Oh, Won't You Stay?:
Predictors of Faculty Intent to Leave a Public Research University

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Abstract

Understanding and predicting faculty intent to leave is important to the development of improved conceptual frameworks of faculty success as well as the implementation of effective retention strategies for academic leaders and institutions that invest considerable resources in recruitment, institutional support, and compensation. This study examined the relationship between various research-based factors and faculty intent to leave by integrating components identified in the extant literature for employee turnover more generally and faculty intent to leave more specifically. The results of binary logistic regression models identified workplace stress, being in a "soft-pure" discipline, fewer years of service at the university, and higher research productivity as key predictors of faculty having considered leaving for another institution. Key predictors for faculty having considered leaving academe altogether were being in a "hard-applied" discipline, not having a spouse or partner, a perceived lack of support, a perceived lack of fit, stress of raising a family, and dissatisfaction with certain aspects of the "faculty job". The implications for research, policy, and practice are discussed.

Introduction

Studies that attempt to improve our understanding of and ability to explain various aspects of faculty work life in colleges and universities represent a critical segment of higher education research (Johnsrud, 2002). Job satisfaction (Hagedorn, 1996 and 2000), teaching and research productivity (Fairweather, 2002), the role of stress in faculty work life (Dey, 1994; Thompson & Dey, 1998), satisfaction of women and minority faculty (Olsa, Maple, & Stage, 1995), and pay equity (Toutkoushian & Conley, 2005). Higher education periodicals also reflect interest in equity and diversity among members of the academy, tenure and academic freedom, and the role and impact of non-tenure track faculty. In addition to scholarly popular interest in questions and issues associated with faculty work life, the extent and depth of our understanding of faculty members and their roles also has important consequences for the future of higher education. The quality, performance, and persistence of faculty members plays a central role in determining program quality and student learning and skill development (Umbach & Wawrzynski, 2005), and economic growth via effective teaching and innovations produced in basic and applied research. Coupled with the proportion of institutional operating and instructional budgets devoted to faculty compensation and support for instruction, research and public service (Delta Project on Postsecondary Costs, Productivity and Accountability, 2009) a more systematic examination of these issues represents a topic of scholarly inquiry with consequence in a time that requires difficult budgetary and academic program decisions.

Beyond issues within the immediate institutional environment in which faculty members work, various economic, social, and political changes also influence faculty members and institutions. Competition among college and universities - as well as industries outside of academe - to recruit and retain productive, high quality faculty members is particularly acute among "very

high research activity" institutions and has led to salary compression and salary inversion issues. More recently, the effects of a severe global economic downturn have affected public and private institutions in a variety of ways with confounding and uncertain effects on recruitment and enrollment, operating costs, endowments, and state support. These issues possess even greater importance at a time when future economic and social well-being in the United States depends on increasing the educational attainment and skills of the U.S. population as well as research-based innovation to improve productivity.

<div align="center">Theory and Literature</div>

The roots for the study of faculty intent to leave and turnover can be found primarily within the business management and psychology literatures. These models draw heavily from demographic, psycho-social, organizational, as well as economic and rational actor perspectives broadly influenced by March and Simon's (1958) contributions to the concepts of "bounded rationality" and "satisficing". This work reflects a revision of the assumption of the rational actor who acts with complete information by recognizing the limitations decision-makers possess in terms of information and what they perceive in their environment, as well as seemingly "non-utilitarian" reasons for individual choices and decisions.

Vroom's (1964) expectancy theory, which identifies the level of congruence between expectations and actual experiences and outcomes, also serves as a foundational work and is the basis for Price (1977) and Curry, et. al.'s (1986) approach to the study of employee turnover. These perspectives suggest variables that influence employee decisions to leave or stay in a given position and with a particular organization include individual attributes such as personal characteristics and demographics, perceptions, and performance as well as attributes of the institutional environment, its structure, and rewards, along market forces that create constraints and opportunities. Bluedorn (1982) further synthesized and found large support for Price's model

based on expectancy theory. Based on these theoretical frameworks, a number of important aspects of work life and antecedents of employee departure and intent to leave have been identified.

Stress

Focusing on the organizational context, Parasuraman and Alutto (1981) stated that stress is likely not to be randomly distributed within an organization and that stress can vary by roles, levels, and positions within an organization. They explored the role of these contextual variables – where one is positioned within an organization or "microenvironment" - on stress. Their findings suggested that position within an organization and the level of the job was significantly related to stress. Thus, knowledge about the job level or subsystem within the organization is a key factor in understanding stressors at work. Parasuraman and Alutto (1984) extended their work to include personal characteristics, attitudinal outcomes, and behavioral outcomes into their model, thus integrating key psycho-social variables to their model. The results provided moderate support for a multidimensional model of stress and for investigating both macro and micro aspects of the organization to gain a more comprehensive understanding of work-related stress. Beehr et. al. (2000) explored the concept of chronic and acute workplace stressors and emphasized the importance of examining occupation specific stressors. Thorsen (1996) also found that quantity of work was more stressful than the nature of the work. However, the nature of the work was important as well since activities related to research were found to be more stressful than teaching-related activities (Blix et. al., 1994; Thorsen, 1996) and time constraints, pressures and a lack of personal time also appear to play a role in determining levels of faculty stress (Dey, 1994; Thorsen, 1996)

Studies also have examined gender-based stress factors. Blix et. al. (1994) reported that females were more likely to consider a job change in academia as a result of job stress and Dey

(1994) found that female faculty members were more likely to report teaching load as a source of stress than men. Female faculty members also were more likely than men to report household responsibilities as a source of stress. Studies also suggest that male and female faculty do experience stress differently in several areas (Witt & Lovrich, 2004; Xu, 2008). Witt and Lovrich concluded that females experience more stress from high expectations, teaching responsibilities, time constraints and general stress. Dey also proposed that different groups may perceive stress at different levels and based on different dimensions. However, Xu's findings suggest that gender-based differences in family roles do not explain differences in stress levels.

Faculty rank and tenure status also have been found to be significantly related to stress (Thorsen, 1996; Zhou & Volkwein, 2004). Non-tenured faculty members appeared to experience the most stress and full professors experienced the least (Thorsen, 1996). Factors indirectly related to faculty work life, including family obligations, managing household responsibilities, and health concerns, can affect stress levels as well (Dey, 2004) as can job-related stress (Smart, 1990).

Satisfaction

A number of studies also examine on faculty job satisfaction and the effect of various demographic variables on faculty satisfaction. Studies suggest a negative relationship between employee turnover and job satisfaction and the extent to which there was a match between expectations of the job and the actual experience of the job (Brayfield & Crocket, 1955; Vroom, 1964; Porter & Steers; 1973; Locke, 1975). Mobley's (1982) model has been influential and identified cognitive steps that led from being dissatisfied to ultimately quitting a job and in turn attempted to understand the intermediate linkages between dissatisfaction and quitting.

Ehrenberg, Kasper and Rees (1990) found that variables such as faculty rank, salary, gender, and type of institution to have little or no effect on faculty satisfaction and that faculty generally reported being satisfied across twenty-two demographic variables. The results also suggest that faculty from professional colleges were more satisfied than colleagues from other disciplines, while other studies suggest that some variables such as salary may have an effect on satisfaction and that higher levels of compensation appeared to increase retention rates for assistant and associate professors. Cotton and Tuttle's (1986) meta-analysis provides broad supports for the consideration of compensation, satisfaction with supervision and the work itself, performance, and a variety of demographic variables in studies of intent to leave and employee turnover.

Bateman and Strasser (1984) challenged the established view that satisfaction was a determinant of commitment to an organization. Extending this argument, Curry et. al. (1986) attempted to replicate and extend the Bateman and Strasser study and also found no support for either of the hypothesized links between job satisfaction and commitment. However, Smart (1990) did find that satisfaction and commitment had mediating effects in a casual model of turnover intent among faculty.

Schaubroeck, Cotton and Jennings (1989) also expanded earlier models by examining the effect of role conflict and role ambiguity on job satisfaction and turnover intention. They introduced participation, role overload, and social support as antecedents of role conflict and ambiguity. They also acknowledged that participation, role overload, and social support can affect each other as well as influencing job tension, job satisfaction and organizational commitment. The study's findings demonstrate the importance of understanding the multivariate context of relationships between role-related job conditions and intent to leave as does

Vandenberghe and Tremblay's (2008) examination of the relationships between pay satisfaction, organizational commitment and turnover intentions. Dee's (2004) findings further support the importance of institutional support and Dee and Daly (2006) found that satisfaction and organizational commitment among faculty at an urban, public research university are critical determinants of faculty intent to stay.

Extending the range of study on the role of satisfaction to the case of faculty members, Johnsrud and Rosser (2002) identified three dimensions of satisfaction: professional priorities and rewards; administrative relations and support; and quality of benefits and services. They also defined three dimensions of faculty morale: engagement in their work; their sense of institutional regard; and their personal sense of their own well being and suggested that perceptions of work life and morale have significant direct impacts on intent to leave. Rosser (2004) also suggested that the perception faculty members have of their work life has a direct and powerful impact on their satisfaction. Female faculty members also were less satisfied with certain aspects of professional work life and ethnicity had no relationship to satisfaction. However, ethnic minorities were still more likely than whites to leave their institution or the academy. Perceptions of work life did not have a direct impact on satisfaction, however perceptions of work life did not have a direct effect on intent to leave and only affected intent to leave indirectly via satisfaction.

Hagedorn (2000) took a process-oriented view of the development of satisfaction. Instead of focusing on the static attributes of faculty, the study focused on how events in faculty members' lives affected their satisfaction and examined the concept of triggers and mediators in analyzing faculty satisfaction. Hagedorn's findings suggest that the most highly predictive mediators were the work itself, salary, relationships with administration, student quality and relationships, and institutional climate and culture and that job satisfaction increased with

advanced life stages and with faculty that are married. Lower levels of satisfaction were driven by changing rank and transferring to a new institution.

Olsen (1993) further evaluated how satisfaction can change over the first three years of service and what contributes to that satisfaction can change. The results suggest that faculty satisfaction declines over the first three years regarding compensation, governance, and colleague support while satisfaction remains relatively stable in regards to autonomy and intellectually stimulating environment. Balancing demands and institutional recognition play large roles in satisfaction in a faculty member's first year, however may change by the third year when the challenge of academic work itself appears to play a more prominent role in satisfaction. Stress over the same time period is most often related to compensation and time. Ambrose, Huston and Norman (2005) also highlighted the importance of institution specific study. Faculty members can be dissatisfied with items unique to a specific institution such as city or region or the way a specific department stresses items such as inter-disciplinary work.

Faculty Productivity

Various studies also have attempted to address and better define the issue of faculty productivity and explain variation in faculty productivity (Wergin, 1994; Layzell, 1996; Porter & Umbach, 2004). In terms of scholarly productivity, the sine qua non of faculty performance and achievement at a research institution and the outcome measure most often employed for faculty productivity is publications of various types, including books, book chapters, and journal articles for an individual faculty member during a distinct timeframe (Fairweather, 2002). The individual as the unit of analysis is often preferred, because summative assessments at the departmental or institutional level tend to favor larger organizations.

Dundar and Lewis (1998) noted that total departmental research production merely represents departmental size and not the productivity of each faculty member. Instead, they modeled research productivity as the number of journal articles per average faculty member and found that larger departmental size, a higher percentage of full professors, star faculty in productive departments, a higher level of research support, and institutional expenditures on libraries and graduate students as research assistants have a positive and significant relationship with research productivity. Family-related variables have been found to have little or no effect on productivity (Sax, et. al. 2002) and Smart (1990) and Zhou and Volkwein (2004) came to contradictory findings about the relationship between faculty productivity and intent to leave , finding a positive and significant relationship and no significant relationship respectively.

Additional Constructs and Predictors of Faculty Intent to Leave

Considered in conjunction with the broader literatures on these dimensions of work life, employee turnover, and intent to leave, recent scholarship focused on faculty has identified and tested a variety of demographic, individual, and institutional factors that appear to play important roles in shaping faculty intent to leave. These factors include faculty perceptions of their institutional environment and other factors situated outside of the immediate work environment. These include:

1) age, the characteristics of institutional governance, gender, scholarly productivity, years at an institution, and organizational and career satisfaction (Smart, 1990);

2) commitment, sense of community, job stress, encroachment on an individual's personal time, and institutional fit (Barnes, Agago, & Coombs, 1998);

3) professional priorities and rewards, administrative relations and support, job

satisfaction and the quality of benefits and services, personal well-being, institutional

commitment, and engagement in work (Johnsrud & Rosser, 2002);

4) support and collegial communication (Dee, 2004);

5) seniority, job security and satisfaction, compensation, institutional quality, gender, and

ethnicity (Zhou & Volkwein, 2004);

6) satisfaction, full-time status, length of service, administrative and technical support, and

professional development (Rosser & Townsend, 2006);

7) autonomy, communication, openness, distributive justice, role conflict, satisfaction, and

organizational commitment (Dee & Daly, 2006)

8) disciplinary context (Xu, 2007)

9) tangible aspects of the work environment (such as facilities) and intangible aspects of

the work environment (such as peer and department leader relationships, research

opportunities, quality of peers and institution) (Matier, 1990)

<div align="center">Purpose of the Study</div>

This study seeks to extend the range of research on faculty intent to leave. Based on the

extant literature, the common underlying themes and salient antecedents of faculty intent to leave

are included as components of an integrated model. Further development and integration of the

critical factors suggested by the literature – namely stress, satisfaction, being supported and

valued, and the concept of congruence or "fit" - in addition to further consideration of the multi-

dimensional nature of the constructs and other potentially important factors such as faculty

productivity on intent to leave for another institution and intent to leave academe - may enhance our understanding of faculty intent to leave and improve the ability of public research universities to develop targeted strategies and implement more effective policies to retain faculty.

This study also may help to address a number of potential issues such as omitted variable bias. First, despite a number of studies that focus on individual, psychological and institutional factors, most studies have paid less attention to the potential role of faculty productivity (notable exceptions being Smart (1990) and Zhou & Volkwein (2004), who come to competing conclusions about whether or not it is a significant predictor) and the local disciplinary context on intent to leave and turnover as suggested by Xu (2008). This is all the more striking given the competitive nature of the faculty market among large public and private research universities and the finite pools of experts in very specific areas of study and research.

Secondly, intent to leave as a dependent variable has been defined and measured as simply intent to leave the institution or as a summation of different types of leaving. Considering different types of voluntary departure separately, namely the intent to leave for employment at another institution and the intent to leave academe altogether, may suggest different predictors and explanatory factors. Regardless of the type of leaving, intent to leave consistently has been used and confirmed as a predictor of actual leaving (Bluedorn, 1982).

Finally, measuring various factors such as "satisfaction" or "stress" in a narrow way or with the assumption that they are single-dimensional is evident in the literature. This approach may gloss over important distinctions in terms of sources and kinds of individual and perceived environmental factors. A more fine-grained approach as suggested by Smith, Anderson, and Lovrich (1995) and Gmelch, Wilke, and Lovrich (1986) to identifying and measuring these

complex factors and how they may differ by discipline may shed additional light on aspects that may be most salient in explaining faculty to intent to leave and turnover.

Research Questions, Data, and Methods

Research Questions

This study attempts to address the following questions and consider the potential implications of the results for research on faculty turnover and intent to leave as well as academic leaders and universities.

1) Given the variety of hypothesized predictors and explanatory factors for faculty intent to leave, which ones are most salient when considered simultaneously and for different types of intent to leave?

2) Does the inclusion of more targeted predictors and explanatory factors within larger constructs such as stress and satisfaction lead to a more precise and parsimonious explanation and understanding of the roles these factors play?

3) Does faculty scholarly productivity appear to play a role in determining intent to leave?

4) What are the potential benefits and implications for long-term challenges that the academy faces in the presence of faculty retirements, demand for quality and access to higher education, cost pressures, and competition for faculty?

Data

The data source used for this study was the HERI Faculty Survey, conducted by the Higher Education Research Institute at the University of California - Los Angeles. The survey was administered in 2005 to all (N=2,904) tenured/tenure-track faculty members at a large, public

research university in the midwestern United States, with 1,087 respondents and a response rate of 37.4%. The instrument contains a variety of items about faculty activity, performance, the institutional environment, satisfaction, stress, and leave intentions. The analysis is based on responses obtained from a census of tenured and tenure-track faculty with complete responses (n=587) of faculty who were tenured/tenure track at the assistant, associate or full professor rank and who did not report administrative responsibilities as their principal activity and had complete data. Given under-reporting by female and untenured faculty, cases were weighted by gender and rank.

Methods

Exploratory factor analysis (EFA) was conducted in order to identify the underlying factor structure and the multiple dimensions of the factors of interest. Stress and satisfaction factors were captured via exploratory factor analysis (EFA) via principal components analysis with varimax rotation, with 16 "satisfaction" items and 22 "stress" items. Given the original coding of stress factor items in the survey, to avoid negative factor loadings, stress items were reverse-coded.   Additional EFA was conducted on 12 institutional environment items which yielded two factors we labeled as "fit" and "support". These factors appeared to reflect important dimensions of the institutional environment as identified in prior studies. Publishing productivity was captured via a four-item factor. Key demographic variables of importance as suggested by the literature and prior studies included marital/partner status, gender, ethnicity, rank, years at the institution (Dee & Daly, 2004) as well as discipline (Smart, 1990; Xu, 2007). Discipline categories were created based on the hard-soft and pure-applied dimensions of Biglan's (1973) typology of disciplines. The types of intent to leave used as dependent variables were "considered leaving the institution for another institution" and "considered leaving academe". The

coding for "considered leaving the institution for another institution" was adjusted in order to eliminate the confounding effect of those who may have answered in the affirmative to both leaving the institution and considering retirement in the next three years.

[insert Table 1]

Once the variables and factors were identified and factor scores calculated, binary logistic regression was employed to test both models given the dichotomous nature of the dependent variables. Corrrelational matrices for each model did not indicate the presence of collinearity among the factors and variables of interest.

Discussion of Results

Considered Leaving for Another Institution

For the "considered leaving for another institution" model, the Nagelkerke R^2 statistic indicates that the explanatory factors and variables account for 20.7% of the variance in the dependent variable.

[insert Table 2]

Among the control variables, being in a "soft-pure" discipline such as the arts and humanities (Biglan Type) made a faculty member more likely (odds became four times greater) and each additional year of service at the university (Years at Inst) made it slightly less likely that a faculty member reported having considered leaving for another institution. The discipline result is quite striking and provides strong support for Xu's (2008) findings regarding differences among disciplines, possibly reflecting different markets by disciplinary type for employment, levels of demand, and the attractiveness or availability of extrinsic rewards (Zhou and Volkwein,

2004). The result for years served at the institution appears to provide some support for earlier studies that identified years at the institution (Smart, 1990; Rosser & Townsend, 2006), seniority (Zhou & Volkwein, 2004) and organizational commitment (Jonhsrud & Rosser, 2002; Dee & Daly, 2006) as important predictors of intent to stay. However, an alternative explanation may be that years of service at a given institution may reflect "satisficing" in terms of choosing to stay, a given and known comfort level with what one already has, and the tendency to over-value "sunken costs" of time and effort invested in establishing a pattern of work and a given lifestyle. None of the other demographic variables had a significant effect on the likelihood of having considered leaving for another institution.

Among the group of stress factors, a one unit increase in workplace stress (StrsWork) made it more likely (odds became two time greater) that a faculty member would consider leaving for another institution. Keeping in mind the items which comprise this factor - namely committee work, faculty meetings, institutional procedures and "red tape", teaching load, lack of personal time, and working with underprepared students – represent sources of stress that may compete with pressures associated with the time and attention required to do scholarly research. This result provides additional support for findings by Smart (1990) regarding organizational satisfaction and institutional governance and Barnes, Agago, and Coombs' (1998) identification of job stress as a predictor of intent to leave.

A one unit increase in faculty productivity made consideration of leaving for another institution more likely (odds became 1.6 times greater). This result provides strong support for Smart (1990) and further contradicts Zhou and Volkwein's (2004) null finding for this factor. In turn, it may also reflect the relative market position of the institution at which the faculty members who comprise the sample work. Large, public research universities often find themselves

competing with historically better funded and more prestigious private institutions for strong faculty. Ceteris paribus, if a faculty member is a highly productive scholar and her work is well-known, she may be more likely to attract interest from other institutions as well as consider leaving for more prestigious programs and institutions.

Interestingly, none of the fit, support, and satisfaction factors were significantly predictive of the probability of having considered leaving for another institution. This finding is surprising given the broad range of studies in the broader employee turnover as well as the faculty intent to leave and turnover literature that have identified various dimensions of (dis)satisfaction as important predictors of intent to leave. Contrary to other studies that have suggested an important role for satisfaction with various dimensions of faculty work and the institutional environment (Johnsrud & Rosser, 2002; Zhou & Volkwein, 2004; Rosser & Townsend, 2006; Dee & Daly, 2006; Matier, 1990) this study's null finding may suggest that being dissatisfied with certain tangible benefits and aspects of the institutional environment such as compensation, administrative support and facilities, and autonomy as well as peer and administration may not be enough of a reason or provide enough of a push to leave. However, faculty also may perceive these aspects of faculty work life to be sufficiently true regardless of institution and therefore not play a significant role in faculty members' consideration of leaving.

Considered Leaving Academe

The test of the second model with "considered leaving academe" as the dependent variable produced a strikingly different set of results when compared to those obtained in the first model. The Nagelkerke R^2 statistic indicates that the explanatory factors and variables account for 35.8% of the variance in the dependent variable. In both instances, the results suggest that the model performs slightly better in predicting the probability that a faculty member has considered

leaving academe when compared to predicting that a faculty member had considered leaving for another institution.

The one variable the two models share in terms of significance – Biglan Type - represents a complementary effect across the two models. Specifically, faculty members in all discipline types other than hard-applied were less likely to have reported considering leaving academe. Combined with the finding that faculty members in soft-pure disciplines were less likely to have considered leaving for another institution in the first model, the results may suggest a greater "pull" factor and set of employment opportunities outside of academe in fields where demand is high and compensation can be quite attractive (such as engineering and medical fields). At the same time, faculty in soft-pure disciplines may simply value academic culture and work life more and/or may be more likely to only consider academic options.

Both a unit increase in stress associated with family life and raising a family (household responsibilities, children and child care, being part of a dual-career couple) as well as dissatisfaction with certain aspects of the faculty job (salary, autonomy, teaching load, opportunities for career advancement as well as to develop new ideas and pursue research) made it more likely (odds increased by approximately two times) that a faculty member had considered leaving academe. These results confirm findings related to job stress (Smart, 1990), administrative relations and support (Johnsrud & Rosser, 2002), compensation (Zhou & Volkwein, 2004), and research opportunities (Matier, 1990). They also indicate the importance of factors outside of the immediate work environment, particularly in this case of those faculty members who have considered leaving academe altogether. Interestingly, being married or having a partner was associated with being approximately one third as likely to have considered leaving academe. Having another person with whom to share the responsibilities, frustrations, and joys of

daily life and provide mutual support appears to make it less likely that a faculty member would consider leaving an academic career. This may be an important counterweight to the opposite effect of family stress.

Unit increases in either "fit" or "support" made it less likely (odds decreased by one-third) that a faculty member had considered leaving academe respectively. The "fit" factor captures the extent to which a faculty member feels good about the direction of her or his life, finds work meaningful, and senses congruence between personal values and work. "Support" captures the extent to which a faculty member feels valued, supported, respected as well believes that faculty members have sufficient involvement in campus decisions and have a positive working relationship with administration. These findings affirm the role of institutional governance (Smart, 1990), sense of community and institutional fit (Barnes, Agago, & Coombs, 1998), administrative relations and support (Johnsrud & Rosser, 2002), administrative support (Rosser & Townsend, 2006) and communication (Dee & Daly, 2006). The models results here clearly suggest that these aspects of the work environment play a more important role in predicting intent to leave academe as opposed to simply leaving one institution for another. In turn, these aspects may also suggest areas where the likelihood of leaving academe based on being in a hard-applied discipline might be mitigated.

Finally, it is worth noting among the remaining demographic control variables - rank, gender, and ethnicity - were not significant predictors in either model. Stress, satisfaction, dimensions of the institutional environment, and disciplinary context factors appear to be primary in shaping the likelihood of faculty leaving. However, it is possible the stresses of family life and not having a spouse/partner may have differential effects on male and female faculty members.

Implications

Returning to the research questions posed earlier, this study found a number of significant and distinct predictors for faculty intent to leave for another institution and faculty intent to leave academe. Furthermore, the consideration of multiple factors that represent more specific dimensions of stress and satisfaction provided an effective strategy for "teasing out" which aspects of the larger constructs of stress and satisfaction were most salient in understanding and predicting faculty intent to leave. In addition, scholarly productivity did appear to play a large role in shaping opportunities and probabilities that faculty members consider and may in fact leave one institution for another. Overall, the results produced some important implications for both research on faculty turnover and intent to leave as well as institutional policy and practice.

In terms of the faculty turnover research agenda, this study suggests some important points for future research. First, it appears imperative to "drill down" to explore and identify multiple dimensions of both predictive factors and types of intent to leave. The results produced by the two models tested here clearly suggest two very different sets of factors that may shape faculty members' intent to stay or leave depending on the type of leave considered. Further study among other institution types and qualitative inquiry about the "how's and why's" behind faculty members' thought processes may shed additional light on the cognitive processes by which faculty members move from considering leaving to actually leaving.

Secondly, the inclusion of multiple potential predictors into an integrated model as suggested by the literature provides an opportunity to apply a stringent test of the salience each construct including those with multiple dimensions. Although by definition any model represents a simplified version of "reality", a more complete set of factors provides a means to be more precise in determining what seems to matter most in predicting turnover and intent to leave.

However, even with more targeted measures, diverse approaches and follow-up studies must be pursued in order to further identify the relative importance of various factor items. Focus groups and structured interviews with faculty may provide important means to gather additional information and insights in future studies.

Thirdly, scholarly productivity proved to be a strong predictor of the likelihood that a faculty member had considered leaving for another institution. The role of larger markets and demand for faculty expertise and the extent to which productive scholars development extra-institutional professional networks may represent fruitful lines of inquiry and foci for additional research. Strong identification with the profession or discipline, engagement with professional peers and being known beyond the institution for quality work may also suggest relatively weaker attachments and ties with the institution that may otherwise enhance the probability that a faculty member would stay. Furthermore, the complementary notion that faculty members who are less productive are more likely to stay may reinforce and strengthen stressors in the work environment that do not reflect scholarly work being valued and supported and in turn further compel more productive faculty to consider alternative environments.

Finally, this study demonstrates the value of conducting institution-specific analyses to achieve results that are more actionable as well as further refine our theories and models. Via multiple studies, both institution-specific as well as common predictors across institutions can emerge over time. Replication and adaptation of this line of inquiry also may be helpful to academic leaders as they attempt to better understand the predictive factors for their faculty within a given institutional context. Therefore, this study also suggests a set of institutional practices, strategies, and "next steps" for the institution of interest and potentially for other public research universities.

First, it may be more effective to pursue differential strategies across faculty groups. For example, for highly productive researchers in soft-pure disciplines, efforts should be pursued – based on more detailed input from faculty as a means to exercise and demonstrate the value of faculty input - to identify ways to lower administrative hurdles and make institutional processes more efficient and responsive. This may be particularly true for faculty in the arts and humanities who may have fewer opportunities to obtain sufficient extra-mural support for scholarly and creative work that can be seen as less valuable by those who place more emphasis on direct vocational and economic returns from faculty research and higher education.

Secondly, for faculty in hard-applied disciplines, benchmarking practices that help the institution to understand its relative market position with industry competitors and not only other universities, may provide an opportunity to at least make more effective decisions about the relative costs and benefits of who to retain and whether or not to match competing offers. Beyond compensation, developing strategies to enhance "fit" and "support" as well as aspects of the faculty job that lead to dissatisfaction represent potential priorities for faculty members in these disciplines. The ability to pursue alternate faculty tracks and offer flexibility across the academic career and within a given academic year that allow for a variety of options and relative emphases to engage in academic work and remain active in the professional community may also benefit the faculty member, the institution, and even students in the classroom. These factors also may suggest new approaches to tenure and promotion processes, options and standards to enhance program and institutional performance across teaching, research, and outreach missions by allowing more customized, flexible arrangements between faculty and universities.

Thirdly, universities may also need to review and benchmark for best practices in designing and implementing family-friendly policies related that might alleviate stress outside the institution. Interestingly, this issue may be tied to the previous discussion of flexible tracks and work arrangements based on key life (such as child care, family illness and extended care) and work events (such as promotion and review) that can tend to otherwise unduly affect various faculty members at different stages of their career. A "one size fits all" and reactive approach that does not attempt to address root causes may lead to lost productivity, minimized return on investment in faculty, and ultimately higher costs in time, effort, and resources to both the institution and its faculty members in the long run.

Fourthly, developing strong relationships with administration and a sense of openness and communication with appropriate autonomy also appear to be for important predictors for faculty. In addition to the more typical issues surrounding faculty governance, universities may have a "win-win" opportunity to leverage the tacit knowledge of those faculty members who may have "defied the odds" and are successful and have been at the university for some period of time. They may have some important insights to share with early career faculty as well as administrative leaders who may be in a position to "do the leg work" to implement revised institutional policies and practices based on regular feedback from faculty in areas that appear to influence faculty intent to leave and at the same time represent administrative part of work processes and institutional management that faculty members may find less interesting even if they are important. Furthermore, more in-depth focus group discussions and structured conversations with faculty about the "how's and why's" behind faculty retention and success may help reinforce a culture of shared governance as institutions work to address the faculty turnover and intent to leave. Going forward, strategic thinking and action based on careful consideration and reflection of institutional analyses will be increasingly important against a backdrop of

heightened uncertainty about the future and the variety of structural changes occurring within the larger social, political, and economic environment. Developing institutional capacity to more systematically follow up with faculty members who actually do leave also holds promise for addressing and better understanding faculty turnover.

Limitations

There are some limitations to this study that are important keep in mind. First, the ability to generalize model results based on a non-random sample to the larger population of interest is limited. In addition, the sample was obtained from a single institution classified as a "very high" research activity university that is public and situated within a particular geographic and socio-economic context in the midwestern United States.

Secondly, there has been considerable debate in the literature about the nature of internal reliability and the proper composition of scales. Alpha scores for the factors and the number of ordinal categories for some factor items were acceptable, however they were not optimal. Additional work needs to be done to identify more consistent nominal and operational definitions of constructs that could be replicated across studies. Survey instruments and measures could be revised based on these definitions and potentially accelerate research progress.

Finally, although cases were weighted to account for differences between the sample and the population by faculty rank and gender, missing responses decreased sample size.

Conclusion

Understanding and predicting faculty intent to leave is important to the development of improved conceptual frameworks of faculty success as well as the implementation of effective retention strategies for academic leaders and institutions. This is particularly true for public

research universities that compete with other institutions – that sometimes are more prestigious with more resources – for scarce faculty talent. By considering multiple dimensions of stress and satisfaction in tandem with individual faculty characteristics, discipline, scholarly productivity, and "fit" and "support" for two different types of intent to leave, the results provide important insights for continued research of faculty turnover and intent to leave as well as an empirical basis for institutional strategy and change.

Workplace stress, being in a "soft-pure" discipline, fewer years of service at the university, and higher research productivity were key predictors of faculty having considered leaving for another institution. Being in a "hard-applied" discipline, not having a spouse or partner, a perceived lack of support, a perceived lack of fit, stress of raising a family, and dissatisfaction with certain aspects of the "faculty job" were key predictors of faculty having considered leaving academe altogether.

The contributions of faculty in public research universities and our ability to replenish and renew the professoriate and avoid damaging levels of attrition are critical to ensuring the quality of higher education both now and in the future. Consequently, the quality of social, civic, and economic dimensions of life in the United States depends in no small part on the extent to which individuals, institutions, and society pay more careful attention to and attempt to address research-based factors associated with faculty intent to leave. The stakes are high in an extremely challenging period in history and the issue warrants continued attention and action by researchers and university leaders alike.

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Table 1. Model Factors, Variables, and Item Descriptions

Independent Variables

Stress Factors
How much has this been a source of stress during the last two years?
Extensive (3), Some (2), None at all (1)

Factor	Alpha	Item	Rotated Factor Loading
StrsFamily	.69		
		Household Responsibilities	0.70
		Child Care	0.82
		Children's Problems	0.66
		Being Part of Dual-Career Couple	0.57
StrsPublish	.64		
		Review/Promotion Process	0.75
		Research/Publishing Demands	0.61
		Job Security	0.74
		Self-imposed High Expectations	0.45
		Change in Work Responsibilities	0.33
StrsWork	.66		
		Committee Work	0.74
		Faculty Meetings	0.77
		Inst Procedures and "Red Tape"	0.42
		Teaching Load	0.58
		Lack of Personal Time	0.50
		Working w/Underprepared Students	0.21

Satisfaction Factors
How much have each of the following been a source of satisfaction during the past two years?
Very Satisfied (5), Satisfied (4), Marginally Satisfied (3), Not satisfied (2)

Factor (reversed)	Alpha	Item	Rotated Factor Loading
DisSatJob	.87		
		Salary and Fringe Benefits	0.77
		Opportunity for Scholarly Pursuits	0.85
		Teaching Load	0.62
		Autonomy and Independence	0.60
		Overall Job Satisfaction	0.72
		Opportunity to Develop New Ideas	0.68
		Prospects for Career Advancement	0.61
DisSatInst	.61		
		Quality of Students	0.80
		Office/Lab Space	0.48
		Visibility for Jobs at Other Institutions	0.52
		Relationships with Administration	0.54
		Availability of Child Care	0.66
		Clerical/Administrative Support	0.50
DisSatFac	.78		
		Professional Relations w/Faculty	0.79
		Social Relations w/Faculty	0.82
		Competency of Colleagues	0.68

Support and Fit Factors
Agree Strongly (4), Agree Somewhat (3), Disagree Somewhat (2), Disagree Strongly (1)*
Very Descriptive (3), Somewhat Descriptive (2), Not Descriptive (1)**

Factor	**Alpha**	**Item**	**Rotated Factor Loading**
Support	.70		
		Faculty Sufficiently Involved in Campus Decision-Making*	.73
		My Values Congruent with Institution's Values*	.70
		Faculty at Odds with Administration (reversed)**	.64
		Faculty Rewarded for Being Good Teachers**	.62
		Adequate Support for Faculty Development*	.56
		My Teaching Valued by Faculty in My Department*	.53
		Respect for Diverse Values and Beliefs**	.51
		Faculty Here Respect Each Other**	.50
		My Research Valued by Faculty in My Department*	.49
Fit	.69		
		Feel Good About Direction of Your Life**	.79
		Feel Works Adds Meaning to Your Life**	.76
		Have Alignment Between Work/Personal Values**	.67

Scholarly Productivity Factor
None (1), 1-2 (2), 3-4 (3), 5-10 (4), 11-20 (5), 20-50 (6), 51+(7)

Factor	**Alpha**	**Item**	**Rotated Factor Loading**
ScholProd	.76		
		No. Chapters in Edited Volumes	.81
		No. Articles in Academic/Professional Journals	.79
		No. Publications in Last Two Years	.73
		No. Books, Manuals, Monographs	.58

Control Variables

Name	**Coding**	**Level**
Marital/Partner Status	Married or Partner (1), Not (0)	Dichotomous
Gender	Female (1), Male (0)	Dichotomous
Ethnicity	White (1), Other (0)	Dichotomous
Years at Institution	# of years	Continuous
Rank	Full (1), Associate (2), Assistant (3) (from top to entry-level status)	Ordinal
BiglanType (discipline typology)	Soft/Pure (1), Hard/Pure (2), Soft/Applied (3), Hard/Applied (4) (from soft/pure to hard/applied)	Ordinal
	Soft /Pure: Arts, Humanities, Social Sciences Hard /Pure: Biological, Mathematical, and Physical Sciences Soft/Applied: Education, Social Work, Law, Human Ecology Hard/Applied: Business, Engineering, Agriculture, Medical	

Dependent Variables

Name	**Coding**	**Level**
Considered Leaving Institution for Another Institution? (during last two years)	Yes (1), No (0)	Dichotomous
Considered Leaving Academe? (during last two years)	Yes (1), No (0)	Dichotomous

Table 2. Model Results

	Considered Leaving for Another Institution	Considered Leaving Academe
Model Summary		
Sample Size	**n=587**	**n=587**
Nagelkerke R^2	**.207**	**.358**
-2 log likelihood	**561.941**	**504.829**
% correctly classified	**77.6%**	**79.5%**
	Odds Ratio	**Odds Ratio**
Variables		
StrsWork	**2.115***	1.079
StrsPublish	0.893	1.553
StrsFamily	1.298	**2.026****
DisSatJob	1.465	**1.872***
DisSatInst	1.158	1.006
DisSatFac	0.809	0.847
Fit	1.243	**0.646*****
Support	0.933	**0.649****
ScholProd	**1.640*****	1.031
Gender	0.836	1.498
Rank	1.002-1.242	0.666-0.918
Ethnicity	0.657	1.880
Biglan Type	**3.739*** (soft/pure)	**0 .272*, 0.035**, 0.372***** (non-hard/applied)
Years at Inst	**0.944*****	0.983
Married/Partner Status	1.794	**0.316*****

Wald statistic significance levels: .05*, .01**, .001***