

Job Expectations, Personal Needs, and Job Satisfaction in Chinese Research Universities: A Case Study of E University

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Abstract:

This study investigates the relationship between job expectations, personal needs, and job satisfaction among faculty members in Chinese research universities, through a case study of E University. A survey of 810 faculty members reveals that job satisfaction is closely tied to their expectations and personal needs, with the latter mediating this relationship. The findings highlight significant age-related differences: younger members (under 45) and those nearing retirement (over 56) prioritize competitive salaries, while midcareer members (aged 46-55) focus on fairness in institutional policies. These insights underscore the necessity for universities to adopt age-specific strategies, including tailored evaluation systems, equitable reward structures, and comprehensive support services. By addressing the distinct needs and expectations of faculty members at various career stages, institutions can enhance job satisfaction, strengthen professional identity, and contribute to overall academic success.

Keywords: faculty members, job satisfaction, job expectations, personal needs



1. Introduction

Faculty members are the cornerstone of educational institutions and their advancement. Job satisfaction among faculty members, reflecting their overall perception and evaluation of their careers, directly indicates their feelings toward career development, work environment, and compensation (Tai & Chuang, 2014). It signifies members' dedication to their profession and significantly influences their work enthusiasm, adaptability, innovativeness, as well as the progress of disciplines, scientific research, and the quality of talent development (Pan et al., 2018). Theoretically, job satisfaction among faculty members is intricately linked to their psychological capital, intrinsic motivation for innovation, and work engagement (Song & Wei, 2006). Luthans et al. (2015) defined psychological capital as a positive state of individual psychological growth, characterized by four key dimensions: (1) Efficacy, embodied in the confidence to embrace and persevere through challenging tasks; (2) Optimism, reflected in making positive attributions to both present and future successes; (3) Hope, manifested in the ability to steadfastly pursue set goals while agilely adjusting strategies, moving forward with anticipation of success; (4) Resilience, demonstrated in the face of adversity, where remarkable bounce-back capabilities not only enable recovery but also propel self-surpassing achievements and ultimate goal attainment. Furthermore, job satisfaction levels directly impact their career development; higher satisfaction leads to increased professional fulfillment and positive work experiences, fostering continuous self-improvement and breakthroughs (Akram et al., 2015). Additionally, it plays a role in reducing talent attrition and ensuring the stability and sustainable growth of the workforce. Job satisfaction is manifested through reflexive and reflective self-evaluation, encompassing their cognition, aspirations, and behaviors toward their work, and the evaluation of their internal needs and values (Chen, 2013). This self-evaluation serves as a significant driving force for their career development.

The evolution of the higher education system in China has introduced a range of contradictions and challenges for faculty members. University reform and development, particularly in assessment, have shifted pressure onto individual members, leading to a significant increase in occupational stress (Bao & Wang, 2012). The heavy assessment workload often leaves members working under low-quality, high-pressure conditions, severely impacting their physical and mental well-being. This has resulted in extreme cases such as sudden illness, premature death, and even suicides among young members (Zhou & Xing, 2023). Furthermore, competitive job promotion and inadequate salaries add to members' economic and psychological strains, prompting some to seek additional income through part-time work or tutoring (Ren & Liu, 2021).

Faculty members are currently facing a significant decline in job satisfaction, professional identity, and sense of belonging. This is evident in various phenomena, including members perceiving themselves as being at the “bottom of society”, young members referring themselves as “green peppers,” the growing number of research project applications, economic pressure from teaching and research, and the demanding “publish or perish” academic culture (Tian & Jiang, 2022). These challenges are especially pronounced among young members, who encounter significant pressure in teaching and research, along with limited career advancement opportunities, resulting in overall low job satisfaction (Jiang, 2016). Middle-aged



members may also struggle with professional burnout and work-life balance issues, highlighting the importance of addressing their job satisfaction as well (Xue, 2021).

Exploring job satisfaction among faculty members holds both theoretical and practical significance. Understanding the career development stages and personal needs at various points is crucial for gaining comprehensive insight into their professional psychological well-being. This insight can facilitate the provision of more effective support and assistance to faculty members, ultimately enhancing their overall job satisfaction.

2. Literature Review

Job satisfaction, defined as the psychological feelings and attitudes toward work content, nature, objective conditions, and career achievement factors, has been a prominent subject of academic research (Lv, 2008). Studies on job satisfaction among faculty members and its influencing factors are typically approached through five theoretical frameworks. The first is needs theory, which examines the factors influencing job satisfaction based on five levels of needs: physiological, safety, love and belonging, self-esteem, and self-actualization (Su, 2002; Feng, 1996; Wu, 2022). The second framework categorizes factors affecting job satisfaction into motivating factors, such as job satisfaction, social recognition, responsibility, achievement, development, and progress, and hygiene factors including company policies, administrative management, wages, work conditions, relationships with superiors, subordinates, and colleagues, safety, and status (Herzberg, 2003; Chen & Sun, 1994; Wu, 2022). The third is equity theory, which posits that individuals assess their job satisfaction through social comparisons and identifies six dimensions of satisfaction: compensation, the work itself, promotion opportunities, management, work group, and working conditions (Vroom, 1962; Quarstein et al., 1992; Chen, 2017). The fourth framework is environmental events theory, which encompasses two dimensions: environmental characteristics, such as remuneration, promotion opportunities, working conditions, company policies, and supervisors, and environmental events (Glisson & Durick, 1988). Individuals tend to propose the above-mentioned series of environmental characteristics in advance, which constitute the preliminary framework influencing job satisfaction. After securing the job, individuals would further evaluate the working environment based more on the actual environmental events, whether positive or negative. Studies have shown that combining the pre-entry environmental characteristics with the environmental events encountered after entry for consideration can more accurately predict the individual's overall job satisfaction compared with a single-dimension evaluation (Lv, 2008). Expectancy theory evaluates job satisfaction by comparing personal expectations with actual achievements (Song & Zhao, 2022). Faculty members have four main job expectations: income, career development, psychological satisfaction, and stability. Research indicates that varying work expectations among faculty members result in different criteria for assessing job satisfaction. Unmet expectations can lower motivation and ultimately reduce job satisfaction (Badillo-Amador & Vila, 2013; Stenard & Sauermann, 2016; Brown, 2002). While studies may differ in analytical frameworks and survey data, factors directly impacting job satisfaction in higher education typically include the nature of the work, compensation, opportunities for advancement, physical work environment, leadership and management, and interpersonal relationships (Yun, 2010).



An important factor influencing job satisfaction among faculty members is their various development needs, spanning organizational, personal, professional, and teaching. Personal development needs encompass factors such as housing, salary, welfare benefits, professional title advancements, family support, health protection, social connections, and daily life services (Wang, 2011). Baldwin's three-stage theory of teachers' career progression (1992) delineates early, middle, and late career phases, each with distinct concerns and satisfaction levels. Research by Jiang Zhuo and Deng Yi (2017) revealed that younger and midcareer members prioritize development needs more than their older counterparts, and those with intermediate or deputy senior professional titles prioritize these needs more than those with senior titles. Notably, salary incentives are crucial personal needs and can significantly impact job satisfaction. Studies by J. Pfeffer and N. Langton (1993) indicate that widening salary gaps among university departments can diminish job satisfaction and hinder collaboration in scientific research. Job satisfaction acts as a mediator between salary structures and research performance, suggesting that restructuring salaries can enhance scientific output by boosting their job satisfaction (Li et al., 2016).

Research on job satisfaction often focuses on dimensional divisions. They examine job satisfaction in various countries, disciplines, and school levels through empirical research, and develop a practical job satisfaction scale specifically for faculty members. When sampling for research, researchers primarily consider factors such as career stage, university level, university type, geographical location, age, and gender of the research subjects. In terms of research methods, quantitative research is prevalent, although some are supplemented with interviews and small-scale surveys to gather further insights.

Current research has extensively explored professional development satisfaction among faculty members and its influencing factors. However, the direct impact of work expectations and personal needs on job satisfaction still requires detailed study. Additionally, the relationship between personal needs, work expectations, and job satisfaction levels needs further clarification. Among the various personal demand factors, identifying those with a more significant impact on improving job satisfaction is crucial. Furthermore, exploring the differences in job satisfaction resulting from specific needs and challenges faced by members of different ages in their professional development is essential. This article aims to provide a comprehensive and in-depth study of the career development satisfaction among faculty members by analyzing the relationship between their career development needs, expectations, and actual satisfaction across different age groups through empirical research. The goal is to offer targeted and effective suggestions for Chinese universities to develop professional development strategies in promoting personal growth and satisfaction among faculty members.



3. Methodology

3.1 Research data

By considering the principles of convenience, information accessibility, and attractiveness to cooperate, the faculty members chosen for this study are from E university, a “Double-First-Class” universities¹. The approach enhance research efficiency and data reliability. Random sampling was employed to ensure the breadth and diversity of the sample. A total of 810 valid responses were collected as reflected in Table 1. To gain a comprehensive understanding of job satisfaction among faculty members in China regarding their career development, this study utilized a scientifically designed, systematic, and targeted questionnaire as the research tool. Leveraging the “Wenjuanxing” platform², we solicited the involvement of faculty members across diverse majors and colleges. Questionnaire was disseminated via social media networks, including WeChat and QQ groups, ensuring a comprehensive representation of gender, age, years of experience, institutional affiliation, academic discipline, professional rank, and job functions among the participants. Importantly, we prioritized engaging with those who expressed a keen willingness to participate, thereby bolstering survey participation rate and the overall robustness of the data. This study seeks to offer practical strategies and pathways for advancing the professional growth and development of faculty members.

The dataset includes 810 participants, with a gender distribution reflecting the common trend among faculty members in Chinese universities, where male and female members are represented at 54.20% and 45.80% respectively. Regarding the age distribution among the participants, they are predominantly aged between 36 and 55. Those under 35 make up 21.60%, while the age groups of 36-45, 46-55, and over 56 account for 45.43%, 25.43%, and 7.53% respectively. Discipline-wise, humanities, sciences, and engineering represent 45.19%, 23.58%, and 23.70% of the participants. The distribution of professional titles shows a hierarchical structure, with lecturer, associate professor, professor, others, and assistant lecturer in descending order. In terms of job roles, 63.33% are involved in both teaching and research activities. Teaching-focused and research-focused represent 18.64% and 3.95% respectively. Those with 'dual-role' of management and other responsibilities account for 7.78% and 6.30%.

¹ Double First-Class universities refer to Chinese universities that undertake the "Double First-Class" construction project, which aims to build a number of world-class universities and world-class disciplines. The Double First-Class construction is another national strategy proposed in 2015 in the field of higher education in China, following the 211 Project and the 985 Project.

² “Wenjuanxing” is a professional online platform for questionnaire surveys, exams, evaluations, and data collection. It enables users to conveniently design, publish, collect, and analyze questionnaire data, widely applied in various fields such as academic research, market research, corporate feedback, and teaching evaluation. Through Questionnaire Star, researchers can create structured questionnaire templates, customize question types (e.g., single choice, multiple choice, fill-in-the-blank, rating, etc.), and set up distribution channels for the questionnaire (e.g., sharing via links, embedding in web pages), thereby facilitating the rapid collection of opinions and feedback from target groups.



Table 1. Sample Information Statistics (N=810)

Variable	Category	Number	Percentage
Gender	Male	439	54.20%
	Female	371	45.80%
Age	35 years and below	175	21.60%
	36-45 years	368	45.43%
	46-55 years	206	25.43%
	56 years and above	61	7.53%
Discipline	Humanities	366	45.19%
	Sciences	191	23.58%
	Engineering	192	23.70%
	Others	61	7.53%
Professional Title	Professor	124	15.31%
	Associate Professor	298	36.79%
	Lecturer	335	41.36%
	Assistant Lecturer	23	2.84%
	Others	30	3.70%
Job Responsibilities	Teaching-oriented	151	18.64%
	Research-oriented	32	3.95%
	Teaching and Research	513	63.33%
	Management (Dual-role)	63	7.78%
	Others	51	6.30%

3.2 Research method

The questionnaire was designed using Herzberg's dual-factor theory (also known as the Motivation-Hygiene Theory), one of the most crucial and widely utilized frameworks in job satisfaction research (Dion, 2006). Its core lies in differentiating between motivation factors and hygiene factors (Alshmemri et al., 2017). Motivation factors, encompassing achievement, recognition, nature of work, responsibility, promotion prospects, and growth opportunities, foster positive attitudes toward work. Conversely, hygiene factors revolve around job's context, such as company policies, administrative practices, supervisor relationships, interpersonal dynamics, working conditions, and compensation (Herzberg, 1966; Herzberg et al., 1959; Herzberg, 2003; Stello, 2011).

The design of this questionnaire rigorously adheres to the principles of scientificity, systematicness, objectivity, and practicality. Through literature review and expert input, key dimensions and indicators were identified, leading to the formulation of specific questions and options. Expert feedback and a pilot test were utilized to enhance the questionnaire's validity and applicability. It comprises two parts: the first focuses on respondents' basic information, and the second on a satisfaction survey regarding faculty



members' development. Aligned with the dual-factor theory, the questionnaire explores various aspects such as job expectations, overall satisfaction, basic needs, professional and teaching development needs and support, working conditions, work atmosphere, and evaluation system. The questionnaire's overall alpha coefficient is 0.802, with a KMO value of 0.920, indicating high reliability and validity, thus ensuring the research results' credibility.

Descriptive statistical methods were employed for the preliminary analysis of the collected responses. The questionnaire utilized a seven-point Likert scale ranging from 'very dissatisfied' to 'very satisfied' to measure satisfaction levels of faculty members. Detailed descriptive statistics were performed using Stata statistical software to examine the overall satisfaction among faculty members regarding their career development. Through the comparison of satisfaction data across various dimensions and indicators, the study aimed to enhance understanding of the requirements and aspirations of faculty members in their career advancement, offering a foundation for the development of impactful career strategies.

4. Results

4.1 Preliminary analysis

The findings of this paper reveal that the overall satisfaction with their career development among faculty members is influenced by their job expectations and the satisfaction of their personal needs (see Table 2). The descriptive analysis showed that a significant proportion of faculty members rated their satisfaction as 5, with the next highest rating being 6, indicating a generally high level of satisfaction among members. While there were slight variations in satisfaction scores across different age groups, the overall trend was positive and consistent, reflecting a positive attitude toward their work.

In analyzing job satisfaction data among members of varying age groups, it was discovered that 810 participants generally showed high levels of satisfaction. Specifically, 254 members rated their job expectation satisfaction as 5, indicating a relatively positive attitude, while 211 members rated it as 6, further confirming the overall high satisfaction levels. Across all four age groups, members tended to concentrate their satisfaction ratings in the higher score ranges of 5 and 6.

Members aged 36-55 exhibited consistent and positive job satisfaction expectations, likely due to their extensive teaching experience and stable professional environment. Conversely, although the number of young members (under 35 years old) is lower compared to those in the age groups of 36-45 and 46-55, the number of individuals rating their satisfaction as the lowest (score = 1) surpasses the other two age groups. This suggests that young members may have higher expectations for their jobs, which often go unfulfilled. This discrepancy could be linked to the pressure of career development, workload, and uncertainty in career progression faced by young members. In contrast, senior members (over 55 years old) who rated their job satisfaction as 7 (very satisfied) outnumbered those who rated it as 4, indicating a notably high level of satisfaction with job expectations among senior members.



Table 2. Descriptive Statistics of Members' Job Satisfaction

Total Satisfaction (Score)	Age (Number)				Total
	<=35	36-45	46-55	56>=	
1	7	7	4	1	19
2	2	5	5	3	15
3	7	23	10	2	42
4	21	50	40	6	117
5	58	125	61	25	269
6	49	88	56	13	206
7	31	70	30	11	142
Total	175	368	206	61	810

Members aged 36-55 exhibited consistently positive job expectation satisfaction, likely attributed to their extensive teaching experience and stable professional environment as Table 3. Conversely, despite the lower number of young members (under 35 years old) compared to those in the 36-45 or 46-55 age groups, the proportion of those expressing the lowest satisfaction rating surpasses that of the other two age brackets. This disparity suggests that young members may harbor elevated job expectations that often go unfulfilled, possibly due to career development pressures, workload, and uncertain career prospects. In contrast, senior members (over 55 years old) who rated their job satisfaction as 7 (very satisfied) outnumber those who rated it as 4, highlighting a notably high level of job expectation satisfaction among senior members.

Table 3. Descriptive Statistics of Members' Expectations

Expectations (Score)	Age (Number)				Total
	<=35	36-45	46-55	>=56	
1	6	5	3	1	15
2	1	7	5	2	15
3	8	25	10	2	45
4	35	64	35	7	141
5	51	113	67	23	254
6	43	91	59	18	211
7	31	63	27	8	129
Total	175	368	206	61	810

Faculty members exhibit a high level of satisfaction with their personal needs as Table 4, with 66.54% rating it 5 or above. When analyzing different age groups, most members show satisfaction scores of 5 and 6. Notably, members over 55 years old display a satisfaction rating of 6 at 29.51%, surpassing the overall mean score of 5. Dissatisfaction is highest among members under 35, at 18.86%, while other age groups maintain lower levels at around 13%. This suggests that younger members may face more challenges and pressures early in their careers, impacting their satisfaction with personal needs. Overall, members rate their job expectations highly, mainly at 5 and 6. However, the average satisfaction score is around 5, slightly lower than job expectations, indicating a possible link between job expectations and overall satisfaction.



Table 4. Descriptive Statistics of Members' Needs

Personal Income Satisfaction (Score)	Age (Number)				Total
	<=35	36-45	46-55	56>=	
1	5	7	4	2	18
2	3	9	5	2	19
3	20	34	19	4	77
4	32	70	42	13	157
5	43	110	61	14	228
6	41	80	46	18	185
7	31	58	29	8	126
Total	175	368	206	61	810

4.2 Multiple regression models and mediation analysis

4.2.1 Personal needs as a mediating variable

Through the construction of multiple models, our study explored the relationship between job expectations and overall satisfaction among faculty members, with a particular focus on the mediating role of personal needs as shown in Table 5. Initially, in Model 1, which solely examined the impact of job expectations on overall satisfaction without considering other variables, a strong positive correlation was observed, with an influence coefficient of 0.897. This suggests that job expectations play a crucial role in determining overall satisfaction among faculty members in the absence of other influencing factors. Subsequently, in Model 2, the introduction of new variables such as a sense of belonging and happiness led to a decrease in the influence coefficient of job expectations on overall satisfaction to 0.654, although it remained significantly positive. Moreover, the study revealed that a sense of belonging and happiness also significantly impacted overall satisfaction. Model 3 expanded on these findings by including additional variables like teaching pressure, research pressure, promotion pressure, and other work pressures from Model 2. Despite the presence of various work pressures, the impact of job expectations on overall satisfaction remained significant, with a coefficient of 0.649. This underscores the enduring importance of job expectations in influencing overall satisfaction. Building on the insights gained from Model 3, Model 4 was developed, incorporating personal factors such as gender and job title while excluding the variable of personal needs satisfaction. Surprisingly, the results showed that the influence coefficient of job expectations on overall satisfaction did not change significantly, remaining at 0.649. This suggests that factors like gender and job title do not wield a substantial influence on the overall satisfaction of faculty members.

In Model 5, the study focused on exploring the correlation between personal needs satisfaction and overall satisfaction. The findings revealed a significant influence coefficient of 0.540 for personal needs satisfaction on overall satisfaction, indicating the critical role of meeting personal needs in enhancing members' overall satisfaction. Moving forward to the comprehensive Model 6, various influencing factors such as job expectations, personal needs satisfaction, sense of belonging, and happiness were considered. The results indicated a decrease in the influence coefficient of job expectations on overall satisfaction to



0.491, remaining statistically significant but weakened. Additionally, the influence coefficient of personal needs satisfaction was 0.283, while the influence coefficient of a sense of belonging was 0.0965. These results suggest a mediation model where job expectations, personal needs satisfaction, and other factors collectively impact members' overall satisfaction.

Table 5. Multiple Regression Results of Job Expectations, Personal Needs, and Job Satisfaction

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Total Satisfaction	Total Satisfaction	Total Satisfaction	Total Satisfaction	Expectations	Total Satisfaction
Expectations	0.897***	0.654***	0.649***	0.649***		0.491***
	(52.01)	(22.09)	(21.63)	(21.66)		(14.27)
Personal Needs Satisfaction					0.540***	0.283***
					(18.58)	(8.36)
Belonging		0.162***	0.158***	0.163***	0.161***	0.0965***
		(6.06)	(5.89)	(6.04)	(5.91)	(3.57)
Happiness		0.0996***	0.105***	0.101***	0.133***	0.0525*
		(4.05)	(4.21)	(4.05)	(5.30)	(2.12)
Teach Pressure			-0.0201	-0.0209	-0.00770	-0.0162
			(-0.96)	(-1.00)	(-0.37)	(-0.81)
Research Pressure			-0.00154	0.00425	-0.0248	0.00143
			(-0.07)	(0.18)	(-1.08)	(0.06)
Promotion Pressure			0.00182	-0.00367	0.0568**	0.00789
			(0.09)	(-0.17)	(2.70)	(0.38)
Other Pressure			0.0285	0.0272	0.0265	0.0169
			(1.44)	(1.37)	(1.35)	(0.89)
Gender				0.0118	0.0254	0.0111
				(0.27)	(0.58)	(0.26)
Job Title				-0.0518*	0.0256	-0.0419
				(-1.99)	(1.00)	(-1.68)
cons	0.577***	0.525***	0.499***	0.599***	0.637***	0.534***
	(6.28)	(6.01)	(4.48)	(4.08)	(4.44)	(3.78)
N	810	810	810	810	810	810

Note: The table presents the results from multiple regression models. Figures in parentheses indicate t-statistics. Statistical significance is denoted by *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.



To delve deeper into the correlation between job expectations, personal needs satisfaction, and overall satisfaction among faculty members, a mediating effect test was conducted as shown in Table 6. The study revealed a significant positive direct effect of job expectations on overall satisfaction, with a value of 0.555. Further examination of the mediating effect indicated that personal needs satisfaction played a significant role in influencing overall satisfaction, with an effect value of 0.336. Utilizing the Sobel-Goodman mediation test method, it was determined that the mediating effect accounted for 24.34% of the total effect. These findings affirm the initial hypothesis that job expectations impact overall satisfaction among faculty members, personal needs satisfaction also plays a role in determining overall satisfaction, and personal needs act as a mediating factor that influences job expectations, subsequently affecting overall satisfaction.

Table 6. Mediation Analysis Results

	(1)	(2)
	Total satisfaction	Total satisfaction
Personal Needs Satisfaction	0.366***	0.283***
	(12.16)	(8.36)
Expectations	0.555***	0.491***
	(17.18)	(14.27)
Belonging		0.0965***
		(3.57)
Happiness		0.0525*
		(2.12)
Teach Pressure		-0.0162
		(-0.81)
Research Pressure		0.00143
		(0.06)
Promotion Pressure		0.00789
		(0.38)
Other Pressure		0.0169
		(0.89)
Gender		0.0111
		(0.26)
Job Title		-0.0419
		(-1.68)
_cons	0.515***	0.534***
	(6.08)	(3.78)
N	810	810

Note: This table presents the results of mediation analysis. Figures in parentheses indicate t-statistics. Statistical significance is denoted by *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.



4.2.2 Impact of variables on satisfaction by different age groups

Through an in-depth exploration of personal needs satisfaction as a mediating variable of overall satisfaction among faculty members, it was noted that members of different age groups display notable differences in their job expectations as shown in Table 7. Upon analyzing the significance coefficients, it was revealed that members in the second and third age groups (between 36 to 55 years) have a particularly noteworthy impact of job expectations on overall satisfaction. This trend may be attributed to the fact that members, after gaining 5 to 10 years of experience in universities, develop a more profound understanding and awareness of their roles, leading to higher job expectations. However, beyond 56 years, the coefficient representing the influence of job expectations on overall satisfaction declines to a mere 0.284. Within this age group, their job expectations tend to decrease gradually, possibly influenced by factors such as nearing retirement and achieving stability in both their personal and professional lives.

Table 7. Multiple Regression Results of Job Expectations, Personal Needs, and Job Satisfaction by Age Group

	Total Satisfaction			
	(1) age<=35	(2) age36-45	(3) age46-55	(4) age>=56
Expectations	0.329***	0.615***	0.511***	0.284*
	(4.04)	(12.54)	(7.38)	(2.42)
Personal Needs Satisfaction	0.308***	0.219***	0.369***	0.257*
	(3.76)	(4.43)	(5.53)	(2.23)
Belonging	0.139	0.0835*	0.0520	0.351***
	(1.84)	(2.00)	(1.15)	(3.72)
Happiness	0.118	0.00269	0.0382	0.0286
	(1.85)	(0.08)	(0.82)	(0.27)
Teach Pressure	-0.0180	-0.0160	-0.0172	-0.000104
	(-0.35)	(-0.55)	(-0.45)	(-0.00)
Research Pressure	-0.000401	-0.0775*	0.0426	0.0575
	(-0.01)	(-2.13)	(1.03)	(0.84)
Promotion Pressure	-0.00537	0.0680*	-0.0627	0.0366
	(-0.09)	(2.32)	(-1.55)	(0.48)
Other Pressure	0.0216	0.0479	-0.0318	-0.00207
	(0.41)	(1.69)	(-0.91)	(-0.03)
Gender	-0.0115	-0.0120	0.0418	0.139
	(-0.10)	(-0.21)	(0.49)	(0.86)
Discipline	0.0448	0.0213	-0.000183	0.0661
	(0.84)	(0.72)	(-0.00)	(0.92)
Job Title	-0.00294	0.0126	-0.0241	0.0846
	(-0.04)	(0.33)	(-0.47)	(0.84)
_cons	0.682	0.358	0.563*	-0.475
	(1.64)	(1.83)	(2.14)	(-1.08)
N	175	368	206	61

Note: The table presents the results from multiple regression models. Figures in parentheses indicate t-statistics. Statistical significance is denoted by *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.



4.2.3 Factors influencing personal needs

The study examined the factors that influence overall satisfaction among faculty members, focusing on personal factors and analyzing how these factors vary across different age groups as shown in Table 8. Salary income was found to have a significant positive impact on overall satisfaction, with an influence coefficient of 0.262, highlighting its importance in evaluating their satisfaction. The impact of salary income varies across age groups, with young members in the first age group (below 35 years) placing a high importance on salary income (influence coefficient of 0.445) due to economic pressures at the start of their careers. The influence of salary income on satisfaction gradually decreases with the increase of age. In the second age group (36-45 years), the influence coefficient of salary income is lower, possibly because members have accumulated experience and resources, and those in STEM subjects can earn additional income through research projects. While this age group may not be financially secure, they have other sources of income.

Table 8. Multiple Regressions Result of (3) Factors Influencing Personal Needs

	Personal Needs Satisfaction				
	(1) All	(2) age<=35	(3) age36-45	(4) age46-55	(5) age>=56
Salary	0.262***	0.445***	0.284***	0.0499	0.446**
	(6.21)	(4.79)	(4.14)	(0.66)	(3.24)
Housing	-0.0216	- 0.0942	-0.0418	0.0653	-0.206
	(-0.58)	(-1.18)	(-0.74)	(0.97)	(-0.95)
Healthcare	-0.0246	-0.105	0.0167	-0.0241	0.0238
	(-0.55)	(-1.09)	(0.23)	(-0.31)	(0.10)
Child Education	0.0388	-0.0697	0.000898	0.0980	0.275
	(1.05)	(-0.82)	(0.01)	(1.59)	(1.89)
Fairness	0.468***	0.512***	0.441***	0.581***	0.257
	(11.42)	(5.18)	(6.86)	(8.10)	(1.67)
Gender	0.138	0.198	0.0675	0.179	0.300
	(1.93)	(1.17)	(0.64)	(1.29)	(0.96)
Discipline	0.0638	0.0309	0.0692	0.0859	-0.0249
	(1.81)	(0.39)	(1.28)	(1.35)	(-0.18)
Title	-0.0166	0.217*	-0.131	0.00761	-0.210
	(-0.43)	(2.09)	(-1.91)	(0.10)	(-1.13)
_cons	1.495***	0.973	1.960***	1.019**	1.434
	(7.38)	(1.79)	(6.28)	(2.66)	(1.71)
N	810	175	368	206	61

Note: The table presents the results from multiple regression models. Figures in parentheses indicate t-statistics. Statistical significance is denoted by *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.



5. Discussion and Conclusion

This study provides a comprehensive analysis of job satisfaction, job expectations, and personal needs among faculty members of different age groups, revealing significant patterns that inform targeted policy recommendations.

First, the increase in job expectations and the corresponding decrease in personal needs observed among members aged 36-45 suggest a shift in priorities as members gain a deeper understanding of their roles and face clearer job requirements. As these members focus on career advancement and professional performance, there is a reduced emphasis on other personal needs. This trend highlights the need for institutions to provide robust professional development opportunities and career counseling tailored to this group, ensuring that their rising job expectations are met while mitigating potential stress.

For members aged 46-55, the relative decline in the importance of salary income reflects their established economic stability and a greater focus on academic achievements, such as attaining professorships. Institutions should recognize this shift and offer enhanced academic support, research opportunities, and recognition programs to keep this cohort engaged and motivated. However, the resurgence of salary income significance among members over 55 underscores the growing concern for financial security as retirement approaches. Universities should consider implementing targeted retirement planning and financial counseling services to address the specific needs of this age group, ensuring their continued satisfaction and well-being as they transition out of the workforce.

Fairness in treatment and rewards emerged as a critical factor influencing overall satisfaction, particularly among early-career and midcareer members. This finding underscores the importance of transparent and equitable systems for promotion, evaluation, and compensation. To maintain high levels of satisfaction and motivation, institutions must prioritize fairness and transparency in their policies and processes, especially during key career development phases.

In summary, this study highlights the complex interplay between job expectations, personal needs, and overall satisfaction among faculty members at different stages of their careers. The findings emphasize the necessity for institutions to adopt age-specific strategies that address the unique needs and priorities of members across various career phases. By optimizing salary structures, ensuring fair treatment, and providing tailored professional and financial support, universities can enhance job satisfaction among faculty members, foster a sense of belonging, and ultimately contribute to higher levels of academic and institutional success.

6. Recommendations for Educational Policy

Based on the research findings, several strategic recommendations are proposed to optimize the salary and benefits system for faculty members. First, it is crucial to enhance both salaries and welfare benefits, particularly for younger members and those nearing retirement. Competitive compensation packages are likely to increase motivation and encourage greater engagement in their professional roles.



To maintain fairness and scientific rigor in evaluations, institutions should develop age-based assessment systems tailored to members at various career stages. This approach ensures that evaluation standards are appropriate and equitable, providing members with the recognition and rewards they deserve for their contributions. Additionally, enhancing promotion mechanisms and related policies will further support members in achieving their career goals.

Personalized support and psychological well-being are also essential for addressing the unique needs of members throughout their careers. Universities should offer career development planning, academic exchange opportunities, and psychological counseling to help members navigate work-related challenges, reduce occupational stress, and improve overall job satisfaction.

Moreover, fostering a positive and collaborative work environment is vital. Encouraging communication and collaboration among faculty members, promoting knowledge sharing, and providing diverse professional development opportunities across different age groups will contribute to a more dynamic and supportive academic community.

By implementing these strategies, universities can better align with the needs and expectations of their faculty, leading to increased job satisfaction and a stronger sense of belonging. Ultimately, this will enhance the overall development and success of the educational institution.

7. Limitations of the Research

The sample size and data collection method used in this study may limit the generalizability of the findings. Conducted as a case study at E University, the research did not include data from leading universities across various regions of China. To enhance the study's robustness, it is advisable to gather additional data from 'Double First-Class' universities using appropriate sampling methods and online surveys. Subsequently, larger-scale studies at national or international levels employing stratified and cluster sampling techniques could provide a more comprehensive understanding of university diversity. Moreover, expanding the research subjects to include both pre-service and in-service members would enable comparative analyses of university organizational structures and academic environments for these groups. Additionally, it is important to note that the use of multiple regression analysis in this study does not establish causal relationships. To delve deeper into the reasons behind the impact of personal needs and job expectations on job satisfaction, qualitative research techniques could be employed.



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References

- Akram, M., Malik, M. I., Sarwar, M., Anwer, M., & Ahmad, F. (2015). Relationship of teacher competence with professional commitment and job satisfaction at secondary level. *The AYER*, 4(2015), 58-70.
- Alshmemri, M., Shahwan-Akl, L., & Maude, P. (2017). Herzberg’s two-factor theory. *Life Science Journal*, 14(5), 12-16.
- Badillo-Amador, L., & Vila, L. E. (2013). Education and skill mismatches: wage and job satisfaction consequences. *International Journal of Manpower*, 34(5), 416-428. <https://doi.org/10.1108/IJM-05-2013-0116>
- Bao W. & Wang J.Y. (2012). Stress in the Ivory Tower: an empirical study of stress and academic productivity among university faculty in China. *Peking University Education Review*, 10(01), 124-138.
- Bedeian, A. G., Ferris, G. R., & Kacmar, K. M. (1992). Age, tenure, and job satisfaction: a tale of two perspectives. *Journal of Vocational behavior*, 40(1), 33-48. [https://doi.org/10.1016/0001-8791\(92\)90045-2](https://doi.org/10.1016/0001-8791(92)90045-2)
- Brown, D. (2002). The role of work and cultural values in occupational choice, satisfaction, and success: a theoretical statement. *Journal of counseling & development*, 80(1), 48-56. <https://doi.org/10.1002/j.1556-6678.2002.tb00165.x>
- Chen C.J. (2017). An empirical study on the influencing factors of teachers’ job satisfaction in secondary schools: evidences from PISA 2015 Survey. *Teacher Education Research*, (02), 84-91+41. <https://doi:10.13445/j.cnki.t.e.r.2017.02.014>.
- Chen M.R. (2013). The basic standard of college teachers’ professional development. *Journal of Higher Education Management*, 7 (02), 63-69.
- Chen Y.Y., & Sun S.B. (1994). A measurement study of teachers’ job satisfaction. *Psychological Science*, (03), 146-149+193. <https://doi:10.16719/j.cnki.1671-6981.1994.03.005>
- Dion, M. J. (2006). *The impact of workplace incivility and occupational stress on the job satisfaction and turnover intention of acute care nurses*. University of Connecticut.
- Feng B.L. (1996). Research on working teacher satisfaction and its influencing factors. *Educational Studies*, (02), 42-49+6.
- Glisson, C., & Durick, M. (1988). Predictors of job satisfaction and organizational commitment in human service organizations. *Administrative science quarterly*, 33(1), 61-81. <https://doi.org/10.2307/2392855>
- Herzberg, F. (2003). One more time: How do you motivate employees? *Harvard Business Review*, 81(1), 86.
- Herzberg, F., Mausner, B., & Snyderman B. (1959). *The motivation to work*. New York: Wiley.
- Herzberg, F. (1966). *Work and the nature of man*. New York: World Publishing.



- Jiang J. (2016). On the pressure of young teachers in universities and its countermeasures. *Journal of Henan University (Social Science)*, 56 (01), 123-130.
- Jiang Z., & Deng Y. (2017). University faculties development needs from the perspective of performance evaluation. *Higher Education Development and Evaluation*, 33(03), 83-91+124-125.
- Li C., Zhang L., & Su Y.J. (2016). An empirical research on the relationship of salary structure, job satisfaction and faculty performance. *Fudan Education Fudan Education Forum*, 14(5), 89-95.
- Luthans, F., Youssef-Morgan C.M., & Avolio B.J. (2015). *Psychological capital and beyond*. Oxford University Press.
- Lv F.H. (2008). A review of research on teacher job satisfaction in China. *Theory and Practice of Education*, 28(S2), 94-96.
- Pan M.Y., Xia Y., & Hu J.M. (2018). Teachers' development and teachers' education: an interview with Prof. Pan Maoyuan. *Contemporary Teacher Education*, 11(01), 1-3.
- Perie, M., & Baker, D. (1997). Job satisfaction among America's teachers: Effects of workplace conditions, background characteristics and teacher compensation, Statistical Analysis Report. *National Center for Education Statistics*.
- Pfeffer, J., & Langton, N. (1993). The effect of wage dispersion on satisfaction, productivity, and working collaboratively: evidence from college and university faculty. *Administrative Science Quarterly*, 38(3), 382-407. <https://doi.org/10.2307/2393373>
- Quarstein, V. A., McAfee, R. B., & Glassman, M. (1992). The situational occurrences theory of job satisfaction. *Human relations*, 45(8), 859-873. <https://doi.org/10.1177/001872679204500806>
- Ren M.N.& Liu L.P. (2021). "Insomnia in academia": administrative logic and time pressure on young university teachers. *China Youth Study*, (08), 14-21+35.
- Song G.W., & Wei S.H. (2006). A study on influencing factors on teacher's professional identity. *Psychological Development and Education*, (01), 80-86.
- Song J., & Zhao Q.T. (2022). Youth career and education matching, career expectations and job satisfaction. *Youth Exploration*, (05), 51-64.
- Stello, C. M. (2011). Herzberg's two-factor theory of job satisfaction: An integrative literature review. *Journal of Education and Human Development*, 1-32.
- Stenard, B. S., & Sauermann, H. (2016). Educational mismatch, work outcomes, and entry into entrepreneurship. *Organization Science*, 27(4), 801-824. <https://doi.org/10.1287/orsc.2016.1071>
- Su, D. (2002). *Management Psychology*. ShangHai: Fudan University Press.
- Tai, F. M., & Chuang, P. Y. (2014). Job satisfaction of university staff. *The Journal of Human Resource and Adult Learning*, 10(1), 51.
- Tian X.P.& Jiang S.J. (2022). Why are you anxious: a survey on the career anxiety of young college teachers—based on the background of the “up or out” policy. *Higher Education Exploration*, (03),39-44+87.
- Vroom, V. H. (1962). Egoinvolvement, job satisfaction, and job performance. *Personnel psychology*, 15(2), 159–177. <https://doi.org/10.1111/j.1744-6570.1962.tb01858.x>
- Wang C.L. (2011). The stages and dimensions of faculty development in the United States. *Comparative Education Review*, 255(4), 88-92.
- Wu X.R. (2022). What key factors affect rural teachers' job satisfaction. *Education & Economy*, (02), 62-69+96.
- Xue, L. (2021). Challenges and resilience-building: a narrative inquiry study on a mid-career Chinese EFL teacher. *Frontiers in Psychology*, 12, 758925.



Yun P. (2010). Research on the Influencing Factors of Local University Teachers' Work Satisfaction—On the Basis of the Investigation of Eight Universities in Henan Province. *Theory and Practice of Education*, 30(33), 42-45.

Zhou L.M.& Xing H.Y. (2023). From existential pressure to institutional anxiety: causes of occupational stress among young university teachers in the era of high competition. *Fudan Education Forum*, 21(4), 87-96.

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