently job satisfaction, it may be necessary to study the effects of family-related stressors apart from those that are strictly job-related.

When the literature focuses specifically on stress experienced by college faculty; there is little agreement on the types of stress that interacts with faculty job satisfaction. As a result of their study of more than one thousand faculty from eighty Ph.D. granting institutions, Gmelch, Wilke, and Lovrich (1986) posit a five-factor stress model. They suggest the dimensions of faculty stress are 1) reward and recognition (e.g., disparity between faculty and administration over the activities and accomplishments of value), 2) time constraints, 3) departmental pressure and demands, 4) professional identity, and 5) student interaction. In their monograph on faculty job satisfaction specifically among women and minorities, Tack and Patitu (1992) cite seven internal stressors threatening job satisfaction; 1) pressures resulting from teaching and research, 2) colleague and institutional reputation, 3) student quality, 4) student interaction, 5) autonomy and responsibility, 6) perceived disparity between achievement and recognition, and 7) issues related to promotion and professional growth. Although these models do not specifically include family-related stress, we suspect that it may be reflected in the role of time constraints and other pressures.

## Conceptual Framework

We derived our theory from Blackburn and Bentley (1993) who identified two types of moderating variables in determining fit - personal and environmental. Blackburn and Bentley hypothesized that stress results "from a poor fit between a person's motivations, abilities, or values and the corresponding opportunities, demands, or constraints of the workplace" (Blackburn \& Bentley, 1993, p. 726). We posit that the combination of home-related and work-related stresses may be especially debilitating for col-

Table 1. Description of Variables

| Block | Variable | Description |
| :---: | :---: | :---: |
| Dependent Variable | Overall satisfaction | 10 item scale; alpha coefficient of.8931; measuring overall faculty satisfaction including satisfaction with teaching load, working conditions, opportunities, quality ofstudents, course assignments, benefits, autonomy, and relationships with administration. |
| Block 1. <br> Demographics | Race | Three dummy variables indicating race of faculty member (African American, Asian, and Hispanic); coded $2=$ yes; $1=$ no. Note: the exclusion of a specific variable indicating non-minority or Caucasian indicates all comparisons are made to this group. |
|  | Age | Faculty age at the time ofthe survey |
|  | Gender | 1= male; 2=female |
| Block 2. <br> Institutional/ <br> Professional | Control | Equals 2 ifthe institution is public; else equals 1. |
|  | University or college | Equals 2 ifthe institution is a university; ifa college equals 1 |
|  | Academic rank | Rank of faculty member 1=professor 2-Associate Professor; 3=assistant professor; 4=instructor or lecturer. |
|  | Faculty Salary | Natural log of annual faculty salary. The natural log of salary was used because raw salary was highly skewed. |
|  | Tenure | Tenure status of faculty member coded 1=untenured; 2=tenured |
|  | Hard/soft | Discipline classification of faculty member coded 2 ifdiscipline fits Biglan's definition ofhard; else $=1$. |
|  | Pure/applied | Discipline classification of faculty member coded 2 ifdiscipline fits Biglan's definition ofpure; else $=1$. |
|  | Research orientation | 7-item scale, alpha coefficient of 8152 , indicating the faculty member's research productivity, time spent in research, and preference for researchrelated activities. |
|  | Desire for recognition | Desire to become an authority in the field and to earn recognition from colleagues |
| Block 2. <br> Institutional/ <br> Professional <br> (Continued) | Institutional emphasis on resources and reputation | 2 itemscale, alpha=.6342., measuring faculty members' perceptions oftheir institution's focus on resources and enhanced institutional reputation. |
|  | Student personal development | 8 item scale,alpha $=.8830$, measuring faculty commitment to developing students on both a personal and emotional levels. |
| Block 3 | Women's study | 2 ifever taught a women's study class; else $=1$. |
|  | Research on women | 2 ifever performed research/writing on women; else $=1$. |
|  | Sexually harassed | 2 ifever sexually harassed at institution; else $=1$. |
|  | Female faculty treatment | Women faculty treated fairly ( $=$ strongly disagree to 4= strongly agree) |
| Block 4 <br> "Pull factors" and Stressors | Dependent child | 2 if faculty member reported one or more dependent children; else equals 1. |
|  | Academic spouse/partner | 2 ifspouse or partner is also an academic; else equals 1 |
|  | Spouse/partner work location | 2 ifspouse or partner works in the same city; else equals 1 |
|  | Career interruption | 2 ifever interrupted career for reasons ofhealth or family; else equals 1. |
|  | Home related Stress | 3 item scale, alpha $=.7358$, (stress resulting from childcare, children's problems, and managing household responsibilities). |
|  | Stress- care of elderly parent | Extent ofstress from the care ofelderly parent (1=not at all to 3= extensive) |
|  | Stress - personal finances | Extent ofstress frompersonal finances (1=not at all to 3=extensive) |
|  | Stress - marital friction | Extent ofstress frommarital friction (1=not at all to 3= extensive) |
|  | Job related stress | 10 itemscale, alpha $=.7347$, indicating the extent ofstress related to professorial job components. |
|  | Marital status | 2 if faculty member reported being married, else equals 1. |

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lege faculty because of the intense nature, intellectual depth, and clear focus required by the academic career. This hypothesis is supported by McMillen (1987) who characterized universities as "stress factories".

Further, female faculty may be less likely to experience adequate person-environment-fit because the history and roots of the academic profession are strongly influenced by the male image. In the words of Hensel:

The structure of university professorships reflects the male dominance of not only the university but also society at large. Professorships were originally designed for men who had wives at home not only to care for home and children but also to provide support for the man's career. Professors work more hours than nearly every other profession, take the most work home, and in the past were the least likely to spend time with their children or assist their wives with housework. This is the legacy inherited by women professors (Hensel, 1991, p. 69).

The research questions driving our inquiries were:

1. Do marriage, children, aging parents, and other family-related "pull-factors" detract from faculty job satisfaction? and
2. Is the nature of "pull factors" dependent on gender or tenure status? We posit that suggestions for faculty development may be derived from the results of these analyses.

## Methodology

Sample. The data used in this study are drawn from the 1995-1996 Higher Education Research Institute (HERI) Faculty Survey, a national survey of college and university faculty. A four-page survey instrument was distributed to 143,816 faculty at 446 higher education institutions in the fall of 1995. After a second wave follow-up to non-respondents, responses were received from 59,933 faculty, constituting a forty-two percent response rate. The analytical sample used in this study consists of the responses of 31,080 full-time college and university teaching faculty at 330 four-year colleges and universities across the country ( 10,687 women and 20,393 men).

Variables. The dependent variable is a scale
measuring overall job satisfaction derived from 10 items (Alpha coefficient of .8931) consistent with Astin's faculty morale factor (Astin, 1993). The model is composed of four blocks of variables: demographics, institutional/professional, gender related and "pull-factors". To control for disciplinary differences, two dichotomous variables (hard/soft and pure/applied), were constructed based on the Biglan classification system (Biglan, 1973a, 1973b; Malaney, 1986. See Table 1 for a complete list and description of the items and scales (including reliability coefficients) composing each block.

Initial analyses. We first checked for homogeneity of proportions by gender in two ways. For dichotomous variables we used a contingency table analysis ( $<2$ ) to evaluate whether men and women were statistically different across the variables of interest (see Green, Salkind, \& Akey, 1997). We used the chi-square test as the test for significance and computed the phi statistic () for a measurement of the effect size. For continuous variables, the test of significant differences between males and females was the one-way analysis of variance (ANOVA).

Analyses. After the reliability of each of the constructs was verified (check of Cronbach's Alpha), and the regression equation defined, we regressed our measure of overall job satisfaction on the four blocks of variables. Initially, we included the full usable sample ( $\mathrm{n}=26,340$ ) of faculty. After finding a significant interaction by gender (Fchange $=6.637 ; p<.0001$ ) we divided the sample into men ( $\mathrm{n}=17,371$ ) and women ( $\mathrm{n}=8,968$ ) and obtained separate outputs. Finding a significant interaction in the female sample by tenure/non-tenure status (Fchange $=1.702 ; \mathrm{p}<.05$ ) we divided the female sample into tenured $(\mathrm{n}=3,840)$ and nontenured ( $\mathrm{n}=5,157$ ) faculty. We proceeded to test both the tenured and untenured female samples for interactions by age (under and over 45 years of age), marital status (single and married), and having a dependent child. Since these tests for interactions with both the tenured and the untenured samples were not significant, we did not subdivide the sample further. The process of dissecting the sample into men, women, nontenured women and tenured women provided a clearer picture of the constituents of overall job satisfaction for postsecondary faculty.

Final analyses consisted of comparing the standardized regression weights (Beta weights) within
each equation to ascertain the most important components for job satisfaction within each sample. For example, a ranking of the Beta weights within the equation for men reveals the relative importance of each of the independent variables for the male sample. Secondly, to look at relative differences between samples, we compared the unstandardized regression weights (b-weights). In this case, the analysis consisted of comparing the $b$-weights of a specific independent variable for men, untenured, and tenured women.

## Results and Conclusions

## Male/female differences

The results of the contingency table analyses revealed that women were statistically more likely to; be African-American or Hispanic, have taught a
women's studies course, report sexual harassment, in soft disciplines, or have interrupted their careers for health or family reasons. On the other hand, men were more likely to be; Asian, employed in a university (rather than a college), tenured, a parent of a dependent child, married, and employed in the same city as a spouse or partner. The most salient difference was that whereas only four percent of the men reported interrupting their career for health or family reasons, about one-fourth of the women reported such interruptions.

The one-way ANOVA indicated that on average men reported significantly higher levels of overall satisfaction, were older, higher in rank, earned higher salaries, had stronger research orientations, were more likely to report positive treatment of female faculty, and reported higher levels of marital stress. Women reported higher levels of both job-related and home-related stress, as well as higher lev-

Table 2. Tests of Significance Between Male and Female Faculty
2a. Results of Contingency Table Analysis $\left(\div^{2}\right)$-Dichotomous Variables ${ }^{\text {a }}$

| Variable | \% within <br> Males | \% within <br> females | Pearson <br> Chi <br> Square | Phi | Approx. <br> Sig. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| White | $91 \%$ | $92 \%$ | 0.302 | .003 | .583 ns |
| African-American | $2 \%$ | $3 \%$ | 37.333 | .034 | .000 |
| Asian | $4 \%$ | $3 \%$ | 8.615 | .017 | .003 |
| Hispanic | $2 \%$ | $3 \%$ | 17.932 | .024 | .000 |
| Control (Public) | $54 \%$ | $54 \%$ | 0.136 | .002 | .712 |
| University | $35 \%$ | $31 \%$ | 65.228 | .048 | .000 |
| Tenured | $72 \%$ | $28 \%$ | 953.841 | .174 | .000 |
| Hard | $35 \%$ | $19 \%$ | 776.945 | .163 | .000 |
| Pure | $50 \%$ | $42 \%$ | 129.964 | .067 | .000 |
| Dependent child | $41 \%$ | $35 \%$ | 143.567 | .067 | .000 |
| Married | $86 \%$ | $69 \%$ | 1295.404 | .203 | .000 |
| Taught women's <br> studies course | $2 \%$ | $17 \%$ | 2094.935 | .257 | .000 |
| Research/writing on <br> women | $17 \%$ | $41 \%$ | 2215.910 | .265 | .000 |
| Sexually harassed | $3 \%$ | $11 \%$ | 1007.605 | .179 | .000 |
| Spouse/partner an <br> academic | $29 \%$ | $30 \%$ | 1.511 | .007 | .219 |
| Spouse/partner <br> works in same city | $53 \%$ | $41 \%$ | 405.689 | .113 | .000 |
| Interrupted career for <br> health/family | $4 \%$ | $25 \%$ | 2951.588 | .306 | .000 |

${ }^{\text {a }}$ All percentages refer to those responding in the affirmative. For example in the variable, public, $53.9 \%$ of the men reported employment in a public (rather than a private) university.
els of stress from the care of elderly parents and personal finances. On average, women were also more concerned with personal development of students.

## Job Satisfaction Equations

Table 3 provides the block-by-block incremental R2 change for each of the tested samples. Every block in each of the samples explained a significant proportion of the variance of job satisfaction ( $\mathrm{p}<.001$ ). Although the block of variables termed "gender-related" was significant for the male sample, it explained more than three times the amount of variance in job satisfaction for women. Also noteworthy is the significant proportion of variance explained by the "pull factors" for all groups. For the five samples tested the collective sum of independent variables explained between twenty-eight percent and thirty-
two percent of the variance in overall faculty job satisfaction.

Table 4 provides both the standardized (i) and unstandardized (b) regression weights for all independent variables for each tested sample. In the demographics block, age is a relatively strong negative predictor for all groups indicating that younger faculty tend to be more satisfied. Being Asian was also a negative predictor of job satisfaction for all groups while being African American was negative only for nontenured women.

Within the institutional/professional block, strong significant predictors of satisfaction for all include higher salary, institutional emphasis on resources and reputation, and commitment to students' personal development. Although employment at a university (rather than a college) was significant for

## 2b. Results of One-Way Anova (f-test)—Continuous Variables

| Variable | $\begin{gathered} \hline \text { Male mean } \\ \text { (S. D.) } \\ \hline \end{gathered}$ | Female Mean (S. D.) | F |
| :---: | :---: | :---: | :---: |
| Overall satisfaction | $\begin{aligned} & \hline 3.754 \\ & (.5586) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 3.7157 \\ & (.5461) \\ & \hline \end{aligned}$ | $33.851^{* * *}$ |
| Age | $\begin{aligned} & 49.870 \\ & (9.978) \end{aligned}$ | $\begin{aligned} & 46.695 \\ & (9.324) \end{aligned}$ | 765.750 *** |
| Academic rank | $\begin{aligned} & 1.93 \\ & (.97) \end{aligned}$ | $\begin{aligned} & 2.53 \\ & (.97) \\ & \hline \end{aligned}$ | $2788.669^{* * *}$ |
| Salary (natural log) | $\begin{aligned} & \hline 3.874 \\ & (.3295) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 3.678 \\ & (.2967) \\ & \hline \end{aligned}$ | $2677.879^{* * *}$ |
| Research orientation | $\begin{aligned} & .07366 \\ & (.7044) \\ & \hline \end{aligned}$ | $\begin{aligned} & .1323 \\ & (.6270) \\ & \hline \end{aligned}$ | $660.177^{* * *}$ |
| Job-related stress | $\begin{aligned} & 1.755 \\ & (.3696) \end{aligned}$ | $\begin{aligned} & \hline 1.914 \\ & (.3602) \\ & \hline \end{aligned}$ | 1336.178*** |
| Institutional emphasis on resources and reputation | $\begin{aligned} & \hline 2.322 \\ & (.7996) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2.344 \\ & (.8250) \\ & \hline \end{aligned}$ | 5.088* |
| Student personal development | $\begin{aligned} & \hline 2.397 \\ & (.6265) \end{aligned}$ | $\begin{aligned} & 2.590 \\ & (.6197) \\ & \hline \end{aligned}$ | $674.061^{* * *}$ |
| Female faculty treatment | $\begin{aligned} & 3.36 \\ & (.70) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2.91 \\ & (.86) \\ & \hline \end{aligned}$ | 2418.504*** |
| Home related stress | $\begin{aligned} & \hline 1.519 \\ & (.4829) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.6102 \\ & (.5375) \\ & \hline \end{aligned}$ | 233.539*** |
| Stress- care of elderly parent | $\begin{aligned} & 1.31 \\ & (.58) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.41 \\ & (.67) \\ & \hline \end{aligned}$ | 200.722*** |
| Stress- personal finances | $\begin{aligned} & 1.71 \\ & (.69) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.78 \\ & (.73) \\ & \hline \end{aligned}$ | 57.656*** |
| Stress- marital friction | $\begin{aligned} & 1.30 \\ & (.57) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.28 \\ & (.56) \\ & \hline \end{aligned}$ | 15.246*** |

all faculty, the standardized regression weight indicated that it was a much weaker predictor than the other variables previously mentioned. Significant only for men was employment in a private institution, soft and pure disciplines, higher rank, and lower scores on the research orientation scale. Finally, the desire for recognition was negative only for tenured women.

In the gender-related block, the perception that women are treated fairly at the institution was significant and positive for all samples. This variable had a very high standardized regression weight indicating its extreme importance in the satisfaction equation. Also significant for all groups is the negative effect of being sexually harassed at the institution. For men, having research focused on women was a positive predictor while teaching classes in women's studies was significant only for nontenured women.

In the last block, the "pull-factors", having dependent children was a significant negative predictor of satisfaction for all faculty. Financial and jobrelated stresses also were significant negative predictors of satisfaction for all groups. Evidenced by the values of the Beta-weights, the most important variable appears to be job-related stress. Interestingly, experiencing home-related stress was related to greater levels of job satisfaction for all groups. For men only, having a spouse in the same city was positive, while care of elderly parent or other relative was negative for nontenured women. Not-significant vari-
ables include marital status, an academic spouse, career interruptions for family or health purposes, and marital friction.

## Conclusions and Policy Implications

Despite the high levels of satisfaction reported by many faculty, family-related variables and stressors do make a difference, although not always as expected. While we generally found a consistent and negative relationship between stress producers and job satisfaction for both men and women, home-related stress emerged as a surprising positive predictor of satisfaction for all groups. This finding suggests that faculty are more satisfied with their jobs when they experience greater stress resulting from child care, children's problems, and managing household responsibilities. Although somewhat counterintuitive, this finding could actually reflect a greater appreciation of the merits of academic life among those faculty who have extensive responsibilities in the home.

The results from both the contingency tables and one-way analysis clearly present a picture of female faculty as more stressed, less satisfied, and more likely to interrupt their career for health or family reasons than male faculty. It is interesting to note that women reported higher levels of stress in all of our

Table 3. R $^{2}$ Change by Block for Each Sample

|  | $\mathrm{R}_{\text {change }}^{2}$ and test of $\mathrm{F}_{\text {change }}$ |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Total Sample | Divided by Gender |  |  |  | Women divided by tenure status

*** $\mathrm{p}<.001$ ** $\mathrm{p}<.01$
studied areas except marital friction. However, since the proportion of married males exceeded the proportion of married females, we felt the necessity to reevaluate the variable restricting the sample to only married faculty. We found that married women reported statistically higher levels of marital stress than
did married men ( $\mathrm{f}=7.453$; $\mathrm{p}<.01$ ) thus confirming the overall higher stress levels for women.

The standardized regression weights indicate that the strongest predictor of job satisfaction for all faculty is low levels of job-related stress. For women, tenured or not, the perception that women are treated

Table 4: Regression Weights of Independent Variables for All Samples

| Variables | Regression Weights - Unstandardized b-weights (standardized Beta weights) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Sample | Divided by Gender |  | Women divided by tenure status |  |
|  |  | Men | Women | Non-Tenured | Tenured |
| Constant | 2.818*** | 3.087*** | 2.909*** | 2.982*** | 2.828 *** |
| Block 1. Demographics |  |  |  |  |  |
| Race (Black) | $\begin{aligned} & \hline-.069 \\ & (-.018)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.041 \\ & (-.010) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.093 \\ & (-.028)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.123 \\ & (-.040)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.028 \\ & (-.007) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Race (Asian) | $\begin{aligned} & -.209 \\ & (-.068) * * * \end{aligned}$ | $\begin{aligned} & -.213 \\ & (-.071)^{* * *} \end{aligned}$ | $\begin{aligned} & \hline-.200 \\ & (-.063)^{* *} \end{aligned}$ | $\begin{aligned} & \hline-.191 \\ & (-.066)^{* * *} \end{aligned}$ | $\begin{aligned} & -.206 \\ & (-.056)^{* * *} \end{aligned}$ |
| Hispanic | $\begin{aligned} & .013 \\ & (.003) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .017 \\ & (.004) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .010 \\ & (.003) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .013 \\ & (.004) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & .007 \\ & (.002) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Age | $\begin{aligned} & -.058 \\ & (-.105)^{* * *} \end{aligned}$ | $\begin{aligned} & \hline-.006 \\ & (-.109)^{* * *} \end{aligned}$ | $\begin{aligned} & \hline .0057 \\ & (-.096)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & -.005 \\ & (-.075)^{* * *} \end{aligned}$ | $\begin{aligned} & -.007 \\ & (-.105)^{* * *} \end{aligned}$ |
| $\begin{aligned} & \hline \text { Gender } \\ & \text { Men(1) women (2) } \end{aligned}$ | $\begin{aligned} & .124 \\ & (.107)^{* * *} \\ & \hline \end{aligned}$ | N/A | N/A | N/A | N/A |
| Block 2. Institutional/Professional |  |  |  |  |  |
| $\begin{aligned} & \hline \text { Control } \\ & \text { Private (0) Public (1) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.054 \\ & (-.049) * * * \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.068 \\ & (-.061)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.025 \\ & (-.023)^{*} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.021 \\ & (-.0189) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.031 \\ & (-.028) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Institutional Type 4 year (0) University (1) | $\begin{aligned} & \hline .078 \\ & (.068)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .079 \\ & (.068)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .084 \\ & (.071)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .092 \\ & (.078)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & .080 \\ & (.068)^{* * *} \\ & \hline \end{aligned}$ |
| Rank 1 = full profto $4=$ instructor | $\begin{aligned} & .023 \\ & (.041) * * * \end{aligned}$ | $\begin{aligned} & \hline .029 \\ & (.048)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .014 \\ & (.024) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .005 \\ & (.007) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .024 \\ & (.028) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Salary (natural log) | $\begin{aligned} & \hline .373 \\ & (.224)^{* * *} \end{aligned}$ | $\begin{aligned} & \hline .387 \\ & (.228)^{* * *} \end{aligned}$ | $\begin{aligned} & .332 \\ & (.180)^{* * *} \end{aligned}$ | $\begin{aligned} & .307 \\ & (.148)^{* * *} \end{aligned}$ | $\begin{aligned} & \hline .363 \\ & (.175)^{* * *} \end{aligned}$ |
| Tenure status | $\begin{aligned} & \hline-.010 \\ & (-.009) \mathrm{ns} \end{aligned}$ | $\begin{aligned} & \hline-.015 \\ & (-.013) \mathrm{ns} \end{aligned}$ | $\begin{aligned} & \hline .004 \\ & (.003) \mathrm{ns} \end{aligned}$ | N/A | N/A |
| Research orientation | $\begin{aligned} & \hline-.016 \\ & (-.021)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.025 \\ & (-.031)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.002 \\ & (-.002) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .0154 \\ & (.016) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.018 \\ & (-.020) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Desire for Recognition | $\begin{aligned} & \hline-.006 \\ & (-.009) \mathrm{ns} \end{aligned}$ | $\begin{aligned} & \hline-.000 \\ & (-.001) \mathrm{ns} \end{aligned}$ | $\begin{aligned} & \hline-.013 \\ & (-.020)^{*} \end{aligned}$ | $\begin{aligned} & \hline-.005 \\ & (-.007) \mathrm{ns} \end{aligned}$ | $\begin{aligned} & \hline-.023 \\ & (-.037)^{*} \end{aligned}$ |
| Institutional emphasis on resources and reputation | $\begin{aligned} & .079 \\ & (.114)^{* * *} \end{aligned}$ | $\begin{aligned} & \hline .085 \\ & (.122)^{* * *} \end{aligned}$ | $\begin{aligned} & .068 \\ & (.102)^{* * *} \end{aligned}$ | $\begin{aligned} & .069 \\ & (.103)^{* * *} \end{aligned}$ | $\begin{aligned} & .068 \\ & (.104)^{* * *} \end{aligned}$ |
| Commitment to student personal development | $\begin{aligned} & .118 \\ & (.135)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & .116 \\ & (.131)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & .119 \\ & (.136)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & .113 \\ & (.127)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & .127 \\ & (.146)^{* * *} \\ & \hline \end{aligned}$ |
| $\begin{aligned} & \text { Discipline (Soft=0; } \\ & \text { Hard=1) } \end{aligned}$ | $\begin{aligned} & \hline-.020 \\ & (-.016)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.025 \\ & (-.021) * * \\ & \hline \end{aligned}$ | $\begin{aligned} & .005 \\ & (-.003) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .024 \\ & (.017) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & -.041 \\ & (-.027) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Discipline (Applied=0; Pure=1 | $\begin{aligned} & .035 \\ & (.031)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .046 \\ & (.041)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .012 \\ & (.011) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .003 \\ & (.003) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .027 \\ & (.025) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Block 3 - Gender Related |  |  |  |  |  |
| Taught a women's study course | $\begin{aligned} & \hline .036 \\ & (.018)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .053 \\ & (.015) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .039 \\ & (.028)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .057 \\ & (.038)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .022 \\ & (.017) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Research focused on women | $\begin{aligned} & .031 \\ & (.025)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .037 \\ & (.026)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .023 \\ & (.021) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .023 \\ & (.021) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .019 \\ & (.017) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Ever been sexually harassed at this institution | $\begin{aligned} & \hline-.149 \\ & (-.063)^{* * *} \end{aligned}$ | $\begin{aligned} & -.250 \\ & (-.072)^{* * *} \end{aligned}$ | $\begin{aligned} & -.072 \\ & (-.042)^{* * *} \end{aligned}$ | $\begin{aligned} & \hline-.051 \\ & (-.026)^{*} \end{aligned}$ | $\begin{aligned} & \hline-.085 \\ & (-.056)^{* * *} \end{aligned}$ |
| Women are treated fairly at institution | $\begin{aligned} & .144 \\ & (.207)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & .115 \\ & (.146)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & .195 \\ & (.307)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & .198 \\ & (.311)^{* * *} \end{aligned}$ | $\begin{aligned} & .192 \\ & (.303)^{* * *} \\ & \hline \end{aligned}$ |

Table 4 continues on page 20
fairly was about as important as job-related stress. Other variables looming important for all included salary and an institutional emphasis on resources and reputation. Thus, an environment perceived as positive and an appropriate reward structure are important to maintaining job satisfaction for all.

The analyses involving the "pull-factors" revealed some interesting differences among the tested samples. When comparing the significant unstandardized regression weights (b), of the "pull factors" we found the tenured women and men to be quite similar. However, the nontenured women were very different from either the male or tenured women sample. Among nontenured women, having a dependent child was a comparably larger detractor to job satisfaction than for either of the other two samples. Also, care of an elderly parent was a significant detractor for only this group. Coupled with the strong importance of job-related stress, our study provides additional evidence that nontenured women have multiple stresses, responsibilities, and situations that make job-satisfaction more complex and less likely.

Many policies can emanate from the present research. Primarily, administrators should appreciate the interaction of "pull-factors" and job satisfaction for all faculty. Men as well as women may have significant responsibilities or situations that make job
satisfaction tenuous. Therefore, liberal policies with respect to family-leave, provisions for on-campus child care or emotional or other support for elder care would be a positive step for many faculty regardless of gender. Finally, it appears that the stressful journey to tenure may be especially rocky for women. Juggling multiple responsibilities at home and on the job may be especially taxing for this group. Provisions to allow a break in the ticking of the tenure clock during early childbearing years may be a way for some untenured faculty to find relief and successfully achieve tenure. Support groups, assistance with finding appropriate child or elder care may also encourage positive outcomes during difficult times. Workers, including postsecondary faculty, do not abandon their family-related or other stressors when arriving on campus. It follows that acknowledgment and assistance with "pull factors" may be a very positive and important step in the maintenance of faculty job satisfaction that in turn may promote faculty retention, development, recruitment, scholarly productivity, promotion, tenure, and institutional quality.

This study identified stressors and other factors detracting from job satisfaction. Since job satisfaction leads to job retention, the importance of this topic is obvious (Hagedorn, 1996). Typically faculty development has been aimed at the improvement of

Table 4 (continued)

| Block 4: "Pull Factors" and other stressors |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dependent children | $\begin{aligned} & \hline-.051 \\ & (-.046)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.046 \\ & (-.041)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.060 \\ & (-.053)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.072 \\ & (-.064)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.047 \\ & (-.040)^{*} \\ & \hline \end{aligned}$ |
| Married (spouse or partner) | $\begin{aligned} & \hline .004 \\ & (.003) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .019 \\ & (.012) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.008 \\ & (-.007) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.015 \\ & (-.013) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.001 \\ & (-.001) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Spouse or partner is an academic | $\begin{aligned} & \hline .003 \\ & (.002) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .007 \\ & (.006) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.006 \\ & (-.005) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.027 \\ & (-.023) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .002 \\ & (.015) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Spouse/partner works in same city | $\begin{aligned} & .035 \\ & (.031)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .037 \\ & (.033)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & .028 \\ & (.025)^{*} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .034 \\ & (.031)^{*} \\ & \hline \end{aligned}$ | $\begin{aligned} & .016 \\ & (.015) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Career interrupted for family purposes | $\begin{aligned} & \hline-.012 \\ & (-.007) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.032 \\ & (-.013) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.0006 \\ & (-.000) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .001 \\ & (.001) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .001 \\ & (.001) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Home related stress | $\begin{aligned} & \hline .065 \\ & (.059)^{* * *} \end{aligned}$ | $\begin{aligned} & .062 \\ & (.054)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .074 \\ & (.073)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & .082 \\ & (.083)^{* * *} \end{aligned}$ | $\begin{aligned} & \hline .066 \\ & (.063)^{* *} \\ & \hline \end{aligned}$ |
| Stress from care of elderly parent | $\begin{aligned} & \hline-.013 \\ & (-.015)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.011 \\ & (-.012) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.016 \\ & (-.019)^{*} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.021 \\ & (-.025)^{*} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.012 \\ & (-.015) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Family financial stress | $\begin{aligned} & \hline-.067 \\ & (-.086) * * * \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.079 \\ & (-.098)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.048 \\ & (-.065)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.030 \\ & (-.040)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.076 \\ & (-.098)^{* * *} \\ & \hline \end{aligned}$ |
| Marital friction stress | $\begin{aligned} & \hline-.001 \\ & (-.002) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & .000 \\ & (.000) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & .0000 \\ & (0000) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .006 \\ & (.006) \mathrm{ns} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.010 \\ & (-.010) \mathrm{ns} \\ & \hline \end{aligned}$ |
| Job related stress | $\begin{aligned} & \hline-.534 \\ & (-.364) * * * \\ & \hline \end{aligned}$ | $\begin{aligned} & -.547 \\ & (-.365)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.495 \\ & (-.327)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.518 \\ & (-.348)^{* * *} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.474 \\ & (-.306)^{* * *} \\ & \hline \end{aligned}$ |

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scholarship or updating within the discipline. It should be acknowledged that faculty with significant family responsibilities are not able to participate in development efforts such as professional travel or tuition remission. The need for development initiatives to help faculty balance and blend personal and professional lives seems especially warranted.

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