Issues Causing Stress Among Business Faculty Members

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ABSTRACT

This study examines factors contributing to faculty stress. Factors including demographics, tenure, discipline, and teaching medium are all examined. Whereas once faculty members were inundated with learning new electronic technology (and the stress it created), many appear to have become somewhat comfortable with this change and have adapted to expectations of online teaching/learning. The latest trends in stress factors affecting higher education are more likely related to changes in the economic and political environment, workload expectations, preparation time and issues of interpersonal communication.

INTRODUCTION

It's never easy. This statement could not be truer than for the job of faculty members, who are often required to wear "many hats." The general population may think that faculty members are just teachers, but this is a serious misconception. In most institutions of higher education, faculty members are required to teach, conduct scholarly research, and provide service to the university and the community at large. Though expectations of these three requirements will vary, they create an interesting dynamic where faculty performance outcomes can be influenced by a considerable number of external (and uncontrollable) variables. This study examines several of the factors that lead to stress and burnout of faculty. Specifically, we examine the role of incorporating and "keeping pace with" electronic and online technology as a potential stressor (Kim, 2012).

LITERATURE REVIEW

According to a 1995 edited book by Murphy, Hurrell, Sauter, & Keita (1995), "job stress in the US workforce is on the increase. Among the causes are downsizing, reorganization, the pressures of global competition, and constantly changing new technology." The evidence continues to mount. For example, a Princeton research group's study revealed that "three-quarters of the employees surveyed believe there is more on-the-job stress than a generation ago" (Williams, 2013). A Canadian stress specialist, David Posen, identified three problems that have created extra stress in the workplace: workload volume, workload pace (technology's impact) and abuse (rude people and

game-playing) (Jayson, 2013; also see Bittman, 2008; Friedberg, 2003; and Johnson, 2006).

Electronic technology is one factor that has affected the work environment both positively and negatively, and this also applies to the academic work environment. Electronic technology helps us manage and organize our work environments and can save time and energy (Hopson, 2013). However, it produces additional stress as workers feel that they are expected to do more with less time, adapt to changes in technology without training, allocate precious work time to training sessions when offered, interact less with each other, and fear being replaced by the technology (Hurley, 2013; also see Schlenker and Mendelson, 2008). In fact, there's a term for this type of stress: technostress (Brod, 1984; Well & Rosen, 1998). For examples of research on technostress, see Ayyagari, Grover, & Purvis, 2011; Kupersmith, 2003; Tu, Wang, & Shu, 2005; B. Ragu-Nathan, T. Ragu-Nathan, Tu, & Tarafdar, 2004, Tarafdar, Tu, T. Ragu-Nathan, & B. Ragu-Nathan, 2011, and Rich, 2000. Professors in higher education can relate to these feelings as well.

Michie (2002) noted that the workplace offers both multiple sources of stress as well as resources that can reduce stress (p. 68). She identified the five sources of stress as being intrinsic to the job (e.g., work overload), role in the firm (e.g., role ambiguity), career development (e.g., lack of job security), work relationships, and structure/climate (e.g., financial difficulties) (Figure 1, p. 68). Workplace stress is also affecting family life. A Pew Research Center study recently found that "56% of working moms and 50% of working dads say they find it very or somewhat difficult to balance" work and family life (Parker & Wang, 2013; also see "More Women Online," 2007; "Setting Boundaries," 2003).

Some researchers have focused on workplace stress in the academic setting. King (2002) created a "laundry list" of factors that contribute to faculty stress. Researchers found that the lack of time was a major stress factor for MIT faculty (Snover, 2008). Four years later, another study revealed a feeling of faculty being overwhelmed by their workload, as they reported working an average of 63 hours in a typical work week (MIT Faculty Newsletter, 2012). Faculty at California State – Long Beach reported experiencing more stress with not enough workload time, conducting academic research, meeting with students and handling departmental politics (CSU, 2011).

McLean (2009) studied the perceptions of distance learning faculty using Gmelch's Faculty Stress Index (FSI) (Gmelch, Wilke, & Lovrich, 1986) and the Delphi technique. Scale items dealing with workload and student interaction were key stressors. Donovan (2012) used the FSI in a study of humanities and social science faculty mem-

bers at Kennesaw State in Georgia and found significant differences by gender and rank. A national study by the Higher Education Research Institute (Jaschik, 2012) reported that key stressors for faculty members were self-imposed expectations, lack of personal time, underprepared students, household responsibilities, institutional "red tape" and, for public schools, budget cuts (also see Berrett, 2012). Financial issues, both institutional and personal, have come under study of late (see, e.g., Abdul-Alim, 2012; Faculty Focus, 2012; Prisco, 2012; Ramirez, 2012).

METHODOLOGY

The questionnaire used by Schuldt and Totten (2008) was modified by the current authors for use in this study. The same 31 items from Gmelch's factor-analyzed Faculty Stress Index (FSI) (Gmelch, Wilke, & Lovrich, 1986; Gmelch, 1993) plus one item on serving as faculty advisor for a student organization, five health care items, and 12 technology 24/7 demand items and other questions from the original survey were kept. In addition, the 16-item Burnout Scale (Demerouti, Mostert, & Bakker, 2010) was added, and other demographic variables were modified as needed. Four questions about retirement were also added. The long survey was loaded onto Survey Monkey, an online survey software tool.

The target population was defined as business faculty in five disciplines from all business schools in the USA accredited by AACSB. Graduate students generated a list of AACSB schools from the AACSB website as well as from a list maintained by the University of Texas on its website. A total of 159 schools were identified for the target population. The grad students were instructed in writing by one of the authors to draw a random sample in the following manner: go to each school's website and identify its Accounting professors; count the number of professors; pick the fifth professor listed from the top (or the second, if less than five total professors); record name, discipline, school and e-mail address; repeat for Economics/Finance (sixth or third), Information Systems (fifth or second), Management (third), and Marketing (ninth or second) professors. The random numbers were chosen by using generators for numbers between one and ten and dice (one and six), found at www.randomnumbergenerator.com (2013). The estimated sample size was 795 (five times 159).

The grad students provided another author with two lists of professors around April 4th and 5th of this year. The professor sent out the survey link and introductory paragraph e-mail to the first list (batch) of 301 professors on April 4th. She sent the message and link out on April 5th to the second list/batch (256 professors). Thus the sample size was revised downward to 557 professors. Three potential respondents initially opted out. Forty

faculty members responded to the first e-mail wave. The author sent out a second wave to the two batches on April 10th. This generated another 32 responses. A third wave went out April 17th and generated 11 responses, for a total sample of 83 faculty. However, the length of the survey was a problem, creating many item omissions, and leaving under 60 useful responses. One major consequence of this was that the FSI items could not be subjected to factor analysis in order to be compared with Gmelch, Wilke and Lovrich's (1986) factors.

Another author analyzed the data set and created additional variables, including categorizing the waves and estimating how long each respondent spent on the questionnaire using the recorded time stamps, categorizing each respondent's state by e-mail address, and creating recoded variables for age, years of teaching and region (based on state). The following statistical analyses were conducted: frequencies, crosstabulations/chi square analysis, t-tests, ANOVA, and Kruskal-Wallis nonparametric tests. The focus of this paper is on the FSI portion of the questionnaire.

RESULTS

Respondent Profile

Respondents took an average of 8.65 minutes (S.D. = 11.86) to take our survey. Twenty-three spent three minutes or less on the survey, which was reflected in our item omissions. Seven took six minutes, six spent 10 minutes, and one spent 96 minutes on the instrument. Faculty were located primarily in New York (9), Pennsylvania (7), Texas (6), Florida (6) and Illinois (5). Given the small sample size, states were recoded into regions. Most of the respondents came from the Southern (34/83, 31%) and Midwest (24/83, 28.9%) regions of the USA. Over half (32/60, 53.3%) reported using a computer 6-10 hours during an average work day, and a similar percentage (31/59, 52.5%) reported using a computer 2-5 hours during a typical non-work day.

Most of the faculty members (48/56, 85.7%) were tenured or on tenure track. Almost three-quarters of those who responded were either full (23/57, 40.4%) or associate professors (19/57, 33.3%). Roughly a fourth of the members (14/57, 24.6%) were between the ages of 51 and 55, while 10 (17.5%) were between the ages of 56 and 60. The younger age categories were merged together for purposes of analysis, resulting in a size of 17 respondents (29.8%). Over 70% (40/56) have been teaching at least 16 years or more. The three lower categories were recoded into one (15 years or less) for purposes of analysis. Approximately 60% of those responding (34/57) were male and over 85% (47/55) were married.

Most of the faculty members had earned Ph.D. degrees (50/57, 87.7%). Management (13/53, 24.5%), Marketing (12/53, 22.6%) and Accounting (10/53, 18.9%) professors primarily made up the respondents. Thirty-one respondents (54.5%) do not teach online classes. Of the 26 who do, the most frequently reported formats were hybrid (20) and fully online (17; multiple responses allowed). Exactly half of those who answered the question (28/56) said they were more than 10 years away from retirement. Twelve (21.4%) said they were six to ten years away. Faculty members were asked about the impact of economic and political environments and personal/professional stress at work on their retirement decision. The most frequent response to all three was "has not changed my decision" (60.7%, 66.1% and 80.4%, respectively).

Crosstabulations and chi square analysis were conducted first on the demographic variables to see if any significant differences existed. Female faculty tended to be younger (ages 51 to 60) whereas males tended to be older (ages 61+) ($\chi2 = 13.287$, df = 4, p = .01, cell size problem = 50%). Respondents who were tenured or on tenure track tended to have been teaching for more than 10 years while those not on tenure track tended to have been teaching only a year or less ($\chi2 = 13.174$, df = 4, p = .01, cell size problem = 70%). Respondents from the Northeast region were closer to retirement (≤ three years) while those from the Midwest and Southern regions were further away (six or more years; $\chi2 = 20.902$, df = 12, p = .052, cell size problem = 85%). Finally, younger faculty members (30-50) tended to use computers six to ten hours during an average work day. Those between the ages of 51 and 55 and 61 and 65 tended to use computers over 10 hours during a typical work day ($\chi2 = 15.085$, df = 8, p = .058, cell size problem = 73.3%).

The three retirement impact questions were subjected to the Kruskal-Wallis nonparametric test along with the FSI items (next section) and significant differences emerged. Full professors were more likely to indicate that both the economic and the political environments have postponed their retirement decision (moved it farther away) as compared to instructors (economic, K-W p = .014) and associate professors (political, K=W p = .015). Faculty members who have been teaching 20 years or more were affected by the economic environment, indicating they've postponed their retirement decision (K-W p = .052), versus those with less than 16 years of teaching experience.

Overview of FSI Items & Significant Differences

For the FSI scale items, a score of "1" indicated "slight pressure" while a score of "5" indicated "excessive pressure." Respondents could also choose "Not Applicable." The average degree of pressure felt by respondents was low for two items: "Making class presentations" (mean = 1.5, SD = 0.96, n=52) and "Not having clear criteria for evalu-

ating research ..." (mean = 1.814, SD = 1.385, n=43). One item, "Feeling that I have too heavy a work load ...," had the highest rated degree of pressure (moderate, mean = 3.0714, SD = 1.548, n=56).

Two demographic variables were not used in statistical analyses due to the one-sided responses: marital status and highest degree earned, The 32 items were analyzed for the rest of the demographic variables using t-tests and ANOVA/Kruskal-Wallis as appropriate. Several significant findings are reported in the paragraphs that follow.

Looking first at those who teach online versus those who don't, six items were statistically significant. Those who teach online felt more pressure with regard to "Evaluating the performance of students" (means: 3.12 vs. 2.23; t = 2.772, df = 55, p = .008) and "Making presentations at professional conferences and meetings" (2.84 vs. 2.18; t = 1.852, df = 38.84, p = .072, equal variances not assumed). Online teachers also felt more pressure towards "Having inadequate time for teaching preparation" (2.8 vs. 2.15; t = 1.776, df = 50, p = .082), "Writing letters and memos, and responding to other paper work" (2.58 vs. 1.83; t = 2.361, df = 42.364, p = .023, equal variances not assumed), "Resolving differences with students" (2.67 vs. 1.83; t = 2.08, df = 33.466, p = .045, equal variances not assumed), and "Resolving differences with my chair" (2.5 vs. 1.75; t = 1.757, df = 40, p = .087).

Only two items were statistically significant by gender. Female faculty felt more pressure with regard to "Receiving inadequate university recognition for community service" (2.59 vs. 1.96; t = 1.761, df = 43, p = .085) and "Dealing with obligation to serve as faculty advisor to a student organization (2.6 vs. 1.71; t = 2.081, df = 34, p = .045). With regard to tenure status, only one item was significantly different: "Resolving differences with my chair" (3.5 vs. 1.83; t = -2.897, df = 39, p = .006). Those members who were not tenured or on tenure track felt more pressure with this item.

Analyses of variances (ANOVA) were used for the remaining demographic variables. Given the item omission problem, equivalent nonparametric tests in the form of Kruskal-Wallis Tests were used to confirm the ANOVA results. Professors who have been teaching 16 to 20 years felt the most pressure with regard to "Attending meetings which take up too much time" (means: 3.21 vs. 2.133 for ≤ 15 years of teaching; F = 3.19, p = .05; K-W p = .049). Information Systems faculty members felt the most pressure in terms of "Making class presentations" (2.8 vs. 1.0 (Economics) and 1.27 (Management); F = 3.054, p = .02, homogeneity of variance problem; K-W p = .082). Finally, assistant professors experience more pressure with "Preparing a manuscript for publication" (3.7 vs. 2.0 (Instruc-

tors) and 2.52 (full professors); F = 4.262, p = .009; K-W p = .011).

LIMITATIONS

There are several limitations that must first be acknowledged. The revised questionnaire (Burnout questions) was not pretested and it was a very long survey. We can see from the time stamps that a number of respondents gave up on the survey due, we assume, to its length. Perhaps it created too much stress in attempting to measure their stress! Item omissions certainly hurt the response rate and also prevented us from conducting factor analyses on the different scales used. We would need at least 150 responses for an applicable factor analysis (Pallant, 2005, p. 178). Multiple reminders were sent via e-mail and reminders were sent on different days of the week. At best we can make some general observations about our findings; however, the study lacks a sufficient sample size to make inferences about the total population of business faculty across the country.

CONCLUSION

This study highlights a few areas where faculty members encounter stress. Findings of this survey should be no surprise to those who have worked in and observed trends and changes in higher education. In summary, faculty are significant users of computer technology. Computer use is involved in a large portion of our work day. While the use of (and concerns about) online courses remains a topic of discussion throughout higher education, fewer than half of those responding acknowledged teaching in online courses. Of those who do teach online, many of the courses are taught in a hybrid format which leaves considerable variation from one class to another regarding the amount of "face-time" vs. the amount of "online time" spent in each course. In total, stress related to adapting to electronic technology seems to be declining over time.

Stress related to changes in economic and political environments shows that the more senior faculty (full professors closer to retirement) indicated that economic and political changes have postponed their retirement decision (moved it farther away) when compared to younger faculty. Particularly, faculty members who have been teaching 20 or more years report being affected by the economic environment, postponing their retirement decision.

For the Faculty Stress Index scale items, faculty indicate the least stress regarding class presentations and criteria for evaluating research. However, concerns of too heavy a workload generated the highest level of stress.

Comparing those who teach online versus those who don't, those who teach online felt more pressure regard-

ing evaluation of student performance and presenting at professional meetings. Online teachers also felt they have inadequate time for course preparation, communicating with others and resolving differences with students and department chairs. These findings create questions about the need for interpersonal communication to help us better deal with person-to-person stress that develops in a work environment.

In general, junior faculty tend to feel more stress regarding scholarly research (it is assumed they are aspiring for tenure) and senior faculty tend to feel more stress regarding political/economic changes and their time to retirement. All indicate some amount of stress regarding faculty workloads and what is likely an ever-changing environment in higher education. Most faculty seem well enough versed in the use of electronic technology and most appear to have adapted to expectations of using computers and online technology for course instruction. There are issues, however, in the ability to effectively communicate when we depart from face-to-face interpersonal communication. Departing from the "information rich" environment of face-to-face communication does increase stress for faculty, likely from an increase in uncertainly regarding communication effectiveness.

For Future Study

Future research can continue to examine specific stressors to gain knowledge of how universities and colleges can help alleviate some the factors that create work related stress. Already popular venues typically include training for new technologies as well as wellness programs to help deal with stress and avoid burnout. Future research should also focus on the impact of political/economic change as a source for faculty stress and alternatives for rich communication among faculty and between faculty and students in an otherwise electronic environment.

This study suffers from several weaknesses, the most important being a limited useful sample size. Part of this sampling problem may be due to the length of the instrument. Future research may attempt to use multiple samples each with a smaller and more focused measurement instrument. The authors plan on discussing findings from the remainder of the questionnaire in a future manuscript, dealing with health, budgets and technology demands as potential factors affecting burnout.

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