ABSTRACT

Cathy A. Maahs-Fladung, SHOULD I STAY OR SHOULD I LEAVE: THE QUESTION OF TENURE TRACK FACULTY JOB SATISFACTION AT INSTITUTIONS OF HIGHER EDUCATION (Under the direction of Dr. William Rouse, Jr., Department of Educational Leadership, October, 2009.

The purpose of this study was to explore how tenure procedures at institutions of higher education, workload, confidence in support of teaching and research objectives, climate, culture, collegiality and salary affect job satisfaction of tenure track faculty. The study compares three different cohort groups composed of tenure-track faculty from over eighty institutions of higher education in the United States. The cohort groups used in this study are Baccalaureate, Masters and Research institutions that have been classified by Carnegie Classification. Institutions of higher education were invited to participate in the Harvard University Collaborative on Academic Careers in Higher Education (COACHE) survey. Institutions that participated provided lists of their full-time tenure track faculty members who were pre-tenure. The University of North Carolina system (consisting of sixteen institutions) mandates that its institutions participate in this study. Previous research indicated both individual and institutional characteristics contribute to faculty job satisfaction. This study explored the differences in tenure track faculty job satisfaction by Carnegie Classification using exploratory factor analysis with oblimin rotation to construct factors which represent the dimensions of workload, confidence and support of teaching and research objectives by the institution's administration, autonomy,

climate, collegiality and salary. Because of institutional differences, these factors are experienced differently by the three cohort groups and therefore are indicative to each group. In order to observe the strength of each component and the amount of variation explained by the combination of these factors a stepwise linear multiple regression was conducted for each Carnegie Classification. Stepwise linear regression allowed estimation of the strength of the institutional components which contribute to tenure track faculty job satisfaction or dissatisfaction by observing differences in standardized beta weights and allowed observation of the amount of variation explained by each regression equation for each institution.

This study has observed differences in the constructs that make up tenure track faculty job satisfaction across different types of institutions defined by Carnegie Classification. This study enhances the institutional component of Johnsrud and Rosser's research because it used data that was collected more recently and focuses only on tenure track faculty. Additionally, it adds to the literature currently published by COACHE, which has been primarily descriptive in nature, by predicting what sets of variables contribute more predominantly to tenure track job satisfaction. The study observed differences in both the way that Johnsrud, Johnsrud, and Heck, Rosser and COACHE portray tenure track faculty job satisfaction. The use of Carnegie Classification is also new because previous inferential studies have used public/private institutions as a method of classification.

SHOULD I STAY OR SHOULD I LEAVE: THE QUESTION OF TENURE TRACK FACULTY JOB SATISFACTION AT INSTITUTIONS OF HIGHER EDUCATION

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SHOULD I STAY OR SHOULD I LEAVE: THE QUESTION OF TENURE TRACK FACULTY JOB SATISFACTION AT INSTITUTIONS OF HIGHER EDUCATION

by

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CHAPTER 1: INTRODUCTION

Research has shown that higher education faculty members are rarely satisfied with their own institutions (Boyer, Altbach, & Whitlaw, 1994). They see administrators as incompetent, communication between administrators and faculty as poor, and their influence declining because of lack of support (Boyer et al., 1994; Johnsrud & Rosser, 2002). This discontent with their institutions, symbolized by lack of support by administration, is in stark contrast to their satisfaction with their intellectual lives, the courses they teach, and their collegial relationships (Bowen & Schuster, 1986; Boyer et al., 1994; Smart, 1990). Faculty members who were attracted to their profession partly because of ability to pursue research interests are dedicated to their research but they often wonder if they would be better off doing it somewhere else because of lack of support. Tenure track faculty members, looking for promotion and tenure, are expected to actively pursue research interests and produce publications as a part of the tenure and promotion process in addition to teaching, administrative, and service activities. This dissention between the administration and the faculty may be caused by the different goals that each of these groups seek to achieve and results in the dissatisfaction that faculty have with administrators and administrators often have with faculty. The university and its interpretation of its own strategic plan, defined in this study by Carnegie Classification, results in measures by which faculty are judged for promotion and tenure as well as the public and private resources the university can provide.

Finally, state governments, influenced by their legislators, often complain that faculties devote too much time to research that offers no clear benefits to their state (Schmidt, 1998). Public institutions and university systems are influenced by the behavior of their state governments and legislators because they provide financial support to colleges and universities, especially public colleges and universities. Administrators, whose job it is to carry out the university strategic plan, are influenced by the desires of their legislators. Faculty members, on the other hand, lured to the university because of the sense of autonomy a faculty position may provide, are more concerned about their own research and teaching responsibilities because these tasks serve to promote their acceptance for tenure. Thus, the faculty member, especially a tenure track faculty member, is more focused upon his or her own department and his or her teaching and research responsibilities. It is this experience of administrators and faculty, each being influenced by different goals that they must accomplish which often causes dissention. Fortunately or unfortunately the relationship is symbiotic and cannot be separated

The View of the Administration

At the beginning of the twenty-first century, American higher education confronted intense pressure to change due to widespread public disenchantment, marked shifts in revenue sources, and unprecedented competition via technology from nonprofit and for-profit institutions alike (Trower, 2005). Faced with change, colleges and universities were compelled to consider

new ways to do business, to devise new measures to evaluate their faculty and staff. For faculty, such measures were once off limits for reform. Universities and four year colleges began to adopt a business model that emphasized productivity and accountability. They adapted that model to their own persuasions. The character of that business model emphasized outcomes assessment through assessment measures such as student credit hour production, successful completion of student learning objectives and faculty research and service productivity (Gullatt, 2006; Rosser, 2006).

The advent of technology and the ability to build data warehouses that hold relative information on faculty and staff has increased the ease with which once divergent data can be obtained and measured but also does not easily address the differences in assessment measures by department and/or college/school. For example, while many behavioral science departmental faculty are evaluated on the number of articles they publish in referred journals or books that are published, faculty members in the fine arts may be evaluated on the number of performances, recitals or original compositions that they author. Many institutions are currently looking at different ways to evaluate both qualitative and quantitative information because assessment data regarding both faculty and students is so intricately related to faculty promotion and tenure.

Trustees are also calling for greater accountability among faculty which puts additional pressure on administrators and the faculties they govern. In addition, they are asking academic institutions to be flexible enough to withstand

very tough economic conditions, increased competition and fast-changing external environments. Tenure has evoked contempt from business leaders because board members, many of whom come from the business world, expect institutions to get rid of people who don't produce (Immerwahr & Harvey, 1995).

Some administrators are frustrated that their plans for change are slowed or impeded by shared governance processes which place a great deal of power in the hands of tenured faculty members. Chancellors and Presidents doubt their ability to lead where tenure enables faculty to satisfy personal goals that may have little to do with institutional goals. Donald Kennedy, former president of Stanford and later a professor at Stanford wrote "Mention of the word 'tenure' almost invariably draws an irritated response…it elicits questions like "Why in the world would anyone adopt a policy that gives lifetime security to thirty-three year olds?" (Kennedy, 1997)

The View from the Academy

Not all voices of dissent regarding the principles of the tenure process are outside the academy. Many junior faculty express distaste for the tenure process because it places them in conflict with the administration who they feel often do not provide a great deal of support. It also, on occasion, places them in conflict with senior faculty who may not offer a great deal of guidance or mentorship given the current policies that are in force with regard to promotion, tenure and salary (Boyer, 1997; Chen, Gupta, & Hoshower, 2004; Olsen & Crawford, 1998).

For some junior faculty, salary is a source of discontent. For others, the emphasis on research, teaching or service causes a great deal of tension.

According to College and University Professors Association for Human Resources (CUPA-HR), an association of higher education human resources professionals, the median salary increase for 2008-2009 was 3.7%, down from the previous year's 4% (College and University Professors Association for Human Resources, 2009, Retrieved July, 2009, from http://www.cupahr.org/newsroom/news_template.asp?id=4715). Rewards for faculty in terms of salary lag behind that of senior administrators according to another CUPA-HR survey released in February 2009 (College and University Professors Association for Human Resources, 2009, Retrieved July, 2009, from http://www.cupahr.org/newsroom/news_template.asp?id=4715). The actual state of faculty salaries is probably much worse since the survey determined salaries as of October 15, 2008, and does not reflect salary freezes or furloughs announced since then. CUPA-HR (2009) found that the highest average salaries in both public and private institutions are legal profession and studies, engineering, business and management, marketing and related fields. The lowest paid disciplines differed by sector: for private institutions it was communications; for public institutions, English. Eight hundred and thirty-seven four-year institutions participated in the survey, including 500 private and 337 public institutions.

In addition to salary, the latest data from the U.S. Department of Education show that the trend toward an overwhelmingly contingent faculty continues. More than half of the faculty are now employed in part-time positions and are not considered for tenure-track, and more than two thirds are in full or part-time non-tenure track positions (American Association of University Professors [AAUP], Retrieved March, 2009, from http://www.aaup.org/AAUP/newsroom/Highlights/CUPAfac.htm) (see Figure 1).

Important to both tenured and tenure track faculty is autonomy in the classroom, as policies such as those that measure student achievement and success begin to regulate what is being taught in the classroom (Rosser, 2006). In an effort to infuse policy reviews with relevant and accurate data, The Project on Faculty Appointment at Harvard Graduate School of Education (Trower, 2005) inventoried academic personnel policies at United States institutions of higher education and found that instructors are entitled to freedom in the classroom in discussing their subject matter. Limitations on academic freedom because of religious or other aims of the institution need to be clearly stated in writing at the time of the faculty member's appointment. Further, college and university teachers, as citizens, are members of a learned profession, and officers of an educational institution. When they speak or write as citizens, they are free from institutional censorship or discipline, but their position in the community imposes special obligations. As scholars and educational officers, the public may judge their profession and their institution by their utterances and assume that they are

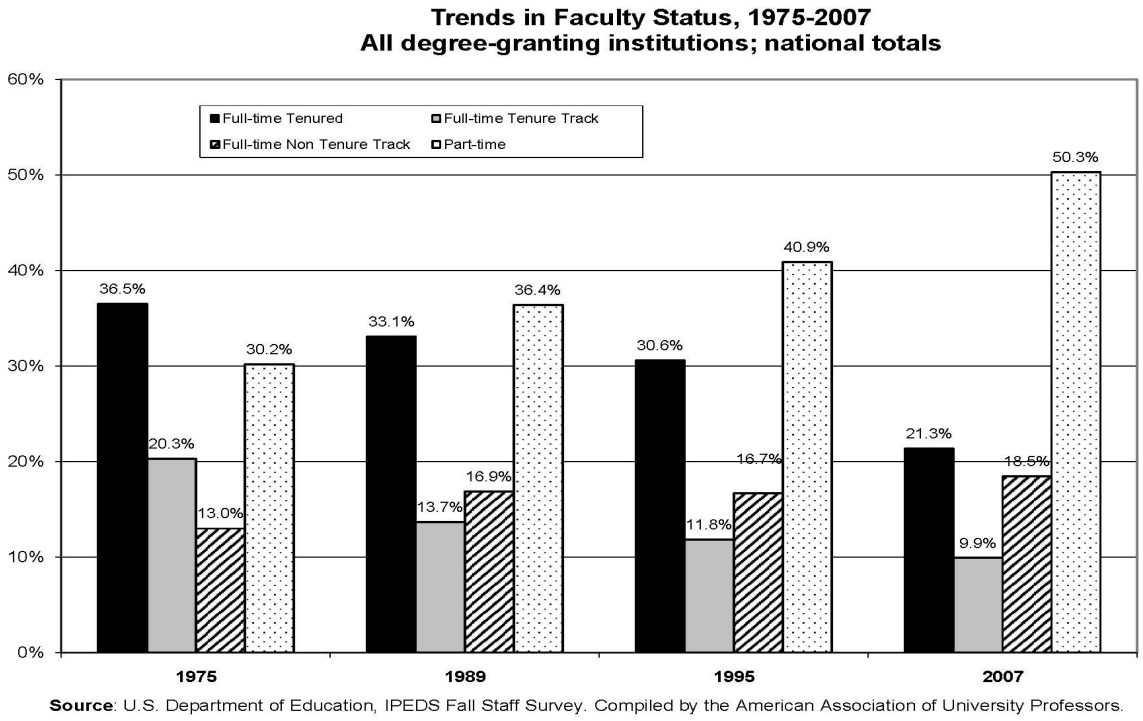

Figure 1. Trends in faculty status.

speaking for the institution (AAUP 1995, pp. 3-4 as in Trower, 1999). The guidelines on autonomy based on AAUP's 1947 statutes still stand.

Tenure-track faculty at institutions of higher education experience social, economic and policy implications that affect their status at colleges and universities across the United States. Given these conditions, tenure track faculty continue t0 experience tension during the tenure process. The purpose of this study then was to observe how faculty respond to their working conditions and to observe what working conditions are most important to tenure-track faculty job satisfaction.

This study used the concepts clarity and reasonableness of the tenure process, workload and support by senior faculty and administrators, importance and effectiveness of common administrative policies and practices, climate and collegiality with junior and senior faculty and salary as indicators of working conditions that affect tenure track faculty job satisfaction at different types of institutions designated by Carnegie Classification. These categories were developed by COACHE (2005-2006) in response to research by Johnsrud and Heck (1998) and Johnsrud and Rosser (2002) on faculty job satisfaction. The study compared three different cohort groups composed of tenure-track faculty from over eighty institutions of higher education in the United States. The study explored what components are most important to tenure track faculty job satisfaction, examined how these components are distributed across cohort groups, and observed the similarities and differences for each group. The data

were collected through the use of lists of tenure track faculty members provided by each participant university or college to COACHE creating a population to survey comprised of the three different cohort groups. Each cohort group was screened in the same manner and the same survey instrument was used. While a tenure track faculty member may be re-sampled if his or her institution is included in more than one cohort group it was at a different point in that faculty member's tenure process. The University of North Carolina system mandates that its institutions participate in this study.

Previous research (Johnsrud & Heck, 1998) has indicated both individual and institutional attributes contribute to faculty job satisfaction and finally, intent to leave. To measure institutional differences, the study observed the differences in tenure track job satisfaction by Carnegie Classification. Institutions that provide clear objectives in relation to the tenure process, positive administrative support for research and teaching and give tenure track faculty members sufficient autonomy for research and teaching efforts may have faculty members who enjoy heightened job satisfaction. These tenure track faculty members will likely plan to stay at their institutions. This study also recognizes that that other exogenous factors such as more lucrative contracts offered by other universities or public or private institutions in the corporate sector can encourage tenure track faculty members to leave their institution, however these factors were not considered in this study. Through the use stepwise linear regression analysis this study observed the differences in the components of a tenure track faculty

member's current position that promote tenure track job satisfaction across different types of institutions defined by Carnegie Classification.

Significance of the Study

This study builds upon the work of Johnsrud and Heck (1998), Johnsrud and Rosser (2002), Boyer (1997) and COACHE (2005-2006). Johnsrud and Heck (1998) conceptualize faculty job satisfaction (which they call "morale") using three broad categories: professional priorities, institutional support, and quality of life/nature of work as being components of job satisfaction. Their definition of professional priorities includes information about the clarity and reasonableness of the tenure and review process at the department and institutional level, the autonomy faculty have in their research and teaching efforts and how faculty allocate their time to research and teaching efforts. Institutional support is defined as the support and services an institution provides to its faculty members in terms of salary, funding and assistance for research, teaching and family issues such as housing or personal leave. Finally, quality of life/nature of work is defined as the quality of the experience that faculty members gain through teaching, research and service, the rewards offered by the institution for these efforts, as well as the experiences they share with other junior and senior faculty members.

Johnsrud and Heck (1998) and Johnsrud and Rosser (2002) build a hierarchal model using individual and institutional level data collected from several major United States western universities to predict "faculty morale" and

“intent to leave”. They use public and private institution to categorize individual and institutional differences across different types of institutions. Their research was conducted prior to 2002.

Boyer (1997) has also contributed a great deal of early research to the area of faculty job satisfaction using Carnegie Foundation data however it has been primarily descriptive in nature. Boyer et al. (1994) survey faculty at public and private institutions but use Carnegie Classification and academic area to categorize responses. The result of such classification is of interest but the study does not lend itself to predictive analysis due to the small sample sizes when Carnegie Classification and academic area are used to stratify the data.

This study used data that has been collected more recently on a national level rather than the regional data used by Johnsrud and Heck (1998) and Johnsrud and Rosser (2002). The study also provides a more definitive analysis of the information provided by Johnsrud and Heck (1998) and Johnsrud and Rosser (2002) because it focuses specifically on tenure track faculty members. The study uses exploratory factor analysis and stepwise linear regression to predict what variables contribute more predominantly to tenure track faculty job satisfaction across Carnegie Classification. The use of Carnegie Classification in inferential analysis is also new because previous studies have used public/private institution (Johnsrud & Heck, 1998; Johnsrud & Rosser, 2002; Olsen & Crawford, 1998) as a method of classification. The use of factor analysis and stepwise linear regression analysis adds to the descriptive information that

COACHE (2005-2006) has provided using the same data by further defining the categories workload, confidence and support of teaching and research by the institution's administration, autonomy, climate, culture, collegiality and salary so as to define what elements actually make up these categories.

Examining why faculty members actually act on their discontent is an empirical question which is difficult to research because exit interviews are often not mandatorily carried out at the institutional level for faculty members. Exit interviews, when not mandated and unevenly administered across all who leave, may produce biased results for the following reasons: (1) faculty members have an issue to make known, (2) faculty members are not necessarily truthful about why they chose to leave, or (3) faculty members are not interested in doing the interview because there is a more promising position in store for them (Bluedorn, 1982; Lee & Mowday, 1987; Steers & Mowday, 1981).

To guard against biased research, external agencies like Harvard University's Collaborative on Academic Careers in Higher Education (COACHE) conduct research studies such as the Survey of Tenure-Track Faculty Job Satisfaction. The University of North Carolina System is a member of the COACHE Collaborative.

The significance of this study was to build a more recent institutional model of job satisfaction using a national data on tenure track faculty as the research population. This study stratified the population by Carnegie Classification. It also provides more definitive information on the factors which

explain much of the variation in tenure track faculty job satisfaction or dissatisfaction thereby assisting department heads, senior faculty and administrators in improving the tenure and retention process at both the departmental and institutional levels.

Research Questions

This study answers two research questions. How do differences in workload, confidence and support for teaching and research objectives by the institution's administration, autonomy, climate, collegiality, and salary affect job satisfaction of tenure track faculty. Furthermore, how does job satisfaction of tenure track faculty differ by Carnegie Classification?

The study proceeds to address these questions by first providing a review of the literature relative to faculty job satisfaction to reveal those individual and institutional characteristics which researchers feel are most important in explaining satisfaction. Second, the literature review focuses on the important early socio-psychological and structural studies which provide considerable background for the individual and institutional models proposed by Johnsrud and Heck (1998) and Johnsrud and Rosser (2002) which shaped research in the area of faculty job satisfaction. Finally, the literature review addresses those factors which are deemed most important in explaining satisfaction in the twenty-first century by confirming earlier research and adding new information.

CHAPTER 2: REVIEW OF THE LITERATURE

Based on the review of the literature there are a number of subsets which are deemed important to the study of tenure track faculty job satisfaction and retention. They include individual characteristics such as gender, race or ethnicity, age, tenure status, rank, discipline and salary and institutional characteristics such as type of institution, institutional size, provision for administrative support, access to funding for teaching and research, and benefits and rewards awarded to administrative personnel and faculty members. This section will review these subsets and also review the pertinent structural and socio-psychological literature relative to tenure track job satisfaction and retention.

Demographics

For both institutional and respondent based individual studies of tenure track faculty job satisfaction demographic variables are important not only as exogenous variables to classify respondents but to assist in predicting outcomes for studies. Research on faculty worklife has attempted to honor the many distinctions that can be drawn among faculty and their institutions. Demographic attributes such as gender, ethnicity, race, tenure status, rank, discipline and type of institution have been used to stratify the studies and further explain differences in the level of faculty job satisfaction by comparing similarities and differences among groups (Acquirre, 2000; Bluedorn, 1982; Boyer, 1997; Johnsrud & Heck, 1998; Johnsrud & Rosser, 2002). These same demographic indicators are used

to measure compliance with equal employment opportunity indicators at institutions of higher education. There are many commonalities shared by both tenured and tenure track faculty when delineating the quality of worklife enjoyed by faculty members (Boyer, 1997; Chen et al., 2004; Johnsrud & Heck, 1998; Latif & Grillo, 2001; Olsen, 1993; Olsen & Crawford, 1998; Smart, 1990).

Faculty Turnover

Faculty retention is a key concern at institutions of higher education for both administrators and faculty (Boyer, 1997; Carney, Bacig, & Helms, 2007; Johnsrud & Heck 1998; Johnsrud & Rosser, 2002; Latif & Grillo, 2001; Olsen & Crawford, 1998). There are numerous factors which contribute to tenure track faculty job satisfaction or turnover. They include the availability of funding for research and teaching, the support that an institution can provide in terms of assistance with obtaining external grants, the benefits that an institution can provide in terms of salary and assistance in addition to providing a clear path to obtaining tenure. Turnover brings in new hires often at a lower cost or releases those faculty members who are not living up to potential. Searches are costly. Faculty that leave are often those that the institution would rather retain because they produce a great deal of research, bring in highly visible grants or perform a great deal of service (Trower, 2005).

Employment of non-tenure track or part-time faculty members is on the rise at universities and institutions across the United States (Chronicle of Higher Education, 2008). These part time, short term contract faculty members often fill

positions traditionally held by long term, tenure track personnel (Boyer et al., 1994; Fairweather, 2002; Johnsrud & Heck, 1998; Smart, 1990).

Faculty Shortage

The increase in research on faculty worklife over the past two decades has come in response to a series of pressures on colleges and universities. Initially, there was a threat of a shortage of faculty projected for the 1980s as class sizes grew and emerging disciplines such as data base marketing, genetics research and systems analysis drew new students in the field (Manger, 1999; Manger & Eikeland, 1990). This pressure still remains today in certain high demand disciplines due not only to the increasing number of students in some institutions, especially public institutions, but also because tenured professors, those that are part of the baby boom generation, are retiring (Acquirre, 2000; Boyer, 1990; Johnsrud & Heck, 1998; Rosser, 2006; Smallwood, 2006; Smart, 1990).

Although the average age of retirement in the general population is 62, in the academy faculty members appear to be retiring at 66, on average, and the age is drifting upward (Manger, 1999). There is variation, however, since if a faculty member believes that he is devoting too much time to teaching or advising or to service activities that the administration deems necessary he may be more likely to retire (Manger). There is also variation by type of institution or even by department. At many selective liberal arts colleges and research universities many faculty members would like to stay on as long as they can

(Manger). Faculty members in departments with pleasant working conditions, for example with more autonomy in what they teach or research may be more likely to stay (Johnsrud & Rosser, 2002; Olsen & Crawford, 1998). Finally, as a result of economic down-turns or recessions tenure track faculty may leave the institution at which they teach for more lucrative jobs in the private sector (The Chronicle of Higher Education, 2008, Available at http://chronicle.com/article/Average-Faculty-Salaries-By/47059).

Underrepresentation of Minorities

Continuing underrepresentation of United States minorities and women among tenured and senior faculty exists at some institutions. While minority scholars hold increasing numbers of faculty positions in colleges and universities across the United States the proportion of United States minority scholars lagged well behind the increase in raw numbers because the number of white and nonresident-alien scholars also rose during the last decade (Smallwood, 2006). Hispanic and Asians experienced the greatest percentage growth.

Actually, the overall totals of minority representation at each institution mask great variation by field. Minority Americans are earning large numbers of doctorates in certain fields, but are all but absent from others. For example, American Indians, African Americans, and Hispanics earned more than 860 doctorates in the field of educational research and administration in 2004, but only six in astronomy, 22 in physics and 29 in mathematics, according to the

Survey of Earned Doctorates, which is sponsored by several federal agencies (Williams-June, 2007).

Type of Institution

Researchers have argued that type of institution makes a difference in determining whether faculty are satisfied with their institution as a place to work (Johnsrud & Heck, 2002; Johnsrud & Rosser, 2002; Olsen & Crawford, 1998; Boyer, 1997). Many classifiers have been used. For example, Bowen and Schuster (1986) argued that faculty job satisfaction (defined as morale in their study) was reasonably good at a third of the thirty-eight institutions they surveyed. Universities that exhibited higher satisfaction tended to be stronger in research or were more selective liberal arts colleges. Johnsrud and Rosser (2002) defined institution as either public or private in their multi-level study on faculty members' morale and their intention to leave. This classifier allowed to them to examine differences in faculty morale and intention to leave in public versus private institutions. They found that there was very little difference in faculty job satisfaction between public and private institutions but that institutional characteristics such as access to funding, autonomy in teaching and research awarded faculty members and benefits shared in some cases by both public and private institutions made a difference in faculty job satisfaction (Johnsrud & Rosser, 2002). Finally, Boyer (1997) in his descriptive study of faculty job satisfaction used Carnegie classification and academic area to survey faculty job satisfaction.

Fiscal Constraints

The impact of fiscal constraints on higher education continues to grow as state and federal agencies have less money to spend on higher education and America and the world continue to experience fiscal crisis. Predictions are that that this trend will continue for some time (Gullatt, 2006; Rosser, 2006). Fiscal constraints and declining confidence in higher education may result in a shift in working conditions for all employees, not just tenure track faculty members. Thus, as data on tenure track faculty member working conditions are examined over time new or additional characteristics may unveil themselves due to additional scrutiny of the performance of tenure track faculty.

The previous sections on faculty turnover, faculty shortage, underrepresentation of minorities, type of institution and fiscal constraints illustrate many differences that tend to shape the concerns of faculty members at universities and colleges throughout the United States. Thus economic, demographic and social differences influence faculty members perceptions of well being at their universities and colleges.

Early Turnover Studies

Early turnover studies are important to the study of tenure track faculty job satisfaction because they form the basis for understanding not only the structural underpinnings that influence faculty job satisfaction or turnover but they also focus on the socio-psychological perceptions faculty members experience. Early turnover studies focused on the dissatisfaction of individuals within organizations

and their decisions to leave (Caplow & McGee, 1958; Flowers & Hughes, 1973; March & Simon, 1958; McCain, O'Reilly, & Pfeffer, 1983; Steers, 1977).

Structural studies shifted to the impact that organizational and structural variables have on work-related attitudes toward job satisfaction. Organizational theorists (Bluedorn, 1982; Price, 1977) modeled this process by producing voluntary turnover models composed of structural, economic and social-psychological variables. They posited a hierarchical model where a range of exogenous variables involving how individuals experience the organization (e.g. salary, size, integration, communication, centralization, opportunity) affect intermediate social psychological variables such as job satisfaction, morale and commitment. In turn, these variables are proposed to influence intended and actual organization turnover. As Bluedorn noted, the organizational factors of individual experiences include its technology, internal opportunity structures (e.g., promotion and transfer), and its emergent structures (e.g. communication, decision making, conflicts). Members will react (affectively, cognitively, and behaviorally) in accordance with their perception of organization situations. The structural functional aspects of these models are important to the institutional model proposed in this study because they take into account not only the structure of the institution but the behavioral outcomes that result.

Faculty turnover studies also differentiated between actual turnover and the intent to leave the organization, with much of the research focusing on intent to leave. Actual turnover is more difficult to study because once organizational

members have left, they are difficult to locate and their response rate to surveys is often low. Exit interviews are not compulsory for faculty at many institutions. In previous studies, intent to stay or leave one's position has been found to be a good proxy indicator for actual turnover (Bluedorn, 1982; Lee & Mowday, 1987; Steers & Mowday, 1981). Bluedorn's review of organizational turnover indicated that there was a significant positive relationship between leaving intentions and actual leaving behavior. Similarly, Lee and Mowday found that job satisfaction, organizational commitment and job involvement explained the intention to leave, which, in turn, predicted actual turnover.

Research on Faculty Job Satisfaction and Intent to Leave

Research on faculty intent to leave reflects the concern that some researchers (Boyer, 1994, 1997; Johnsrud & Heck, 1998; Johnsrud & Rosser, 2002; Smart, 1990; Trower, 2005) have to include individual, structural and contextual characteristics in their research. Smart argued that at least three sets of determinants explain turnover intention among faculty members: individual characteristics reflecting demographic and work factors, contextual variables reflecting individual stature and adjustment to work environment, and the dimensions of organizational and career satisfaction. Smart's study represents the initial effort to explore the relative importance of these influences and to understand the dynamic process by which these influences contribute to faculty job satisfaction and intent to leave. Smart also demonstrated that the impact of salary or role in governance is mediated through satisfaction.

Dimensions of Faculty Worklife Satisfaction

Studies of the dimensions of faculty worklife satisfaction include examinations of faculty satisfaction, morale, motivation and productivity, reward, retention and turnover. This research includes numerous studies to improve understanding of faculty and their worklives, including examinations of faculty satisfaction (Boyer et al., 1994; Johnsrud & Heck, 1994, 1998; Johnsrud & Rosser, 2002; Olsen, Maple, & Stage, 1995) morale (Bowen & Schuster, 1986; Kerlin & Dunlap, 1993); motivation and productivity (Blackburn & Lawrence, 1995; Fairweather, 2002); reward (Boyer, 1990), and retention and turnover (Johnsrud & Heck, 1994; Smart, 1990).

A useful definition of satisfaction for this study is that proposed by Olsen and Crawford (1998). They define satisfaction as a "met expectations" hypothesis which predicts "that when an individual's job expectations—whatever they are—are not substantially met, the propensity to withdraw will increase". This they draw from the work of Porter, Steers, Mowday, and Boulan (1973). A more fully articulated and useful version of this hypothesis suggests a causal model in which fulfillment of work expectations affects employee job satisfaction, work commitment and other job-related attitudes which in turn affect job performance and ultimately turnover. A number of other studies have applied this form of the model to work experiences of new employees, much like tenure track faculty members, in large organizations (Major, Koziowski, Chaio, & Gardner, 1995; Pearson, 1995; Rosin & Korabik, 1995). This is especially useful for this study

since unmet expectations are likely to increase faculty dissatisfaction and in turn increase faculty turnover which is a concern of many institutions today. While this study does not explore the connection between faculty satisfaction, or dissatisfaction, and productivity because of a lack of data on productivity, it does explore the connections between tenure track faculty worklife and satisfaction.

Studies have also explored the connection between quality of life and satisfaction (Latif & Grilio, 2001) which is also useful for this study since quality of life in terms of collegial relations among tenure track faculty members and senior faculty was important to the satisfaction of the 237 respondents interviewed. Harrison and Kelly (1996) found that among tenure track faculty members tenure anxiety, heavy workloads and a desire for more guidance from colleagues regarding the tenure process was important to tenure track faculty members' satisfaction.

In response to external pressures for improved accountability by members of various state legislatures, trustees and administration, economic pressures and increased enrollment at public and private institutions of higher education, institutional leaders seek to identify outcome measures and generate benchmarks that can be used to build an adequate reward system for faculty they consider valuable or to provide the documentation for those faculty members who are not achieving their potential and do not receive tenure. Tenure track faculty members, in turn, are either troubled or encouraged by these measures depending upon their value within the organization (Trower, 2005).

Conceptualizing Faculty Worklife and Satisfaction

Johnsrud and Rosser's (2002) hierarchical model depicting faculty worklife brings together both the individual and institutional characteristics that affect faculty job satisfaction and intent to leave. They organize these institutional and individual measures into three classes: professional priorities of faculty members, institutional support for faculty, and faculty members' nature of work. These three classes were used to discuss faculty worklife, satisfaction or dissatisfaction and intention to leave. These three classes are assumed to affect "faculty morale" or job satisfaction. This study will use the term "job satisfaction" instead of the term "morale" as since it has less socio-psychological connotations. Job satisfaction will be used interchangeably with Olsen and Crawford's (1998) "met expectations" terminology.

Professional Priorities

Faculty members value their autonomy, one of the values that attracted them to the academic profession in the first place (Tack & Patitu, 1992). Faculty members want to be free to determine what and how they teach, the topic and method of their research, and the nature of their service. In the early twenty-first century, it is evident that the public, legislators in particular, are demanding to know how faculty spend their time, how relevant their research is and how much they care about undergraduate education and the needs of society. The public, and the administration in response, is demanding accountability, and the autonomy of faculty to determine their priorities, is threatened (Trower, 2005).

The threat to autonomy can be seen in the detailed reports that are demanded by university administrations not only in the official files that are required by state and federal government authorities but by the types of surveys that are required. For example, University of North Carolina General Administration requires completion of the Delaware Survey which details information about the cost of research and teaching faculty across departments. This information includes teaching loads, student credit hour production, budget for teaching and research, and allowances made for graduate students. In addition, all universities are required to produce files on personnel, student courseload, course descriptions, financial aid and so on to state and federal agencies. Legislatures demand more and more accountability as budgets decrease and universities compete for resources with corporate and non-profit entities (Fairweather, 2002; Association of Institutional Research, 2009, Retrieved March, 2009, from http://www.airweb.org/?page=309).

Many faculty criticize the reward system on their respective campuses as skewed too heavily toward research (Carney, Bacig & Helm, 2007; Chen et al., 2004; Boyer, 1997; Smart, 1990). Boyer (1997) found that one-half of the faculty at research and doctorate granting institutions agree (or agree with reservation) that the pressure to publish reduces the quality of teaching at their university. Sixty-five percent believe that better ways besides publications, are needed to evaluate the scholarly performance of faculty. Thus, individual compensation, promotion, tenure, prestige and marketability are very much related to research

productivity no matter what type of institution. Chen et al. (2004) also indicate that it is becoming increasing important for faculty to become more productive in their research quality.

These inadequacies in the reward system perceived by faculty members have led some universities and/or university departments to search for better ways of evaluating their faculty and make new policy. For example, the Department of Joint Biomedical Engineering at North Carolina State University has put into place Rule 05.67.309 for reappointment, promotion and tenure (Retrieved September, 2009, from http://www.ncsu.edu/policies/employment/rpt/RUL05.67.309.php). This rule is consistent with the College of Engineering's rule and North Carolina State Academic Tenure Policy and UNC Chapel Hill School of Medicine Tenure Policy. The department offers both undergraduate and graduate programs that continually incorporate technological advances through research to satisfy the need for highly educated engineers and scholars in various specialty areas of biomedical engineering.

Reappointment, tenure and promotion criteria for tenure track faculty in the Department of Joint Biomedical Engineering at North Carolina State University requires that each tenure-track faculty member is expected to make substantial contributions to teaching missions by contributing in two of the following six areas in their first two years of service. A contract is signed between faculty member, department head and the college (Dean). The areas include: (1)

teaching and mentoring students; (2) discovery of knowledge through discipline-guided inquiry; (3) creative artistry and literature; (4) technological and managerial innovation; (5) extension and engagement with constituencies outside the university, and (6) service in professional societies and within the universities and hospitals.

Faculty Workload

Faculty spend long hours working on their teaching assignments and/or research. Workload for which they are evaluated, in addition to teaching assignments, traditionally includes their own research on which they are expected to publish in peer reviewed journals, mentoring of numerous student theses and dissertations, advising, service, including serving on various committees both internal to the department and/or school or college and also committees external to the institution. Schuster and Finkelstein (2008) reports that faculty members' overall workload at research universities averages a 60-hour work week. He further estimates that with the impact of technology this figure can be increased by five to ten percent. United States faculty are spending an increasing amount of time on teaching, in part due to technology, in part due to new pedagogies, and in part due to the explosion of information in most fields (Schuster & Finkelstein).

The pressures to publish are increasing, particularly at research universities, along with pressures brought on by an expectation that faculty bring in external support and generate their own salaries; this coupled with a shift in

students' primary focus for their educational outcomes in the purely vocational, and an increasing tension, among faculty, between competition and collegiality within institutions (Blackburn & Lawrence, 1995; Carney, Bacig, & Helms, 2007).

Finally, new and early career faculty immediately face most of the challenges and stressors that have been described from the very beginning of their academic career. Gappa, Austin and Trice (2007) note that new faculty enter their academic careers because they believe that faculty work involves autonomy, flexibility, freedom to pursue academic interests, and opportunities to serve society through education. Unfortunately, what early career faculty members hope for does not fully match what they actually experience. Olsen (1993, cited in Gappa et. al, 2007) found that satisfaction with faculty work actually declined over the first several years of tenure-track faculty appointment, and that this decline was accompanied by an increase in job related stress attributed to conflicts involving time and worklife balance.

Institutional Support

Research also shows that there are multiple opportunities to make investments that can help to mediate the challenges faculty face and contribute to their success. Among the factors that contribute to faculty members' satisfaction are support from the administration, a positive departmental climate, a sense of community and collegial relationships, opportunities for professional development, a perception of being fairly compensated, autonomy, a feeling of

control over ones career, and having the resources one needs (Blackburn & Lawrence, 1995; Gappa et al., 2007; Carney et al., 2007).

Faculty lack confidence in the administrative support an institution can provide (Boyer et al., 1994). There is evidence that faculty have the most confidence in leaders closest to them, like department chairs (Johnsrud & Heck, 1994). The strength of the chair and departmental relations has shown to be critically important to the success and retention of faculty. The confidence of the faculty lessens as the distance between themselves and their leaders increases (i.e., deans, senior administrators, presidents, board members and trustees) (Boyer et al.).

Faculty have as little faith in their own systems of governance as they do with institutional leadership. Bowen and Shuster (1986) reported that faculty are dispirited over their loss of influence over decisions that affect their work and work environment. Sixty-four percent of United States faculty respondents felt “not at all influential” in helping to shape key academic policies at the institutional level (Boyer et al., 1994). The dilemma facing the academy is how the administration can address the external demands for accountability while supporting and preserving the faculty’s control over their work. Even faculty unions or organizations such as the faculty senate are often thought to receive little support (Trower, 2005).

Quality of Life

The role of salary in job satisfaction and intent to leave an institution is of interest, for stories abound of raiding, off-scale offers, and counter-offers (The Chronicle of Higher Education, 2008). Also, in times of economic draw-downs or recessions, such as those experienced in late 2008 and 2009, entry level tenure track faculty salary offers tend to decrease while furloughs and freezes to existing faculty salary are made (CUPA-hr, 2008). The empirical findings in this area have been mixed. In a replication of Caplow and McGee's study published in 1958, Burke (1988) found that the reasons given then for leaving—prestige, security and authority—shifted in 1988 to quality of life and personal fulfillment. Weiler (1985) reported that salary was a significant factor in leaving, but that two-thirds of those who leave cited personal factors, such as relationships with colleagues or a career change. Although salary alone does not act as a long term motivator (Moore & Amey, 1993), salaries that are perceived as being unfair relative to other professionals can have a great impact on the faculty's perceptions of quality of life. Faculty salary must also be looked at in terms of department and/or area, research or teaching institution, public and private to determine fairness. Organizations like College and University Professional Organization for Human Resources (CUPA) and the American Association of University Professors (AAUP) provide yearly research assessments on faculty salary. In a study comparing the perceptions of those faculty members who had actually departed and those who had remained in one institution, Johnsrud and

Heck (1994) found that demographic variables and perceptual variables about worklife in the institution were significant in differentiating those faculty members who stayed and those who left.

Poor working conditions also cause consternation. Poor working conditions include lack of access to graduate students to assist with research, facilities, supplies, and support personnel as well as the deterioration of physical plants at colleges and universities (Bowen & Schuster, 1986). Lack of support sources such as graduate students, library services, computing support and even parking can be a source of real frustration, particularly if the limited resources are seen as inequitably distributed.

Public Perception

Finally, a less tangible commodity that affects how appreciated and supported faculty feel is their public perception. Among United States faculty responding to the Carnegie Foundation survey, 64% agreed with the statement that respect for academics is declining (Boyer et al., 1994). The quality of life faculty once enjoyed is eroding. Reasons for this erosion of public perception have not been investigated adequately. In addition, because of corporate and non-profit competition it may be the inability by universities to place sufficient thought leaders that can influence decision making that benefits both the university and the corporate environment in appropriate places to influence the university's success and show the university as a key player (Mazzoni, 1991).

Faculty members' perceptions of their worklife result in attitudinal outcomes measured as "morale" by Johnsrud and Rosser (2002). But does "morale" (or job satisfaction) affect the intent of faculty members to leave their institutions? Johnsrud and Rosser define morale as the level of well-being that an individual or group is experiencing in reference to their worklife. Johnsrud and Heck (1998) and Johnsrud and Rosser (2002) found that morale is multidimensional and that it is well defined in the dimensions of professional priorities, institutional support and quality of work. These concepts involve both organizational and individual constructs and faculty members' perceive these benefits (or lack thereof) to influence their quality of life or job satisfaction.

Satisfaction as an Individual Perception or a Collective Perception

Researchers have studied satisfaction as either an individual or a collective perception and a property of both (Hox & Kreft, 1994; Johnsrud, Heck, & Rosser, 2002; Lingrin, 1982; Zeitz, 1983). Zeitz and others define satisfaction as a collective trait describing members' affective responses to the organization. In contrast, others conceptualize satisfaction as an individually held set of beliefs (Baynes, 1967; Doherty, 1988; Wesbrook, 1980; Wofford, 1971). Since man is a social animal who interacts and is influenced by his or her peer group it is often difficult to separate individual and collective perspectives.

Limitations in the conceptualization of organizational constructs such as satisfaction were due to the way the authors constructed their methodological arguments and in choosing the proper unit of analysis—should constructs be

analyzed at the individual level, the group level or as individuals nested within groups.

Studies have been conducted at the both the individual level and the group level of analysis because of the problems with obtaining data. In organizational studies individuals are clustered into groups, and group members share some common characteristics (beliefs, attitudes, values, types of research). If these clusters (determinants) are not correctly organized ecological fallacy will occur. Ecological fallacy occurs when a researcher makes an incorrect inference about an individual based on information about the group. When data for both individuals and groups is available theoretical and methodological issues can now be more adequately addressed through multilevel analysis (for example, hierarchical linear modeling) which allows simultaneous definition and measurement of organizational constructs as both individual and group properties.

Conceptualizing the Nature of Faculty Worklife and Satisfaction

Findings to date indicate that a combination of individual and organizational (including both structural and perceptual) variables determine faculty job satisfaction and intention to stay or leave. Many of the variables already have been identified in this research. These variables relate to faculty worklife. Many of the studies include intermediary attitudinal outcomes that, in turn, have an impact on intent to leave. Most studies, lack a clear set of theoretical relations. What is more, in order to protect the anonymity of faculty

member respondents, studies are carried out at an academic area or department level with care given to not reporting areas with too few observations. While this is good for the respondent because it preserves anonymity in respect to a subject that could be politically charged, it makes it difficult for the researcher to get a well-defined picture of satisfaction intention to leave.

The Theoretical Model of Faculty Retention

Figure 2 represents much of the previous research that has been discussed in the literature section by researchers who studied faculty worklife, satisfaction and intent to leave. It is easier to conceptualize the constructs that contribute to faculty morale and intent to leave by mapping out this relationship. The theoretical model is based on Johnsrud and Rosser's (2002) statistical model of faculty job satisfaction and intent to leave what has already been discussed in this study. This study has used Johnsrud and Rosser's model in order to build a theoretical model that recognizes that additional constructs such as gender, race, tenure, discipline and salary at the individual level and administrative support, funding and benefits at the organizational level also contribute to the satisfaction of faculty members. The theoretical model also includes a dotted line to performance since some authors indicate that satisfaction affects performance. The reason for adding these exogenous variables to the theoretical model is to indicate differences based on those variables in faculty engagement of work, sense of well being and institutional regard based on the previous research. This study recognizes these differences.

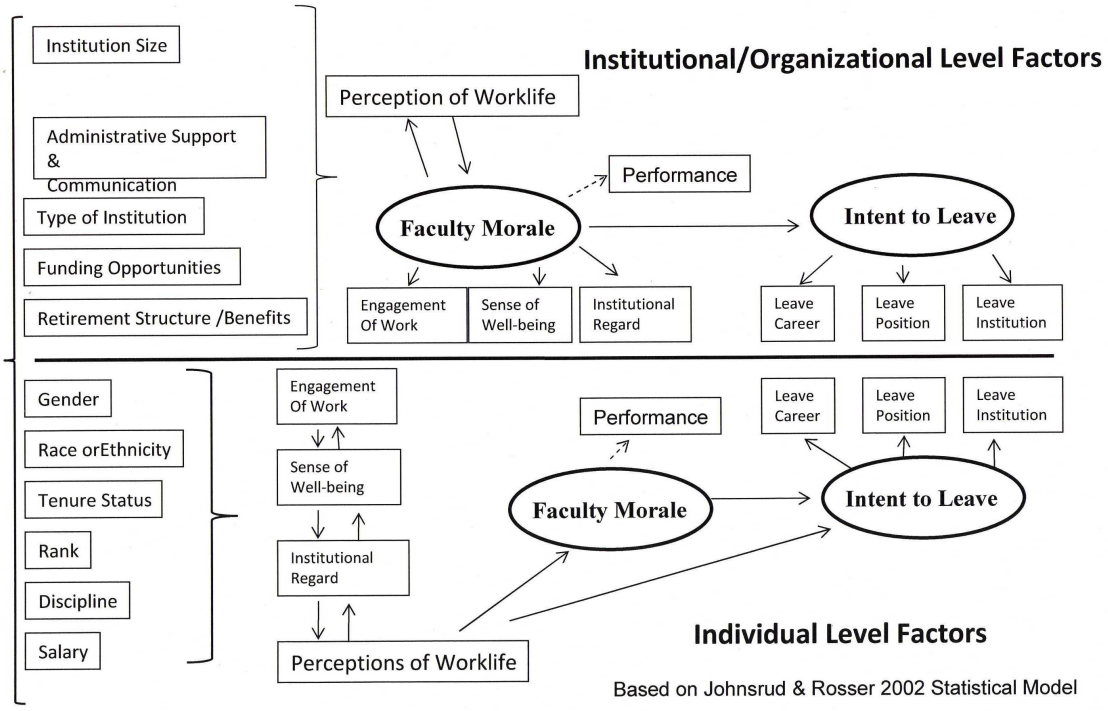

Figure 2. Multilevel theoretical model of faculty morale and intention to leave.

The left brackets in the diagram indicate that there may be interaction between the exogenous variables in the model. The right brackets indicate that all of the exogenous variables contribute to faculty satisfaction and intent in some way and thereby influence faculty members' feelings about intention to leave.

Faculty satisfaction and intent to leave are expressed differentially by faculty member's engagement in work, well being and regard for the institution. Factors such as sense of autonomy, rewards, and salary play an important part in these outcomes.

Engagement in work, sense of well being and institutional regard also can be considered latent variables because they can be mapped to the three categories that Johnsrud and Rosser (2002) use to define their theoretical model. Those being attack on professional priorities, lack of confidence in their institution and quality of life. Ultimately, the intent to leave is a personal one (unless the university does not grant them tenure).

Policy and Political Implications

As a result of this public concerns, greater depth of understanding of the professional worklives of faculty members in the traditional areas of teaching, research and service are now being required. Additional Carnegie special classifications like the service classification require greater scrutiny of what it is to do service. The need to justify how faculty members spend their time and to ensure that they are productive is resulting in higher demands for performance in all three areas of faculty work.

Despite increased concern, there continues to be limited understanding at a national level regarding the impact professional and institutional worklife issues have on faculty members satisfaction, and subsequently, on their intentions to leave their institution or their careers. There is also limited understanding of how these environmental and/or political issues (the macro level issues) affect satisfaction. This study assumed that both structural and individual issues affect faculty members' job satisfaction and intent to leave their institution or leave their career entirely.

In summary, much of the previous research on faculty worklife has included such issues as faculty member's motivation, productivity and behavior (Blackburn & Lawrence, 1995), rewards and salary (Boyer, 1990; Hagedorn, 1996; Matier, 1990; McKeachie, 1979), gender and minority issues (Acquirre, 2000; Johnsrud & Sadao, 1998; Turner & Meyers, 2000), instructional and learning technologies (Groves & Zemel, 2000; Privateer, 1999; Rice & Miller, 2001), and satisfaction (Boyer et al., 1994; Olsen et al., 1995; Tack & Patitu, 1992). These important worklife issues have also been perceived as relevant to the satisfaction and retention of faculty members (Barnes, Agago, & Coombs, 1998; Johnsrud & Heck, 1994; Johnsrud & Rosser, 2002; Mangner & Eikeland, 1990; Smart, 1990; Weiler, 1985). Few studies, however, have simultaneously examined the effect of environment and/or political issues and faculty members' worklife, satisfaction, and their intention to leave.

It is difficult for researchers to piece together these issues because it requires a great deal of data not only about the environment and the community surrounding the university (including the policy and political environment) but also about the university charter and its organization as well as information about individual qualities such as faculty member's worklife, satisfaction and their intention to leave. There is often a great deal of "noise" in environmental data that does not relate uniquely to the university which makes this piece unstable and difficult to analyze. While the purpose of this study is not to analyze how environmental variation affects the institution and its faculty members, it is important to understand how the environment may affect changes in institutional structure as well as affect relations that faculty members have with their institution, the administration, their department and other faculty members. For this reason the study will briefly examine the contributions of Sabatier and Weible (2007) and the theory of advocacy coalitions.

The Advocacy Coalition Framework and the Macro Level Policy Environment

The studies that have already been examined suffer from the lack of variables that measure the environment outside the university and the affect that it has on the university and its employees. To better understand the effect of environmental issues on faculty satisfaction and retention one can look through the lens of the Advocacy Coalition Framework (Sabatier & Weible, 2007). While measuring the environment is not a task for this study it is important to recognize that it does indeed play a part in shaping the university environment. The

framework which Sabatier and Weible used to examine long term policy functions will allow us to explain some of the environmental affects influencing university decision making as it pertains to university typing. This typing influences how faculty members respond to the pressures and experiences of their environment in part because of the university charter and the university's Carnegie Classification. For example, public institutions are more likely to be influenced by the actions of their legislators than private institutions. Private institutions, on the other hand, may be influenced by different actors such as donors who represent big business.

These foundations may affect the dependent variable "satisfaction as beliefs and policy changes occur through two critical paths "policy learning" and "external perturbations". Policy change in the Advocacy Coalition Framework traditionally looks at change over a decade or more. Indeed, the role of the faculty member has changed from an environment of great autonomy to one precipitated by measurement and scrutiny over time.

Policy change occurs when fundamental sociocultural values change the state's social structure and fiscal environment. Policy change affects representatives of the university administration and its representatives, the Chancellor, Executive Vice Chancellor and/or Provost and the trustees and board of directors. It is the task of administrators to carry out these policy changes. Demographic and economic changes threaten to change the unique profile that a university has established over several decades.

Thus, coalition building occurs at all levels. Administrators often petition legislatures for adequate funding or attention to policy concerns and legislators interact with business executives and non-profit agencies for research and funding interests. Each group has their own set of policy specialists as Sabatier and Weible would call them. In times of economic downturns or recession this becomes a fiercely fought battle and a degree of consensus must be achieved in order to carry on (Sabatier, Hunter, & McGlaughlin, 1987; Sabatier & Jenkins-Smith, 1988) Actors often view their opponents as less trustworthy, more evil and more powerful than they probably are.

Self Perpetuation and Identification – The Carnegie Classification

Individual universities often specialize. This is important part of their survival. Universities are like living subsystems in that they try to respond to the environment around them. An environment that is in flux characterized by increased or changing needs may be met with a university whose survival is dependent upon responding to those needs—the university's profile may be subject to change. The predominant method of university classification is the Carnegie Classification. Having a particular Carnegie Classification profile perpetuates that definition of the university.

Information used in these classifications comes primarily from the Integrated Post-Secondary Data System (IPEDS) and the College Board Classifications of particular institutions. These classifications can be found on the

Carnegie Foundation's Institution website (www.carnegiefoundation.org/classifications/sub.asp?key+782).

There are three major Carnegie Classifications divisions that will be discussed in this study. Each major classification contains three major subdivisions. The major classifications include Doctorate-granting universities, Masters colleges and universities, and Baccalaureate colleges.

Doctorate-Granting Universities

Doctorate-granting Universities are those institutions which "awarded at least 20 doctorates" in 2003-2004. They consist of

- Research Universities (RU/VH) that offer a full range of baccalaureate programs, are committed to graduate education through the doctorate degree and give a very high priority to research activity.
- Research Universities (RU/H) that offer a full range of baccalaureate programs, are committed to graduate education through the doctorate degree, and give high priority to research.
- Doctoral/Research Universities (DRU) offer a full range of baccalaureate programs. The mission of these institutions includes a commitment to graduate education through the doctorate degree Doctoral/Research Universities often are also dedicated to serving the community.

Master's Colleges and Universities

Master's Colleges and Universities are those institutions which "awarded at least 50 master's degrees in 2003-2004, but fewer than 20 doctorates.

- Master's Colleges and Universities (Master's/L) Larger Programs offer baccalaureate programs and, with few exceptions, graduate education through the master's degree. More than half of their baccalaureate degrees are awarded in two or more occupational or professional disciplines such as engineering or business administration. All of the institutions in this group enroll at least 2,500 students.
- Master's Colleges and Universities (Master's/M) Medium Programs award more than half of their baccalaureate degrees in two or more occupational or professional disciplines, such as engineering or business administration, and many also offer graduate education through the master's degree. All of the institutions in this group enroll between 1,500 and 2,500 students.
- Master's Colleges and Universities (Master's/S) Smaller Programs award more than half of their baccalaureate degrees in two or more occupational or professional disciplines, such as engineering or business administration and many also offer graduate education through the master's degree. All of the institutions in this group enroll less than 1,500 students.

Baccalaureate Colleges

Baccalaureate Colleges are those institutions at which “bachelor’s degrees accounted for at least 10% of all undergraduate degrees and they awarded fewer than 50 master’s degrees in 2003-2004.

- Baccalaureate Colleges-Arts & Sciences (Bac/A&S) are highly selective institutions that are primarily undergraduate colleges. They award more than half of their baccalaureate degrees in art and science fields.
- Baccalaureate Colleges-Diverse Fields (Bac/Diverse) institutions are primarily undergraduate colleges that are less selective and award more than half of their degrees in liberal arts fields. This category also includes a group of colleges that award less than half of their degrees in liberal arts fields but, with fewer than 1,500 students, are too small to be considered comprehensive.
- Baccalaureate Associate’s Colleges (Bac/Assoc) are institutions that offer baccalaureate degrees and also offer associates two year degrees. These institutions offer certificate or degree programs through the Associate of Arts level and with a few exceptions offer no baccalaureate degrees.

These classifications constitute one of the methods used by COACHE for classification of colleges and universities. There are also classifications for

Associate Colleges – those awarding Associate's Degrees only – however they are not used in our analysis of faculty job satisfaction and intent to leave.

For over three decades, the Carnegie Classification has been the leading framework for describing institutional diversity in United States higher education. It has been widely used in the study of higher education, both as a way to represent and control institutional differences, and also in the design of research studies to ensure adequate representation of sampled institutions, students and faculty (The Carnegie Foundation for the Advancement of Teaching, Retrieved March, 2009, from http://www.carnegiefoundation.org/classifications/). The Carnegie Classification has become a very pervasive (and persuasive) way of rating various institutions by the legislature, university administrations and the public as well. An institution's Carnegie Classification provides a symbol for public perception (Retrieved March, 2009, from http://www.carnegiefoundation.org/classifications/).

Another change is the introduction of an "elective" classification. Unlike classifications based on secondary analysis of existing national data, elective classifications rely on voluntary participation by institutions, permitting analysis of attributes that are not available in the national data. The first elective classification, released in December 2006, focuses on community engagement. For those universities that adopt this classification, the classification has already caused a great deal of dissention between administration and faculty as both groups strive to define what "community service" means and faculty discuss what

other responsibilities will be added to their job descriptions that they need to fulfill. This, along with the list of other objectives -- research, teaching and service -- must be incorporated into the plan that each faculty member must accomplish to become a tenured professor at the university. Couple these university goals without a substantial increase in compensation for faculty members and the institution risks a dispirited academy of faculty members who are despondent over unreachable administration goals.

Classification as a Sociological Construct

Classification is a ubiquitous human activity. It may be an essential part of how people make sense of the world by organizing, storing and sorting information about complex structures. These classification systems generate various policies related to these systems and the audiences they speak to. Various classifications are based on different criteria based on the services a university performs, the amount of research or teaching it conducts, or the amount service it provides to the community.

Classifications have power because they facilitate the analysis of complex phenomena by reducing cognitive complexity but there are dangers associated with the process. A significant one is reification, whereby categories representing conceptual constructs come to be viewed as empirically real or natural. In addition, a dominant classification may channel public perception and limit the consideration of other perspectives. Classification also tends to be retrospective, based on observations from the past—these classifications are static rather than

dynamic: the fixed categories of a classification or fixed classifications of individual entities may not keep up with phenomena that are subject to change over time – there are no hybrids in the classification system, thus many lenses have to be used. Classification engenders policy and policy defines the institution.

The Micro Level Policy Environment – The Institution

The study has explored how demographics, organizational and socio-psychological variables influence faculty satisfaction and intent to leave and to some extent it has focused on how often-opposing advocacy coalitions such as those represented by administration or faculty within a university influence a faculty member's perception of worklife and job satisfaction. However, it has not focused on these constructs in relation to policy. Johnsrud and Rosser (2002) conducted a system-wide study of faculty members on ten campuses in which they proposed and tested a multilevel structural equation model (SEM) on the quality of faculty worklife, encompassing professional priorities and rewards, administrative relations and support, and the quality of benefits and services. The purpose of their model was to ascertain the impact of faculty worklife and morale (satisfaction) on intent to leave and determine whether the impact is a function of individual or institutional perceptions. (This model was used to construct Figure 2 – the theoretical model.) The results indicated that the perceptions faculty members have of their worklife had a direct impact on their satisfaction, and subsequently on their intentions to leave at both the individual and group or

institutional levels. In Johnsrud and Rosser's (2002) model there was little or no direct effect of demographic and worklife variables on faculty members' intention to leave. Thus, the quality of faculty members' worklife affected the level of satisfaction, and in turn, satisfaction affected their intentions to leave their position and career.

Rosser (2004) found that sets of issues defined by professional development, administrative support, committee and service work and technical support were important in promoting faculty satisfaction with their current environment. These are some of the "quality of life" issues that Johnsrud and Rosser (2002) referred to. These issues had already been independently shown to be important in the professional and faculty worklives (Blackburn & Lawrence, 1995; Bowen & Schuster, 1986; Fairweather, 1995; Johnsrud & Rosser; Layzell, 1996; Plater, 1995; Rice & Austin, 1988; Smart, 1990). The study will provide current information from the COACHE survey to substantiate each of these constructs.

Professional Development

Providing adequate funding to support faculty members' professional activities and development is important to retention (Plater, 1995; Rice & Austin, 1988). Rice and Austin suggest that faculty development programs can be a contributing factor to the satisfaction of faculty members. Faculty development often includes travel support to attend research meetings or professional development seminars, release time from teaching and course load

responsibilities, sabbatical leaves to pursue new research interests or to enhance existing ones and provision of funds to participate in those efforts that enable faculty members to maintain a current and relevant research agenda in their area of expertise. Plater (1995) noted that faculty development should be the engine that drives a campus mission. However, studies have indicated that faculty development differs by university type. Research institutions tend to invest more resources towards faculty development while teaching or service universities often do not have the infrastructure to adequately support needed faculty development thereby reflecting mission and vision of the institution.

Administrative Support

Providing adequate and equitable support services to faculty members within a department or college—specifically secretarial or office support, library services and availability of materials, and teaching or graduate assistants -- has an impact on impressions of faculty worklife and satisfaction (Johnsrud & Rosser, 2002; Kerlin & Dunlap, 1993; Matier, 1990). The least favorite work for faculty is often administrative, and the more assignments that are made, the less time there is for research, grant writing, and the like. Again, this is often the case at service or teaching institutions and less evident at research institutions that have more funding for these support services.

Committee and Service Work

Faculty members had, in the past, developed a form of work that is largely self-regulated and free from personal accountability however the atmosphere is

changing (Plater, 1995). The areas associated with committee and service work include a number of committees that faculty members serve on and chair. Committee and service work activities are considered “intangible” measures that often do not account adequately for faculty time (Layzell, 1996) or tenure. Nonetheless, service for faculty is vital (Kennedy, 1997) as is restoring the value of public service in academic life (Fairweather, 1995). These non-research and non-student contact hours can quickly pick away at faculty members’ valuable time (Rosser, 2004). Women and ethnic minorities have been portrayed as especially vulnerable to being assigned to time-consuming service tasks and responsibilities (Denton & Zeytinoglu, 1993; Menges & Exum, 1983; Parson, Sands, & Duane, 1991). Although the percentage of time allocated to service and committee work varies by mission and institutional type, the percentage of time can become overwhelming for junior faculty members in tenure track positions. Without mindful monitoring of these service activities by the administration, faculty may develop negative perception of their worklives.

Technical Support

Technology is redirecting all facets of education and faculty members who are not provided adequate technological equipment for their teaching, research and service activities may not be productive. This may affect faculty satisfaction and intent to leave (Groves & Zemel, 2000). Technical support may not be confined only to computer resources but includes the quality of the buildings faculty members work in, their laboratories, instructional resources for faculty

members to use, the expertise of their research assistants and the upkeep of the campus itself.

Advising and Course Loads

Responsibility to students is at the very core of the university's mission and of the faculty's academic duty (Kennedy, 1997). The more time a faculty member spends relating to students (Baldridge, Curtis, Ecker, & Riley, 1977) and the more the faculty member is satisfied with the quality of his students, often relates to high satisfaction with worklife (Hagedorn, 1996). However, research is likely to suffer when advising and course load activities become overwhelming (Boice, 2000). Female faculty members who often reside in tenure-track faculty positions are more likely to have heavier teaching loads (Austin & Gamson, 1983) and as a result take on higher advising loads. In addition, minority faculty members are also expected to take on a symbolic role and serve students of color as both a role model and confidant (Acquirre, 2000). The degree to which advising and course workload impact satisfaction (either positively or negatively) is an important contributor to satisfaction or dissatisfaction (Johnsrud & Rosser, 2002).

Satisfaction with Benefits and Security

Less than half of the faculty members in a national study indicated that they were satisfied with their salary and fringe benefits (Manger, 1999). Salary, retirement and job security have been shown to be important personal issues that affect the satisfaction of faculty members in colleges and universities (Boyer,

1997; Hagedorn, 1996). Although much of the research suggests that salary, in and of itself, is not the most important predictor of satisfaction with worklife, salary has been the primary reason why faculty members leave their institution (Boyer et al., 1994; Matier, 1990; National Study of Postsecondary Faculty [NSOPF], 1999). Benefit plans (e.g. medical, retirement) and secure tenure track positions have also been shown to be important issues relating to faculty member's satisfaction (Hagedorn; Matier) and their morale (Johnsrud & Rosser, 2002).

Conclusion

The review of the literature has examined the complexity of the study of tenure track job satisfaction and provided the reader with necessary background. It has recognized that there are a variety of structural, socio-psychological, demographic and environmental indicators that must be examined, or at least considered, when studying tenure track faculty job satisfaction. The literature review has also reviewed the results of several major studies including those by Boyer (1997) who used Carnegie classification to present the descriptive results of faculty job satisfaction using national data. It also examined the studies by Johnsrud and Heck (1998) and Johnsrud and Rosser (2002) who used regional data to build a hierarchical model which consisted of many structural and individual characteristics under three classifications: professional priorities, administrative support and nature of work. Johnsrud and Heck (1998) and Johnsrud and Rosser (2002) used public and private institution as a classifier for

their data. COACHE (2005-2006) further defined professional priorities, administrative support and nature of work by grouping the institutional characteristics that Johnsrud and Rosser (2002) examined into several classes: workload, confidence and support for teaching and research objectives by the institution's administration, autonomy, climate, culture, collegiality, and salary to provide descriptive information on how these characteristics affect tenure track faculty job satisfaction at public and private institutions. There have been many more recent case studies which have examined some or all of the variables in question (Carney, Bacid, & Helms, 2007; Chen et al., 2004; Latif & Grillo, 2001).

This study used the COACHE data which was a more recent, national data set, to create a structural model of tenure track faculty job satisfaction based on Carnegie classification to further examine the concepts of workload, confidence and support for teaching and research objectives by the institution's administration, autonomy, climate, culture, collegiality, and salary and how they affect job satisfaction of tenure track faculty at institutions of higher education. This study contributes more recent data concerning the differences and strengths of each component in the study of tenure track job satisfaction based on institutional type and also provides more specific information on the characteristics that make up each of these components.

CHAPTER 3: METHODOLOGY

Purpose of the Study

The purpose of this study was to explore how tenure procedures at institutions of higher education, workload, confidence and support for teaching and research objectives by the institution's administration, autonomy, climate, culture, collegiality, and salary affect job satisfaction of tenure track faculty. These attributes have been shown in previous studies to affect faculty job satisfaction favorably or disfavorably. The dependent variable for this study is overall satisfaction with institution. It is expressed in the COACHE survey instrument as "All things considered, how satisfied are you with your institution as a place to work". Satisfaction is measured on a likert scale with "1" being very unsatisfied and "5" being very satisfied. The independent variables in this study are factors which reflect these workplace characteristics and the variable salary.

This study provided a comparison of three different cohort groups of tenure track faculty defined by Carnegie Classification from over eighty institutions of higher education in the United States. Institutions of higher education were invited to participate in the COACHE survey. Institutions that participated provided lists of their full-time tenure track faculty members who were pre-tenure thereby creating a population for COACHE to survey. Their survey instrument and procedures for analysis were sensitive to type of institution (public/private), Carnegie Classification and academic area as well as sensitive

to individual characteristics such as ethnicity/race, age and gender. COACHE also collected information on salary.

Process of the Analysis

Analysis of the data consisted of four parts: (1) a factor analysis of the data to determine appropriate groupings (factors), (2) tests for multicollinearity among the factors and variables, (3) a zero order Pearsons correlation analysis to determine how highly each factor and variables were correlated with the dependent variable, satisfaction with institution as a place to work, and (4) a regression analysis to test the explanatory power each of the factors had with the dependant variable as well as the amount of variation explained by each of the regression equations.

Instrumentation

SPSS Statistical Package for the Social Sciences Version 17 was used to analysis the data since the data was provided in SPSS format with all value labels and definitions coded in SPSS.

Descriptive Analysis

The descriptive analysis portion of this study reviewed the significant findings of the relationship between each of the components of the tenure track faculty job satisfaction as expressed by the factors which represent workload, confidence and support of teaching and research objectives by the institution's administration, autonomy, climate, culture, collegiality and salary and the dependent variable, satisfaction with institution controlling for Carnegie

Classification. A zero-order correlation analysis using Pearson's r with significance at the .05 level was used to examine the relationship between each of the variables and the dependent variable since Pearson's r measures the amount of shared variation (Pedhazur & Pedhazur, 1991). This zero order correlation analysis also established an initial significant correlation between each of the variables or factors and the dependent variable satisfaction with institution as a place to work. A copy of COACHE's codebook listing the original variables which make up the factors can be found in Appendix A. This study used Carnegie Classification as an indicator of institution type.

Carnegie Classification was collapsed to three categories: Baccalaureate Granting Institutions, Masters Colleges, and Doctoral Granting Research Institutions with High or Very High Research Components. This process was done because not all Carnegie Classification contained enough observations to provide adequate cell size for inferential analysis. Also, based on an analysis of the frequency distributions of the original variables some variables used in this study had many missing values so aggregating the groups was essential in order to assure that there were enough complete observations to perform the analysis and to adequately represent the data.

Missing Value Analysis

Since some respondents did not answer all of the questions in the survey instrument and could affect the results of the study, a missing value analysis was performed to locate variables with high numbers of missing values so that they

could be excluded from the analysis. For example, Research institutions were more likely to answer questions regarding research than Baccalaureate or Masters institutions, since tenure track faculty who reside at Research institutions receive more pressure from their institution and department to publish. Thus, there were a large number of missing values for the bank of questions on research for Baccalaureate and Masters institutions and these questions were excluded from the factor analysis for all three types of institutions. The question, “the amount of time you have to conduct research/produce creative work” was included, so the study was able to measure some characteristics about research in all three cohort groups. For the two hypotheses on research the initial research questions were used to test the hypothesis for Research institutions only.

Missing Value Replacement

Replacement of missing values was an important consideration for this study, and three different techniques for missing value replacement were performed to see if there would be any variation in the distribution of the variables or the factor analysis. Replacement of missing values with mean substitution can serve to skew or bias the distribution which would misrepresent the original data (Pedhazur & Pedhazur, 1991). The three techniques were: (1) replacement with the mean at the variable level, (2) tree based imputation of missing values, and (3) replacement with the mean in the factor analyses. There was little variation in all three methods so it was decided that replacement of the

mean during the factor analysis would be used. This boosted the number of observations that could be included in the analysis.

Scale Construction vs. Factor Analysis

Scale Construction

Construction of scales that would be regressed on the dependent variable, satisfaction with institution as a place to work, was considered based on the various sub-categories of tenure track faculty job satisfaction mentioned in COACHE's Tenure-Track Faculty Job Satisfaction Survey Highlights Report (August 1, 2007). COACHE sub-categories included Clarity of The Tenure Process, Reasonableness of the Tenure Process, Nature of Work-Teaching Composite, Nature of Work-Research Composite, Nature of Work-Service Composite, Importance of Policy and Practices, Effectiveness of Policy and Practices, Climate/Culture//Collegiality. These COACHE classifications reflected Johnsrud and Heck (1994,1998) and Johnsrud and Rosser's (2002) concepts of Professional Priorities, Administrative Support and Nature of Work which were discussed earlier in this study and are believed to be important to tenure track faculty job satisfaction.

When the scales were constructed although revealing adequate Chronbach's alphas of .7 or higher they were also multiplicative in nature indicating that power transformations were needed if a regression analysis was to be run. When scales are multiplicative each additional variable added to the scale does not add a significant amount of new information. In fact, when scales

are multiplicative variables share variation. Multiplicative scales that test significant with a Tukey test for additivity indicate that a great deal of interaction between variables exists (Tukey, 1949). Scales should ideally be additive in nature so that each variable in the scale adds a new dimension to the scale.

Factor Analysis

Exploratory factor analysis was a more appropriate technique to use to determine which variables should be grouped together since exploratory factor analysis would allow for unique groupings of variables and control for a great deal of covariation. Research has shown that the variables that predict tenure track faculty job satisfaction are often highly correlated so an exploratory factor analysis using oblique rotation was appropriate for this study because it controlled for interaction and covariation between variables and arranged the variables into unique groupings based on factor loadings. It was assumed that the factors that make up the indicators of tenure track faculty job satisfaction would vary somewhat across cohort groups, so three factor analyses were computed; one for Baccalaureate institutions, one for Masters institutions and one for Research institutions. By computing three factor analyses the study built unique profiles of each type of institution. A comparison of all three factor analyses was made.

The descriptive analysis portion of this study explored the factor constructs by reviewing the number and uniqueness of each factor for all three Carnegie classifications, thus presenting a unique profile for each type of

institution. The descriptive portion of this study also correlated each of the factors with tenure track faculty satisfaction with institution as a place to work using zero-order correlation analysis (Pearson's r). Significant zero order correlations were reported for each classification. Tenure track faculty job satisfaction was represented by the factor scores constructed for the following indicators: workload, confidence and support of teaching and research objectives by the institution's administration, autonomy, climate, culture and collegiality. The variable salary was included in the correlation analysis and also the regression analysis.

Tests for Multicollinearity

All factors and variables used in both the descriptive analysis and inferential analysis were tested for multicollinearity again using zero-order correlation analysis (Pearson's r). A zero-order correlation of greater than .7 would indicate that multicollinearity existed between one or more variables or factors. Multicollinearity indicates that one or more predictor variables or factors may explain much of the same variation in the analysis. If multicollinearity exists between two variables one of the variables should be removed from the analysis (Pedhazur & Pedhazur, 1991).

Research Hypotheses

The descriptive portion of this study observed the relationship between each of the factors or variables and the dependent variable, satisfaction with institution as a place to work, based on the following research hypotheses:

H1: The more satisfied tenure track faculty are with the teaching component of their worklife/nature of work the more likely they are to be satisfied with their institution as a place to work.

H2: The more satisfied tenure track faculty are that effective policies that relate to their worklife are in place the more likely they are to be satisfied with their institution as a place to work.

H3: The more satisfied tenure track faculty are with the perception that climate and collegiality exist at their institution the more likely they are to be satisfied with their institution as a place to work.

H4: The greater the tenure track member's salary the more likely the tenure track faculty member will view their institution as a satisfactory place to work.

H5: Tenure track faculty who work at Research institutions will be more likely to name satisfaction with the research process as a component of overall satisfaction.

H6: Tenure track faculty who work at Baccalaureate or Masters institutions will be more likely to name satisfaction with the teaching process as a component of overall satisfaction.

H7: Tenure track faculty who experience greater autonomy with their teaching process will be more likely to be satisfied with their institution as a place to work.

H8: Tenure track faculty who experience greater autonomy with their research process will be more likely to be satisfied with their institution as a place to work.

Inferential Analysis

The inferential portion of this study used stepwise linear multiple regression to observe the strength of each factor in the explanation of job satisfaction, using beta weights which were standardized based on the other variables in the equation, and also observed how much variation was explained by combinations of these composite variables controlling for Carnegie Classification. An F test for each regression equation tested whether the variation explained by the factors that entered the equation was significant. It answered the following research questions:

How do differences in workload, confidence and support for teaching and research objectives by the institution's administration, autonomy, climate, collegiality, and salary affect job satisfaction of tenure track faculty. Furthermore, how does job satisfaction of tenure track faculty differ by Carnegie Classification?

The Stepwise Linear Regression Model

Once the factors were validated and tested for multicollinearity they could be used in the stepwise linear regression model. Since this analysis was based on institutional concepts such as Carnegie Classification three regression analyses representing the three composite Carnegie Classifications categories

were executed. Similarities and differences were observed for each institutional type across all three years and were discussed in the results section of this study.

The study measured overall variation in satisfaction as expressed by the adjusted r-square of each regression equation and tested for significance of the equation using the accompanying Fisher's F ratio (F) statistic (Pedhazur & Pedhazur, 1991) with significance at .p=.05. An adjusted r-square adjusts for the number of terms in the regression model. Unlike r-square, the adjusted r-square increases only if the new term improves the model more than would be expected by chance (Draper & Smith, 1998). The Beta coefficients were examined to test the strength and significance that each component has in the explanation of tenure track faculty job satisfaction. An accompanying t-test for each Beta coefficient determined if the contribution was significant at p=.05. In addition to the factors, salary was added to this model since research has indicated that salary is an important construct in overall tenure track job satisfaction. Mean salary has been shown to differ by Carnegie Classification (The Chronicle of Higher Education, 2008). It was the purpose of this study to predict what constructs were most important in explaining tenure track job satisfaction.

Limitations of the Study

It is important to note that this is not a longitudinal study. Tenure track faculty members were not followed throughout their tenure track experience Because cell size is a consideration in performing inferential analysis since low

cell sizes do not display a great deal of variation, Carnegie Classification was collapsed to three major classifications, thus, Baccalaureate, Masters and Research Universities were compared. Also, not all Carnegie Classification categories are represented in all three years of the study and their response rates are low. Baccalaureate Diverse, Doctoral Research Universities, and Master's Small have been dropped from the analysis.

Neutrality and Its Effect on the Data

Finally, it must be noted that the COACHE likert scale construction for all variables includes as a "middle measure" in all scales "neither satisfied or dissatisfied" or "neither reasonable or unreasonable". This category has been included in the analysis so that it is consistent with existing COACHE data and reports. In further study of this data it is suggested that respondents who selected this category be removed from the analysis since they show inconclusive evidence as to their agreement or disagreement with the subject at hand. This category may also serve to skew the distribution. In a further study then the investigator would look at only those who showed disagreement or agreement.

Conclusion

This exploratory study updates the work of Johnsrud and Heck and it adds to the literature published by COACHE which has been primarily descriptive in nature, by attempting to predict what sets of variables contribute more predominantly to tenure track job satisfaction. COACHE's audience has been

primarily administrative in nature and COACHE has attempted to fulfill administrative decision making needs by presenting a more descriptive, but none the less important, informational study in their major reports. The use of Carnegie Classification is also new because previous studies have used public/private institution as a method of classification. A great deal of this information is published in COACHE reports, however when the data are divided by academic area cell size is small and the information is not applicable for inferential analysis. By observing the strength of each of the constructs in this study it was possible to make suggestions for improvements that can be made to the tenure process to promote the job satisfaction and retention of deserving, tenure track faculty members.

CHAPTER 4: ANALYSIS OF THE DATA

This study explored how tenure procedures at institutions of higher education, workload, confidence and support for teaching and research objectives by the institution's administration, autonomy, climate, culture, collegiality and salary affect job satisfaction of tenure track faculty. Independent variables and the factors that were created using exploratory factor analysis with oblimin rotation represented these attributes used in this study. For a complete list of the original variables see Appendix E. An exploratory factor analysis was run on the selected variables to determine what groupings would be important indicators of tenure track faculty job satisfaction expressed as "All things considered, how satisfied are you with you institution as a place to work?".

Participants

The data for this study are secondary data collected from over eighty institutions of higher education during 2005, 2006 and 2007. Not all types of institutions were represented in all three years as COACHE chose to select by region and type of institution to control for the size of the population to keep it manageable. The data have been de-identified by individual respondent and institution so as to protect the identity of individual tenure track faculty members. This presents minimum risk.

The survey instrument that COACHE used can be viewed in Appendix B of this document. Questions that were used in this analysis are highlighted.

Instrumentation

Responses to the tenure track faculty job satisfaction survey were analyzed using SPSS Statistical Package for the Social Sciences (SPSS Version 17.0 now is now called PASW Statistics with the impending purchase of SPSS by IBM).

Descriptive Data

Carnegie classification was collapsed into three categories: Baccalaureate Granting Institutions, Masters Colleges and Doctoral Granting Research Institutions with High or Very High Research components. Baccalaureate Diverse, Doctoral Research Universities, and Master's Small were dropped from the analysis because of low response in the study and lack of participation across all three years.

The intent of the original study was to look at institutional differences by year to investigate how tenure track faculty members' views changed over time. However, because of declining participation in this study by tenure track faculty members at some institutions of higher education and because some of the variables that were used in the analysis exhibited missing values, it was necessary to stratify only by institutional type. Cell size must be sufficient so that inferential analysis can be performed. Low cell sizes do not display a great deal of variation and bring the analysis into question. They also endanger respondents in terms of anonymity and confidentiality. For these reasons only the

composite categories Baccalaureate, Masters and Research Universities were compared.

Institutional Characteristics

Seven thousand eight hundred and seventy one (7,871) tenure track faculty members who responded to the survey administered by COACHE qualified for this study. For all three cohort groups, Research institutions with high and very high research comprised the largest segment of the population (77.1%), followed by Masters institutions (13.0%) and Baccalaureate institutions (9.9%). All three cohorts were large enough to allow for data analysis.

Type of Institution

This study assumed that faculty members share the same concerns at both public and private institutions and that institutional type defined by Carnegie classification made a difference. Therefore no distinction was made between public and private institutions in the analysis of the data. Also, the data did not lend itself to using public/private as a classifier because the data was not distributed equally across the three institutional types. However, many previous studies used public or private institution as a measure of institutional type to stratify data. It is worth noting that 96% of all Baccalaureate institutions, 8.4% of all Masters institutions and 19.4% of all Research institutions were private institutions. Four percent of all Baccalaureate institutions, 91.6% of all Masters institutions and 80.6% of all Research institutions were public institutions.

Geographic Area

Since the data collected by COACHE is national data, participants were located at institutions from all regions of the country. New England, Mid-Atlantic and Midwest regions were almost equally represented for Baccalaureate institutions representing 75.9% of the population. For Masters institutions Southwest and Southern institutions represented 82.2% of the population. For Research universities the Midwest and South comprised 61.2% of the population.

Academic Area

This study did not examine the relationship between academic area and tenure track faculty job satisfaction because cell size would not permit inferential analysis. It is interesting to note, however, the distribution of tenure track faculty members who answered the survey across academic area. It appears that the Humanities and Social Sciences are heavily represented at all three types of institutions and that Engineering/Computer Science/Math/Stats also is well represented. Conversely, Visual and Performing Arts had a higher representation at Baccalaureate and Masters institutions while Medical Schools and Health Professions were more highly represented at Research institutions. This appears to conform with national standards. For additional details on Academic Area participation see Appendix C.

Individual Characteristics

Gender

The population of tenure track faculty members who answered the questionnaire was almost evenly split between males and females at each type of institution. Baccalaureate institutions were 51.1% male and 48.9% female. Masters institutions were 49.5% male and 50.5% female. Research institutions were 56.8% male and 43.2% female.

Citizenship Status

Citizenship status for those who responded to the questionnaire was split almost 80/20 across Baccalaureate and Masters institutions. Research institutions who employ more Foreign Nationals exhibited a 75/25 split across these institutions.

Race and Ethnicity

In all cases the respondents who answered the survey were primarily “White/Non-Hispanic” with at least 70% of the population reporting their race or ethnicity as “White/Non-Hispanic”. “Asian, Asian American, Asian Canadian, or Pacific Islander” was the second most common demographic category.

Research Questions

Two research questions guided this study. How do differences in workload, clarity and reasonableness of the tenure process, confidence and support for teaching and research objectives by the institution’s administration, autonomy, climate, culture, collegiality, and salary affect job satisfaction of tenure

track faculty. Furthermore, how does job satisfaction of tenure track faculty differ by Carnegie Classification?

The Process of the Analysis

Analysis of the data consisted of four parts: (1) a factor analysis of the data to determine appropriate groupings (factors), (2) tests for multicollinearity among the factors and variables using both the factor component correlation matrices and zero order correlation matrices, (3) a zero order Pearsons correlation analysis to determine how highly each factor or variable was correlated with the dependent variable, satisfaction with institution, and (4) a regression analysis to test the explanatory power of each of the factors had with the dependant variable as well as the amount of variation explained by each of the regression equations.

Factor Analysis

First, three exploratory factor analyses with oblique rotation were run to control for any covariance of variables or factors in the data. Factor analysis is a multivariate statistical technique used to reduce the number of latent variables, identified as factors. Of the oblique rotation procedures SPSS uses, Direct Oblimin is aimed at simplifying the factor pattern matrix while screening for correlations among the factors. Magnitudes of correlations among the factors are affected by the choice of a parameter (delta) whose default value is 0. This study used the default. Positive values of delta tend to increase the correlations among factors while negative values tend to decrease the correlation among factors.

The pattern matrix consists of loadings analogous to partial standardized regression coefficients (betas) in a multiple regression analysis whereas the structure matrix consists of zero-order correlations among each indicator and the factor. When factors are not correlated (when orthogonal rotations are performed) the two matrices are identical. When factors are correlated, as in the case of oblique rotation the matrices differ. Each indicator is treated as a dependent variable and the factors are treated as independent variables. Consistent with the interpretation of betas, each coefficient in the pattern matrix indicates the effect of a given factor on a given indicator, while partialing out or controlling for the other factors. For example, .75699 (a hypothetical score) indicates the effect of Factor I on YI while controlling for Factor II. If one looks at the elements of the structure matrix these are really zero order correlations of each indicator with each factor, thus their interpretations are ambiguous when it is known that these elements are correlated (Pedhazur & Pedhazur, 1991).

This is an important consideration in this study since many of the items which predict satisfaction with institution are highly correlated. The use of the pattern matrix is more appropriate for this study because it screens for interaction.

Finally, any remaining correlation between factors can be observed by examining the factor component correlation matrices (see Figures 3, 4, 5). The factor component correlation matrix acts as a screening tool to test for any remaining significant correlations. Sometimes when a factor analysis is run and

Component	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1.574	-.048	2.267	1.088	-.285	1.857	1.609	-.275	.074	2.114	-.244	1.304	.755	-.589
2	-.048	.963	-.235	-.513	1.845	.191	.136	.344	2.108	.000	.426	-.128	.284	1.897
3	2.267	-.235	3.305	.967	.849	2.124	3.321	-.250	.964	2.062	-.581	2.924	.615	.981
4	1.088	-.513	.967	1.405	-.187	1.025	.954	-.418	1.755	1.501	.066	.509	.068	-.431
5	-.285	1.845	.849	-.187	4.165	.480	-.372	.540	3.166	-.073	2.789	-.047	.811	2.985
6	1.857	.191	2.124	1.025	.480	3.769	.655	.469	1.364	2.810	.341	-.509	3.089	-.105
7	1.609	.136	3.321	.954	-.372	.655	3.160	-.704	-.229	.463	-.812	2.092	.058	-.203
8	-.275	.344	-.250	-.418	.540	.469	-.704	1.224	.357	-.082	.504	-.401	.850	.350
9	.074	2.108	.964	1.755	3.166	1.364	-.229	.357	6.067	.331	-.143	.413	1.150	1.750
10	2.114	.000	2.062	1.501	-.073	2.810	.463	-.082	.331	3.171	-.253	-.132	.279	-.241
11	-.244	.426	-.581	.066	2.789	.341	-.812	.504	-.143	-.253	4.080	.318	.167	.907
12	1.304	-.128	2.924	.509	-.047	-.509	2.092	-.401	.413	-.132	.318	3.786	.140	-.107
13	.755	.284	.615	.068	.811	3.089	.058	.850	1.150	.279	.167	.140	4.105	-.980
14	-.589	1.897	.981	-.431	2.985	-.105	-.203	.350	1.750	-.241	.907	-.107	-.980	4.246

Figure 3. Factor component correlation matrix - Baccalaureate institutions.

Component Correlation Matrix

Component	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1.000	-.001	.107	-.260	-.005	.292	.122	-.294	.056	.297	.136	-.160	-.155
2	-.001	1.000	-.130	.069	.264	-.022	-.012	-.068	-.064	-.020	.279	.006	.004
3	.107	-.130	1.000	-.119	-.046	.185	.188	-.160	.001	.128	.069	-.173	-.219
4	-.260	.069	-.119	1.000	.033	-.128	-.088	.306	-.053	-.284	.044	.139	.126
5	-.005	.264	-.046	.033	1.000	-.090	-.031	-.038	-.046	.052	.117	-.042	-.072
6	.292	-.022	.185	-.128	-.090	1.000	.006	-.206	.055	.121	.079	-.051	-.050
7	.122	-.012	.188	-.088	-.031	.006	1.000	-.089	.013	.097	.035	-.135	-.145
8	-.294	-.068	-.160	.306	-.038	-.206	-.089	1.000	-.001	-.228	-.169	.133	.149
9	.056	-.064	.001	-.053	-.046	.055	.013	-.001	1.000	.031	-.083	-.002	.035
10	.297	-.020	.128	-.284	.052	.121	.097	-.228	.031	1.000	.098	-.141	-.183
11	.136	.279	.069	.044	.117	.079	.035	-.169	-.083	.098	1.000	-.095	-.064
12	-.160	.006	-.173	.139	-.042	-.051	-.135	.133	-.002	-.141	-.095	1.000	.106
13	-.155	.004	-.219	.126	-.072	-.050	-.145	.149	.035	-.183	-.064	.106	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Figure 4. Factor component correlation matrix – Masters institutions.

Component Correlation Matrix

Component	1	2	3	4	5	6	7	8	9	10	11	12
1	1.000	.007	-.371	-.319	-.078	.262	-.017	.304	.117	.177	-.116	.306
2	.007	1.000	.052	.002	-.289	-.008	-.286	.048	-.010	-.022	-.078	.022
3	-.371	.052	1.000	.183	.011	-.218	-.025	-.377	-.049	-.116	.087	-.254
4	-.319	.002	.183	1.000	-.026	-.205	-.086	-.132	-.008	-.069	.113	-.138
5	-.078	-.289	.011	-.026	1.000	-.088	.192	-.101	-.050	-.011	-.006	-.073
6	.262	-.008	-.218	-.205	-.088	1.000	.011	.188	.063	.193	-.134	.138
7	-.017	-.286	-.025	-.086	.192	.011	1.000	-.058	.010	.002	.012	-.009
8	.304	.048	-.377	-.132	-.101	.188	-.058	1.000	.120	.201	-.084	.288
9	.117	-.010	-.049	-.008	-.050	.063	.010	.120	1.000	.136	-.161	.123
10	.177	-.022	-.116	-.069	-.011	.193	.002	.201	.136	1.000	-.148	.196
11	-.116	-.078	.087	.113	-.006	-.134	.012	-.084	-.161	-.148	1.000	-.193
12	.306	.022	-.254	-.138	-.073	.138	-.009	.288	.123	.196	-.193	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Figure 5. Factor component correlation matrix – Research institutions.

covariance is partialed out the resulting effect of a factor may be minimal or negligible or may result in strengthening the factor's characteristics.

For this analysis three different factor analyses were run, one for Baccalaureate institutions, one for Masters institutions and one for Research institutions because research has shown that the attributes that comprise workload, confidence and support for teaching and research objectives by the institution's administration, autonomy in teaching and research, climate, culture and collegiality may vary by institution type thus producing a unique profile for each type of institution (Boyer, 1997; Johnsrud & Rosser, 2002).

Common Factors Shared by Tenure Track Faculty Members

This section of the study explored the commonalities among factors for each type of institution. It also explored the differences by institutional type which produce unique profiles for each type of institution.

All three Carnegie classifications displayed similar factors, although the composition of these factors varied. The unique composition of the factors reflects differences among the three different types of institutions. Baccalaureate institutions displayed fourteen factors. Masters institutions displayed thirteen factors, and Research institutions displayed twelve factors. For a description of factors for each type of institution see Tables 1, 2 and 3.

Common Factors-Climate/Culture/Collegiality

This factor is representative of Quality of Life as defined by Johnsrud and Heck (1998) and Johnsrud and Rosser (2002). Common factors were discovered

Table 1

Factor Loadings for Oblimin Rotation 14 Factor Solution – Baccalaureate Institutions

Item	Factor Loading
Factor 1. Climate/Culture/Collegiality	
Please indicate your level of satisfaction with...	
Q38B The interest senior faculty take in your professional development	.467
Q38C Your opportunities to collaborate with senior faculty	.511
Q39A The amount of professional interaction you have with senior colleagues in your department	.681
Q39B The amount of personal interaction you have with senior colleagues	.722
Q39C The amount of professional interaction you have with junior colleagues	.816
Q39D The amount of personal interaction you have with junior colleagues	.838
Q40 How well you fit (e.g. your sense of belonging, comfort level)	.489
Please rate how effective or ineffective...	
Q34b Informal mentoring program for junior faculty	.362
Q41 The intellectual vitality of the senior colleagues in your department	.313

Table 1

Factor Loadings for Oblimin Rotation 14 Factor Solution – Baccalaureate Institutions (continued)

Item	Factor Loading
Factor 2. Importance of Policies Concerning Family	
Please rate how important each would be to your success...	
Q34a Paid or unpaid personal leave during the pre-tenure period	.666
Q34A13 Childcare-Please rate how important or unimportant to your success.	.808
Q34A14 Financial assistance with housing-Please rate how important or unimportant to your success	.599
Q34A15 Stop-the-clock for parental or other family reasons-Please rate how important to your success.	.806
Q34A16 Spousal/partner hiring program-Please rate how important or unimportant to your success.	.692
Factor 3. Professional Support – Effectiveness of Policies Concerning Time	
Please indicate your level of satisfaction with...	
Q29B The number of courses you teach.	.673
Q30b The amount of time you have to conduct research/produce creative work.	.576

Table 1

Factor Loadings for Oblimin Rotation 14 Factor Solution – Baccalaureate Institutions (continued)

Item	Factor Loading
Please rate how effective or ineffective...	
Q34b An upper limit on committee assignments for tenure-track faculty.	.617
Q34b An upper limit on teaching obligations.	.737
Factor 4 – Department Policies – Clarity of Tenure Decisions	
Is what's expected in order to earn tenure CLEAR to you regarding your performance as…	
Q20 I find the tenure criteria (what things are evaluated) in my department to be...	.781
Q21 I find the tenure standards (the performance threshold) in my department to be...	.779
Q22 I find the body of evidence that will be considered in making my tenure decision to be...	.794
Q23 My sense of whether or not I will achieve tenure is...	.671
Q24A My role as a scholar – (at my institution)	.708

Table 1

Factor Loadings for Oblimin Rotation 14 Factor Solution – Baccalaureate Institutions (continued)

Item	Factor Loading
Factor 5 – Importance of the Review Process	
Please rate how important or unimportant…	
Informal Mentoring.	-.434
Periodic formal performance reviews.	-.838
Written summary of periodic performance reviews for junior faculty.	-.804
Professional Assistance for Improving Teaching.	-.512
Peer reviews of teaching or research/creative work.	-.538
Factor 6 –Professional Support - Effective – Paid or unpaid leave or stop the tenure clock.	
Please rate how effective or ineffective…	
Q34b Paid or unpaid research leave during the pre-tenure period.	-.552
Q34b Paid or unpaid personal leave during the pre-tenure period.	-.813
Q34b Stop the clock for parental or other family reasons.	-.682

Table 1

Factor Loadings for Oblimin Rotation 14 Factor Solution – Baccalaureate Institutions (continued)

Item	Factor Loading
Factor 7 – Professional Support – An upper limit on committee and teaching assignments, help with workload and funding	
Please rate how important or unimportant to your success…	
Q34a An upper limit on committee assignments for tenure track faculty.	.665
Q34a An upper limit on teaching obligations.	.788
Q34a Professional assistance on obtaining externally funded grants—how important.	.340
Q34a Travel funds to present papers or conduct research.	.535
Q34a Paid or unpaid research leave during the pre tenure period.	.546
Factor 8 – Institutional Policies – Clarity of Tenure Decisions	
Is what's expected in order to earn tenure CLEAR to you regarding your performance as…	
Q24B A teacher.	-.715
Q24C An advisor to students.	-.871
Q24D A colleague in your department.	-.723
Q24E A campus citizen.	-.793

Table 1

Factor Loadings for Oblimin Rotation 14 Factor Solution – Baccalaureate Institutions (continued)

Item	Factor Loading
Factor 9 – Teach/Nature of Work	
Please indicate your level of satisfaction with…	
Q29A The level of the courses you teach.	-.635
Q29C The degree of influence you have over the courses you teach.	-.779
Q29D The discretion you have over the content of your courses you teach.	-.757
Factor 10 – Professional Support – Effectiveness of assistance in grants and teaching	
Please rate how effective or ineffective at your institution…	
Q34b Professional assistance in obtaining externally funded grants.	.518
Q34b Professional assistance for improving teaching.	.730
Q34b Formal Mentoring Program for Junior Faculty.	.397
Factor 11 – Effectiveness of Childcare Policies	
Please rate how effective or ineffective for you have been the following at your institution...	
Q34b Childcare.	.636

Table 1

Factor Loadings for Oblimin Rotation 14 Factor Solution – Baccalaureate Institutions (continued)

Item	Factor Loading
Factor 12 – Effectiveness of Financial Assistance with Housing and Spousal/Partner Hiring	
Please rate how effective or ineffective for you have been the following at your institution...	
Q34b Financial assistance with housing.	.735
Q34b Spousal/Partner Hiring Program.	.420
Factor 13. Effectiveness of Admin policies concerning limit on number of students and travel funds	
Please rate how satisfied or dissatisfied…	
Q29E The number of students you teach.	-.454
Please rate how effective or ineffective...	
Q34B Travel funds to present papers or conduct research.	.507
Factor 14 – Professional Support – The Review Process	
How effective or ineffective at your institution...	
Q34b Peer reviews of teaching or research/creative work.	-.439

Table 1

Factor Loadings for Oblimin Rotation 14 Factor Solution – Baccalaureate Institutions (continued)

Item	Factor Loading
Please rate how satisfied or dissatisfied...	
Q38 The fairness with which your immediate supervisor evaluates your work.	-.350
Q34b Periodic Formal Performance reviews for junior faculty.	-.711
Q34b Written summary of periodic performance reviews for junior faculty.	-.721

Table 2

Factor Loadings for Oblimin Rotation – Factor Solution – Masters Institutions

Item	Factor Loading
Factor 1 – Climate/Culture/Collegiality –Senior Faculty & Fit	
Please indicate your level of satisfaction with…	
Q38a The fairness with which your immediate supervisor evaluates your work.	.397
Q38B The interest senior faculty take in your professional development.	.748
Q38C Your opportunities to collaborate with senior faculty.	.759
Q39A The amount of professional interaction you have with senior colleagues in your department.	.834
Q39B The amount of personal interaction you have with senior colleagues.	.714
Q40 How well you fit(e.g. your sense of belonging, comfort level).	.595
Q41 The intellectual vitality of the senior colleagues in your department.	.649
How effective or ineffective for you have been the following at your institution…	
Q34b Informal Mentoring.	.410

Table 2

Factor Loadings for Oblimin Rotation – Factor Solution – Masters Institutions

(continued)

Item	Factor Loading
Factor 2 –Professional Support – Professional Assistance/Grants, Travel Funds, Research Leave	
Please rate how important or unimportant...	
Q34a An upper limit on committee assignments for tenure track faculty.	.676
Q34a An upper limit on teaching obligations.	.652
Q34a Professional assistance on obtaining externally funded grants—how important.	.527
Q34a Travel funds to present papers or conduct research.	.691
Q34a Paid or unpaid research leave during the pre tenure period.	.728
Factor 3 – Professional Support – Effectiveness of Policies Concerning Time	
Please rate how effective or ineffective…	
Q34b An upper limit on committee assignments for tenure-track faculty.	.451
Q34b An upper limit on teaching obligations.	.746
Please indicate your level of satisfaction with…	
Q30b The amount of time you have to conduct research.	.682

Table 2

Factor Loadings for Oblimin Rotation – Factor Solution – Masters Institutions

(continued)

Item	Factor Loading
Q29b The number of courses you teach.	.743
Factor 4—Departmental Policies – Clarity of the Tenure Process	
Clear or Unclear…	
Q20 I find the tenure criteria (what things are evaluated) in my department to be...	-.784
Q21 I find the tenure standards (the performance threshold) in my department to be...	-.767
Q22 I find the body of evidence that will be considered in making my tenure decision to be...	-.765
Q23 My sense of whether or not I will achieve tenure is...	-.683
Q24A My role as a scholar –(at my institution)	-.696
Factor 5 - Administrative Support – Importance of Policies Concerning Family	
Please rate how important each would be to your success…	
Q34a Paid or unpaid personal Leave during the pre-tenure period.	.405
Q34A13 Childcare - Please rate how important or unimportant to your success.	.824
Q34A14 Financial assistance with housing - Please rate how important or unimportant to your success.	.628

Table 2

Factor Loadings for Oblimin Rotation – Factor Solution – Masters Institutions (continued)

Item	Factor Loading
Q34A15 Stop-the-clock for parental or other family reasons - Please rate how important to your success.	.735
Q34A16 Spousal/partner hiring program - Please rate how important or unimportant to your success.	.726
Factor 6 – Teach/Nature of Work	
Please indicate your level of satisfaction with…	
Q29A The level of the courses you teach.	.642
Q29C The degree of influence you have over the courses you teach.	.791
Q29D The discretion you have over the content of your courses you teach.	.812
Factor 7 – Effectiveness of Policies Concerning Financial Assistance with Family Issues	
Please rate how effective or ineffective…	
Childcare.	.682
Financial Assistance with housing.	.447
Stop-the-Clock for parental or other family reasons.	.854
Spousal/partner hiring program.	.544

Table 2

Factor Loadings for Oblimin Rotation – Factor Solution – Masters Institutions

(continued)

Item	Factor Loading
Factor 8 – Institutional Policies – Clarity of Tenure Decisions	
Is what's expected in order to earn tenure CLEAR to you regarding your performance as…	
Q24B A teacher.	-.613
Q24C An advisor to students.	-.835
Q24D A colleague in your department.	-.717
Q24E A campus citizen.	-.762
Factor 9 – Climate/Culture/Collegiality – Junior Faculty	
Please indicate your level of satisfaction with…	
Q39C The amount of professional interaction you have with junior colleagues in your department.	.512
Q39d The amount of personal interaction you have with junior colleagues in your department.	.634
Factor 10 – Professional Support Effective – The Review Process	
Please rate how effective or ineffective...	
Q34b Periodic Formal Performance reviews for junior faculty.	-.793

Table 2

Factor Loadings for Oblimin Rotation – Factor Solution – Masters Institutions

(continued)

Item	Factor Loading
Q34b Written summary of periodic performance reviews for junior faculty.	-.804
Factor 11 – Professional Support Importance – The Review Process	
How important or unimportant at your institution...	
Q34a Informal Mentoring.	.491
Q34a Periodic formal performance reviews for junior faculty.	.858
Q34a Written summary of period performance reviews for junior faculty.	.857
Q34b Peer reviews of teaching or research/creative work.	.592
Factor 12 – Professional Support—Professional Assistance in Obtaining Grants and Improving Teaching	
Please rate how effective or ineffective…	
Q34b Professional Assistance in obtaining externally funded grants.	-.558
Q34b Professional Assistance in improving teaching.	-.668
Factor 13 – Professional Support – Funding and Leave	
Please rate how effective or ineffective…	
Q34b Travel funds to present papers or conduct research.	-.753

Table 2

Factor Loadings for Oblimin Rotation – Factor Solution – Masters Institutions (continued)

Item	Factor Loading
Q34b Paid or unpaid research leave during the pre-tenure period.	-.470
Q34b Paid or unpaid personal leave during the pre-tenure period.	-.477

Table 3

Factor Loadings for Oblimin Rotation – Factor Solution – Research Institutions

Item	Factor Loading
Factor 1 – Climate/Culture/Collegiality –Senior Faculty & Fit	
Please indicate your level of satisfaction with…	
Q38a The fairness with which your immediate supervisor evaluates your work.	.314
Q38B The interest senior faculty take in your professional development.	.752
Q38C Your opportunities to collaborate with senior faculty.	.786
Q39A The amount of professional interaction you have with senior colleagues in your department.	.798
Q39B The amount of personal interaction you have with senior colleagues.	.630
Q40 How well you fit(e.g. your sense of belonging, comfort level).	.508
Q41 The intellectual vitality of the senior colleagues in your department (minor)	.681
How effective or ineffective for you have been the following at your institution…	
Q34b Informal Mentoring.	.584

Table 3

Factor Loadings for Oblimin Rotation – Factor Solution – Research Institutions

(continued)

Item	Factor Loading
Factor 2 –Professional Support Important – Professional Assistance/Grants, Travel Funds, Research Leave	
Please rate how important or unimportant...	
Q34a An upper limit on committee assignments for tenure track faculty.	.727
Q34a An upper limit on teaching obligations.	.741
Q34a Travel funds to present papers or conduct research.	.609
Q34a Paid or unpaid research leave during the pre tenure period.	.693
Factor 3—Departmental Policies – Clarity of the Tenure Process	
Clear or Unclear…	
Q20 I find the tenure criteria (what things are evaluated) in my department to be...	-.771
Q21 I find the tenure standards (the performance threshold) in my department to be...	-.772
Q22 I find the body of evidence that will be considered in making my tenure decision to be...	-.750
Q23 My sense of whether or not I will achieve tenure is...	-.655
Q24A My role as a scholar –(at my institution).	-.759

Table 3

Factor Loadings for Oblimin Rotation – Factor Solution – Research Institutions (continued)

Item	Factor Loading
Factor 4 – Climate/Culture/Collegiality – Junior Faculty	
Please indicate your level of satisfaction with…	
Q39C The amount of professional interaction you have with junior colleagues in your department.	-.817
Q39d The amount of personal interaction you have with junior colleagues in your department.	-.890
Factor 5 – Professional Support Importance – The Review Process	
How important or unimportant at your institution...	
Q34a Informal Mentoring.	-.513
Q34a Periodic formal performance reviews for junior faculty.	-.871
Q34a Written summary of period performance reviews for junior faculty.	-.855
Q34a Professional Assistance in obtaining externally funded grants.	-.449
Q34a Professional assistance for improving teaching.	-.567
Q34a Peer reviews of teaching or research/creative work.	-.528

Table 3

Factor Loadings for Oblimin Rotation – Factor Solution – Research Institutions (continued)

Item	Factor Loading
Factor 6 – Teach/Nature of Work	
Please indicate your level of satisfaction with…	
Q29A The level of the courses you teach.	.715
Q29b The number of courses you teach.	.542
Q29C The degree of influence you have over the courses you teach.	.795
Q29D The discretion you have over the content of your courses you teach.	.754
Q29e The number of students you teach.	.581
Factor 7 – Administrative Support – Importance of Policies Concerning Family	
Please rate how important or unimportant…	
Q34a Paid or Unpaid personal leave during the pre-tenure period.	-.413
Q34A16 Spousal/partner hiring program.	-.743
Please rate how important each would be to your success…	
Q34A13 Childcare.	-.851
Q34A14 Financial assistance with housing.	-.705

Table 3

Factor Loadings for Oblimin Rotation – Factor Solution – Research Institutions

(continued)

Item	Factor Loading
Q34A15 Stop-the-clock for parental or other family reason.	-.743
Factor 8 – Institutional Policies – Clarity of Tenure Decisions	
Is what's expected in order to earn tenure CLEAR to you regarding your performance as…	
Q24B A teacher.	.712
Q24C An advisor to students.	.833
Q24D A colleague in your department.	.742
Q24E A campus citizen.	.808
Factor 9 – Administrative Support – Effectiveness of Policies Concerning Family	
Please how effective or ineffective each would be to your success…	
Q34B16 Spousal/partner hiring program.	.572
Q34B13 Childcare.	.700
Q34B14 Financial Assistance with housing.	.691

Table 3

Factor Loadings for Oblimin Rotation – Factor Solution – Research Institutions

(continued)

Item	Factor Loading
Factor 10 - Professional Support – Effectiveness of Policies Concerning Time and Funding	
Please indicate your level of satisfaction…	
Q34b The amount of time you have to conduct research/produce creative work.	.597
Please rate how effective or ineffective…	
Q34b Travel funds to present papers or conduct research.	.329
Q34b An upper limit on committee assignments for tenure track faculty.	.582
Q34b An upper limit on teaching obligations.	.660
Factor 11 – Professional Support – Leave	
Please rate how effective or ineffective…	
Q34b Paid or unpaid research leave during the pre-tenure period.	-.657
Q34b Paid or unpaid personal leave during the –pretenure period.	-.754
Q34b Stop-the-Clock for parental or other family reasons.	-.582

Table 3

Factor Loadings for Oblimin Rotation – Factor Solution – Research Institutions

(continued)

Item	Factor Loading
Factor 12 – Professional Support – Effectiveness of formal and informal reviews and Professional Assistance with Teaching and Research/Creative Work	
Please rate how effective or ineffective…	
Q34b Periodic formal performance reviews for junior faculty.	.712
Q34b Written summary of periodic performance reviews for junior faculty.	.731
Q34b Professional Assistance in obtaining externally funded grants.	.437
Q34b Professional assistance for improving teaching.	.472
Q34b Peer reviews of teaching or research/creative work.	.486

for Climate/Culture/Collegiality which represented tenure track faculty members' congeniality and sense of fit with their colleagues. For Baccalaureate institutions, tenure track faculty members did not make a distinction between their professional and personal relations with junior and senior faculty members in their departments. Masters and Research tenure track faculty members did, however, by the fact that relations with senior faculty members and relations with junior faculty members were separated into different factors. Factor components which represented relations with senior faculty loaded positively for all three types of institutions. Masters faculty members expressed positive relations with both junior and senior colleagues but Research institutions tenure track faculty members did not. They expressed positive relations with their senior colleagues (represented by one factor) and apparently adversarial relationships with junior faculty members (represented by another factor) which was negatively correlated.

Common Factors – Clarity and Reasonableness of the Tenure Process – Institution and Department

This factor is representative of Johnsrud and Heck's (1998) definition of Faculty Development. Clarity and reasonableness of the tenure process at the department level and at the institutional level surfaced as important factors for all three types of institutions. Baccalaureate institutions displayed a negative correlation for institutional clarity of the tenure process and a positive correlation for department clarity in the tenure process. Masters institutions displayed a

negative correlation with both institutional and departmental clarity factors and Research institutions showed a negative relationship for departmental clarity and a positive relationship with the factor for institutional clarity.

Common Factor - Time

The Time factor encompasses many of the attributes discussed by Johnsrud and Heck (1998) and Rosser (2004) which comprise Quality of Life/Nature of Work. Time issues include: time to conduct research and creative work, an upper limit on teaching obligations and committee assignments and paid or unpaid personal or research leave. All of these attributes are potentially important to tenure track faculty members as they publish, teach and prepare for tenure. Adequate time to accomplish these tasks is important.

The “Time” factor surfaced for all three types of institutions. Time was often accompanied by another factor which represented funding for research and travel to present papers. A positive correlation for both the Time factor and the Funding factor would infer that faculty perceived that they had enough time to accomplish tasks important for tenure and that they received administrative support for doing so. This also reflected the Professional Development definition that Rosser (2004) used.

The need for “time” and “funding” for research or creative work was reflected in several factors for Baccalaureate institutions, however these needs were positively correlated. For Research institutions both “time” and funding for

travel to present papers or conduct research had positive correlations. Masters institutions also followed this pattern.

Also included in the time factor were obligations relating to teaching assignments and performing committee service which often detract from time to complete research or produce creative work. This factor illustrates the concern tenure track faculty have for a balance between completing those tasks which are directly related to tenure and those that are not. There is also a concern for adequate support by administration to fund the essential teaching, research and service tasks which are important considerations for tenure.

Common Factor – Teach/Nature of Work

This factor is representative of both the concepts of Professional Priorities and Nature of Work that Johnsrud and Heck (1998) and Rosser (2004) define, because it contains information about autonomy and workload as well as information about the type of courses tenure track faculty members teach. All three types of institutions displayed a factor related to teaching. This factor was comprised of the following attributes: the level of courses taught, the degree of influence one has over the courses taught, and the amount of discretion one has over the content of courses taught. It is interesting to note that only for Research institutions the number of course taught was included in the Teach factor and it was positively correlated. For Baccalaureate and Masters institutions number of courses taught was allied with the Time factor. Tenure track faculty members were asked to express satisfaction or dissatisfaction with the areas comprising

the Teach factor. Both Masters and Research institutions displayed positive correlations with the Teach factor while for Baccalaureate institutions the correlation was negative.

Common Factors – Importance and Effectiveness of the Review Process

This factor represents Johnsrud and Heck (1998) and Rosser's (2004) Confidence or Lack of Confidence in Administrative Support for Professional Development. Two factors which represented the importance and effectiveness of the review process were evident for all three types of institutions. In addition to asking about clarity of purpose, the COACHE survey asked about different elements of the tenure process. Tenure track faculty members were asked about the importance and later, the effectiveness of formal and informal mentoring, periodic, formal, written performance reviews for junior faculty and peer reviews of written and creative work. They were also asked about the fairness with which their immediate supervisor evaluated their work. In addition, the importance of professional assistance to improve teaching was often correlated with the review but the correlation was negative. There was more diffusion in attitudes toward the review process.

Baccalaureate institutions answered negatively for both importance and effectiveness of the tenure process. Masters institutions responded positively to all aspects of the importance of the review process including professional assistance to improve teaching and peer reviews of teaching and creative work. They also responded positively to the questions concerning the effectiveness of

the review process as indicated by the fact that those questions were positively correlated with the factor on effectiveness.

Finally, those at Research institutions considered the importance of the review process to be negative but considered the administration of review policies to be effective as indicated by the fact that many policies were positively correlated with the factor representing effectiveness.

An important exception to the questions related to the review process was the question regarding informal mentoring. Not only was it not correlated with the review process for all types of institutions it was positively correlated with the climate, culture and collegiality factor.

Common Factors – Administrative Support – Importance and Effectiveness of Policies Concerning Family

These factors are representative of Johnsrud and Heck (1998) and Rosser's (2004) areas of Administrative Support and Nature of Work because they deal with policies that can be differentially supported by university or college administrations and they also affect the quality of life and nature of work that tenure track faculty members enjoy. Tenure track faculty members were asked about the importance and effectiveness of policies concerning family. These policies included childcare, financial assistance with housing, stop-the-clock for parental or other family reasons and spousal/partner hiring programs. Baccalaureate, Masters and Research institutions tenure track faculty members

all answered positively that these policies were important since as indicated by the fact that aspects were correlated positively with their factors.

Those at Baccalaureate, Masters and Research institutions considered that these Family policies at their institutions were effective since in all cases they were positively correlated with the factors representing effectiveness of family policies. While institutions differed somewhat on the importance of the policies satisfaction with effectiveness was shared by all because of the positive correlation with this factor.

Uncommon Factors – Professional Assistance in Obtaining Externally Funded Grants and Professional Assistance in Improving Teaching

These factors are considered diffuse and are distributed very differently across all three Carnegie classifications. There is very little commonality. This is why they were considered “uncommon” in this study. The factors are characteristic of Johnsrud and Heck (1998) and Rosser’s (2004) quality of life/nature of work category as well as their administrative support category.

Junior faculty members often need assistance in writing and obtaining externally funded grants and also need assistance in improving their teaching skills since the job of faculty member is new to them (Layzell, 1996). Many colleges and universities develop centers of faculty excellence which offer to assist new faculty members with these processes by running workshops to develop these skills. Senior faculty members or administrators seasoned at grant writing offer professional assistance with finding, writing and obtaining grants.

Experienced teaching faculty members assist with workshops on teaching and often evaluate faculty members on a one-to-one basis. In addition, centers offer workshops on necessary skills such as survey design, statistical analysis and technology courses relating to using computer applications such as Blackboard and Sharepoint for education and administration of grant materials. These aspects of professional assistance are reflected in this study as well. Both Baccalaureate and Masters institutions show a positive correlation for the factor regarding professional assistance with obtaining external research grants and with assistance with improving teaching. Tenure track faculty members at Research institutions, on the other hand, view assistance in these areas as not important (a negative correlation) but when the services are offered and used they appear to be effective. In fact, these attributes are correlated and associated with the factor that represents effectiveness of the review process

Summary

This section has covered many of the factors which affect tenure track faculty members at Baccalaureate, Masters and Research universities. These include the common factors of Climate/Culture/Collegiality, Clarity of the Tenure Process at both the Departmental and Institutional Level, The Time Factor, Teach/Nature of Work, the Importance and Effectiveness of the Review Process and the Importance and Effectiveness of Policies related to Family and how their attributes are distributed across different types of institutions defined by Carnegie Classification. Distinct patterns that define differences and similarities between

institutions are apparent especially for Climate/Culture/Collegiality, Teach/Nature of Work and for Clarity of the Tenure Process. For a table of factor loadings that represent the common factors, uncommon factors and other differences refer to Tables 4 (Baccalaureate institutions), 5 (Masters Institutions), and 6 (Research Institutions).

Testing for Multicollinearity

The factors defined in the factor analysis above and the variable salary were also used for the descriptive hypotheses. They were tested for multicollinearlity using zero order correlation analysis. A zero-order Pearsons Correlation of .7 between two factors or variables indicated that the factors/variables were multicollinear and shared a great deal of the same variation (Pedhazurr & Pedhazur, 1991). None were found to be multicollinear (see Tables 7, 8, and 9).

Hypothesis Testing – Examining the Descriptive Hypotheses

Eight hypotheses were tested to determine how highly each factor or variable correlated with tenure track faculty job satisfaction.

H1: The more satisfied tenure track faculty are with the teaching component of their worklife/nature of work the more likely they are to be satisfied with their institution as a place to work.

The factor Teach/Nature of Work for Baccalaureate, Masters and Research institutions was used to test this hypothesis that satisfaction with the teaching process was positively correlated with satisfaction with institution as a

Table 4

Correlations of Bachelors, Masters and Research Institutions with the Teaching Component

Carnegie Classification	Sig.	r	n
Bachelors	.000	-.476	761
Masters	.000	.327	977
Research	.000	.319	5815

Table 5

Baccalaureate Institutions – Effectiveness of Policies Concerning Administrative Support

Factor	r	sig.	n
Time	.345	.000	761
Clarity of Tenure Process-Department	.418	.000	761
Paid or Unpaid Leave; Stop the Tenure Clock	-.137	.000	761
Clarity of Tenure Process-Institution	-.380	.000	761
Professional Assistance for Obtaining Grants and for Improving Teaching	.206	.000	761
Childcare	-.147	.000	761
Financial Assistance with Housing and Spousal/Partner Hiring	.259	.000	761
Limit of Number of Students and Travel Funds	.023	.523	761
The Review Process	-.353	.000	761

Table 6

Masters Institutions – Effectiveness of Policies Concerning Administrative Support

Factor	r	sig.	n
Time	-.414	.000	977
Clarity of Tenure Process-Department	-.236	.000	977
Policies Concerning Financial Assistance with Family	.160	.000	977
Clarity of Tenure Process-Institution	-.288	.000	977
The Review Process	.283	.000	977
Policies Concerning			
Professional Assistance in Obtaining Grants and Improving Teaching	-.225	.000	977
Travel Funds to Present Papers and Provisions for Paid or Unpaid Research or Personal Leave	-.246	.000	977

Table 7

Research Institutions – Effectiveness of Policies Concerning Administrative Support

Factor	r	sig.	n
Clarity of Tenure Process-Department	-.321	.000	5815
Clarity of Tenure Process-Institution	.309	.000	5815
Policies Concerning Financial Assistance with Family	.175	.000	5815
Time	-.280	.000	5815
Support for Research and Personal Leave	-.162	.000	5815
Stop-the-Clock	-.162	.000	5815
The Review Process	.284	.000	5815

Table 8

Satisfaction with the Research Process at Research Institutions

Attribute	r	sig.	n
What is expected of you as a researcher	.365	.000	3584
The amount of time you have to conduct research			
Produce creative work	.323	.000	3584
The amount of external funding you are expected to find	.354	.000	5343
The influence you have over the focus of your research	.261	.000	5776

Table 9

Satisfaction with the Teaching Process

Type of Institution	r	sig.	n
Baccalaureate Institutions	-.476	.000	761
Masters Institutions	.327	.000	977
Research Institutions	.319	.000	5815

place to work. All three types of institutions displayed significant correlations at the .05 level. However, responses from tenure track faculty members at Baccalaureate institutions were negatively correlated with satisfaction.

H2: The more satisfied tenure track faculty are that effective policies that relate to their worklife are in place the more likely they are to be satisfied with their institution as a place to work.

There were several factors for each type of institution defined by Carnegie Classification which measured the satisfaction tenure track faculty members had with the effectiveness of administrative policies. These included for Baccalaureate institutions Factor 3-Time, Factor 4 Clarity of Tenure Decisions at the Departmental Level, Factor 6-Administrative Support for Paid or Unpaid Leave and Stop-the-Clock for Parental or Family Concerns, Factor 10-Effectiveness of Assistance for Obtaining Research Grants and for Improving Teaching, F11-Effectiveness of Childcare Policies, Factor 12-Effectiveness of Financial Assistance for Housing and Spousal/Partner Hiring, and Factor 13-Effectiveness of Policies Concerning Limiting the Number of Students and for the Provision of Travel Funds.

Baccalaureate Institutions

For Baccalaureate institutions Time, Clarity of the Tenure Process at the Departmental Level, Effectiveness of policies relating to professional assistance in obtaining grants and improving teaching were all positively correlated and significant at the .05 level. Effectiveness of policies limiting the number of

students taught and the provision of travel funds was positively correlated however it was not significant.

Negatively correlated for Baccalaureate institutions were administrative provisions for paid or unpaid leave or stop-the-clock for family or research purposes, clarity of the tenure procedure at the institutional level, childcare and the review process indicating that tenure track faculty members who were disappointed with these administrative support options would be less satisfied with their institution as a place to work.

Masters Institutions

There were also several factors which measured effectiveness of administrative policies for Masters institutions. These included Factor 3-Time, Factor 4-Clarity of the Tenure Process-Department, Factor 7- Policies Concerning Financial Assistance with Family Issues, Factor 8-Clarity of the Tenure Process-Institution, Factor 10 – The Review Process, Factor 12-Professional Assistance in Obtaining Grants and Improving Teaching, and Factor 13 Funding for Travel to Present Papers, Conduct Research and also Paid or Unpaid Research or Personal Leave.

Policies concerning financial assistance with family issues, and the review process were positively correlated with satisfaction with the institution as a place to work. All other factors were negatively correlated with satisfaction with institution as a place to work.

Research Institutions

Six factors were important for research institutions in determining the effectiveness of administrative and professional support and how support was related to tenure track faculty job satisfaction with institution. These included Factor 3-Clarity of the Tenure Process-Department, Factor 8-Clarity of the Tenure Process-Institution, Factor 9-Policies Concerning Family, Factor 10-Time, Factor 11-Policies concerning Leave, and Factor 12-The Review Process.

Clarity of the tenure process at the departmental level was negatively correlated with satisfaction with the institution as a place to work as was the effectiveness of administration policies concerning leave. All other factors were positively correlated with satisfaction with institution as a place to work.

It is important to remember that for all three Carnegie Classifications factors representing respondents at each of these institutions were computed independently for each institution, thus there are minor differences in the factors.

H3: The more satisfied tenure track faculty are with the perception that climate and collegiality exist at their institution the more likely they are to be satisfied with their institution as a place to work.

Climate/Culture/Collegiality represents the relations tenure track faculty members have with other junior and senior faculty members. Climate/Culture/Collegiality was an important factor for all three Carnegie Classifications. For Baccalaureate institutions respondents conceptualized this factor as one factor since professional and personal relations with senior and junior faculty were not split

out. For Masters and Research institutions there were important differences in how tenure track faculty members responded to junior and senior faculty. For Baccalaureate institutions Climate/Culture/Collegiality was positively correlated with satisfaction (p=.000, r=.492). For Masters institutions there was a positive correlation with senior faculty (p=.000; r=.392) and a negative correlation with junior faculty (p=.041; r= -.198). Both were significant at the .05 level. Finally, for research institutions there was a positive correlation for relations with senior faculty (p=.000; r=.413) and a negative correlation with junior faculty (p= -.000; r=.-.224).

H4: The greater the tenure track member's salary, the more likely the tenure track faculty member will view their institution as a satisfactory place to work.

Salary was correlated significantly with satisfaction only at Research institutions (p= .000; r=.088) but not at Baccalaureate (p= .478; r=.026) and Master's institutions (p= .083; r= .056) indicating that salary was not an important indicator of satisfaction for Baccalaureate and Master's institutions but that it was important for Research institutions.

H5: Tenure track faculty who work at Research institutions will be more likely to name satisfaction with the research process as a component of overall satisfaction.

Since there were too few observations to measure satisfaction with the research process at Baccalaureate and Masters institutions; only Research institutions

were measured regarding satisfaction with the research process. The following questions from the COACHE survey were used to measure satisfaction with the research process. Satisfaction is measured on a likert scale with “1” being very unsatisfied and “5” being very satisfied. These questions were positively correlated to satisfaction with institution as a place to work. Indeed, tenure track faculty members who were satisfied with all aspects of the research process were likely to be satisfied with their institution as a place to work.

H6: Tenure track faculty who work at Baccalaureate or Masters institutions will be more likely to name satisfaction with the teaching process as a component of overall satisfaction than tenure track faculty members at Research institutions.

Satisfaction with the teaching component at Masters and Research institutions was positively correlated with satisfaction with institution as a place to work. Baccalaureate institutions exhibited a negative correlation with institution as a place to work. Thus, this hypothesis was confirmed for Masters institutions and refuted for Baccalaureate institutions.

H7: Tenure track faculty who experience greater autonomy with their teaching process will be more likely to be satisfied with their institution as a place to work.

Two variables were used to measure autonomy in the teaching process (see Table 10). “The degree of influence you have over the courses you teach” and “The discretion you have over the content of the courses you teach”. In all cases

Table 10

Autonomy in the Teaching Process

Attribute	r	sig.	n
Baccalaureate Institutions			
The degree of influence you have over the courses you teach	.323	.000	759
The discretion you have over the content of the courses you teach	.361	.000	760
Masters Institutions			
The degree of influence you have over the courses you teach	.323	.000	759
The discretion you have over the content of the courses you teach	.263	.000	.965
Research Institutions			
The degree of influence you have over the courses you teach	.250	.000	5654
The discretion you have over the content of the courses you teach	.177	.000	.5645

autonomy and satisfaction were positively correlated.

H8: Tenure track faculty who experience greater autonomy with their research process will be more likely to be satisfied with their institution as a place to work.

Only responses from tenure track faculty members at Research institutions were used to test for satisfaction with autonomy in the research process since the lack of responses to the questions on the research process at Baccalaureate and Masters institutions prohibited examination of their satisfaction with the research process. Question 34d “The influence you have over the research process” was used to test this hypothesis. Five thousand seven-hundred and seventy-six responses were received for this survey question. Autonomy with the research process was positively correlated with satisfaction with institution ($p=.000$; $r=.261$).

Regression Analysis

Introduction

Research hypotheses for the descriptive portion of this paper have been tested and significant zero-order correlations which promote satisfaction with institution for tenure track faculty members have been found. The teaching process, effective institutional support policies, climate, culture and collegiality, the research process, and processes that promote autonomy in both research and teaching each correlate significantly with the dependent variable satisfaction with institution as a place to work. The factors which explain the most variation in

satisfaction with institution as a place to work controlling for all the variables in the equation will be examined in the regression analysis. Johnsrud and Heck (1998) have shown that institutions that provide clear objectives in relation to the tenure process, provide positive administrative support for teaching and give tenure track faculty sufficient autonomy for research and teaching efforts will have faculty members who enjoy heightened job satisfaction. If this is true for tenure track faculty surveyed in this study then factors that affect faculty members nature of work (teaching, research, climate/culture/collegiality), and administrative support in terms of reasonable and clear policies for determining tenure and conducting reviews, assistance with mentoring, travel to seminars and conferences to deliver papers, and assistance with family obligations such as parental leave, assisting spouses in the hiring process and funds for housing will also be important to tenure track faculty in terms of satisfaction with their institution. Further, they should be positively correlated with satisfaction with institution as a place to work no matter whether tenure track faculty members reside at Baccalaureate, Masters or Research institutions. If not, then there are differences related to institution as defined by Carnegie Classification that were not uncovered in earlier studies.

Regression Analyses

Three stepwise linear multiple regression analyses were run, one for Baccalaureate institutions, one for Masters institutions and one for Research institutions. The results can be viewed in Figures 6, 7, and 8.

	Satisfaction	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Factor 1	.492**														
Factor 2 -	.071	-.047													
Factor 3	345**	.156**	.035												
Factor 4	.418**	.299**	-.030*	.125**											
Factor 5	-.015	.005	-.168**	-.028	.051										
Factor 6	-.137**	-.063	-.003	-.192**	-.053	.013									
Factor 7	-.080*	-.049	.289**	-.035	-.038	-.214**	-.057								
Factor 8	-.380**	-.279**	-.021	-.133	-.414**	.055	.065	.032							
Factor 9 -	.476**	-.222**	.027	-.190**	-.199**	.055	.032	.029	.228**						
Factor 10	.206**	.157	.044	.157	.125**	-.072*	-.091	.058	-.118**	-.076*					
Factor 11	-.147**	-.051	.017	-.038	-.026	.018	.017	-.001	.031	.065	-.023				
Factor 12	-.259**	.158**	.003	.111**	.042	-.045	-.090*	.047	-.088*	-.091*	.111**	.046			
Factor 13	.023	.036	-.055	.005	.016	.056	-.070	-.056	-006	-.010	.027	.004	.008		
Factor 14	-.353**	-.226**	-.004	-.051	-.265**	.015	.026	-.023	.261**	.183**	-.093**	-034	-.112**	-.045	
Salary	.026	-.072*	-.103**	.099**	-.023	.139**	-.154**	-.008	.133**	.024	.056	-.033	.108**	-.051	.071

- P=.05 * p=.01 Note: For a list of factor descriptions for Baccalaureate Institutions see Table 6.

Figure 6. Zero order correlation of factor scores and salary with satisfaction with institution-Baccalaureate institutions.

	Satisfaction	1	2	3	4	5	6	7	8	9	10	11	12	13
Factor 1	.392**													
Factor 2	-.068*	-.001												
Factor 3	.414**	.107*	-.130*											
Factor 4	.236*	-.260*	.069*	-.119										
Factor 5	-.053	-.005	.264*	-.046	.033									
Factor 6	.327**	.292**	-.022	.185**	-.128**	-.090**								
Factor 7	.160**	.122**	-.012	.188**	-.088**	-.031	.006							
Factor 8	-.288**	-.294**	-.068*	-.169**	.306**	--.038	-.206**	-.089**						
Factor 9	-.041	.056	-064*	.001	-.053	-.046	.055	.013	-.001					
Factor 10	.283**	.297**	-.020	.128**	-.284**	.052	.121**	.097**	-.228**	.031				
Factor 11	.133**	.136**	.279**	.069*	.044	.117**	.079*	.035	-.169**	-.083**	.098**			
Factor 12	.225**	-.160**	.006	-.173**	139**	-.042	-.051	-.135	.133**	-.002	-.141**	-.095*		
Factor 13	-.146**	-.155**	.004	-.219**	.126**	-.072	-.050	-.145**	.149**	.035	-.183**	-.064*	.106**	
Salary	.056	.002	-.108**	.192**	-.053	-.084**	-.015	.073*	.042	-.019	-.044	-.101**	-.061	.005

- P=.05 * p=.01 Note: For a list of factor descriptions for Baccalaureate Institutions see Table 7.

Figure 7. Zero order correlation of factor scores and salary with satisfaction with institution-Masters institutions.

	Satisfaction	1	2	3	4	5	6	7	8	9	10	11	12
Factor 1	.143**												
Factor 2 -	.030*	.007											
Factor 3	-.321**	-.371**	.052**										
Factor 4	-.224**	-.319**	.002	.183**									
Factor 5	-.118**	-.078**	-.289**	.011	-.026*								
Factor 6	.319**	.262**	-.008	-218**	-.205**	-.088**							
Factor 7	.039**	-.017	-.286**	-.025	-.086**	.192**	.011						
Factor 8	.309**	.304**	.048**	-.377**	-.132**	-.101**	.188**	-.058**					
Factor 9	.175**	.117**	-.010	-.049**	-.008	-.050**	.063**	.010	.120**				
Factor 10	.280**	.177**	-.022	-.116**	-.069**	-.-11	.193**	.002	.201**	.136**			
Factor 11	-.152**	-.116**	-.078**	.087**	.113**	-.006	-.134**	.012	-.084**	-.161**	-.148**		
Factor 12	.284**	.306**	.022	-.254**	-.138**	-.073**	.138**	-.009	.288**	.123**	.196**	-.193**	
Salary	.088**	.039**	-.211**	-.006	-.012	.082**	.014	.085**	-.003	.109**	.163**	.015	-.056**

- P=.05 * p=.01 Note: For a list of factor descriptions for Research Institutions see Table 8.

Figure 8. Zero order correlation of factor scores and salary with satisfaction with institution-Research institutions.

Multiple Regression

Multiple regression is a statistical procedure that assesses the relationship between one criterion (dependent) variable and several predictor variables (Nicol, & Pexman, 2007). Stepwise multiple regression is a statistical procedure where variables are entered one by one into the regression equation with the first variable entered explaining the most variation in the dependent variable satisfaction. As other variables are entered into the equation and standardized based on the variables which meet the criterion for entry their shared variance and the amount of variation they explain is represented by their standardized betas (β). Whether they are significant predictors of the dependent variable (satisfaction with institution) is based on their student's t statistic (Pedhazur & Pedhazur, 1991). In all three equations all variables that entered each equation were significant at the .05 level. The amount of variation these variables explain together is represented by the adjusted r-square value which is adjusted for the other terms in the model. The adjusted r-square increases only if the new term improves the model more than by chance. The adjusted r-square can be negative and it will always be less than or equal to r-square (Draper & Smith, 1998). If the amount of variation is significant it is represented by a significant value for the F statistic. All three regression equations were significant at the .05 level however they differed in number and variety of significant predictors as well as the amount of variation they explained in tenure track faculty job satisfaction with the institution. They did, indeed have some important similarities.

Comparisons of the Regression Equations by Type of Institution

Baccalaureate Institutions

For Baccalaureate institutions the regression equation explained approximately 54% of the variation in tenure track faculty satisfaction with institution as a place to work (F=86.083; sig=.000). Teaching/Nature of Work was the most significant predictor for satisfaction with institution for Baccalaureate institutions but it was negatively correlated to satisfaction (p=.000; beta=-.283, t=-10.547). Teaching explained approximately 23.6% of the variation in satisfaction with institution as a place to work (Adjusted r-square = .236). Climate/Culture/Collegiality with both junior and senior faculty members was the second most explanatory factor for tenure track faculty members satisfaction with institution (p=.000; beta=.247; t=8.959). It was positively correlated with satisfaction. Climate/Culture/Collegiality r-square change value was .145. These two variables explained approximately 37% of the variation in satisfaction with institution as a place to work.

Clarity of the Tenure process at the department level and Time were the third and fourth most explanatory variables that predicted tenure track faculty job satisfaction with the institution as a place to work. They were positively correlated with satisfaction. Other predictors which were important and entered the equation were effectiveness of the review process, effect of financial assistance in housing and spousal/partner hiring, and effective childcare policies (which for Baccalaureate institutions had its own factor), clarity of the tenure process at an

institutional level and professional assistance in obtaining grants and improving teaching. The effectiveness of review process was negatively correlated with satisfaction as was the effectiveness of childcare policies. All other predictors were positively correlated (see Table 11).

Masters Institutions

For Masters institutions the regression equation explained approximately 36% of the variation in tenure track faculty satisfaction with institution as a place to work (F=67.369; p=.000). Time was the most important predictor of tenure track faculty job satisfaction for masters institutions (p=.000; beta=.292, t=10.610). Time explained approximately 16.9% of the variation in satisfaction with institution as a place to work (adjusted r-square=.169) followed by climate/culture/collegiality with senior faculty (p=.000; beta=.220; t=7.533). Climate/culture/collegiality's r-square change value was .118. These two variables explained over half the variation in satisfaction with institution as a place to work. It is interesting to note that climate/culture/collegiality with junior faculty (p=.008; beta=-.069; t=-2.673) was negatively correlated with satisfaction. Other factors that entered the equation were Teach/Nature of work which was positively correlated with satisfaction, the review process which was also positively correlated, professional assistance in obtaining grants and improving

Table 11

Stepwise Regression Analyses Summary for Tenure Track Faculty Satisfaction with Institution Baccalaureate Institutions

Variable of Factor	B	β	t	sig.	R-sq.	Adj. R-sq.	R-sq. Change
Teach/Nature of Work	-.282	-.283	-10.547	.000	.237	.236	.237
Climate/Culture/Collegiality	.246	.247	8.959	.000	.382	.381	.145
Clarity of the Tenure Process-Department	.168	.166	5.767	.000	.434	.432	.052
Time	.183	.184	7.055	.000	.476	.473	.042
The Review Process	-.143	-.144	-5.366	.000	.499	.495	.022
Effectiveness of Financial Assistance in Housing and Spousal Partner Hiring	.132	.135	5.093	.000	.515	.511	.017
Childcare Policies	-.111	-.113	-4.505	.000	.528	.524	.013
Clarity of the Tenure Process-Institution	-.085	-.085	-2.495	.003	.534	.528	.005
Upper Limit on Committee Assignments and Teaching	-.082	-.063	-2.498	.013	.537	.531	.003
Effectiveness of Professional Assistance for Obtaining External Research Grants and Teaching	.062	.063	2.432	.015	.541	.534	.004

Note. N=742. Adjusted R-Square=.541, F=86.083, p=.000.

teaching which was negatively correlated. For a list of other variables that were explanatory in explaining tenure track faculty job satisfaction see Table 12.

Research Institutions

For Research institutions the regression equation explained approximately 30% of the variation in tenure track faculty satisfaction with their institution as a place to work (F=242.445; p=.000). It appears that tenure track faculty members at research institutions had a higher of number of concerns that were important to their satisfaction with their institution then faculty at Baccalaureate or Masters institutions since thirteen variables entered the equation and the variance explained was shared by all of these variables. It is also interesting to note that even with thirteen variables only 30% of the variation was explained.

The most important predictor of tenure track faculty satisfaction with institution as a place to work was climate/culture/collegiality with senior faculty (p=.000; beta=.207; t=15.782). There was a positive correlation between climate/culture/collegiality with senior faculty and tenure track faculty satisfaction with institution as a place to work. Climate/culture/collegiality explained 16.8% of the variation in satisfaction with institution. All other factors contributed important but minimal amounts to the equation. Climate/culture/collegiality was followed by Teach/Nature of Work which was also positively correlated (p=.000; beta=.147, t=12.281). The Time factor was positively correlated (p=.133; beta=.132; t=11.214). Clarity of the tenure procedure at the departmental level was negatively correlated (p=.000; beta= -.112; t= -8.819).

Table 12

Stepwise Regression Analyses Summary for Tenure Track Faculty Satisfaction with Institution Masters Institutions

Variable of Factor	B	β	t	sig.	R-sq.	Adj. R-sq.	R-sq. Change
Time	.336	.292	10.610	.000	.170	.169	.170
Climate/Culture/Collegiality-Senior Faculty	.251	.220	7.533	.000	.288	.287	.118
Teach/Nature of Work	.188	.160	5.777	.000	.312	.309	.023
The Review Process	.128	.112	3.992	.000	.330	.327	.018
Effectiveness of Professional Assistance for Obtaining External Research Grants and Improving Teaching	-.112	-.097	-3.643	.000	.341	.337	.011
Administrative Support in Obtaining Funding	-.105	-.091	-3.356	.001	.350	.346	.009
Clarity of the Tenure Process-Institution	-.106	-.091	-3.247	.001	.357	.352	.007
Climate/Culture/Collegiality-Junior Faculty	-.080	-.069	-2.673	.008	.362	.356	.005

Note. N=960. Adjusted R-Square=.356, F=67.389, p=.000.

Climate/Culture/Collegiality with junior faculty also entered the equation and was negatively correlated. Salary entered the equation and was positively correlated. This is the only time salary entered any of the three equations. For a full list of the variables that entered the equation for research institutions see Table 13.

Summary

The regression analysis revealed that tenure track faculty members at Baccalaureate, Masters and Research Institutions had similar concerns which they perceived should be met to ensure their job satisfaction but they were of differing importance. Also, although all three equations were significant at p=.05, each explained a different amount of variation in job satisfaction. For Baccalaureate institutions, 54.1% of the variation in tenure track faculty job satisfaction was explained. For Master's institutions, only 35.6% of the variation was explained, and for Research Institutions, 30.8% of the variation in tenure track faculty job satisfaction was explained. What is more, at Baccalaureate institutions Teach/Nature of Work and Climate/Culture/Collegiality with junior and senior faculty explained the most variation (in that order). At Masters institutions Time and Climate/Culture/Collegiality with senior faculty members explained the most variation. For Research institutions several factors came into play however Climate/Culture and Collegiality explained the most variation.

Table 13

Stepwise Regression Analyses Summary for Tenure Track Faculty Satisfaction with Institution Research Institutions

Variable of Factor	B	β	t	sig.	R-sq.	Adj. R-sq.	R-sq. Change
Climate/Culture/Collegiality-Senior Faculty	.223	.207	15.782	.000	.168	.168	.168
Teach/Nature of Work	.161	.147	12.281	.000	.214	.214	.046
Time	.145	.133	11.214	.000	.246	.246	.032
Clarity of the Tenure Process-Department	-.123	-.112	-8.819	.000	.267	.266	.021
The Review Process-Effectiveness	.094	.086	7.028	.000	.278	.277	.011
Effectiveness of Policies Concerning Family	.086	.079	6.856	.000	.287	.286	.009
Clarity of the Tenure Process-Institution	.103	.093	7.399	.000	.294	.293	.007
Climate/Culture/Collegiality-Junior Faculty	-.070	-.065	-5.429	.000	.298	.297	.004
The Review Process-Importance	-.097	-.089	-7.547	.000	.302	.301	.004
Salary	.040	.046	3.956	.000	.305	.303	.003
Importance of Policies Concerning Family	.046	.042	3.578	.000	.307	.306	.002

Table 13

Stepwise Regression Analyses Summary for Tenure Track Faculty Satisfaction with Institution Research Institutions (continued)

Variable of Factor	B	β	t	sig.	R-sq.	Adj. R-sq.	R-sq. Change
Effectiveness of Administrative policies in Support of Leave	-.051	-.047	-4.055	.000	.309	.307	.002
Importance of Professional Assistance for Grants, Travel Funds Research Leave	-.040	-.037	2.988	.000	.310	.308	.001

Note. N=5629. Adjusted R-Square=.308, F=193.948, p=.000.

CHAPTER 5: DISCUSSION

When researchers began to analyze faculty job satisfaction the general perception was that faculty members were rarely satisfied with their institutions (Boyer et al., 1994). It was assumed that faculty members saw administrators as incompetent; communication between faculty and administrators was poor and faculty members viewed their influence as declining because of lack of support (Boyer et al.; Johnsrud & Rosser, 2002). Discontent was with their institutions, symbolized by lack of support by administration. This was in stark contrast with their intellectual lives, the courses they taught and the collegial relationships that they made (Bowen & Schuster, 1986; Boyer et al.; Smart, 1990). Admittedly, these were all broad statements with a lack of specificity. The study of satisfaction or "met expectations" was paramount (Olsen & Crawford, 1998) for many researchers. As research progressed more definition of the qualities which faculty members experienced in regard to satisfaction was exposed. Johnsrud and Rosser (2002) explained that faculty job satisfaction or "morale", as they called it, was the result of met expectations concerning professional priorities, administrative support, and quality of life/nature of work. They built a hierarchical model with institutional and individual level data using data from several United States western universities. The COACHE (2005-2006) study broke down these categories into several smaller, more distinct groups which this study proposed using. They were tenure procedures at institutions of higher education, workload, confidence and support for teaching and research objectives by the institutions

administration, autonomy, climate, culture and collegiality and salary. The purpose of this study was to identify how these concepts varied by institutional type using Carnegie classification to stratify the data.

It is also important to note that several case studies since the original descriptive study by Boyer (1997) and the hierarchical study by Johnsrud and Heck (2002) have also identified or confirmed many of the institutional or individual level variables that were defined in the original studies and added clarity to how they are experienced by faculty members (Carney et al., 2007; Chen et al., 2004; Latif & Grillo, 2001).

The purpose of this study was not only to confirm the work done by earlier researchers with more recent, national data, but to provide more specificity for tenure track faculty members as to how the characteristics described by COACHE are distributed across institutional type defined by Carnegie classification and to point out important differences in research findings from previous authors.

This study answered two research questions. How do differences in workload, confidence and support for teaching and research objectives by the institution's administration, autonomy, climate, culture and collegiality, and salary affect job satisfaction of tenure track faculty. Furthermore, how does job satisfaction of tenure track faculty differ by Carnegie Classification? It sought to clarify these relationships by institutional type expressed by Carnegie Classification since it was assumed that there would be unique differences

because of the social, cultural and economic climates of the three types of institutions. The study also added the aspect of salary since salary was expected to increase the level of satisfaction that tenure track faculty members enjoyed (Smart, 1990).

Three factor analyses, one for each type of institution, were computed. These factors were based on Johnsrud and Heck (1998) and Johnsrud and Rosser's (2002) concepts of professional priorities such as autonomy with research and teaching, the perception of confidence and support of tenure track faculty by the administration and the quality of life issues that tenure-track faculty members are assumed to value and enjoy. The factors naming conventions closely paralleled the categories COACHE (2005-2006) used for their descriptive analysis. However, as was seen, the factors varied somewhat by institutional type. The factors were then used in three regression equations, one for each type of institution to test which factors provided the most explanatory power in job satisfaction for tenure track faculty members. The significance of the regression equations, then, was to point out the differences, and the similarities, that tenure track faculty members share at Baccalaureate, Masters and Research institutions. It is these differences and similarities that form the social/cultural framework for the tenure track process at each type of institution. This chapter discusses those similarities and differences. It is also possible that the additional clarity added to the tenure process may serve to act as a lens both for observing administrative processes that work to provide satisfaction for tenure track faculty

members as well as add clarity to processes that don't work and confuse or annoy faculty members so as to suggest changes in these procedures that may need to be made. It must be noted that the purpose here is not to provide a safe net for all tenure track faculty by necessarily increasing met expectations of faculty so that all faculty members are satisfied but to ensure communication and clarity in the process of tenure. To do this, one must examine the concepts that mean the most to tenure track faculty. Those concepts are the ones that this study has used as its factors.

Climate/Culture/Collegiality

Coalition building occurs at all levels of colleges and universities among different coalitions of administrators and faculty. The faculty senate, for example, brings together faculty member representatives from a broad swath across the university. Faculty members and administrators together take part in many leadership and assessment committees university-wide. Yet, even though faculty members are exposed to administrators and faculty outside their department there is evidence that faculty members have the most confidence in leaders who are closest to them (Johnsrud & Heck, 1994). The strength of the chair and the relations among members of departments has been shown to be critically important to the success and retention of faculty.

This study has shown that for all three types of institutions relationships with senior faculty members in their own departments are viewed very positively. Relationships with senior faculty include having senior faculty members take an

interest in tenure track faculty members' professional lives, collaboration with senior faculty members, and professional interactions with senior faculty members. All of these interactions which when viewed positively by both senior and junior faculty members helped build important professional bonds and ensure a sense of fit for the tenure track faculty member. What is more, these collegial relationships, termed Climate/Culture/Collegiality by COACHE (2005-2006), were the first or second most explanatory factors for tenure track faculty job satisfaction in the three regression equations in this study thereby supporting the fact that climate, culture and collegiality at the department level was an important predictor of tenure track faculty job satisfaction.

In addition, tenure track faculty members are also likely to regard relations with senior faculty members as important because it is important for them to gain respect and increase their chances for tenure. Finally, tenure track faculty members often look to some senior faculty members as mentors (Palepu, Friedman, Barnett, Carr, Ash, Szalacha, & Moskowitz, 1998).

It was also noted that for Masters and Research institutions Climate, Culture and Congeniality was split into two factors: relations with senior faculty and relations with junior faculty. Tenure track faculty members at Masters institutions felt a great deal of satisfaction with their relations with both junior and senior faculty members. However, tenure track faculty members at Research institutions while experiencing satisfaction with relations with senior faculty members experienced apparently adversarial relationships with junior faculty

members as noted by the fact that the correlation for this factor with satisfaction was negative. Perhaps because of the increased emphasis to publish and participate in committee and service activities to gain tenure, junior faculty members feel competitive with each other thus producing a negative reaction to other junior faculty members of their own status (Chen et al., 2004). Additional case studies that examine the relationships of junior faculty members with each other would be needed to answer this question.

Thus there are important differences between Baccalaureate institutions and Masters and Research institutions. For each type of institution, however, Climate, Culture and Collegiality functions as the first or second most important predictor of satisfaction with institution as a place to work. Important are the ties that bind.

Teach/Nature of Work

Teach/Nature of Work was an important predictor of satisfaction with institution as a place to work. For Baccalaureate institutions Teach/Nature of Work explained almost 24% of the variation in tenure track faculty job satisfaction but it was negatively correlated. For Masters and Research institutions Teach/Nature of Work was positively correlated with tenure track faculty job satisfaction.

For Baccalaureate institutions this factor contained three elements: (1) “the level of courses you teach”, (2) “the degree of influence over the courses you teach” and (3) “the discretion you have over the content of the courses you

teach". All three questions showed negative correlations with the factor and thus the factor showed a negative correlation in the regression with tenure track faculty job satisfaction. It is important to note, however, that while there were numerous positive responses to each of these questions the tail of the distribution was skewed to the left as was the kurtodic behavior of the distribution.

Baccalaureate institutions are known to emphasize the teaching component and are less inclined to emphasize the research component. When a prospective faculty member joins a Baccalaureate institution s/he expects a heavy teaching load. Associated with teaching are the number of students tenure track faculty members must interact with in terms of teaching and advising. It takes a great deal of time to accomplish the tasks associated with teaching. Loading on the time factor but related to teaching is the number of courses that Baccalaureate faculty members teach which also presented an encumbrance. Thus, the work involved in teaching and advising can be overwhelming.

At the beginning of this study it was assumed that all three types of institutions would display positive correlations with teaching. This expectation was not validated in this study. As has been seen in previous research (Acquire, 2000; Baldridge et al., 1977; Boice, 2000; Hagedorn, 1996) the pressures of course workload and advising may account for this difference at Baccalaureate institutions.

Autonomy

Important to faculty members also is autonomy in the classroom in terms of the content of their courses and the discretion and presentation of the contents (Tact & Patitu, 1992). While legislatures, the public and university administrations have at times served to limit these aspects by providing expectations regarding outcomes that faculty members must achieve in terms of assessment, AAUP's 1947 law respecting the rights of faculty members still binds and faculty members appear to still be enjoying the provision of autonomy as shown by the fact that autonomy in the classroom was positively correlated with tenure track faculty job satisfaction. While attempts have been made by some universities to limit the control faculty members have over the content of their courses especially in area of distance education by copywriting the contents, most attempts have been unsuccessful.

Time

The time factor was a positively and significantly correlated with tenure track faculty job satisfaction for all three types of institutions. The amount of time tenure track faculty members have to complete teaching, advising, research, service and administrative tasks was not specifically addressed by either Johnsrud and Rosser (2002) or Boyer (1997). When they did address "Time" they referred to it as workload. Time was mentioned in the COACHE (2005-2006) report but not specifically broken out into a category. It was apparent in this study that several questions that tenure track faculty answered concerned time and

they loaded on the same factor. There were several references to time. They included: (1) “the number of courses you teach”, (2) “the amount of time you have to conduct research/produce creative work”, (3) “an upper limit on committee assignments”, and (4) “an upper limit on teaching obligations”. For Baccalaureate institutions it was the fourth most important predictor of tenure track faculty job satisfaction. For Masters institutions it was the most important predictor of tenure track faculty job satisfaction and for Research institutions it was the third most important predictor of tenure track faculty job satisfaction. The Time factor was positively correlated for all three types of institutions indicating that tenure track faculty members felt that there was adequate time to prepare for all the duties expected of them. This is interesting finding because several researchers found that the obligations of teaching, advising, research and service produced considerable tension for tenure track faculty members in terms of the amount of time to accomplish these tasks (Schuster & Finkelstein, 2008; Manger, 1997).

It must be noted that related to the time factor were factors concerning paid or unpaid research or personal leave. While these activities did not load on the time factor they were considered important none the less in that they were significantly and positively correlated with tenure track faculty job satisfaction for both Baccalaureate and Research institutions.

Funding

Institutions provide varying amounts of funding to support the important contributions that tenure track faculty members intend to make to further their professional development. Thus time and funding are linked. Kerlin and Dunlap (1993) corroborated the importance of funding by showing that the negative impact of inadequate financial resources is connected to faculty dissatisfaction in their case study at a major public university in the United States. Their findings underscore the importance of funding for faculty professional development.

Funding in support of research and teaching, funding for travel to conferences to present papers or continue research, and professional assistance with obtaining externally funded research grants and improving teaching are important to tenure track faculty members. Administrative support for more personal financial assistance for childcare, housing and spousal/hiring are also funding issues that mean a great deal to tenure track faculty members and their families. Some institutions choose to support these concerns but they are not always effectively handled. Or, institutions simply may not feel the need to provide them.

At Baccalaureate institutions travel funding to present papers or conduct research and paid (or unpaid) research leave, professional assistance in obtaining externally funded grants, financial assistance with housing and with spousal/partner hiring were all positively correlated with tenure track faculty job satisfaction however funding for childcare was negatively correlated with tenure

track faculty job satisfaction. It appears that tenure track faculty members were dissatisfied with administrative policies concerning childcare thus it did not contribute positively to tenure track faculty job satisfaction. Yet, they were satisfied with policies concerning financial assistance with housing and spousal partner hiring as illustrated by the fact that this was positively correlated with tenure track faculty job satisfaction

At Masters institutions tenure track faculty members expressed dissatisfaction with the effectiveness of funding. They were dissatisfied with the professional assistance they received when trying to obtain externally funded grants and improve teaching, travel funds to present papers and conduct research, and paid and unpaid leave. This factor was both negatively and significantly correlated with satisfaction with institution as a place to work.

Tenure track faculty members at Research institutions exhibited satisfaction with administrative polices concerning family. However, they were displeased with administrative policies concerning funding for leave and the professional assistance they received to obtain externally funded grants or improve teaching. Salary was positively correlated with tenure track faculty job satisfaction if viewed as a funding issue.

Professional Assistance in Obtaining Externally Funded Grants and Improving Teaching

As noted in the funding section, the effectiveness of professional assistance was not always positively correlated with tenure track faculty job

satisfaction. While tenure track faculty members at Baccalaureate institutions report effective handling of professional assistance with obtaining externally funded research grants and improvement of teaching, Masters and Research institutions displayed a negative correlation with tenure track faculty job satisfaction regarding these issues. Masters and Research tenure track faculty members did not feel that professional assistance regarding these services had been handled effectively by their institutions.

Research or service institutions have been shown to invest more resources towards faculty development while teaching institutions often did not have the infrastructure to adequately support needed faculty development in terms of improving teaching (Johnsrud & Heck, 2002). Given this supposition, it is interesting to note that in this study tenure track faculty members at Research institutions did not feel that professional assistance in obtaining externally funded research grants or improvement of teaching had been effectively handled at their institutions. Thus, their finding is refuted in this study.

The Review Process

The review process is often viewed negatively by tenure track faculty members even though it is well recognized as important process to engender communication between department heads, the employment committee, and faculty. An effective review process functions to give faculty members feedback on how they are performing given the requirements for tenure at their institution. It presents clear goals which tenure track faculty members must attain. In

addition to asking about clarity of purpose, the COACHE survey asked about different elements of the tenure process. Tenure track faculty members were asked about the importance and later, the effectiveness of formal and informal mentoring, periodic, formal, written performance reviews for junior faculty and peer reviews of written and creative work. They were also asked about the fairness with which their immediate supervisor evaluated their work. In addition, the importance of professional assistance to improve teaching was often associated with the review process. There was more diffusion in attitudes toward the review process as illustrated by the fact that it was distributed quite differently across different types of institutions. This diffusion and lack of clarity of the tenure process illustrates a need for clear goals that tenure track faculty members can achieve.

Tenure track faculty members at Baccalaureate institutions answered negatively for both importance and effectiveness of the tenure process except for the aspect of peer reviews for teaching and creative work. They seemed to spurn any questions regarding the tenure process since almost all aspects of the review process were negatively correlated with these two factors and thus they were negatively correlated with tenure track faculty job satisfaction. It is difficult to understand their reasoning from this data and further case studies would be needed.

Tenure track faculty members at Masters institutions felt that the review process was indeed important, however overall they felt that two aspects of the

review process was not effectively handled at their institutions. These aspects included periodic formal performance reviews for junior faculty and written summaries of these periodic performance reviews.

Finally, Research institutions considered review process to be important but considered the administration of the policies to be ineffective since they were negatively correlated with the factor representing effectiveness. The review process as a whole was, however, positively correlated with satisfaction.

An important exception to the questions related to the review process was the question regarding informal mentoring. Not only was it not correlated with the review process for all types of institutions, it was positively correlated with the climate, culture and collegiality factor, indicating that it was perhaps the result of collegial relations with senior faculty.

Clarity and Reasonableness of the Tenure Process

Departmental clarity and institutional clarity of the tenure process were envisioned as separate entities and tenure track faculty members were asked about the clarity of the tenure process at the institutional and departmental levels. At the departmental level tenure track faculty members were asked whether they viewed the tenure criteria as clear, whether they felt that the body of evidence used to evaluate them was clear, whether they thought they would achieve tenure, and what departmental members felt their role was as a scholar. At the institutional level tenure track faculty members were asked whether their role as a scholar, a teacher, an advisor to students, a colleague in their department and

a campus citizen was clear to them. In many ways the review process and the tenure process are related because clear goals promote understanding of the performance needed to achieve tenure (Johnsrud & Heck, 2002).

Tenure track faculty members at Baccalaureate institutions agreed that clear goals at the department level promoted satisfaction but that at the institutional level goals were not clear. They were negatively correlated to tenure track job satisfaction. In fact, clarity of tenure goals at the departmental level was the third most important predictor of job satisfaction for tenure track faculty members at Baccalaureate institutions.

Tenure track faculty members at Masters institutions agreed that institutional goals were not clear. This was indicated by the fact that Clarity of Institutional Goals was negatively related to tenure track faculty job satisfaction. Clarity of institutional goals was a significant, but moderately explanatory factor of tenure track faculty job satisfaction. Clarity of departmental goals was not a significant predictor of tenure track faculty member job satisfaction for Masters institutions.

Tenure track faculty members at Research Institutions expressed that there was a lack of clarity of departmental goals but institutional goals related to the tenure process were clear. This was exhibited by the fact that Clarity of the Tenure Process at the departmental level was negatively correlated with tenure track faculty job satisfaction. It also was the fourth most significant predictor of tenure track faculty job satisfaction at Research institutions. Conversely, Clarity

of the Tenure Process at the institutional level was positively correlated but only explained approximately .5% of the variation in tenure track faculty job satisfaction.

Salary

The impact of salary seems to be mediated through other, more important factors such as satisfaction with professional support that the institution could provide and the sense of fit the tenure track faculty member had with his or her institution (Smart, 1990). The findings of this study support this premise since salary is important to increased satisfaction of tenure track faculty members only at Research Institutions and its explanatory power is very small. Salary did not enter the equation for Baccalaureate or Masters institutions.

Recommendations

Based on the results of this study there are six recommendations for practice. There are also three recommendations for further research. It is important to remember that this study looked only at tenure track faculty satisfaction with the institution as a place to work. It does not advocate that any or all institutional procedures that affect the tenure process will increase faculty job satisfaction or that current procedures should be changed to allow tenure track faculty members to become more satisfied with the tenure process. What this study does advocate is that the elements of the tenure process leave some tenure track faculty members satisfied with the process while others are dissatisfied with some of the elements involved in the process. The elements

involved in satisfaction (or dissatisfaction) vary somewhat by institution type. If an institution wants to retain high producing faculty members who are an asset to the institution then certain procedures need to be changed or improved.

Practice Recommendations

The following practice recommendations are suggested as outcomes of this study. They include (1) clarification of the tenure process at the institutional level for Baccalaureate and Masters institutions and at the departmental level for Research institutions, (2) implementation of an effective review process that engenders more communication between tenured, senior faculty and tenure track faculty at all three types of institutions which includes a better formal, written review process, (3) more focus during the review process for all three types of institutions on fairness by the immediate supervisor, (4) facilitation of several alternative sources for funding for teaching and research, travel and leave, especially at Masters institutions, (5) increased professional assistance with externally funded grants and improvements in teaching at Research institutions, (6) provision of better childcare benefits at Baccalaureate institutions, and (7) put in place upper limits on teaching and advising obligations at Baccalaureate institutions since a significant amount of dissatisfaction for tenure track faculty with the teaching component may be due to the additional obligations they incur with teaching and advising.

Clarification of the Tenure Process and Improvements to the Review Process

Clarification of the tenure process was important to all three types of institutions. Tenure track faculty members at Baccalaureate and Research institutions agreed that institutional goals were not clear to them. Institutional level goals were broader because they addressed the areas of teaching, advising, being a productive colleague and a campus citizen. Tenure track faculty members at Research institutions expressed that their departmental level goals were not clear. These goals were addressed more generally in the questions asked tenure track faculty members because they focused on the body of evidence collected for the tenure process, the tenure standards and the tenure criteria.

First, an examination of tenure procedures at both the departmental and institutional level is needed. Secondly, the two plans must be aligned so as to provide efficient and effective tenure procedures that the administration and faculty can understand and agree on.

The Review Process

Since the review process is always closely associated with clarity of tenure goals, senior faculty members and department heads should analyze their review procedures to make sure that they are in line with the tenure process at both the departmental and institutional level. In addition, provide more effective ways of communicating through the formal written review process. Some tenure track faculty members were not satisfied with the fairness of their immediate supervisor in the review process. Formal, written rules for conducting reviews

may help in this matter. In addition, provide additional avenues for important two-way communication between senior faculty members and junior faculty members.

Facilitate Additional Funding Sources

Facilitation of alternative sources for funding for teaching and research, travel and leave is especially important during economic downturns for all institutions and it was emphasized by respondents at Masters institutions in this study who were dissatisfied with their sources for funding. Tenure track faculty members need avenues for obtaining externally funded grants. Professional assistance with obtaining these grants, especially in times of scarce funding, should be tantamount. Many universities and colleges employ experts who research avenues for external support and link faculty members to possible funding, participate on grant writing teams with faculty members and partner with for-profit and no-for-profit agencies to obtain funding. Assistance with grant writing and research can also be obtained through many college and university departments such as Institutional Research, Centers for Faculty Excellence and Research and Graduate Studies.

Improvement of teaching skills is important for tenure track faculty members because teaching methods have been linked to student achievement outcomes. There is increased measurement in this area as student achievement and retention continue to be in focus at United States colleges and universities.

Centers of faculty excellence that employ specialists who are trained in effective teaching practices can provide much needed support in this area.

Additional and alternative sources of funding for travel to meetings to give papers or funding to conduct research is necessary for tenure track faculty members. In order to receive tenure, tenure track faculty members must present papers, publish articles and attain grants to improve their professional status.

Tenure track faculty members at Masters and Research institutions were satisfied with the family benefits their institutions provided, however tenure track faculty members at Baccalaureate institutions were not satisfied with the childcare benefits they received.

Upper Limits on Teaching and Advising

All tenure track faculty members need time to accomplish the tasks that are required for the tenure process. Baccalaureate tenure track faculty members request that upper limits on teaching and advising obligations be implemented since a great deal of dissatisfaction for Baccalaureate tenure track faculty members is associated with teaching and advising obligations.

Recommendations for Further Research

Recommendations for further research include (1) research on tenure track faculty satisfaction with institution as a place to work at the level of academic area, (2) research on the diffuse nature of satisfaction for tenure track faculty members at Research institutions, (3) review of the differences in the

review process at the department and institutional level, (4) a hierarchical review of the 2005-2007 COACHE data.

The results of this study indicted that there were differences in tenure track faculty job satisfaction using Carnegie classification as a stratification variable. However, it is expected that there are also significant differences in satisfaction at the level of academic area. There are difficulties conducting research at this level of analysis because the response rate low and anonymity and confidentiality are at risk, however the attempt should be made to expose the unique differences by academic area. The use of several cases studies may expose some of these differences. This would add a great deal to the literature on tenure track faculty job satisfaction.

The results of this study also indicted that tenure track faculty members at Research institutions exhibit far more concerns that are important for tenure track faculty job satisfaction than at other types of institutions. The data for Research institutions was robust, thereby allowing for further research on satisfaction to determine the reason for the additional elements that made the Research institution unique.

The level of dissatisfaction with clarity of tenure decisions at both the departmental and institutional level for all institutions contributed to dissatisfaction with the tenure process. A content analysis of various tenure procedures at both the institutional and departmental level would be a useful endeavour to gain more information.

Finally, this exploratory study built a structural model of tenure track faculty job satisfaction. It also assumed that the relationship between satisfaction with institution as a place to work and the factors that promote satisfaction were linear. This is fine for the exploratory phase of investigation of the data. However, the next step in the study of tenure track faculty job satisfaction with institution as a place to work should be a hierarchical model using both individual level and institutional level data. The study should also accommodate any non-linear relationships that exist.

In addition, several smaller studies can be performed that take into account differences by gender. The most robust data exists for tenure track faculty members at Research institutions. Using Research institution cohort of tenure track faculty members may provide the best way to further look at this data.

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APPENDIX A: COACHE TENURE-TRACK FACULTY JOB SATISFACTION SURVEY CODEBOOK

Name	Label	Variable Value and Lable
uniqueid	Respondent ID	
id	Survey ID	
respid	Respondent ID	
year	Cohort survey year	
version	Institution type	1=University
		2=College
uni	University name.	
I. DEMOGRAPHIC BACKGROUND		
q1	Q1. Are you employed full-time in a tenure-track position?	0=No
		1=Yes
q3	Q3. What is the highest degree you have earned?	1=Bachelor's
		2=Master's
		3=Doctorate (including J.D.)
		98=Decline to answer
		9998=Decline to answer
q4	Q4. In what year did you earn your highest degree?	

q5	Q5. Did you hold a postdoctoral appointment?	0=No 1=Yes 98=Decline to answer
q6a	Q6a. Is this your first tenure-track appointment?	0=No 1=Yes 98=Decline to answer
q6b	Q6b. How many years on the tenure track did you complete elsewhere?	1=1 year or less 2=2 years 3=3 years 4=4 years 5=5 or more years 6=Full tenure 98=Decline to answer
q6c	Q6c. Did you leave that prior appointment voluntarily?	0=No 1=Yes 98=Decline to answer

q6d	Q6d. Did your current faculty appointment begin with credit for prior service elsewhere?	0=No	
		1=Yes	
		98=Decline to answer	
q6e	Q6e. How many years of credit for prior service elsewhere did you receive?	1=1 year or less	
		2=2 years	
		3=3 years	
		4=4 years	
		5=5 or more years	
		6=Full tenure	
		98=Decline to answer	
q7	Q7. Please indicate the year in which your current faculty appointment began:	1960=1960-1961	1985=1985-1986
		1961=1961-1962	1986=1986-1987
		1962=1962-1963	1987=1987-1988
		1963=1963-1964	1988=1988-1989
		1964=1964-1965	1989=1989-1990
		1965=1965-1966	1990=1990-1991
		1966=1966-1967	1991=1991-1992
		1967=1967-1968	1992=1992-1993

		1968=1968-1969	1993=1993-1994
		1969=1969-1970	1994=1994-1995
		1970=1970-1971	1995=1995-1996
		1971=1971-1972	1996=1996-1997
		1974=1974-1975	1997=1997-1998
		1975=1975-1976	1998=1998-1999
		1976=1976-1977	1999=1999-2000
		1977=1977-1978	2000=2000-2001
		1978=1978-1979	2001=2001-2002
		1979=1979-1980	2002=2002-2003
		1980=1980-1981	2003=2003-2004
		1981=1981-1982	2004=2004-2005
		1982=1982-1983	2005=2005-2006
		1983=1983-1984	2006=2006-2007
		1984=1984-1985	9998=Decline to answer
q8	Q8. What is your rank?	1=Instructor/Lecturer	
		2=Assistant Professor	
		3=Associate Professor	

		4=Professor 5=Other 98=Decline to answer
q9	Q9. Do you hold a joint appointment (formal responsibilities in more than one department)?	0=No 1=Yes 98=Decline to answer
q11	Q11. What is you race?	0=American Indian/Native Alaskan 1=Asian, Asian American, or Pacific Islander 2=White, Non-Hispanic 3=Black or African American 4=Hispanic or Latino 5=Other 6=Multiracial 98=Decline to answer
q12	Q12. What is your citizenship status?	1=U.S. citizen 2=Non-U.S. citizen 98=Decline to answer

q13	Q13. What is your gender?	0=Male 1=Female 98=Decline to answer 9998=Decline to answer
q14	Q14. In what year were you born?	
q15	Q15. What is your annual salary?	1=Less than $30,000 2=$30,000 to $44,999 3=$45,000 to $59,999 4=$60,000 to $74,999 5=$75,000 to $89,999 6=$90,000 or above 98=Decline to answer
q16a	Q16a. How many children under the age of 18 live with you at home?	98=Decline to answer
q16b	Q16b. How many other dependents (e.g., an adult who requires your care) live with you at home?	98=Decline to answer
q17	Q17. Which statement most clearly describes your household's employment situation?	0=I do not have a spouse/partner 1=My spouse/partner is not employed

		2=My spouse/partner is employed full-time at this institution 3=My spouse/partner is employed full-time elsewhere 4=My spouse/partner is employed part-time at this institution 5=My spouse/partner is employed part-time elsewhere 98=Decline to answer
q18	Q18. Do you and your spouse/partner reside in separate communities for work reasons?	0=No 1=Yes 9=Not applicable 98=Decline to answer
II. TENURE		
q19	Q19. I find the tenure process to be...	1=Very unclear
q20	Q20. I find the tenure criteria (what things are evaluated) to be...	2=Fairly unclear 3=Neither clear nor unclear
q21	Q21. I find the tenure standards (the performance threshold) to be...	4=Fairly clear 5=Very clear
q22	Q22. I find the body of evidence that will be considered in making my tenure decision to be...	9=Not applicable 98=Decline to answer
q23	Q23. I feel that my own prospects for earning tenure are...	
	Question 24: Is what's expected in order to earn tenure clear to you regarding your performance as:	

q24a	Q24a. A scholar - Is what's expected in order to earn tenure clear to you regarding your performance as:	1=Very unclear 2=Fairly unclear 3=Neither clear nor unclear
q24b	Q24b. A teacher - Is what's expected in order to earn tenure clear to you regarding your performance as:	4=Fairly clear 5=Very clear 9=Not applicable
q24c	Q24c. An advisor to students - Is what's expected in order to earn tenure clear to you regarding your performance as:	98=Decline to answer
q24d	Q24d. A colleague in your department/institution - Is what's expected in order to earn tenure clear to you regarding your performance as:	
q24e	Q24e. A campus citizen - Is what's expected in order to earn tenure clear to you regarding your performance as:	
q24f	Q24f. A member of the broader community - Is what's expected in order to earn tenure clear to you regarding your performance as:	
	Question 25: Is what's expected in order to earn tenure reasonable to you regarding your performance as:	
q25a	Q25a. A scholar - Is what's expected in order to earn tenure reasonable to you regarding your performance as:	1=Very unreasonable 2=Fairly unreasonable 3=Neither reasonable nor unreasonable
q25b	Q25b. A teacher - Is what's expected in order to earn tenure reasonable to you regarding your performance as:	4=Fairly reasonable 5=Very reasonable 9=Not applicable

q25c	Q25c. An advisor to students - Is what's expected in order to earn tenure reasonable to you regarding your performance as:	98=Decline to answer
q25d	Q25d. A colleague in your department/institution - Is what's expected in order to earn tenure reasonable to you regarding your performance as:	
q25e	Q25e. A campus citizen - Is what's expected in order to earn tenure reasonable to you regarding your performance as:	
q25f	Q25f. A member of the broader community - Is what's expected in order to earn tenure reasonable to you regarding your performance as:	
q26	Q26. I have received consistent messages from senior colleagues about the requirements for tenure.	1=Strongly disagree 2=Somewhat disagree 3=Neither agree nor disagree
q27a	Q27a. In my opinion, tenure decisions here are made primarily on performance-based criteria rather than on non-performance criteria.	4=Somewhat agree 5=Strongly agree 9=Not applicable/I don't know 98=Decline to answer

III. THE NATURE OF YOUR WORK

q28	Q28. The way you spend your time as a faculty member - Please indicate your level of satisfaction with the following:	1=Very unsatisfied 2=Somewhat unsatisfied 3=Neither satisfied nor dissatisfied

q29a	Q29a. The level of the courses you teach - Please indicate your level of satisfaction with the following:	4=Somewhat satisfied 5=Very satisfied 9=Not applicable/I don't know
q29b	Q29b. The number of courses you teach - Please indicate your level of satisfaction with the following:	98=Decline to answer
q29c	Q29c. The degree of influence you have over which courses you teach - Please indicate your level of satisfaction with the following:	
q29d	Q29d. The discretion you have over the content of your courses - Please indicate your level of satisfaction with the following:	
q29e	Q29e. The number of students you teach - Please indicate your level of satisfaction with the following:	1=Very unsatisfied 2=Somewhat unsatisfied
q29f	Q29f. The quality of undergraduate students with whom you interact - Please indicate your level of satisfaction with the following:	3=Neither satisfied nor dissatisfied 4=Somewhat satisfied
q29g	Q29g. The quality of graduate students with whom you interact - Please indicate your level of satisfaction with the following:	5=Very satisfied 9=Not applicable/I don't know
q30a	*Q30a. What's expected of you as a researcher - Please indicate your level of satisfaction with the following:*	98=Decline to answer
q30b	Q30b. The amount of time you have to conduct research/produce creative work - Please indicate your level of satisfaction with the following:	

q30c	Q30c. The amount of external funding you are expected to find - Please indicate your level of satisfaction with the following:
q30d	Q30d. The influence you have over the focus of your research/creative work - Please indicate your level of satisfaction with the following:
q31	Q31. The quality of facilities (i.e., office, labs, classrooms) - Please indicate your level of satisfaction with the following:
q32	Q32. The amount of access you have to Teaching Fellows, Graduate Assistants, et al. - Please indicate your level of satisfaction with the following:
q33a	Q33a. Clerical/administrative services - How satisfied are you with the quality of these support services?
q33b	Q33b. Research services - How satisfied are you with the quality of these support services?
q33c	Q33c. Teaching services - How satisfied are you with the quality of these support services?
q33d	Q33d. Computing services - How satisfied are you with the quality of these support services?

IV. POLICIES AND PRACTICES

Question 34a: Importance of policy to your success:

q34a1	Q34a. Formal mentoring program for junior faculty - Pease rate how important you think each would be to your success.	1=Very unimportant 2=Fairly unimportant 3=Neither important nor unimportant
q34a2	Q34a. Informal mentoring - Pease rate how important you think each would be to your success.	4=Fairly important 5=Very important 98=Decline to answer
q34a3	Q34a. Periodic, formal performance reviews for junior faculty - Pease rate how important you think each would be to your success.	
q34a4	Q34a. Written summary of periodic performance reviews for junior faculty - Pease rate how important you think each would be to your success.	
q34a5	Q34a. Professional assistance in obtaining externally funded grants - Pease rate how important you think each would be to your success.	
q34a6	Q34a. Professional assistance for improving teaching - Pease rate how important you think each would be to your success.	
q34a7	Q34a. Travel funds to present papers or conduct research - Pease rate how important you think each would be to your success.	
q34a8	Q34a. Paid or unpaid research leave during the pre-tenure period - Pease rate how important you think each would be to your success.	

q34a9	Q34a. Paid or unpaid personal leave during the pre-tenure period - Very important- Pease rate how important you think each would be to your success.	
q34a10	Q34a. An upper limit on committee assignments for tenure-track faculty - Pease rate how important you think each would be to your success.	
q34a11	Q34a. An upper limit on teaching obligations - Pease rate how important you think each would be to your success.	
q34a12	Q34a. Peer reviews of teaching or research/creative work - Pease rate how important you think each would be to your success.	
q34a13	Q34a. Childcare - Pease rate how important you think each would be to your success.	1=Very unimportant 2=Fairly unimportant 3=Neither important nor unimportant
q34a14	Q34a. Financial assistance with housing - Pease rate how important you think each would be to your success.	4=Fairly important 5=Very important 98=Decline to answer
q34a15	Q34a. Stop-the-clock for parental or other family reasons - Pease rate how important you think each would be to your success.	
q34a16	Q34a. Spousal/partner hiring program - Pease rate how important you think each would be to your success.	

	Question 34b: Effectiveness of policy at your institution:	
q34b1	Q34b. Formal mentoring program for junior faculty - How effective for you have been the following at your institution?	1=Very ineffective 2=Fairly ineffective 3=Neither effective nor ineffective
q34b2	Q34b. Informal mentoring - How effective for you have been the following at your institution?	4=Fairly effective 5=Very effective
q34b3	Q34b. Periodic, formal performance reviews for junior faculty - How effective for you have been the following at your institution?	8=Not offered at my institution 9=I don't know/Not applicable 98=Decline to answer
q34b4	Q34b. Written summary of periodic performance reviews for junior faculty - How effective for you have been the following at your institution?	
q34b5	Q34b. Professional assistance in obtaining externally funded grants - How effective for you have been the following at your institution?	
q34b6	Q34b. Professional assistance for improving teaching - How effective for you have been the following at your institution?	
q34b7	Q34b. Travel funds to present papers or conduct research - How effective for you have been the following at your institution?	
q34b8	Q34b. Paid or unpaid research leave during the pre-tenure period - How effective for you have been the following at your institution?	

q34b9	Q34b. Paid or unpaid personal leave during the pre-tenure period - How effective for you have been the following at your institution?	
q34b10	Q34b. An upper limit on committee assignments for tenure-track faculty - How effective for you have been the following at your institution?	1=Very ineffective 2=Fairly ineffective 3=Neither effective nor ineffective
q34b11	Q34b. An upper limit on teaching obligations - How effective for you have been the following at your institution?	4=Fairly effective 5=Very effective
q34b12	Q34b. Peer reviews of teaching or research/creative work - How effective for you have been the following at your institution?	8=Not offered at my institution 9=I don't know/Not applicable 98=Decline to answer
q34b13	Q34b. Childcare - How effective for you have been the following at your institution?	
q34b14	Q34b. Financial assistance with housing - How effective for you have been the following at your institution?	
q34b15	Q34b. Stop-the-clock for parental or other family reasons - How effective for you have been the following at your institution?	
q34b16	Q34b. Spousal/partner hiring program - How effective for you have been the following at your institution?	
q35a	Q35a. My institution does what it can to make having children and the tenure-track compatible - Please indicate your level of agreement with the following statements:	1=Strongly disagree 2=Somewhat disagree 3=Neither agree nor disagree 4=Somewhat agree

q35b	Q35b. My institution does what it can to make raising children and the tenure-track compatible - Please indicate your level of agreement with the following statements:	5=Strongly agree 9=Not applicable/I don't know 98=Decline to answer
q35c	Q35c. My departmental colleagues do what they can to make having children and the tenure-track compatible - Please indicate your level of agreement with the following statements:	
q35d	Q35d. My departmental colleagues do what they can to make raising children and the tenure-track compatible - Please indicate your level of agreement with the following statements:	
q36	Q36. How satisfied are you with your compensation (that is, your salary and benefits)?	1=Very unsatisfied 2=Somewhat unsatisfied 3=Neither satisfied nor dissatisfied
q37	Q37. How satisfied are you with the balance between professional time and personal or family time?	4=Somewhat satisfied 5=Very satisfied 9=Not applicable/I don't know 98=Decline to answer
V. CLIMATE, CULTURE AND COLLEGIALITY		
q38a	Q38a. The fairness with which your immediate supervisor evaluates your work - Please indicate your level of satisfaction with the following:	1=Very unsatisfied 2=Somewhat unsatisfied 3=Neither satisfied nor dissatisfied

q38b	Q38b. The interest senior faculty take in your professional development - Please indicate your level of satisfaction with the following:	4=Somewhat satisfied 5=Very satisfied 9=Not applicable/I don't know
q38c	Q38c. Your opportunities to collaborate with senior faculty - Please indicate your level of satisfaction with the following:	98=Decline to answer
q39a	Q39a. The amount of professional interaction you have with senior colleagues in your department - Please indicate your level of satisfaction with the following:	
q39b	Q39b. The amount of personal interaction you have with senior colleagues in your department - Please indicate your level of satisfaction with the following:	
q39c	Q39c. The amount of professional interaction you have with junior colleagues in your department - Please indicate your level of satisfaction with the following:	
q39d	Q39d. The amount of personal interaction you have with junior colleagues in your department - Please indicate your level of satisfaction with the following:	
q40	Q40. How well you fit (e.g., your sense of belonging, your comfort level) in your department - Please indicate your level of satisfaction with the following:	
q41	Q41. The intellectual vitality of the senior colleagues in your department - Please indicate your level of satisfaction with the following:	

q42	*Q42. There is a feeling of unity and cohesion among the faculty at my institution - Please indicate your level of agreement with the following statements:*	
q42a	*Q42a. There is a feeling of unity and cohesion among the faculty in my department/at your institution - Please indicate your level of agreement with the following statements:*	
q42b	*Q42b. There is a feeling of unity and cohesion among the faculty in my School - Please indicate your level of agreement with the following statements:*	
q43	Q43. On the whole, my department treats junior faculty fairly compared to one another - Please indicate your level of agreement with the following statement:	1=Strongly disagree 2=Somewhat disagree 3=Neither agree nor disagree 4=Somewhat agree 5=Strongly agree 9=Not applicable/I don't know 98=Decline to answer

VI. GLOBAL SATISFACTION

	Question 44a: Please check the two (and only two) BEST aspects about working at your institution.
q44a_1	Q44a. Quality of colleagues
q44a_2	Q44a. Support of colleagues

q44a_3	Q44a. Opportunities to collaborate with colleagues
q44a_4	Q44a. Quality of graduate students
q44a_5	Q44a. Quality of undergraduate students
q44a_6	Q44a. Quality of facilities
q44a_7	Q44a. Support for research/creative work (e.g., leave)
q44a_8	Q44a. Support for teaching
q44a_9	Q44a. Support for professional development
q44a_10	Q44a. Assistance for grant proposals
q44a_11	Q44a. Childcare policies/practices
q44a_12	Q44a. Availability/quality of childcare facilities
q44a_13	Q44a. Spousal/partner hiring program
q44a_14	Q44a. Compensation
q44a_15	Q44a. Geographic location
q44a_16	Q44a. Diversity
q44a_17	Q44a. Presence of others like me
q44a_18	Q44a. My sense of fit here
q44a_19	Q44a. Protection from service/assignments
q44a_20	Q44a. Commute

q44a_21	Q44a. Cost of living
q44a_22	Q44a. Research/creative work requirements for tenure
q44a_23	Q44a. Teaching load
q44a_24	Q44a. Tenure requirements in general
q44a_25	Q44a. Tenure criteria clarity
q44a_26	Q44a. Tenure process clarity
q44a_27	Q44a. Manageable or no pressure to perform
q44a_28	Q44a. Academic freedom
q44a_94	Q44a. Other1
q44a_95	Q44a. Other2
q44a_99	Q44a. There are no positive aspects
q44a_98	Q44a. Decline to answer
	Question 44b: Please check the two (and only two) WORST aspects about working at your institution.
q44b_1	Q44b. Quality of colleagues
q44b_2	Q44b. Support of colleagues
q44b_3	Q44b. Opportunities to collaborate with colleagues
q44b_4	Q44b. Quality of graduate students
q44b_5	Q44b. Quality of undergraduate students

q44b_6	Q44b. Quality of facilities
q44b_7	Q44b. Lack of support for research/creative work (e.g., leave)
q44b_8	Q44b. Lack of support for teaching
q44b_9	Q44b. Lack of support for professional development
q44b_10	Q44b. Lack of assistance for grant proposals
q44b_11	Q44b. Childcare policies/practices (or lack thereof)
q44b_12	Q44b. Availability/quality of childcare facilities
q44b_13	Q44b. Spousal/partner hiring program (or lack thereof)
q44b_14	Q44b. Compensation
q44b_15	Q44b. Geographic location
q44b_16	Q44b. Lack of diversity
q44b_17	Q44b. Absence of others like me
q44b_18	Q44b. My lack of fit here
q44b_19	Q44b. Too much service/too many assignments
q44b_20	Q44b. Commute
q44b_21	Q44b. Cost of living
q44b_22	Q44b. Research/creative work requirements for tenure
q44b_23	Q44b. Teaching load

q44b_24	Q44b. Tenure requirements in general	
q44b_25	Q44b. Tenure criteria clarity	
q44b_26	Q44b. Tenure process clarity	
q44b_27	Q44b. Unrelenting pressure to perform	
q44b_28	Q44b. Academic freedom	
q44b_94	Q44b. Other1	
q44b_95	Q44b. Other2	
q44b_99	Q44b. There are no negative aspects	
q44b_98	Q44b. Decline to answer	
q45a	Q45a. All things considered, how satisfied are you with your department as a place to work?	1=Very unsatisfied 2=Somewhat unsatisfied
q45b	Q45b. All things considered, how satisfied are you with your institution as a place to work?	3=Neither satisfied nor dissatisfied 4=Somewhat satisfied 5=Very satisfied 9=Not applicable/I don't know 98=Decline to answer
q46a	Q46a. Who serves as the chief academic officer at your institution?	1=Other 2=Provost

		3=Academic Dean 4=Vice President for Academic Affairs 5=President 6=Chancellor 9=I don't know 98=Decline to answer
q46b	Q46b. The person who serves as the chief academic officer at my institution seems to care about the quality of life for junior faculty.	1=Strongly disagree 2=Somewhat disagree 3=Neither agree nor disagree 4=Somewhat agree 5=Strongly agree 9=Not applicable/I don't know 98=Decline to answer
q47	Q47. Assuming you achieve tenure, how long do you plan to remain at your institution?	1=I haven't thought that far ahead 2=No more than 5 years after earning tenure 3=For the foreseeable future

		4=For the rest of my career 9=Not applicable 98=Decline to answer
q48	Q48. If I had to do it over again, I would accept my current position.	1=Strongly disagree 2=Somewhat disagree 3=Neither agree nor disagree 4=Somewhat agree 5=Strongly agree 9=Not applicable/I don't know 98=Decline to answer
q49	Q49. If a candidate for a tenure-track faculty position asked you about your department/institution as a place to work, would you:	0=Not recommend your department/institution as a place to work 1=Recommend your department/institution with reservations 2=Strongly recommend your department/institution) as a place to work 98=Decline to answer
q50	Q50. How do you rate your institution as a place for junior faculty to work?	1=Awful 2=Bad 3=So-so

		4=Good 5=Great 98=Decline to answer
age	Respondent Age - calculated from year of birth (survey Q14).	98=Decline to answer
institut	Institution name - sample data.	
school	School name - sample data.	
dept	Department name - sample data.	
cip	cip - sample data.	
acarea	Academic area - sample data.	11=Humanities 12=Social Sciences 13=Physical Sciences 14=Biological Sciences 15=Visual & Performing Arts 16=Engineering/Comp Sci/Math/Stats 17=Health & Human Ecology 18=Agriculture/Nat Res/Env Sci 19=Business

		20=Education 21=Medical Schools & Health Professions 22=Other Professions
race	Race - sample data.	0=American Indian/Native Alaskan 1=Asian 2=White 3=Black 4=Hispanic 5=Other 6=Pacific Islander 7=NonRes Alien
gender	Gender - sample data.	0=Male 1=Female
weight	Institutional weights for race and gender for Institutional Comparison Only	
GlobalSatis	Global Satisfaction Composite	
TenureComp	Tenure Composite	

TenureClarity	Tenure Clarity Composite	
TenureReason	Tenure Reasonableness Composite	
ProfDevelPolicy	Professional Development Policies Composite	
NatWkComp	Nature of work composite	
TeachingComp	NOW: Teaching Composite	
ResearchComp	NOW: Research Composite	
SupportComp	NOW: Support Services Composite	
PolicyComp	Policy Effectiveness Composite	
WorkFamComp	Work and Family Composite	
Collegiality	Collegiality and Climate Composite	
racedummy	Race	0=White 1=Faculty of color
carnegieclass	Carnegie Classification - Basic	
region	Region	1=New England 2=Mid-Atlantic 3=South 4=Midwest 5=Southwest/West

setting	Urban/Rural	0=Urban 1=Rural
type	Public/Private	0=Public 1=Private
UnitID	IPEDS UnitID	
cohort	Years in current position	1=2-3 years 2=4-6 years 3=7+ years
Married	Married/Partner	0=Single 1=Married/Partner
Children	Children	0=No children 1=Have dependent children
AgeGroup	Age Groups	1=Less than 35 years old 2=35-39 years 3=40-44 years 4=45-49 years 5=50+ years
household	Household type	1=Single

		2=Single w/ children
		3=Married no children
		4=Married w/ children
discipline	Academic discipline	1=Arts/Humanities
		2=Social sciences
		3=STEM
		4=Professions

APPENDIX B: QUESTIONNAIRE

COACHE

the collaborative on academic careers in higher education

TENURE-TRACK FACULTY JOB SATISFACTION SURVEY

I. Demographic Background

These first items gather basic demographic information about you.

1. Are you employed full-time in a tenure-track position?

- ○ Yes
- ○ No

2. Please provide the FULL name of the institution where you are employed.

3. What is the highest degree you have earned?

- ○ Doctorate (including J.D.)
- ○ Master's
- ○ Bachelor's
- ○ Decline to answer

4. In what year did you earn your highest degree?

5. Did you hold a postdoctoral appointment?

- ○ Yes
- ○ No
- ○ Decline to answer

6a. Is this your first tenure-track appointment?

- ○ Yes
- ○ No
- ○ Decline to answer

6b. How many years on the tenure track did you complete elsewhere?

- ○ 1 year or less
- ○ 2 years
- ○ 3 years
- ○ 4 years
- ○ 5 or more years
- ○ Full tenure
- ○ Decline to answer

6c. Did you leave that prior appointment voluntarily?

- ○ Yes
- ○ No
- ○ Decline to answer

6d. Did your current faculty appointment begin with credit for prior service elsewhere?

- ○ Yes
- ○ No
- ○ Decline to answer

6e. How many years of credit for prior service elsewhere did you receive?

- ○ 1 year or less
- ○ 2 years
- ○ 3 years
- ○ 4 years
- ○ 5 or more years
- ○ Full tenure
- ○ Decline to answer

7. Please indicate the year in which your current faculty appointment began:

8. What is your rank?

- ○ Professor
- ○ Associate Professor
- ○ Assistant Professor
- ○ Instructor/Lecturer
- ○ Decline to answer

9. Do you hold a joint appointment (formal responsibilities in more than one department)?

- ○ Yes
- ○ No
- ○ Decline to answer

10. Name the department or departments in which you hold formal responsibilities.

- ☐ Decline to answer

11. What is your race/ethnicity? *(Please check all that apply.)*

- ☐ American Indian/Native Alaskan
- ☐ Asian/Pacific Islander
- ☐ White, Non-Hispanic
- ☐ Black, Non-Hispanic
- ☐ Hispanic
- ☐ Other (Please specify): _____
- ☐ Decline to answer

12. What is your citizenship status?

- ○ U.S. citizen
- ○ Non-U.S. citizen
- ○ Decline to answer

13. What is your gender?

- ○ Male
- ○ Female
- ○ Decline to answer

14. In what year were you born?

_____

15. What is your annual salary?

- ○ Less than $30,000
- ○ $30,000 to $44,999
- ○ $45,000 to $59,999
- ○ $60,000 to $74,999
- ○ $75,000 to $89,999
- ○ $90,000 or above
- ○ Decline to answer

16a. How many children under the age of 18 live with you at home?

16b. How many other dependents (e.g., an adult who requires your care) live with you at home?

17. Which statement most clearly describes your household's employment situation?

- ○ I do not have a spouse/partner.
- ○ My spouse/partner is not employed.
- ○ My spouse/partner is employed full-time at this institution.
- ○ My spouse/partner is employed full-time elsewhere.
- ○ My spouse/partner is employed part-time at this institution.
- ○ My spouse/partner is employed part-time elsewhere.
- ○ Decline to answer

18. Do you and your spouse/partner reside in separate communities for work reasons?

- ○ Yes
- ○ No
- ○ Not applicable
- ○ Decline to answer

II. Tenure

This set of items addresses various aspects surrounding tenure in your department.

	Very clear	Fairly clear	Neither clear nor unclear	Fairly unclear	Very unclear	Decline to answer
19. I find the tenure *process* in my department to be...	○	○	○	○	○	○
20. I find the tenure *criteria* (what things are evaluated) in my department to be...	○	○	○	○	○	○
21. I find the tenure *standards* (the performance threshold) in my department to be...	○	○	○	○	○	○
22. I find the *body of evidence* that will be considered in making my tenure decision to be...	○	○	○	○	○	○
23. I feel that *my own prospects* for earning tenure are...	○	○	○	○	○	○

24. Is what's expected in order to earn tenure clear to you regarding your performance as:

	Not applicable	Very clear	Fairly clear	Neither clear nor unclear	Fairly unclear	Very unclear	Decline to answer
a. a scholar (e.g., research and creative work)	○	○	○	○	○	○	○
b. a teacher	○	○	○	○	○	○	○
c. an advisor to students	○	○	○	○	○	○	○
d. a colleague in your department	○	○	○	○	○	○	○
e. a campus citizen (e.g., service, committees)	○	○	○	○	○	○	○
f. a member of the broader community (e.g. service, outreach)	○	○	○	○	○	○	○

25. Is what's expected in order to earn tenure reasonable to you regarding your performance as:

	Not applicable	Very reasonable	Somewhat reasonable	Neither reasonable nor unreasonable	Somewhat unreasonable	Very unreasonable	Decline to answer
a. a scholar (e.g., research and creative work)	○	○	○	○	○	○	○
b. a teacher	○	○	○	○	○	○	○
c. an advisor to students	○	○	○	○	○	○	○
d. a colleague in your department	○	○	○	○	○	○	○
e. a campus citizen (e.g., service, committees)	○	○	○	○	○	○	○
f. a member of the broader community (e.g. service, outreach)	○	○	○	○	○	○	○

Please indicate whether you agree or disagree with each of the following statements:

26. I have received mixed messages about the requirements for tenure from senior colleagues.

Not applicable/ I don't know	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Decline to answer
○	○	○	○	○	○	○

27a. From what I can gather, tenure decisions here are based primarily on performance rather than on politics, relationships or demographics.

Not applicable/ I don't know	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Decline to answer
○	○	○	○	○	○	○

27b. On what are tenure decisions in your department primarily based?

☐ Decline to answer

III. The Nature of Your Work

The next set of items explores your day-to-day activities as a faculty member.

Please indicate your level of satisfaction with the following:

	Not applicable	Very satisfied	Somewhat satisfied	Neither satisfied nor unsatisfied	Somewhat unsatisfied	Very unsatisfied	Decline to answer
28. The way you spend your time as a faculty member	○	○	○	○	○	○	○
29a. The level of the courses you teach	○	○	○	○	○	○	○
29b. The number of courses you teach	○	○	○	○	○	○	○
29c. The degree of influence you have over which courses you teach	○	○	○	○	○	○	○
29d. The discretion you have over the content of the courses you teach	○	○	○	○	○	○	○
29e. The number of students you teach	○	○	○	○	○	○	○
29f. The quality of undergraduate students with whom you interact	○	○	○	○	○	○	○
29g. The quality of graduate students with whom you interact	○	○	○	○	○	○	○
30a. What's expected of you as a researcher	○	○	○	○	○	○	○
30b. The amount of time you have to conduct research	○	○	○	○	○	○	○

Please indicate your level of satisfaction with the following:

	Not applicable	Very satisfied	Somewhat satisfied	Neither satisfied nor unsatisfied	Somewhat unsatisfied	Very unsatisfied	Decline to answer
30c. The amount of research funding you are expected to find	○	○	○	○	○	○	○
30d. The influence you have over the focus of your research	○	○	○	○	○	○	○
31. The quality of facilities (i.e., office, labs, classrooms)	○	○	○	○	○	○	○
32. The amount of access you have to Teaching Fellows, Graduate Assistants, et al.	○	○	○	○	○	○	○

33. How satisfied are you with the quality of these support services?

	Not applicable	Very satisfied	Somewhat satisfied	Neither satisfied nor unsatisfied	Somewhat unsatisfied	Very unsatisfied	Decline to answer
a. Clerical/ administrative services	○	○	○	○	○	○	○
b. Research services	○	○	○	○	○	○	○
c. Teaching services	○	○	○	○	○	○	○
d. Computing services	○	○	○	○	○	○	○

IV. Policies and Practices

34a. Regardless of whether the following policies and practices currently apply to your institution, please rate *how important you think each would be to your success*. For each item, please mark the appropriate column.

	Very important	Somewhat important	Neither important nor unimportant	Somewhat unimportant	Very unimportant	Decline to answer
Formal mentoring program for junior faculty	○	○	○	○	○	○
Informal mentoring	○	○	○	○	○	○
Periodic, formal performance reviews for junior faculty	○	○	○	○	○	○
Written summary of periodic performance reviews forjunior faculty	○	○	○	○	○	○
Professional assistance in obtaining externally funded grants	○	○	○	○	○	○
Professional assistance for improving teaching	○	○	○	○	○	○
Travel funds to present papers or conduct research.	○	○	○	○	○	○
Paid or unpaid research leave during the probationary period	○	○	○	○	○	○
Paid or unpaid personal leave during the probationary period	○	○	○	○	○	○
An upper limit on committee assignments for tenure-track faculty	○	○	○	○	○	○
An upper limit on teaching obligations	○	○	○	○	○	○
Peer reviews of teaching and research	○	○	○	○	○	○
Childcare	○	○	○	○	○	○
Financial assistance with housing	○	○	○	○	○	○
Stop-the-clock for parental or other family reasons	○	○	○	○	○	○
Spousal/partner hiring program	○	○	○	○	○	○

34b. ***How effective for you have been the following at your institution?*** **For each item, please mark the appropriate column.**

	Not applicable	Very effective	Somewhat effective	Neither effective nor ineffective	Somewhat ineffective	Very ineffective	Decline to answer
Formal mentoring program for junior faculty	○	○	○	○	○	○	○
Informal mentoring	○	○	○	○	○	○	○
Periodic, formal performance reviews for junior faculty	○	○	○	○	○	○	○
Written summary of periodic performance reviews forjunior faculty	○	○	○	○	○	○	○
Professional assistance in obtaining externally funded grants	○	○	○	○	○	○	○
Professional assistance for improving teaching	○	○	○	○	○	○	○
Travel funds to present papers or conduct research.	○	○	○	○	○	○	○
Paid or unpaid research leave during the probationary period	○	○	○	○	○	○	○
Paid or unpaid personal leave during the probationary period	○	○	○	○	○	○	○
An upper limit on committee assignments for tenure-track faculty	○	○	○	○	○	○	○
An upper limit on teaching obligations	○	○	○	○	○	○	○
Peer reviews of teaching and research	○	○	○	○	○	○	○

34b. (continued) ***How effective for you have been the following at your institution?*** **For each item, please mark the appropriate column.**

	Not applicable	Very effective	Somewhat effective	Neither effective nor ineffective	Somewhat ineffective	Very ineffective	Decline to answer
Childcare	○	○	○	○	○	○	○
Financial assistance with housing	○	○	○	○	○	○	○
Stop-the-clock for parental or other family reasons	○	○	○	○	○	○	○
Spousal/partner hiring program	○	○	○	○	○	○	○

Please indicate your level of agreement with the following statements:

	Not applicable/ I don't know	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Decline to answer
35a. My institution does what it can to make **having children** and the tenure-track compatible.	○	○	○	○	○	○	○
35b. My institution does what it can to make **raising children** and the tenure-track compatible.	○	○	○	○	○	○	○
35c. My departmental colleagues do what they can to make **having children** and the tenure-track compatible.	○	○	○	○	○	○	○
35d. My departmental colleagues do what they can to make **raising children** and the tenure-track compatible.	○	○	○	○	○	○	○

36. How satisfied are you with your compensation (that is, your salary and benefits)?

Not applicable/ I don't know	Very satisfied	Somewhat satisfied	Neither satisfied nor unsatisfied	Somewhat unsatisfied	Very unsatisfied	Decline to answer
○	○	○	○	○	○	○

37. How satisfied are you with the balance between professional time and personal orfamily time?

Not applicable/ I don't know	Very satisfied	Somewhat satisfied	Neither satisfied nor unsatisfied	Somewhat unsatisfied	Very unsatisfied	Decline to answer
○	○	○	○	○	○	○

V. Climate, Culture and Collegiality

This set of questions addresses the climate, culture and collegiality of your workplace. Please indicate your level of satisfaction with the following:

	Not applicable	Very satisfied	Somewhat satisfied	Neither satisfied nor unsatisfied	Somewhat unsatisfied	Very unsatisfied	Decline to answer
38a. Your immediate supervisor is evaluating your work fairly	○	○	○	○	○	○	○
38b. The interest senior faculty take in your professional development	○	○	○	○	○	○	○
38c. Your opportunities to collaborate with senior faculty	○	○	○	○	○	○	○
39a. The amount of **professional** interaction you have with senior colleagues in your department.	○	○	○	○	○	○	○
39b. The amount of **personal** interaction you have with senior colleagues in your department.	○	○	○	○	○	○	○

Please indicate your level of satisfaction with the following:

	Not applicable	Very satisfied	Somewhat satisfied	Neither satisfied nor unsatisfied	Somewhat unsatisfied	Very unsatisfied	Decline to answer
39c. The amount of **professional** interaction you have with junior colleagues in your department.	○	○	○	○	○	○	○
39d. The amount of **personal** interaction you have with junior colleagues in your department.	○	○	○	○	○	○	○
40. How well you "fit" (e.g., your senseof belonging, your comfort level) inyour department	○	○	○	○	○	○	○
41. The intellectual vitality of the senior colleagues in your department	○	○	○	○	○	○	○

Please indicate your level of agreement with the following statements:

	Not applicable/ I don't know	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Decline to answer
42a.There is a feeling of unity and cohesion among the faculty in my department.	○	○	○	○	○	○	○
42b.There is a feeling of unity and cohesion among the faculty in my School.	○	○	○	○	○	○	○
43. On the whole, my department treats junior faculty fairly compared to one another.	○	○	○	○	○	○	○

VI. Global Satisfaction

Finally, we ask you to make some overall assessments about your department and your institution as a place to work.

44a. Please check the two (and only two) *best aspects* about working at your institution, as opposed to a comparable institution.

- ☐ Quality of colleagues
- ☐ Support of colleagues
- ☐ Opportunities to collaborate with colleagues
- ☐ Quality of graduate students
- ☐ Quality of undergraduate students
- ☐ Quality of facilities
- ☐ Support for research (e.g. research leave)
- ☐ Support for teaching
- ☐ Support for professional development
- ☐ Assistance for grant proposals
- ☐ Childcare policies/practices
- ☐ Availability/quality of childcare facilities
- ☐ Spousal/partner hiring program
- ☐ Compensation
- ☐ Geographic location
- ☐ Diversity
- ☐ Presence of others like me.
- ☐ My sense of "fit" here
- ☐ Protection from service/assignments
- ☐ Commute
- ☐ Cost of living
- ☐ Research requirements for tenure
- ☐ Teaching load
- ☐ Tenure requirements in general
- ☐ Tenure criteria clarity
- ☐ Tenure process clarity
- ☐ Manageable or no pressure to perform
- ☐ Other (Please specify):
- ☐ Other (Please specify):
- ☐ There are no positive aspects.
- ☐ Decline to answer

44b. Please check the two (and only two) *worst aspects* about working at your institution, as opposed to a comparable institution.

- ☐ Quality of colleagues
- ☐ Support of colleagues
- ☐ Opportunities to collaborate with colleagues
- ☐ Quality of graduate students
- ☐ Quality of undergraduate students
- ☐ Quality of facilities
- ☐ Lack of support for research
- ☐ Lack of support for teaching
- ☐ Lack of support for professional development
- ☐ Lack of assistance for grant proposals
- ☐ Childcare policies/practices (or lack therof)
- ☐ Availability/quality of childcare facilities
- ☐ Spousal/partner hiring program (or lack thereof)
- ☐ Compensation
- ☐ Geographic location
- ☐ Lack of diversity
- ☐ Absence of others like me
- ☐ My lack of "fit" here
- ☐ Too much service / too many assignments
- ☐ Commute
- ☐ Cost of living
- ☐ Research requirements for tenure
- ☐ Teaching load
- ☐ Tenure requirements in general
- ☐ Tenure criteria clarity
- ☐ Tenure process clarity
- ☐ Unrelenting pressure to perform
- ☐ Other (Please specify):
- ☐ Other (Please specify):
- ☐ There are no negative aspects.
- ☐ Decline to answer

45a. All things considered, how satisfied are you with *your department* as a place to work?

Not applicable	Very satisfied	Somewhat satisfied	Neither satisfied nor unsatisfied	Somewhat unsatisfied	Very unsatisfied	Decline to answer
○	○	○	○	○	○	○

45b. All things considered, how satisfied are you with *your institution* as a place to work?

Not applicable	Very satisfied	Somewhat satisfied	Neither satisfied nor unsatisfied	Somewhat unsatisfied	Very unsatisfied	Decline to answer
○	○	○	○	○	○	○

46a. Who serves as the chief academic officer at your institution?

- ○ President
- ○ Vice President for Academic Affairs
- ○ Academic Dean
- ○ Provost
- ○ Other (Please specify):
- ○ I don't know.
- ○ Decline to answer

Please indicate your level of agreement with the following statement:

46b. The person who serves as the chief academic officer at my institution seems to care about the quality of life for junior faculty.

Not applicable/ I don't know	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Decline to answer
○	○	○	○	○	○	○

47. Assuming you achieve tenure, how long do you plan to remain at your institution?

- ○ For the rest of my career
- ○ For the foreseeable future
- ○ For no more than 5 years after earning tenure (Why?)
- ○ I haven't thought that far ahead.
- ○ Not applicable
- ○ Decline to answer

Please indicate your level of agreement with the following statement:

48. If I had to do it over again, I would accept my current position.

Not applicable/ I don't know	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Decline to answer
○	○	○	○	○	○	○

49. If a candidate for a tenure-track faculty position asked you about your department as a place to work, would you:

- ○ Strongly recommend your department as a place to work
- ○ Recommend your department with reservations
- ○ Not recommend your department as a place to work
- ○ Decline to answer

50. How do you rate your institution as a place for junior faculty to work?

- ○ Great
- ○ Good
- ○ So-so
- ○ Bad
- ○ Awful
- ○ Decline to answer

Thank you for taking the time to complete this survey. Your input is invaluable to our national understanding of faculty worklife as well as to your institution.

APPENDIX C: DISTRIBUTION OF RESPONDENTS BY ACADEMIC AREA AND CARNEGIE CLASSIFICATION

Table A

Distribution of Respondents by Academic Area and Carnegie Classification (N=781)

Carnegie Classification	Academic Area	n	%
Baccalaureate	Humanities	225	28.8
	Social Sciences	225	28.8
	Physical Sciences	84	10.8
	Biological Sciences	63	8.1
	Visual & Performing Arts	83	10.6
	Engineering/Computer Science/Math/Stats	48	6.1
	Health & Human Ecology	1	.1
	Agriculture/National Resource/Environmental Science	6	.8
	Business	16	2.0
	Education	16	2.0
	Other Professions	14	1.8
	Total	781	100.0

Table B

Distribution of Respondents by Academic Area and Carnegie Classification (N=1022)

Carnegie Classification	Academic Area	n	%
Masters	Humanities	151	14.8
	Social Sciences	166	16.2
	Physical Sciences	69	6.8
	Biological Sciences	48	4.7
	Visual & Performing Arts	108	10.6
	Engineering/Computer Science/Math/Stats	111	10.9
	Health & Human Ecology	72	7.0
	Agriculture/National Resource/Environmental Science	23	2.3
	Business	74	7.2
	Education	111	10.9
	Medical Schools & Health Professions	23	2.3
	Other Professions	66	6.5
	Total	1022	100.0

Table C

Distribution of Respondents by Academic Area and Carnegie Classification (N=6068)

Carnegie Classification	Academic Area	n	%
Research	Humanities	664	10.9
	Social Sciences	990	16.3
	Physical Sciences	358	5.9
	Biological Sciences	294	4.8
	Visual & Performing Arts	351	5.8
	Engineering/Computer Science/Math/Stats	831	13.7
	Health & Human Ecology	305	5.0
	Agriculture/National Resource/Environmental Science	344	5.7
	Business	416	6.9
	Education	415	6.8
	Medical Schools & Health Professions	628	10.3
	Other Professions	472	7.8
	Total	6068	100.0

APPENDIX D: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

EAST CAROLINA UNIVERSITY

University and Medical Center Institutional Review Board
East Carolina University • Brody School of Medicine
600 Moye Boulevard • Old Health Sciences Library, Room 1L-09 • Greenville, NC 27834
Office 252-744-2914 • Fax 252-744-2284 • www.ecu.edu/irb
Chair and Director of Biomedical IRB: L. Wiley Nifong, MD
Chair and Director of Behavioral and Social Sciences IRB: Susan L. McCammon, PhD

TO: Cathy Maahs-Fladung, EdD Student, College of Education, HCI.

FROM: UMCIRB

DATE: July 6, 2009

RE: Human Research Activities Determined to Meet Exempt Criteria

TITLE: "Should I Stay or Should I Leave: The Question of Tenure Track Faculty Job Satisfaction"

UMCIRB #09-0557

This research study has undergone IRB review on 7/3/09. It is the determination of the IRB Chairperson (or designee) that these activities meet the criteria set forth in the federal regulations for exemption from 45 CFR 46 Subpart A. These human research activities meet the criteria for an exempt status because they are: research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. NOTE: 1) This information must be existing on the date this IRB application is submitted. 2) The data collection tool may not have an identifier or code that links data to the source of the information. The Chairperson (or designee) deemed this **unfunded** study **no more than minimal risk**. This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any changes must be submitted to the UMCIRB for review prior to implementation to allow determination that proposed changes do not impact the activities eligibility for exempt status. Should it found that a proposed change does require more substantive review, you will be notified in writing within five business days.

The following items were reviewed in determination for exempt certification:

- Internal Processing Form (received on 07/02/09)
- COACHE Data Set Application (dated 02/20/2009)
- COACHE Survey Instrument

It was furthermore determined that the reviewer does not have a potential for conflict of interest on this study.

The UMCIRB applies 45 CFR 46, Subparts A-D, to all research reviewed by the UMCIRB regardless of the funding source. 21 CFR 50 and 21 CFR 56 are applied to all research studies that fall under the purview of Food and Drug Administration regulations. The UMCIRB follows applicable International Conference on Harmonisation Good Clinical Practice guidelines.

APPENDIX E: QUESTIONS THAT MAKE UP THE CONSTRUCTS

Clarity of Tenure Process

Scale:

Very Unclear-Fairly Unclear–Neither Clear or Unclear–Fairly Clear–Very Clear

I find the tenure criteria (what things are evaluated) to be…
I find the tenure standards (the performance threshold) to be…
I find the body of evidence in making my decision to be…
My sense of whether or not I will receive tenure

Clarity of Tenure Process – Professional Priorities-Institution

Scale:

Very Unclear-Fairly Unclear–Neither Clear or Unclear–Fairly Clear–Very Clear

A scholar – what is expected in order to earn tenure clear to you regarding your performance as…
A teacher – what is expected in order to earn tenure clear to you regarding your performance as…
An advisor to students – what is expected in order to earn tenure clear to you regarding your performance as…
A colleague in your department or institution – what is expected in order to earn tenure clear to you regarding your performance as…
A campus citizen – what is expected in order to earn tenure clear to you regarding your performance as…

Nature of Work – Teaching Composite

Scale:
Very Unclear-Fairly Unclear–Neither Clear or Unclear–Fairly Clear–Very Clear

The level of the courses you teach
The number of courses you teach
The degree of influence you have over the courses which you teach
The discretion you have over the content of your courses
The number of students you teach

Nature of Work – Research Composite

Scale:
Very Unclear-Fairly Unclear–Neither Clear or Unclear–Fairly Clear–Very Clear

The expectations of you as a researcher (For Research Institutions only in Correlations)
The amount of time you have to conduct research/produce creative work (For All Institutions)
The amount of external funding you are expected to find (For Research Institutions only in Correlations)
The influence you have over your research/creative work (For Research Institutions only in Correlations)

Importance of Policy and Practices

Scale:
Very Unclear-Fairly Unclear–Neither Clear or Unclear–Fairly Clear–Very Clear

Upper limit on teaching obligations
Travel Funds to Present Papers or Conduct Research
Informal Mentoring
Upper Limit on Committee Assignments
Paid or Unpaid Research Leave
Periodic Formal Performance Reviews
Written Summaries of Period Performance Reviews
Professional Assistance in Obtaining Externally Funded Grants
Peer Reviews of Teaching or Research
Formal Mentoring
Stop-the-Clock Policies
Professional Assistance for Improving Teaching
Paid or Unpaid Personal Leave
Childcare
Spousal/Partner Hiring Program
Financial Assistance with Housing

Effectiveness of Policy and Practices

Scale:
Very Unclear-Fairly Unclear–Neither Clear or Unclear–Fairly Clear–Very Clear

Upper limit on teaching obligations
Travel Funds to Present Papers or Conduct Research
Informal Mentoring

Upper Limit on Committee Assignments
Paid or Unpaid Research Leave
Periodic Formal Performance Reviews
Written Summaries of Period Performance Reviews
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Climate Culture and Collegiality

Scale:
Very Unclear-Fairly Unclear–Neither Clear or Unclear–Fairly Clear–Very Clear

Fairness with which your supervisor evaluates your work
Interest Senior Faculty take in your professional development
Opportunities to collaborate with senior faculty
Professional interaction with senior colleagues
Professional interaction with junior colleagues
Personal interaction with junior colleagues
Personal interaction with junior colleagues
How well you “fit”
Intellectual vitality of senior faculty in your department