

**FACULTY RESEARCH SOCIALIZATION:
A STUDY OF FACULTY PERCEPTIONS OF RESEARCH SOCIALIZATION
EXPEIRENCES AT A LARGE RESEARCH UNIVERSITY**

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Omar A. Jalloun, Ph.D.

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This purpose of the study is to examine perspectives of fulltime faculty at the School of Education in a major public research university on their socialization experiences to research. The institution offers several programs that socialize junior and senior faculty to many aspects of the faculty position, however, programs that are related to research were few.

Twenty-nine fulltime faculty members from the institution's School of Education completed a survey providing insights on their perceptions regarding their research-related experiences during their graduate, early-career, and current stages. Faculty members were also asked to provide their perceptions on the institution's efforts towards their research socialization in addition to other descriptive data.

Correlations between several types of research activities among faculty member's different career stages were significant. Perceptions concerning socialization to the faculty position were more positive regarding the contribution of faculty members' graduate experiences compared to the institutional efforts. Finally, perceptions regarding the available socialization programs at the institution were positive in general, and were also highly correlated with faculty members' perception about their overall experiences with the institution.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	xv
1.0 INTRODUCTION.....	1
1.1 STATEMENT OF THE PROBLEM.....	3
1.2 RESEARCH QUESTIONS.....	3
1.3 SIGNIFICANCE OF THE STUDY	4
1.4 STUDY LIMITATIONS	5
1.5 CONCLUSION	7
2.0 LITERATURE REVIEW.....	8
2.1 HIGHER EDUCATION	8
2.1.1 The Research University	14
2.1.2 Research Productivity	16
2.1.3 Research vs. Teaching.....	21
2.1.4 Disciplinary Regards	26
2.2 SOCIALIZATION.....	28
2.2.1 Organizational Culture	30
2.2.2 Organizational Socialization.....	33
2.2.2.1 The Process	34
2.2.2.2 Outcomes.....	35

2.2.3	Faculty Socialization.....	35
2.3	SOCIALIZATION IN HIGHER EDUCATION	41
2.3.1	Conceptual Framework	46
2.4	CONCLUSION	48
3.0	METHODOLOGY.....	51
3.1	THE SELECTED INSTITUTION.....	51
3.1.1	Background	51
3.1.2	Faculty Role & Distribution	52
3.1.3	Current Faculty Socialization Programs.....	53
3.2	RESEARCH DESIGN.....	58
3.2.1	Sample.....	60
3.2.2	Survey Instrument.....	61
3.2.3	“NSOPF” Survey	61
3.2.4	The FRS Instrument.....	63
3.2.4.1	Validity and Reliability.....	66
3.2.4.2	Pilot Testing	69
3.2.5	Data Collection Procedures	69
3.2.6	Response Rate	71
4.0	RESULTS	72
4.1	DATA COLLECTION.....	72
4.1.1	Demographic Profiles	72
4.1.1.1	Academic Rank	75
4.1.1.2	Tenure Status.....	78

4.1.1.3	Academic Interests.....	81
4.1.1.4	Years with Institution.....	82
4.1.1.5	Research Activities.....	83
(a)	Graduate Activities.....	84
(b)	Early-Career Activities.....	88
(c)	Current Activities.....	92
(d)	By Tenure Status.....	96
(e)	By Rank.....	102
4.1.1.6	Research Experiences.....	107
4.1.1.7	Institutional Socialization.....	114
4.1.1.8	Overall Career.....	118
(a)	By Gender.....	118
(b)	By Rank.....	119
(c)	By Tenure Status.....	119
(d)	By Academic Interests.....	119
(e)	By Years at the Institution.....	119
4.1.2	Qualitative Variables.....	120
4.1.2.1	Explaining Overall Career Perception.....	120
4.1.2.2	Institutional Support.....	122
4.1.2.3	Additional Remarks.....	124
4.1.3	Eliminated Variables.....	125
4.2	DATA ANALYSIS.....	125
4.2.1	Research Variables.....	126

4.2.2	Research Questions.....	126
4.3	CONCLUSION	142
5.0	DISCUSSION & CONCLUSION.....	144
5.1	RESEARCH SOCIALIZATION	144
5.2	FACULTY CHARACTERISTICS	148
5.3	RECOMMENDATIONS FOR THE CASE INSTITUTION	150
5.4	RECOMMENDATIONS FOR FUTURE STUDIES	151
5.5	FINAL CONCLUSION.....	152
	APPENDIX.....	154
	BIBLIOGRAPHY	169

LIST OF TABLES

Table 1. The Changing Roles of Faculty	15
Table 2. Relationships between Research & Teaching.....	23
Table 3. Institutional Profile	52
Table 4. Faculty Distribution at the University & School of Education Levels.....	53
Table 5. Study Structure	59
Table 6. Research Questions, Corresponding Questionnaire Items, & Variables	66
Table 7. Items Selected from the 2004 NSOPF Instrument.....	68
Table 8. Research Questions & Corresponding Questionnaire Items.....	68
Table 9. Gender, Tenure Status, & Rank Crosstabulation.....	73
Table 10. Rank, Tenure Status, & Academic Interests Cross-tabulation.....	74
Table 11. Correlations of Graduate and Early-Career Research Activities	127
Table 12. Correlations of Early-Career and Current Research Activities	132
Table 13. Relationship between Participants' Graduate & Current Perceptions of their Socialization Experiences	135
Table 14. Perceptions on Institutional Socialization Programs	136
Table 15. Mean Comparisons	140
Table 16. Paired Samples t-test for PSE and DOA.....	141

LIST OF FIGURES

Figure 1. Weidman’s Organizational Socialization of Students in Higher Education	43
Figure 2. Study Framework	47
Figure 3. Respondents by Rank	75
Figure 4. Respondents by Rank & Gender	76
Figure 5. Respondents by Rank & Academic Interest.....	76
Figure 6. Respondents by Rank & Tenure Status	77
Figure 7. Respondents by Rank & Years at the Institution.....	78
Figure 8. Respondents by Tenure Status.....	78
Figure 9. Respondents by Tenure & Academic Interest.....	79
Figure 10. Respondents by Tenure Status & Gender.....	80
Figure 11. Respondents by Tenure & Years at the Institution.....	80
Figure 12. Academic Interests	81
Figure 13. Respondents by Gender & Academic Interest.....	82
Figure 14. Years with the Institution	83
Figure 15. Research Activities (means).....	84
Figure 16. Articles Published in Refereed Professional or Trade Journals; Creative Works Published in Juried Media.....	85

Figure 17. Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters	85
Figure 18. Published reviews of books, articles, or creative works; chapters in edited volumes.	86
Figure 19. Textbooks, other books; monographs; research or technical reports disseminated internally or to clients	87
Figure 20. Presentations at conferences, workshops, etc.....	87
Figure 21. Membership(s) in discipline-related associations	88
Figure 22. Articles Published in Refereed Professional or Trade Journals; Creative Works Published in Juried Media.....	89
Figure 23. Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters	89
Figure 24. Published reviews of books, articles, or creative works; chapters in edited volumes.	90
Figure 25. Textbooks, other books; monographs; research or technical reports disseminated internally or to clients	91
Figure 26. Presentations at conferences, workshops, etc.....	91
Figure 27. Membership(s) in discipline-related associations	92
Figure 28. Articles Published in Refereed Professional or Trade Journals; Creative Works Published in Juried Media.....	93
Figure 29. Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters	94
Figure 30. Published reviews of books, articles, or creative works; chapters in edited volumes.	94
Figure 31. Textbooks, other books; monographs; research or technical reports disseminated internally or to clients	95

Figure 32. Presentations at conferences, workshops, etc.....	95
Figure 33. Membership(s) in discipline-related associations	96
Figure 34. Articles Published in Refereed Professional or Trade Journals; Creative Works Published in Juried Media by Tenure Status.....	97
Figure 35. Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters by Tenure Status	98
Figure 36. Published reviews of books, articles, or creative works; chapters in edited volumes by Tenure Status	99
Figure 37. Textbooks, other books; monographs; research or technical reports disseminated internally or to clients by Tenure Status	100
Figure 38. Presentations at conferences, workshops, etc. by Tenure Status.....	101
Figure 39. Membership(s) in discipline-related associations by Tenure Status	101
Figure 40. Articles published in refereed professional or trade journals; creative works published in juried media by Rank.....	102
Figure 41. Published reviews of books, articles, or creative works; chapters in edited volumes by Rank	103
Figure 42. Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters by Rank.....	104
Figure 43. Textbooks, other books; monographs; research or technical reports disseminated internally or to clients by Rank.....	105
Figure 44. Presentations at conferences, workshops, etc. by Rank	106
Figure 45. Membership(s) in discipline-related associations by Rank.....	106
Figure 46. Research-related Experiences.....	107

Figure 47. The different research-related roles, duties, and responsibilities of the job at this institution by Rank	108
Figure 48. The quality of research expected from faculty at this institution by Rank.....	109
Figure 49. The quantity of research expected from faculty at this institution by Rank.....	109
Figure 50. Research-related requirements of achieving tenure at this institution by Rank	110
Figure 51. The level of research-related communication with disciplinary colleagues inside the institution by Rank	111
Figure 52. The level of research-related communication with disciplinary colleagues outside the institution by Rank	111
Figure 53. Time faculty would allocate to the research-role component of the job by Rank.....	112
Figure 54. Senior faculty contribution(s) towards research-related roles of junior faculty by Rank	113
Figure 55. Time allocated to keeping up with recent published research by Rank	113
Figure 56. Perceptions on Institutional Socialization Programs (means).....	114
Figure 57. Perceptions on Institutional Socialization Programs by Rank (means).....	115
Figure 58. Socialization Perceptions by Tenure Status	116
Figure 59. Socialization Perceptions by Interests	117
Figure 60. Socialization Perceptions by Years at the Institution	118
Figure 61. Institutional Support by Tenure Status	123
Figure 62. Institutional Support by Academic Interests	123
Figure 63. Institutional Support by Years at the Institution.....	124
Figure 64. Correlation of articles published in refereed professional or trade journals; creative works published in juried media	128

Figure 65. Correlation of articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters.....	128
Figure 66. Correlation of textbooks, other books; monographs; research or technical reports disseminated internally or to clients	129
Figure 67. Correlation of presentations at conferences, workshops, etc... ..	130
Figure 68. Correlation of membership(s) in discipline-related associations	131
Figure 69. Correlation of Early Career and Current Publications	133
Figure 70. Correlation of Early Career and Current Publications	134
Figure 71. Correlation of DOA & PSE.....	141

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1.0 INTRODUCTION

This research study aims at examining perspectives of fulltime faculty at a major research university on their socialization experiences to research. This chapter introduces the study with stating the problem, purpose of the study, main research questions, and significance of the study. The final section covers the study limitations followed by a brief conclusion.

Kuh and Whitt (1988) illustrated that “people give meaning to institutional life through sense making, an interpretive process that forms the basis of understanding behavior, events, and actions” (p. 98). The authors continued to explain that “administrators and faculty leaders can start by identifying important institutional symbols and the meaning various groups give to these symbols” (p. 98). These statements underline the importance of different cultures and subcultures within an institution and the importance of introducing those cultures to new members who enter the institution.

Socialization, mainly from the perspective of organizational development, refers to the way individuals learn about their working environment. According to Schein (1980), it is the process of “learning the ropes” as organizations train and teach individuals values that organizations believe are important. It is “a ritualized process that involves the transmission of culture” (Tierney & Rhoads, 1993, p. 21).

The role of socialization, according to Brim (1966), is transferring the organizational culture to individuals:

The individual acquires the culture of his group(s) through socialization, which includes for our purposes two main divisions. One, acquires an understanding of the recognized statuses -the traditional positions- in his society, learning the names so that he is able to locate other individuals in the social structure, as well as identify himself ... Secondly one learns, of course, role prescriptions and role behavior with the associated modes of feeling. (Brim, 1966, p. 4)

In relation to higher education, Bowen and Schuster (1986a) have discussed that faculty values in higher education are consequents of “long academic traditions and tend to be conveyed from one generation to the next via the graduate schools and also through the socialization of young faculty members as they are inducted into their first academic positions” (p. 53)

Many researchers point out that the nature of faculty socialization affects faculty work including their research productivity. Depending on the level of socialization, faculty members may find themselves alienated, less innovative, or optimally contributing to institutional vitality (Schein, 2004).

Faculty work can be viewed as the “primary arena of organizational socialization to occur in a processual manner” (Tierney, 1997, p. 8). Any attempt to discover the socialization process at an institution of higher education must include looking at different aspects of faculty work including research productivity.

According to many researchers (e.g. Bieber & Blackburn, 1993; Blackburn & Bentley, 1993; Blackburn, Bieber, Lawrence, & Trautvetter, 1991; Blackburn & Lawrence, 1995; Boyer, 1990; Creswell, 1986), faculty research productivity, has been increasingly emphasized by both faculty members themselves and institutional administrators.

According to the Carnegie Classification, the “case” institution is categorized as a Public Research University with very high research activity (RU/VH). However, the majority of the socialization activities offered by the institution are directed towards teaching and instruction. There are no specific programs dedicated for research socialization. Moreover, only three of the

nine available faculty socialization/professional development programs offer research-related activities that are available for faculty in social sciences.

1.1 STATEMENT OF THE PROBLEM

The case institution offers several socialization programs to its junior and senior faculty. However the majority of these programs are geared towards instruction. As faculty members in a large research university, research constitutes a major part of the faculty position.

Thus, the rationale of the study is to examine perceptions of fulltime faculty at the School of Education in a large research university regarding their research socialization experiences. These findings would be especially significant for optimizing faculty research productivity at a large research university where little or no research socialization activities/programs are present and/or promoted by the institution.

1.2 RESEARCH QUESTIONS

Several studies have examined faculty socialization based on faculty members' formal and informal graduate education experiences (Austin, 2002; Weidman, 2006; Weidman, Twale, & Stein, 2001). The purpose of this exploratory study is to collect quantitative data from a representative sample of fulltime faculty members regarding their research socialization experiences.

The specific questions to be addressed are:

1. What are the relationships among *graduate* and *early-career* and *early-career* and *current* research activities rates?
2. What is the relationship between faculty members' perception of their socialization experiences when they were graduate students and their and current perceptions?
3. How do faculty members perceive the available research socialization programs at the institution as contributing to their experiences? Are there any differences in perceptions based on *doctoral degree type* and *tenure status*?
4. To what extent are personal academic preferences related to perceiving current socialization experiences: doctoral degree type, graduate institution type, and academic preferences?
5. To what extent are the following work-environment variables related to perceiving current socialization experiences: current institutional programs, academic rank, history with institution, and tenure status?

1.3 SIGNIFICANCE OF THE STUDY

Researchers agree that research is considered to be “fruitful” when the inquiry is continuing and attends to problems that are important to various stakeholders ” (Perna & Weidman, 2006, p. 54). This study examines an ongoing phenomenon (faculty socialization) and results potentially will be beneficial to faculty, administrators, and future researchers.

The “case” university offers a wide variety of services to faculty members. These services help socialize new members in addition to keeping senior members up-to-date with state-of-the-art instructional techniques and technologies.

Surprisingly, most of these programs and services are not directed to faculty in social science disciplines neither to faculty at the School of Education. Moreover, the majority of these programs are not dedicated to introducing faculty to institutional policies relevant to research production, as most of the programs are directed towards supporting faculty members’ teaching and instructional capacities.

Hence, the significance of the study lies in acquiring faculty perceptions of the socialization programs offered by the institution. Specifically, it is important to understand what the institution offered to ease their entrance and to familiarize them with different policies that affect the research aspects of their work. How did they adapt to the new institutional environment? To what degree did the institution participate in the adaptation process? Moreover, what do they recommend the institution should offer to new-comers?

1.4 STUDY LIMITATIONS

- Limited ability to generalize study findings because data on faculty perceptions will be gathered at only one institution.
- The study relies on self-reported experiences and efforts of faculty members. No documentation or proof exists that would support or verify those experiences; therefore, the concept of “good faith” is applied.

- The study will collect the information on the quantity of research products generated in the past. However, the quality of those products cannot be assessed
- The study relies on participants self-reporting of their publications and academic activities during their graduate and early career stages. This might have resulted in some errors as participants might have experienced difficulties remembering the exact number of publications.
- Participants were asked about their thoughts during graduate school and early career. This might have resulted in some errors as participants might have experienced difficulties remembering their exact perceptions during those years.
- Participants were asked to rate the available programs at the case institution. This rating is subjective and might have been biased to their personal experiences.
- Respondents represented 38% of the target population. Thus statistical findings could have been different had more faculty members responded to the instrument.
- Despite the fact that anonymity and confidentiality was promised to participants, some might have not provided their genuine perceptions to avoid future complication at the work environment when the study is completed.
- Respondents were asked to provide data on their *early-career*, defined as the first five years, and *current career*, defined as the past two years. This might cause some inaccuracy reporting the data especially for respondents who have served at the institution for less than seven years.

1.5 CONCLUSION

This chapter introduced the main objectives of this study and identified important questions related to the issue of faculty research socialization. The following chapter will provide an overview of relevant literature. The third chapter will include the methodological approach which the data were gathered and analyzed.

2.0 LITERATURE REVIEW

This chapter explores available and most relevant literature sources. This section presents germane topics from the literature on the roles of higher education faculty, socialization, and the conceptual framework of the study.

2.1 HIGHER EDUCATION

No higher education institution can exist without a vital group of dedicated faculty members. Many scholars emphasize the roles of higher education faculty as teachers, researchers, or service providers (Burton R. Clark, 1983; Franck & Opitz, 2006; Hattie & Marsh, 1996; Kolstoe, 1975; Mandell, 1977; Morrill & Spees, 1982; O'Meara, Terosky, & Neumann, 2008; Tien, 2007).

Throughout the 17th, 18th, and the first half of the 19th centuries, the basic responsibility of college professors in the U.S. was character building. This was achieved through “classical teaching” with minimum attention and importance given to research, if any at all. Later, in response to the Morrill Act of 1862, the number of state-supported institutions increased, and higher education became deeply concerned with technology, science, and other practical affairs (Morrill & Spees, 1982, p. 24).

While colleges and universities certainly progressed since the 17th and 18th centuries, the basic assumptions of their roles are still relevant. The basic roles of institutions, as well as the roles of faculty members, have remained fairly similar concerning teaching, research, and services, yet have developed contents that are more complex. This change was based on the development of additional types of institutions, programs, disciplines, and student directions (Schuster & Finkelstein, 2006).

Schuster and Bowen (1985) conducted several studies on career preferences of college freshmen and seniors in the late 1980's. Due to a decline in working conditions and pay during that period, it was more difficult to attract young individuals into academic professions. Consequently, college graduates showed less interest in pursuing academic careers and more interest in professional schools. Interviews with provosts, deans, and department chairs clearly showed that fewer applicants applied to the humanities and social sciences programs compared to other disciplines. Finally, their survey of 1945 to 1983 Phi Beta Kappa recipients demonstrated a steep decline in the proportion of students selecting future academic careers.

Bowen and Shuster's (1986c) study, covering the period from 1980 to 1983, was based on annual reports and surveys of a representative sample of one hundred public and one hundred private colleges and universities, and had numerous suggestions.

The study reported the perceptions of Chief Academic Officers and Chief Student Affairs Officers at the institutions on faculty qualifications, competence, and performance. From 1980 to 1983, at public institutions, the percentage of faculty with a doctoral degree was 43% greater compared to private institutions and competence of new faculty members was 47% greater. Correspondingly, the quality of overall faculty performance was 26% greater at public compared

to private institutions, and overall quality of the learning environment was 46% greater at public versus private institutions.

Clark (1983) described the main role of faculty as being committed to the “discovery and fashioning of new bodies of knowledge.” Clark envisioned that the “professor goes around with a bundle of knowledge, general or specific, looking for ways to augment it or to teach it to others” (p. 12).

From more general point of view, faculty members play the prescribed roles of teachers, researchers, and community servants in the American higher education system (Morrill & Spees, 1982, p. 26). Through their work, faculty members have contributed to society socially and economically. Their contribution “historically had both demonstrable value and cultural acceptance” (Fairweather, 1993, p. 43).

Because faculty members are evaluated mainly based on their overall performance rather than number of working hours (Bowen & Schuster, 1986c), they are generally autonomous with regards of their time usage. Their only real requirement is to attend class meetings. In addition, they are obligated to hold office hours and to attend faculty committee meetings.

A key aspect of faculty autonomy is the relative freedom to allocate their time between teaching, research, and service. A report by the the Carnegie Foundation for the Advancement of Teaching explained that average faculty member allocates thirty-six hours each week to different teaching and research activities. Generally, faculty members allocate: seven hours to teaching, eight hours to class-preparation, five hours to office hours, seven hours to research, four hours to administrative work, three hours to student advisement and counseling, and two hours to graduate instruction (Bowen & Schuster, 1986b; *The Faculty: Deeply Troubled*, 1985).

Schuster and Finkelstein (2006) also discussed how faculty work load varied across time. They illustrated that the average weekly hours of fulltime faculty increased by 5.7 hours from the early 1970's until the late 1990's. Their data showed that faculty members in 1972 worked on an average of 42.9 weekly hours, while in 1998, faculty members worked on an average of 48.6 weekly hours.

Meanwhile, the average working hours of faculty working at research universities showed a more dramatic increment. The numbers changed from 43.7 to 50.6 hours a week. This 6.9 hour increment is almost equivalent to a full-day of work (Schuster & Finkelstein, 2006, p. 79).

From an individual perspective, Kolstoe (1975) discussed why individuals decide to pursue a lifetime career as faculty. From this perspective, it is their "desire to pursue scholarly interests." These interests can exclusively represent research and/or teaching interests. However, it largely includes both at disproportionate levels.

Research is a key component that attracts those who choose faculty careers. To many faculty members, conducting research is a "fun" activity (Blackburn & Lawrence, 1995, p. 116). These individuals allocate a lot of time to research activities, regardless of rewards (Rodgers & Rodgers, 1999).

From a more pragmatic perspective, Tierney and Bensimon (1996) identified four key reasons for why prospective faculty members chose an academic profession. These four reasons included: limited job availability, involves a community suitable for family, seeking a specific characteristic offered at that department or institution, or following a relocated partner (Tierney & Bensimon, 1996, p. 44).

From another perspective, Kolstoe (1975) also argued that “it is the obligation of the discoverer to identify exceptions and shortcomings before they are pointed out to gleeful colleagues.” The notion of *mandate to honesty* is probably another reason that makes the college professorship attractive to many. This is an opposing position to that of the business world, as the principles of *caveat emptor* (let the buyer beware) permits camouflage and omission, if not downright deceit.

Blackburn (1974) also discussed the motives for choosing the faculty career. He pointed out that “career counseling” for the profession did not, and still does not, exist, and continued to explain that this choice, on the contrary to many other career choices, is not “announced early in life” (p.79). On training individuals to become university faculty, Blackburn states that,

The term training itself is an academic anathema. There is no bar examination to pass, no certification, no licensing, and in fact, there is not even instruction to prepare them to do what will be their principal activity, namely, teaching (p. 79).

Another key characteristic of the professorial profession is that it gives very large attention to status. Faculty members are extremely competitive, constantly competing with other faculty (Blackburn, 1974; Perry, Clifton, Menec, Struthers, & Menges, 2000; Wilson, 1942). Whether within the department, institution, or discipline, faculty seek to be nothing short of being “number one” (Blackburn, 1974, p. 80).

In a recent study, Bieber and Worley (2006) interviewed thirty seven graduate students from different fields including biology, English, several fields of engineering, economics, geology, and communications on their expectations regarding faculty life. Researchers evaluated participants’ past, present, and possible future perceptions of faculty members. The study had many interesting outcomes.

One of the findings suggested that participants find personal life of faculty members interesting. Based on their interactions with faculty members during their programs of study, participants described faculty as “human beings above all, not as authorities in a discipline” (p. 1017). Those students were attracted to the profession because they felt that faculty members actually cared about them.

Another finding suggested that participants viewed their faculty primarily as teachers and mentors. Although students did report positive research experiences, with the exception of the undergraduate science majors, the teaching and the mentoring aspects of the profession attracted them the most.

Finally, students thought that “flexibility and personal autonomy” (p. 1020) were other attractive aspects of the profession. Responses ranged from admiring that faculty have the ability to create strong familial relationships while working flexible hours to despising that faculty “have to work all the time” (p. 1020).

From a more recent perspective, O'Meara, Terosky, and Neumann (2008) discussed several “emerging trends” that are currently being incorporated by most faculty members in their jobs (p. 77). These trends include engaging in teaching as a form of scholarship, integrating various roles and responsibilities the faculty members are facing, pursuing interdisciplinary research activities, and finally “narrowing” the role of the professor (p. 79).

According to the authors, “it is growing increasingly more common for faculty to engage in just one role: that of a teacher, a researcher, *or* an administrator” (O'Meara, et al., 2008, p. 79). This notion implies that faculty are focusing their research activities based on their individual orientation. For example; those who are mainly interested in teaching focus their research activities on student learning and so on.

2.1.1 The Research University

Faculty members, at different types of universities, have increasingly become interested in research. Alpert (1985) pointed out that individual faculty members hold the values of their institution and those of their discipline. He argued that, over time and across types of institutions, faculty members have become dependent on disciplinary values for standards of excellence in terms of publication, accreditation, and professional identity.

However, as faculty members became more involved in their disciplines, they were released from the chores of teaching or committee service on their own campus to spend more time away from campus. Research productivity (i.e., publication rates) typically is associated with orientations toward off-campus, disciplinary activities which carry greater status than more local orientations (as cited in Henderson & Kane, 1991, p. 341).

Though research is a main role for higher education faculty members, the role may have more than one goal to serve. O'Meara, Terosky, and Neumann (2008) point out that faculty members in research universities mainly find their research role serving the goal of “generating new knowledge through empirical studies and publishing findings in top-tier peer-reviewed journals” (p. 75).

Looking at changes in roles over time, a comparison of new and senior faculty members' regarding their roles at different institutional types illustrates interesting findings. Finkelstein, Seal, and Schuster (1998) have analyzed data from the 1993 and 1998 National Study of Postsecondary Faculty NSOPF (Table 1).

Table 1. The Changing Roles of Faculty

Institution Types	<i>Research</i> more rewarding		<i>Research</i> as a criterion		<i>Teaching</i> as a criterion	
	New	Senior	New	Senior	New	Senior
Research Universities	86.9	90	54.1	57.5	54.2	52.1
Other Doctoral Universities	71.1	72.6	47.7	44.4	70.1	67.6
Comprehensive Universities	35.6	44.7	26.7	26	87.3	87.9
All Other Universities	20.8	24.5	22.5	18.7	92.8	93.4

The data suggest that different generations of faculty across different institutional types, especially at research universities, hold very similar perspectives about their roles. However, very interesting and significant differences between new and senior faculty are seen on agreeing that research is more rewarding than teaching, and on agreeing that research should be a criterion for faculty promotion at research universities faculty. Another apparent, yet not as significant, discrepancy between new and senior faculty has been noted with regards to their perceptions of research being more rewarding than teaching at comprehensive institutions (Finkelstein, et al., 1998).

A longitudinal study conducted from 1969 to 1988 examined changes in institutional research performance over time across all institutional categories. The researchers (Bentley & Blackburn, 1990) conducted four surveys; two national¹ and two institutional² surveys of the American professoriate. Study results indicated that levels of faculty holding doctoral degrees,

¹ Sponsored by the Carnegie Commission on Higher Education in both 1969 and 1975

² University of California at Los Angeles' Higher Education Research Institute in 1983 and the University of Michigan National Center for Research to Improve Postsecondary Teaching and Learning in 1988

faculty interested in research, faculty publication rates, faculty life-time book publishing, and federal grant acquisition at all type of institutions increased over the duration of this study.

Figures related to research universities were consistently higher compared to comprehensive universities with regards to retaining research as “their dominant position” (p. 342). However, the study also found that other institutions, including doctoral-granting and comprehensive institutions, have “enhanced their competitive position” with regards to research emphasis (Bentley & Blackburn, 1990, p. 342).

Concerning working conditions at research universities, data from a fairly recent study supports that faculty perceptions of the change in roles seem to be somewhat negative. In their study, Finkelstein, Seal, and Schuster (1998) illustrated that 55.4% of new faculty and 57.9% of senior faculty reported that the pressure put on them to increase their workload has worsened. On the other hand, only 27.7% and 31.9% of new and senior faculty, respectively, reported that the pressure to increase workload remained the same (Finkelstein, et al., 1998, p. 170).

2.1.2 Research Productivity

Many researchers (Bieber & Blackburn, 1993; Blackburn & Bentley, 1993; Blackburn, et al., 1991; Blackburn & Lawrence, 1995; Bornheimer, Burns, & Dumke, 1973; Boyer, 1990; Creswell, 1986) have noted that both faculty members themselves and institutional administrators have increasingly emphasized faculty research productivity.

For many faculty members, research is considered a vital part of the professors’ work in the institution. Wilson (1942) discussed the importance of research and described it as a “necessary accompaniment to teaching” (p. 196) . Additionally, Wilson argued that almost

unanimously, university executives found research to be related to both promotion and salary increases.

Research is not only “necessary and desirable”; it plays a critical role in the educational process. It is vital as “education is concerned with the discovery of as well as the transmission of knowledge”. Research’s vitality lies not only in its financial returns, it also provides researchers with intellectual stimulation and the sense of measureable accomplishments (Bornheimer, et al., 1973, p. 32).

In an attempt to explore factors affecting faculty research productivity, a quantitative study looked at evaluating casual influences on publishing productivity. The authors (Rodgers & Rodgers, 1999) surveyed 80 assistant professors from 68 public administration programs. The researchers also requested that participants include a copy of their most recent résumé. The study concluded that four factors had major contribution towards faculty publication productivity. These factors were (1) *a sacred spark*; the “intrinsic” joy that some faculty members derive from doing research,” (2) *more graduate school publications*, (3) *research support* including “lighter teaching loads, summer support for research, and access to a network of scholars who are working on similar project,” and (4) *ability*; “highly able individuals are more likely to attend prestigious graduate programs because the more prestigious programs have the luxury of creaming off the higher ability applicants” (Rodgers & Rodgers, 1999).

Another study looked at determinants of research productivity in higher education. In their study, Dundar and Lewis (1998) relied on data from the 1993 National Research Council (NRC) study on research-doctorate programs in the United States. Data were gathered from ninety research universities encompassing 1,841 doctoral programs. Study findings included:

- Institutions that had a higher percentage of fulltime professors actually did achieve higher research productivity.
- Very few university departments relied on only a few star-faculty to carry their efforts in research, as departments that are looking for increasing research productivity usually look for contributions from all or most faculty members in the unit.
- Departments in high-paradigm fields (e.g. engineering and physical sciences) were more likely to utilize graduate students more efficiently in their research, ultimately resulting in a significant productivity increase compared to departments in low-paradigm fields (e.g. social sciences).
- Regarding research funding, faculty who received external funding were more productive in terms of research than those who were dependent on institutional research funding.

Correspondingly, Finkelstein (1984) had identified similar predictors of faculty publication productivity. He identified seven normative and behavioral variables (research orientation, highest degree attained, early publication, previous publication activity, communication with disciplinary colleagues, number of journal subscriptions, and time allocation among academic role components) that influenced publication productivity.

On the other hand, faculty might pay high costs if they decide not to be scholarly productive. According to Boice (1992), those faculty members might fail “to gain degrees, promotions, and other rewards” (p. 161). Being a non research-productive or “silent” has also been linked to “denying visibility, portability, and satisfaction” (p. 161).

Researchers (Blackburn & Bentley, 1993; Blackburn, et al., 1991; Blackburn & Lawrence, 1995; Boyer, 1990; Dunder & Lewis, 1998; Tien & Blackburn, 1996; Toutkoushian,

Porter, Danielson, & Hollis, 2003; Wilson, 1942) also agreed that the most common measure of productivity, both individual and departmental, is the quantity of faculty publications.

Often, information about research is collected in terms of quantity not quality (Blackburn, 1974; Blackburn & Lawrence, 1995; Toutkoushian, et al., 2003; Wilson, 1942). Moreover, the act of counting the number of publications has been explained as being related to the *publish or perish* notion (Creswell, 1986).

Although faculty research is largely judged or peer-reviewed, as all things human, it still remains imperfect; “a flawed kernel may be discovered in the highest-rated journal, and an original, important mutant may initially be rejected as unimportant, unworthy” (Blackburn & Lawrence, 1995, p. 31).

Research output is “indicated by publication counts, grant fund totals, or reputational indices (indicative of the ability of an institution's faculty members to communicate their disciplinary expertise to members of the larger academic community)” (Henderson & Kane, 1991, p. 342). Contrastingly, many researchers have also discussed the controversial issue of most research having trivial qualities.

Blackburn and Lawrence (1995) discussed that many research critics “allege that most of what appears in print never should have been written or published” (p. 115). They emphasize that many published works are mere bloating of previous publications.

Moreover, another critique of over-publishing also claims that faculty members publish for the sole reason of stuffing their vitae. This type of extensive publishing is based on a specific aspiration leading to promotion “up the academic ladder” (Wilson, 1942, p. 195). Additionally, a relevant claim is that faculty “have in mind the kind of inquiry that yields publishable results” (p. 195). This claim pertains to faculty, especially those that have well-adjusted to their positions,

and their ability to recognize, based on experience, research that can easily be published versus research that can be a hurdle in the path of publication.

This, according to Wilson (1942), is especially true for faculty members who have not acquired a reputation in research yet. These members focus on producing as much as possible and seek to conduct easily publishable research. Upon receiving recognition based on excessive publication records, those individuals tend to refocus towards conducting higher quality research.

Wilson (1942) also discussed, from a plain profiting perspective, that some faculty members have turned their attention towards research because they “are likely to think of textbook production and popularization as a full-time activity and a form of ‘research’” (p. 199).

Consequently, faculty members have the ability to increase their academic output by reproducing several articles from a single decent publication. This includes fractionalizing a research project into as many separate articles as viable (Blackburn & Lawrence, 1995; Wilson, 1942).

Regardless of career and financial benefits, Blackburn (1974) pointed out that many faculty members, regardless of institution type and/or discipline, are known to “enjoy seeing themselves recognized in print” (p. 80). Achieving infamy, according to Blackburn, is what justifies why some faculty members continuously seek excessive publication.

On a similar notion, Blackburn and Lawrence (1995) discussed yet another issue. They were concerned that lack of research “endangers a faculty member’s chances for success” (p. 115), implying that a good academic career depends on faculty members becoming known for their published work. Contrary to teaching, which adds local reputation to distinguished instructors, increased publication can lead to national recognition.

Finally, a counter argument claims that, although, some faculty may play the game critics accuse them of, most do not. The majority of arguments support that most faculty try to solve what they, and others, consider to be important problems (Blackburn, 1974; Blackburn & Lawrence, 1995). Whether faculty members utilize theoretical or pragmatic approaches, most seek answers to their plotted research questions.

2.1.3 Research vs. Teaching

Though teaching is still regarded a vital component of faculty members' work, "more faculty are publishing more articles and books in a mushrooming mass of journals and presses" (Blackburn & Lawrence, 1995, p. 115).

A key element that differentiates research from teaching is that, contrary to teaching, "research affects one's career" (Blackburn & Lawrence, 1995, p. 116). This explains why the reward system in higher education is skewed towards research rather than teaching as research publications are heavily rewarded.

On the other hand, good teaching is not equally rewarded. Data show that faculty research and publication influence achieving full time tenured faculty position, with an increment from 39.9% in 1969 to 65% in 1997.

Then again, faculty supporting the notion that teaching effectiveness should be the key criterion in promotion has remained almost steady as it has only decreased from 74.2% in 1969 to 74.1% by 1998 (Schuster & Finkelstein, 2006, p. 130).

Moreover, Finkelstein, Seal, and Schuster (1998) have provided evidence supporting the notion that higher education institutions are emphasizing research rather than teaching. The evidence focused on how new faculty reported financing their graduate studies through the

available sources. Their study reported that “a considerably larger percentage of new-entry faculty received research assistantships compared to their senior colleagues. Meanwhile, the incidence of teaching assistantships, the largest category of graduate student support, declined slightly” (p. 48). Their findings illustrate that 33% of new faculty compared to 27.6% of senior faculty received research assistantships. While with regards to teaching, the 48.3% of senior versus to 46.5% of new faculty received assistantships (Finkelstein, et al., 1998).

In another study that looked at faculty publications across 1,309 four-year colleges and universities in 1998, the authors examined the way research is utilized to determine institutional research productivity. The authors found that in higher education institutions with a stronger focus on teaching, the increased pressure on teaching from parents and state governments could have lead to a reduction in the production of research (Toutkoushian, et al., 2003).

In another study, Fox (1992) surveyed 2,738 faculty members from different social science disciplines, departments, and institution types. Though the study originally looked at the different relationships between research and teaching, some of the findings were related to research productivity. The study found that higher research productivity positively correlated with hours spent on research and writing, reviewing articles, professional correspondence, importance of research to the respondent, and the perceived importance of the quantity and quality of publications in departmental decisions on salary and promotions.

Many studies looked at the nature of the relationship between teaching and research. Some claim that research benefits teaching, while others conversely claim that research consumes faculty members’ time, thus affecting their teaching capacities. Conflict, complementary, and null perspectives are three main discourses related to teaching and research relationship (Braxton, 1996; Finkelstein, 1984).

Table (2) summarizes the view of these perspectives on teaching and research roles and the relationships between them. Conflict perspective views teaching and research roles as different and believes that the relationship between teaching and research is negative. Complementary perspective views teaching and research roles as similar and believes that the relationship between teaching and research is positive. Null perspective views teaching and research roles as independent of each other and believes that there is no relationship between teaching and research.

Table 2. Relationships between Research & Teaching

Perspective	Roles	Relationship
Conflict	different	negative
Complementary	similar	positive
Null	independent	does not exist

Beginning with the conflict perspective, one interesting study (Olsen & Simmons, 1996) looked at the effects of research on teaching by assessing whether highly productive researchers ‘economize’ on the time and energy they allocate to teaching by constraining teaching tasks and reducing time-consuming involvement with students. The study included interviews with 114 faculty members from a large public research university. The results showed that faculty spent more of their time on teaching (44%) than on research (34%) and that time spent on research had a *significant negative* relationship on teaching time. Additionally, considering research productivity levels, analysis of variance revealed a significant difference between those who devoted less time to teaching and more time to research productivity (38.2%) compared to those who devoted less time to research productivity spending and more time to teaching (46.3%).

Another study that reinforced the conflict perspective is that of Fox (1992). Findings confirmed that there is a negative relationship between research and teaching; “the interests, time commitments, and orientations to teaching ... are associated with depressed publication productivity” (p. 297). The findings also illustrated that signs of more research activity correlated negatively with the number of courses taught, teaching loads, time spent on class preparation, and advising.

Conversely, from the complementary perspective, research and teaching have a positive relationship. In a survey of faculty members and department heads, 95% of the respondents agreed that “research increases teaching effectiveness by increasing awareness and currency” (as cited in Centra, 1983, p. 379). While the respondents did agree that good teaching does not require research, they agreed that teaching inevitably benefits from research.

Moreover, Boyer (1990) argued that:

Surely, American higher education is imaginative and creative enough to support and reward not only those scholars uniquely gifted in research, but also those who excel in the integration and application of knowledge, as well as those especially adept in the scholarship of teaching (p. 27).

Braxton (1996) looked at thirty studies that focused on the relationship between research productivity and student appraisals of teaching effectiveness. The researcher also examined different perspectives on the nature of the relationship between research and teaching by institutional type. The study resulted in two findings: first, both the complementary (eleven of thirty studies) and the null perspectives (eighteen of thirty studies) received moderate support while the conflict perspective received weak support (one of thirty studies). Second, null relationships were more apparent in research universities while null and complimentary

relationships were more apparent in other institutional types identified by the Carnegie Classification, 1987³. However, concluding remarks in his study affirm two additional findings:

First, research does not interfere with teaching effectiveness. This conclusion is particularly salient in research universities in which the Null perspective receives strong confirmation. Moreover, the Conflict perspective has empirical support in only one of thirty studies. Second, a systematic relationship between teaching and research role performance does not exist across different types of colleges and universities. This conclusion stems from the modest support provided both the Null and the Complementarity perspectives (Braxton, 1996, p. 8).

Finally, according to the null perspective, no relationship exists between both practices. Finkelstein (1984), a major contributor to this perspective, looked at eight studies that included 147 tests of relationships between research and teaching effectiveness. His study concluded that 70% of the test demonstrated non-significant results. In other words, research productivity and teaching effectiveness seemed to be “independent traits” (p. 122) according to this study. Furthermore, his study also found that the remaining 30% demonstrated, with a 2:1 ratio, a positive relationship between teaching and research.

Graduate students and new faculty members working in higher education seem to be more attracted to research. In their study, Finkelstein, Seal, and Schuster (1998) analyzed NSOPF data from 1993 and 1998. One of their findings illustrated that 33% of newer faculty members who received research assistantships during graduate schools focused on research compared to 27.6% of senior faculty. Conversely, 46.5% of newer faculty members received teaching assistantships compared to 48.3% of senior faculty (p. 49).

The study also illustrated that only 31.3% of new faculty had previous experiences with teaching compared to 45.5% of senior faculty; however, it was not the case with previous

³ Those other institutional types include; doctoral-granting universities, comprehensive universities and colleges, liberal arts colleges, and unspecified types of collegiate institutions

research experiences. The study revealed that 18.5% of new faculty members have reported previous work experience that involved research-oriented positions compared to only 4.9% of senior faculty.

This apparently demonstrates the shift in experiences of new faculty members. Newer faculty members are reporting more research experience than their older counterparts. On the other hand, newer faculty members are reporting less teaching experience than senior faculty members did during their early careers.

2.1.4 Disciplinary Regards

The connotation of research differs from one discipline to another. From natural sciences to social and applied professions, “what counts as research varies from site to site” (O'Meara, et al., 2008, p. 75).

Braxton and Berger (1999) described the differences among disciplines as “vast and consequential” (p. 244). From their extensive literature review, the researchers related the differences to disciplinary, institutional, departmental, and personal variables. In their study, the researchers divided disciplines into high-consensus (e.g., chemistry and physics) and low-consensus (e.g., psychology and sociology) disciplines.

The consensus among members of each discipline was assessed on the criteria for distinguishing the disciplines such as theoretical orientation, appropriate research methods, and the importance of various research questions to the advancement of the discipline.

Braxton and Berger's (1999) analysis of the first-year survey of 1991 and 1992, revealed “unexpected results” (p. 251). The results illustrated that new faculty displayed a greater adjustment to the institutional focus regardless of the disciplinary consensus level. In other

words, new faculty members who were employed by research-oriented institutions were highly socialized to their institutional roles regardless of their disciplinary orientation.

In general, schools of education are involved in training future teachers, providing continuing education for educational professionals, training educational administrators, educating higher education professionals, and conducting research on critical educational issues (Hutcheson, 2001; Turner, 2001).

With the exception of community college settings, education faculty exists in nearly all kinds of higher education institutional types. However, in more than one case, education faculty members might be found in smaller departments or divisions rather than solely in an entire school dedicated to education (Tierney, 2001).

Many differences exist between schools of education faculty and faculty from other disciplines. One main difference involves the existence of different variations within the field of education. Tierney (2001) illustrates that, in addition to teacher education, disciplines such as educational psychology, special education, higher education, counselor education, and physical education specializations may or may not be “necessarily assigned to a school of education” (p. 83).

These differences also affect the process of socialization. According to Austin (2002) “each discipline uniquely defines and legitimates research questions, research methods, the relationship between teaching and research, and work relationships between scholars” (p. 97). Austin gives an example of how an English faculty member might conduct his or her research alone while a chemistry professor is more likely to include a team in the research activity.

2.2 SOCIALIZATION

It is vital to discuss the notion of culture prior to any discussion of socialization and its different aspects. Among the various definitions of culture, Schein (2004) provides a formal and thorough definition;

[culture is] a pattern of basic assumptions – invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration – that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (p. 17)

Tierney and Rhoads (1993) referred to cultures as “sociological forces” (p. 9). The researchers discussed five different types of cultures; national, professional, disciplinary, individual, and institutional, that interacts with faculty members’ lives.

- National Culture widely varies by nation and involves many aspects. The authors discussed various notions that differ by country and interact with faculty members’ lives; among few that they discussed were formality, time, and religious influences.
- Professional Culture is another force that interacts with faculty members’ lives. It is intertwined with the national culture in that both include conflicts and similarities, but varies by profession. They explain that faculty share “preordained commonalities” and what is expected from the faculty members in the United States is different in other countries around the world (p. 12).
- Disciplinary Culture is a major force influencing faculty members’ lives; as the authors argue that the discipline “plays the preeminent role in faculty socialization” (p. 14). They discuss that disciplinary cultures have unique characteristics that lead to a specifically different socialization experience of faculty members across the disciplines.

- Individual Culture is another considerable factor as individual differences such as race, gender, class, sexual orientation, and other characteristics can have different socialization outcomes for the faculty members, and finally,
- Institutional Culture includes characteristics that are vital to shaping the general orientation of the faculty member such as institutional size, type, mission, symbols, and definition of leadership. The authors also argue that this culture most often collides with other cultures.

In their report, O'Meara, Terosky, and Neumann (2008) tackled this issue from the perspective of *professional growth*. The authors define faculty members' professional growth as;

Change that occurs in a person through the course of her or his academic career or personal life and that allows her or him to bring new and diverse knowledge, skills, values, and professional orientations to her or his work (p. 24)

The authors' views are based on both adult learning theory and human development and life span theory. Accordingly, faculty growth is viewed as continuously progressing, being individually and environmentally facilitated, and finally affected by insitutional charecteristics. In lieu of the previous, the authors focus on faculty growth, learning, agency, profesional relationships, and commitments (O'Meara, et al., 2008, pp. 25-26).

In another report, Kuh and Whitt (1988) agreed with other researchers that, in addition to the educational role, colleges and universities are social communities stating that faculty and students have "a form of life all their own" (p. 1). They referred to that *form of life* as a *culture*, and have outlined culture or cultural perspectives as an "interpretive framework for understanding and appreciating events and actions in colleges and universities ... [the cultural perspective thereby] acknowledge and legitimate non-rational aspects of college and university life" (p. 3).

The statement indicates that in order to adopt the belief of higher education [organizational] culture, “suspend[ing] belief in organizational rationality” is a must (p. 5). In other words; a higher education institution, as many other organizations, may be non-rational, phenomenological, and that conventional assumptions of order and control should, at least, be questioned (Kuh & Whitt, 1988).

2.2.1 Organizational Culture

Organizational culture has not been widely studied within a social context. Rather its roots were deeply planted in the business community. Interestingly, the notion of organizational culture was introduced to American management consultants after the success of Japanese business firms in the 1970’s. Organizational culture was initially scrutinized and eventually embraced in higher education (Kuh & Whitt, 1988).

Schein (2004) demonstrated how the concept of an organizational culture developed over time in a particular organization. In this particular organization, the process involved a general “pattern” that can be generalized to involve the largest part of work organizations (p. 26). Initially, a modest number of people within the organization shared the same beliefs in terms of how the work in the organization should be conducted. This shared belief was converted into behaviors that were standardized to ensure uniformity. Individuals, who might or might not have been involved in sharing the same initial beliefs, expressed their reactions regarding standardized reactions in a manner that can be explained as being normal and/or expected (Schein, 2004). Because of different reaction to the conformity, those behaviors were experienced differently. Individuals within that work organization then interacted with the behaviors as being purposive

and patterned rather than random or unmotivated; ultimately creating an organizational culture that would be mutually respected throughout the whole work organization (Schein, 2004).

Organizational culture refers to the “shared understandings and the formal and informal processes used to develop understanding and meaning. The organizational culture concurrently sculpts and is sculpted by its members’ behaviors” (Tierney & Rhoads, 1993, p. 1).

Referring to the academic profession, Baldwin (1990) described the academic [organizational] culture as an “exceptionally diverse occupational group” (p. 37). Baldwin argued that, although faculty members vary by field, institution, age, career stage, gender, and ethnicity, the academic ranks share a community’s value system and a spirit. This means that, regardless of disciplinary association, faculty members share organizational culture that corresponds to unified standards and norms.

Organizations attempt to influence new comers in many ways. Mostly, by the institution(s) demand that new faculty members adapt to teaching and research loads and to accept and provide collegial support. By understanding the expectancies regarding teaching, research, and other colleagues, faculty find themselves in a more familiar environment (Braxton & Berger, 1999).

Clark (1983) provides a more detailed description of the academic profession:

All professors are part of a single "community of scholars" sharing an interest that sets them apart from others. Community members are entitled to special privileges "freedom of research" and "freedom of teaching." It portrays altruistic commitment, suggesting that it is a high form of service to society to create knowledge, transmit the cultural heritage, and train the young to fulfill their highest potential (p. 91)

In their formal definition, Kuh & Whitt (1988) agreed with the previously discussed notion of cultural consistency as the authors defined culture in higher education as:

The collective, mutually shaping patterns of norms, values, practices, beliefs, and assumptions that guide the behavior of individuals and groups in an institution of higher education and provide a frame of reference within which to interpret the meaning of events and actions on and off campus (pp. 12-13)

In addition, Schein (2004) argued that there is a need to better understand organizational cultures in order to improve the interaction among work organizations. He points out three vital issues related to understanding of organizational culture.

First, he argues that organizational cultures have the characteristics of being both highly visible and experienced by individuals. This notion transforms the organizational culture into a realistic phenomenon rather than a mere concept.

The second issue relates to the evaluation of the organizational performance. Schein (2004) explained that it would not be possible to understand performance levels and outputs of either individuals or organizations fully without taking into account organizational culture. Failing to recognize the specific culture's attributes and characteristics of any work organization would result in the creation of an incomplete perception concerning organizational operation.

Finally, Schein (2004) argues that organizational culture has not been understood fully as a concept. He argues that it has been commonly confused with other concepts such as organizational climate, organizational philosophy, organizational ideology, and even organizational style.

Having a culture within the organization has more than a few functions. Schein (2004, p. 50) argued that "sharing an organizational culture within a specific work setting can solve that group's basic problems on two significant, yet equal, levels":

- Sharing the same culture involves sharing the same organizational mission, strategies, goals, means, measurements, and correction dealings. This ultimately results in supporting the organizational survival and adaptation to the external environment and the periphery.

- Contrastingly, the second level involves a more in-house incorporation. On this level, organizational culture integrates internal processes, which ensure optimal capacity for survival and adaptation. This involves sharing common language and conceptual categories that define group boundaries, rewards and punishments, and an organizational ideology and religion.

2.2.2 Organizational Socialization

Although there are many definitions of socialization, they all seem to loom around the same basic concept. Socialization has been defined as a process through which individuals become part of (Austin, 2002) and identify with (Bragg, 1976) a group, organization, or community. Another definition states that it is “a ritualized process that involves the transmission of culture” (Tierney & Rhoads, 1993, p. 21).

Similarly, organizational socialization has been defined by Schein (1968) as “the process of ‘learning the ropes,’ the process of being trained, the process of being taught what is important in an organization” (as cited in Tierney & Rhoads, 1993, p. 21). Tierney and Rhodes’ (1993) own definition of socialization is that it is “a cultural process that involves the exchange of patterns of thought and action” (p. 21).

Finally, from the perspective of Tierney and Bensimon (1996), socialization is defined as a “ritualized process that involves the transmission of the organizational culture” (p. 36). The researchers described socialization as “a highly charged process through which different individuals and groups come together to determine organizational beliefs and attitudes” (p. 37).

2.2.2.1 The Process Socialization in higher education, as viewed by Weidman (2006), mainly occurs as students are entering into the higher education system. As students are exposed to the higher education *environment*, they interact, learn, and integrate with the “organizational structure and institutional culture” (p. 256). Students’ formal and informal interactions with peer-groups, majors, co-curricular activities lead to *knowledge acquisition, involvement, engagement, and investment*.

Considering faculty socialization, as socialization in any profession, relates closely to individuals’ professional careers. As with any other career, faculty careers usually go through different stages. According to Baldwin (1990), that includes five stages: career-entry, early-career, mid-career, career-plateau, and late career.

According to Baldwin (1990), most learning and socialization influences occur during the *career-entry* and *early-career* stages, the initial stages in any professional’s career pathway. This includes learning the basic rules and expectations of the profession. In these stages, new professionals usually seek competence and try to establish themselves securely in the profession. Baldwin also explained that for those starting a new academic-life, these stages are rather complex and demanding.

Moreover, Baldwin (1990) illustrated the complexity of those stages; for example, new faculty attempts to achieve competence requires balancing teaching, research, and service simultaneously. This involves designing courses that may cover subjects outside the new faculty members’ areas of expertise. It also includes acquiring professoriate teaching skills rather than graduate assistant teaching skills.

2.2.2.2 Outcomes Organizational socialization, according to Schein (2004), has several types of outputs. Schein discussed three types of organizational members that emerge post the socialization process in any work setting: un-socialized, over-socialized, and the optimally-socialized members;

- *Un-socialized* members, while being part of an organization, managed not to learn or share organizational culture, which often leads to numerous consequences including strong feelings of alienation from other members in the organization. It may also include feelings of being uncomfortable within the environment, which may possibly lead to decrease productivity. Ultimately, these individual leave the organization for another one.
- *Over-socialized* members tend to experience and express absolute conformity. While it may appear positively on the surface, it creates a different predicament. Over-socialized individuals may perform in a less innovative manner. Utterly abiding by the expected behaviors may also limit individuals' receptivity for more contemporary demands within the surroundings.
- *Optimally-socialized* members are minimally exposed to the environmental behaviors, learning only specific parts of the organizational culture. They are exposed exclusively to behaviors that critically contribute to the organization's vitality and sustained performance.

2.2.3 Faculty Socialization

In an attempt to focus on the socialization process of faculty, it is vital to identify faculty members' backgrounds and how they are initially socialized.

Socialization usually begins with the *anticipatory* stage. Before becoming newly appointed faculty members, these individuals were graduate students at different colleges and universities (Weidman, 1989, 2006; Weidman, et al., 2001). Potential faculty, as well as graduate

students, were subjected to *general socialization* (Finnegan & Gamson, 1996; Tierney & Bensimon, 1996; Tierney & Rhoads, 1993) and to *disciplinary socialization* (Schuster, 1990).

Following the anticipation stage, where students initially observe and build dispositions about faculty roles, is *organizational socialization*. This involves: the environment (Weidman, 2006), initial entry and induction (Shirley M. Clark & Corcoran, 1996; Tierney & Bensimon, 1996; Tierney & Rhoads, 1993), encounter (Van Maanen & Schein, 1979), and accommodation (Feldman, 1981) which might start as early as during recruitment and selection stage.

Personal socialization (Weidman, 2006) and role continuance (Tierney & Bensimon, 1996; Tierney & Rhoads, 1993) is the final stage. This starts after individuals are situated in the institution (Tierney & Bensimon, 1996; Tierney & Rhoads, 1993) and develop their commitment and dedication to the organization (Feldman, 1981; Weidman, 2006). This stage is when individuals adapt to their organizational culture and share similar views regarding the organizational decisions. It is also the stage where individuals master their different professional skills and develop their professional identities (Weidman, 2006).

Faculty socialization begins mainly during graduate school as students develop aspirations to join the ranks of faculty (Weidman, 2006; Weidman, et al., 2001). During this phase, “non-members take on the attitudes, actions, and values of the group to which they aspire” (Tierney & Rhoads, 1993, p. 23). As a result “most intensive development of faculty members” takes place during graduate school (Schuster, 1990, p. 68). Metaphorically, socialization acts as “upward-moving spiral carrying the neophyte through recurring processes toward the goal of professionalization” (Weidman, et al., 2001, p. 5). From this perspective, graduate students experience a “metamorphosis” (Weidman, et al., 2001, p. 5) as they matriculate into faculty careers.

Researchers (Baldwin, 1990; Burke, 1987; Schuster, 1990; Tierney & Rhoads, 1993; Weidman, et al., 2001) agree that prospective higher education faculty members begin the process of academic career socialization while going through their doctoral programs.

Graduate schools have been considered the main facility for training and socializing future faculty members (Austin, 2002, 2003; Baldwin, 1990; Bieber & Worley, 2006; Bowen & Schuster, 1986a; Burke, 1987; Shirley M. Clark & Corcoran, 1996; Finkelstein, et al., 1998; Schuster, 1990; Schuster & Bowen, 1985; Tierney & Rhoads, 1993; Weidman, et al., 2001). Moreover, faculty members at those schools “play a primary role in the socialization of graduate and professional students” (Weidman, et al., 2001, p. 66).

Burke (1987) also argued that these universities are considered the places where “the norms of academic profession are established” (as cited in; Schuster, 1990, p. 69). Additionally, Austin (2003) illustrated that:

Doctoral students learn about being a faculty member from careful observation of their own undergraduate and graduate professors. Graduate students note how faculty members spend their time, what they say about engaging in research and working with students, how they comment casually on tasks they must do, how they organize their time. They observe what is valued and what is not valued (Austin, 2003, p. 129)

However, graduate school might not provide perfect results. While graduate education generally provides future faculty with adequate training in conducting research, it may be less successful in preparing them for teaching and dealing with the values and norms of academic life (Schuster, 1990; Weidman, et al., 2001).

Austin (2003) commented on that issue illustrating that “The problem is that not enough is being done currently to prepare aspiring or new faculty members for these different kinds of work and the various expectations that they are likely to confront” (p. 125).

After graduation, socialization can start as early as searching for the job. Considered a part of anticipatory socialization, “job announcements and job interviews give candidates an indication of the kind of environment in which they will find themselves if they are hired” (Tierney & Bensimon, 1996, p. 129). In that essence, socialization can be viewed more as a “two-way process” where the aspiring applicant “also learns something about the college or university” (p. 129).

Austin (2002) conducted a four-year, longitudinal, qualitative study that followed a sample of 79 graduate students who aspired to the professoriate and who held teaching assistantships at the start of their graduate programs. In addition to the disciplinary diverse group of participants, they were from two large doctorate-granting research universities. Factors affecting how individuals experience and develop in graduate school included age, educational background (liberal arts versus sciences), family situation (single, married, with children, had a teacher in the family), and previous employment (especially prior teaching experience).

One key outcome was that those who aspired to future faculty positions were more likely to observe, listen, and interact with departmental policies, faculty, and administrators. Another key outcome was that these participants did not feel a “lack of developmentally organized, systematic professional development opportunities” (p. 105). Though they admitted that their experiences did enhance their teaching and research abilities, participants did not undergo a formal preparation program (Austin, 2002).

Reynolds (1992) looked at adjustments faculty made and experiences they went through at a research university. The author identified two key experiences, socialization and acculturation. Reynolds defined socialization as “the development of an initial world view” and

acculturation as “a process that assumes initial *differences* in world view between the individual and the group” (pp. 637-638).

In a large national study of faculty members, Nerad, Aanerud, and Cerny (2004) looked at almost 6,000 PhD degree holders who graduated from doctorate-granting institutions in six disciplines across the US. The study reported that 54% of the respondents were working in faculty positions. Further, about half (53%) of the respondents reported that they “aspired to become professors at degree completion” and 67% of them did become faculty members. Two-thirds of the tenured faculty reported that they “began their paths to tenure in assistant professor positions immediately following degree completion”. However, respondents did report that, though they believed that their faculty did expect them to become faculty, they graduated “without having a good understanding of the ‘big picture’” (p. 149). Respondents reported that they felt adequately prepared in their fields, however, that was not the case when it came to being “educated in what being a faculty member actually entails” (p. 151). They reported not being prepared to advise, mentor, serve on committees, acquire outside funding, manage research groups, organize conferences, manage time, and/or know their disciplinary ethics.

Moreover, according to Austin (2003);

Aspiring and early-career faculty members do not always receive sufficiently explicit statements of expectations or regular feedback ... graduate students and early career faculty report that their faculty advisors, chairs, and deans often do not state their expectations clearly or give feedback explicitly or regularly (p. 130).

Academia, represented in the various institutions of higher education, is a major example of community to students and scholars who engage in socialization activities. The extensive socialization procedures in the academic profession have one vital role, which is; to make a

distinctive profession. This unique system of socialization makes experiences of each participant unique as “no two academic careers are identical” (Baldwin, 1990, p. 38).

Boice (1992) discussed *mentoring* as the “most thoroughgoing kind of socialization” (p. 228). He argued that involving new faculty members in the everyday activities of their senior faculty mentors, is very beneficial as it “builds acculturation and success by means of shared experiences and encouragement” (p. 128). In addition, Boice (1992) pointed out that involvement is also beneficial because new faculty who were able to get *involved* with their campus community and senior faculty were more productive with regards to research. New faculty involvement allowed for “awareness of maladaptive habits” and prevented procrastination and dissatisfaction (p. 102).

Moreover, Boice (1992) added that the involvement process should be constructed simultaneously with serious regimens that would focus on dealing with proper issues, and building a network of collegial support. Boice (1992) also discussed that self-management through staying focused on solving the right issues in addition to creating collegial networks supported new faculty members’ research production. Moreover, the researcher pointed to the fact that research production was also increased when new faculty established regularly writing regimens for themselves.

Though Tierney and Bensimon (1996) argued that given the nature of faculty work that involves teaching, research, and service, new faculty may require more than one mentor. Their argument is based on the practical view that “one person may lack the expertise, time, or inclination to provide support in all areas” (p. 126). However, it is not uncommon that new faculty members can experience some difficulties with regards to learning their new cultures as they might receive “conflicting messages” within their departments (p. 66).

On the other hand, most faculty members are entering the profession with a greater number of previous socialization experiences. In their study, Finkelstein, Seal, and Schuster (1998) reported that new faculty members are entering the profession with more work experience than their predecessors. The researchers illustrated that 66.8 % of all faculty members in their study have had previous work experience from previous higher education institutions (46.6%), K-12 (4.4%), consulting (2.7%), health-related (4.2%), non-profit (1.3%), for-profit businesses (4.8%), and the federal government (1.9%).

The study also found that 78.6% of new faculty members versus 60.3% of senior faculty have reported previous work experiences. However, only 43.8% of new faculty compared to 47.5% senior faculty gained work experiences from higher education institutions. The study findings illustrate that new faculty have had more work experience with K-12, consulting, health-related, nonprofit, and for-profit organizations (Finkelstein, et al., 1998, p. 52).

2.3 SOCIALIZATION IN HIGHER EDUCATION

Research on socialization has mainly focused on the process newcomers experience (Chao, O'Leary-Kelly, Wolf, Klein, & Gardner, 1994; Van Maanen & Schein, 1979). On the other hand, the content of socialization has barely been a target for research activity as “there has been virtually no empirical research to verify the hypothetical content of socialization” (Chao, et al., 1994, p. 730).

Based on previous frameworks; undergraduate socialization (Weidman, 1989) and socialization of graduate and professional students (Weidman, et al., 2001), Weidman (2006) developed a general framework for socialization in higher education. The framework deals with

a four-stage socialization process and although it does not in addition to specifying different content areas.

The framework is principally based on the concept that “educational institutions are not encapsulated environments” (Weidman, 1989, p. 14). From this perspective, it is rationale to argue that performance can be affected by interactions with different university and non-university environments, such as with colleagues/peers, family, friends, mentors, professional associations, and other higher education environmentally-attached factors.

The framework is based on the “four main stages of the socialization process” (p. 256) where individuals experience anticipatory, formal, informal, and personal socialization. The framework deals with an inputs-environment-outcome (I-E-O) bidirectional structure where inputs involve anticipatory socialization, environment involves formal and informal socialization, and outcome(s) involves personal socialization as illustrated in figure (1).

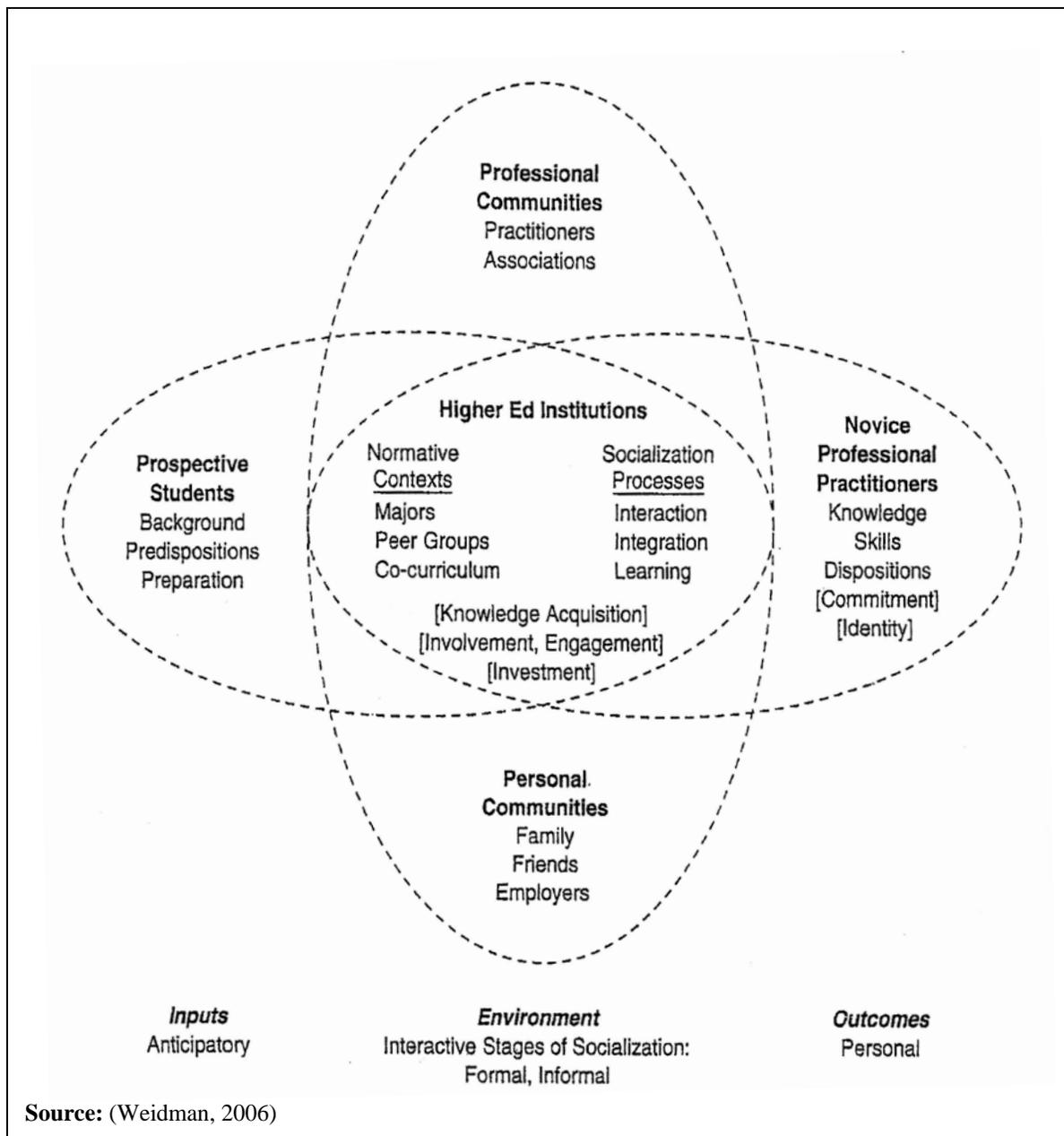


Figure 1. Weidman’s Organizational Socialization of Students in Higher Education

According to Weidman (2006), *anticipatory* socialization is based on students’ “family background, beliefs, values (predispositions to influence), and prior academic preparation” (p. 256). During this stage, students “anticipate”, based on previous experiences alone, their goals and aspirations as they get prepared to enter higher education (p. 257).

Coinciding as the *inputs* level within the framework, the same concept is applied to faculty members. Prior to becoming newly appointed faculty members, as students at different colleges and universities, these individuals were subjected to *general socialization* (Finnegan & Gamson, 1996; Tierney & Bensimon, 1996; Tierney & Rhoads, 1993) and to *disciplinary socialization* (Schuster, 1990).

General socialization refers usually to being subjected to the higher education environment and culture versus the previous K-12 environment. Disciplinary socialization refers to how students adapt to the different discipline-specific cultures.

Basically, faculty members' anticipatory socialization largely occurs during their extensive training in graduate school (Austin, 2002; Baldwin, 1990; Bieber & Worley, 2006; Bowen & Schuster, 1986a; Burke, 1987; Shirley M. Clark & Corcoran, 1996; Finkelstein, et al., 1998; Schuster, 1990; Schuster & Bowen, 1985; Tierney & Rhoads, 1993; Weidman, et al., 2001).

Formal and informal socialization stages, according to Weidman (2006), involve being affected by the higher education (institutional) *environment(s)*. During these stages, students encounter "normative influences of peers and faculty in both formal and informal settings" (p. 257). Within these settings, students interact with the "organizational structures and institutional culture" (p. 256). Students' interact, integrate, and learn from their peer groups, majors, and co-curricular activities, resulting in creating personalized experiences. During these processes, students *acquire knowledge* through formal (instruction) and informal (faculty and peers) means. They also are *involved* and several formal and informal "structures of college environments" (p. 257). Attachments are developed as students *engage* with individuals and environments within

the institutions. Finally, students' acquired knowledge, involvement, and engagements represent social, academic, and personal *investment(s)* that result in the different outcomes.

The same concept can be applied to faculty socialization, as they are subjected to several socialization influences. This corresponds to what Baldwin (1990) identified as the first two stages; *career entry* and *early career* of organizational socialization⁴. This socialization process starts as faculty are entering into the career and can continue to when they feel they are beginning to situate themselves within the institution (Tierney & Bensimon, 1996; Tierney & Rhoads, 1993). It is within this stage that faculty members experience socialization to their institutional policies.

Resulting from this process, according to Weidman (2006), socialization outcomes include “knowledge, skills, and dispositions ... that also shape individual identity” (p. 258). These outcomes involve several “changes ‘values, beliefs, and knowledge’ that occur in students” (p. 256). This socialization process results in “shap[ing] individual *identity* along a variety of dimensions” (p. 258), which includes changes in student knowledge, skills, dispositions, and commitment.

The framework involves a vertical component that outlines the “importance of communities external to higher education institutions for student socialization” (p. 258). In addition to personal experiences and professional interactions during higher education, individuals, according to Weidman (2006), are also affected by external agents including personal and professional communities. Personal communities involve the “significant others” (p. 258) whom students' interact with such as family members, friends, and employers. On the other hand, professional communities also contribute to this process. Practitioners, academic

⁴ Previously discussed

associations, and accreditation agencies “have important influences” (p. 258) on the socialization process. Curriculum [influence(s)], licensure procedures, and the transmission of professional standards within the different fields stimulate additional effects on student socialization.

These experiences result in modifying or preserving students’ perspectives from prior to entering the system and thus, constitute how students are socialized into the higher education system (Weidman, 2006).

2.3.1 Conceptual Framework

This exploration is based on the framework of Weidman (2006) and in effect inquires about faculty members perceptions regarding their pre-appointment to current experiences. The study aims at seeking faculty perceptions on their socialization experiences based on their doctoral preparation in addition to personal and institutional characteristics.

The study utilizes Weidman’s (2006) framework that highlights three main phases of the socialization process in higher education. These phases include; anticipatory socialization (inputs), environmental socialization (interactions), and personal socialization (outcomes). The framework also takes into consideration the predictors of research productivity as described by Finkelstein (1984). These factors involve; faculty research orientation, highest degree attained, early (career) publication, previous (graduate) publication activity, communication with disciplinary colleagues, number of journal subscriptions, and time allocation among the different components of the academic role.

The study will examine faculty perceptions regarding their socialization experiences to research based on three phases: graduate (anticipatory), early-career (environment), and current (outcomes) perspectives. As displayed in Figure (2), the framework serves as a basis for

identifying differences in research socialization experiences based on the selected variables within each stage.

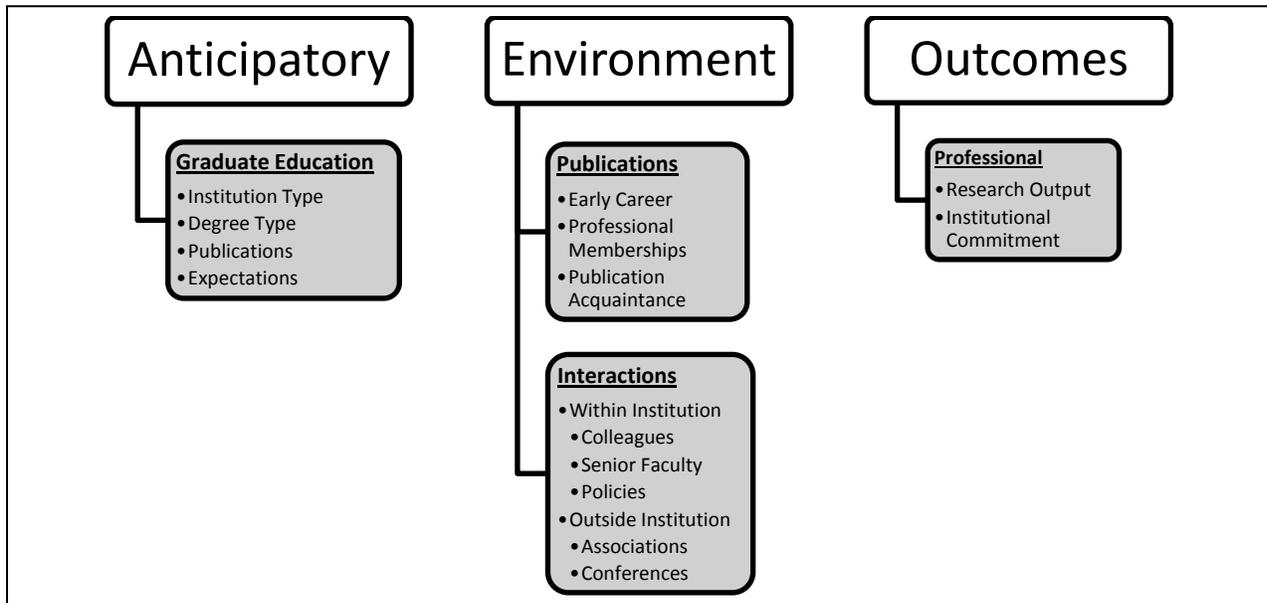


Figure 2. Study Framework

First, the anticipatory phase refers to previous interactions and educational preparation, which mainly reflects graduate experiences. This would involve looking at the type of higher education institution where the highest degree was attained (Research VS. Teaching), type of doctoral degree (Ph.D. VS. Ed.D.), quantity and type of publications during graduate school, and the expectations of the research-related role(s) of the job based on graduate preparation.

The second phase, environment, refers mainly to interactions occurring within the early-career stage. This phase involves looking early-career publications, membership(s) with the different professional [disciplinary] associations, and acquaintance with recent published research in the discipline. The other part of this phase deals with the different interactions in the work environment. This involves interactions *within* the institution which includes communication with colleagues and senior faculty and interactions with the different institutional research policies. It also involves interactions *outside* the institution which includes

communication with disciplinary association(s) in the form of presenting in conferences and workshops. The focus in this phase is on experiences that reflect the level of interaction with the different research-related roles of the profession.

Finally, the outcomes phase reflecting current experiences. The early-career phase, according to the literature, is where most socialization interactions mainly occur. Therefore, this phase involves looking at research output levels and the level of institutional commitment after being exposed to the different socialization interactions.

2.4 CONCLUSION

The purpose of this chapter was to review the literature and to provide an insight into issues that are relevant to this study.

Faculty members form a significant part of higher education. The process of socializing faculty members, from their college/university years to career-entry at a higher education institution, is intriguingly complicated. Socializing members to a specific organization and/or profession is a two-stage process according to most researchers. The process starts during graduate school or as early as during undergraduate education. It continues to the entry and early stages of the professorial career. During the early stages of faculty appointment, the organization is usually expected to present the newly recruited faculty with different policies and programs. These policies are supposed to provide new faculty members with proper tools and expectations of the institutional, school, and departmental preferences and expectations.

While faculty members are expected to teach, conduct research, and provide service within their institutions and communities, their roles, duties, and responsibilities vary

considerably depending on a variety of variables. Institutional type, size and mission, discipline, appointment type, and personal goals and preferences all contribute to specifying and aligning these roles. While no pre-existing formal training for newly recruited faculty members exists, researchers as well as the higher education community expect graduate school to fulfill that role at least partially.

Although new faculty may be attracted to and prepared for faculty profession, most find the entry and early career stages to be complex and confusing. During both these stages, most institutions have policies designed to help new faculty members adapt to the institutional mission. These policies involve assigning new faculty to senior mentors or going through formal training programs. These programs socialize new faculty to the institutional, school, and departmental work expectations.

A research university setting, obviously, is based around research production. However, this does not undermine or limit the other roles of faculty including teaching and service. Rather, in most research institutions, faculty members are subjected to nearly similar teaching loads as their counterparts at other institutions; they are however expected to have a greater research output.

The literature has also outlined various determinants that aid research productivity. These determinants included personal preference, intrinsic motivation, added graduate training and publication, lighter teaching loads, and many more. Socialization efforts are, however, vital in familiarizing faculty with different institutional preferences, including research output and production.

Though Weidman's Socialization in Higher Education (2006) framework deals with student socialization, its application within the premise of higher education is the basis for

considering it as the framework of this study. From that perspective, the process of faculty socialization can be basically outlined as follows;

1. Faculty members enter the profession with aspirations and values that are based on their previous, mainly graduate, experiences.
2. Interactions with the different institutional (e.g., senior faculty and peers) and non-institutional (e.g., disciplinary and professional cultural) environments provide rich socialization influences.
3. Individuals, after careful re-evaluation(s) of their previous beliefs and aspirations, develop characteristics that are focused on personal and institutional goals.

This study attempts to look, analyze, and explain faculty members socialization experiences to research in the school of education at the “case” university through a framework based on Weidman’s Socialization in Higher Education framework (2006).

3.0 METHODOLOGY

This chapter describes the methodology used in this investigation. The section describes the environment and outlines the available socialization activities at the selected university. That is followed by the research approach and discussion regarding the population of interest and research sample. Finally, this section will conclude with the expected limitations of the research

3.1 THE SELECTED INSTITUTION

3.1.1 Background

The “case” university is a large public research university. According to the Carnegie Classification System⁵, it is classified as a large four-year, primarily residential, institution with very high research activity. The institution’s enrollment profile is considered to involve a majority of undergraduate students. As for the institution’s graduate profile, it awards doctorates in the humanities, social sciences, and science, technology, engineering, and medicine (STEM) fields. Additionally, it awards medical doctoral degrees. Table (3) summarizes the profile and types of programs this institution offers.

⁵ Source: Carnegie Foundation for the Advancement of Teaching website accessed on March 2009

Table 3. Institutional Profile

Level	4-year or above
Control	Public
Enrollment (Fall 2004)	26,731
Classification	Category
Undergraduate Instructional Program	A&S+Prof/HGC: Arts & sciences plus professions, high graduate coexistence
Graduate Instructional Program	CompDoc/MedVet: Comprehensive doctoral with medical/veterinary
Enrollment Profile	MU: Majority undergraduate
Size and Setting	L4/R: Large four-year, primarily residential
Basic	RU/VH: Research Universities (very high research activity)

The institution has been affiliated with Association of American Universities (AAU) since 1974⁶. Other associations include Association of Public and Land-Grant Universities (APLU), formerly the National Association of State Universities and Land-Grant Colleges (2009), Oak Ridge Associated Universities (ORAU, 2009), the sponsoring institution, and finally, EDUCAUSE (2009).

3.1.2 Faculty Role & Distribution

According to the institution's *Faculty Handbook*, the role of a fulltime faculty member at the "case" university is:

⁶ Source: AAU website, member institutions section accessed on April 1st, 2009

Supporting the mission of the University will depend on the specific missions of their departments or schools. All faculty members, however, have certain common responsibilities: to *commit themselves fully to their teaching obligations, to participate in the development of the programs of their departments and schools and of the University as a whole, to engage in scholarly activities, and, as appropriate, to support the University in its goal to render public service* (Case-University, 2009).

The institution’s document does not define the phrase “scholarly activities”. For the sake of this research activity, *scholarly activities* will refer to research that results in publication. Table (4) illustrates faculty distribution across both the whole university and the school of education.

Table 4. Faculty Distribution at the University & School of Education Levels

Faculty	University		Sch. of Education	
	N	Percent	N	Percent
Total Faculty	4,669	100	132	100
Fulltime Faculty	4,224	83.48	114	86.36
Full Professors	905	21.43	17	14.9
Associate Professors	984	23.3	31	27.2
Assistant Professors	1,745	41.31	28	24.6
Tenure	1,218	28.8	36	31.6
Tenure Stream	554	13.1	19	16.7
Non-Tenure/Non-Tenure Stream	2,452	58	59	51.8

3.1.3 Current Faculty Socialization Programs

The “case” institution offers several programs and services that aim at socializing new and senior faculty members to many aspects of the institution. Following is a summary of offered programs and services from the institution’s website.

The Center for Instructional Development & Distance Education (CIDDE)

The main goal of the CIDDE is to “to help [faculty] enhance teaching and learning here at the University.” The center provides a variety of support services to university faculty. These services range from having “CIDDE instructional designers assist faculty in the design, development, and revision of course activities and materials,” “observing classes and providing feedback on [faculty] teaching”, and “utilizing the Faculty Instructional Development Lab where [faculty] can apply instructional theory, learning theory, information technology, and multimedia technologies to instructional development projects” (CIDDE, 2008a).

New Faculty Orientation (NFO)

The New Faculty Orientation (NFO) program is offered by CIDDE. The NFO is a 1-day program offered to new faculty directed towards offering and identifying key instructional and research resources around the university. The program goals are to help new faculty *identify teaching and research support services, meet key resource people and recognize their functions at the university, and recognize the importance that the university places on the integration of teaching and research.*

The program offers three sessions. The first, 45-minute session, familiarizes new faculty with the issues and concepts of Research Integrity, Institutional Animal Usage, Institutional Review Board, and Conflict of Interest.

The second 2-hour session involves workshops on the different faculty support services offered by the CIDDE and the University Library Systems.

The final session involves a full-hour workshop that introduces the Office of Measurement and Evaluation of Teaching (OMET), Computing Services and Systems Development (CSSD), and the Student Support Services (SSS).

Workshop Series

Four series of workshops are offered to faculty members during each fall and spring term (CIDDE, 2008b). These workshops consist of:

- *Teaching Research Series* aim at helping faculty manage their time by introducing them to current research on teaching and learning within their disciplines.
- *Best Practices Series* aim at exchanging successful experiences of faculty regarding their teaching methods.
- *Professional Development Series* aim at enhancing teaching experiences through discussions on inclusion of new teaching methods, strategies, classroom assessments, and technology.
- *Teaching with Technology Series* aim at expanding faculty members' teaching skills by incorporating new technologies in the classroom. The focus is on how to incorporate emerging technology and surveys technologies effectively into classroom instruction and Web-based instruction and why.

The Summer Instructional Development Institute (SIDI)

The Summer Instructional Development Institute (SIDI, 2008), which is a sub-division of the CIDDE, is an annual program that is carried out throughout the summer term of each year. The Institute provides faculty members with “concentrated instructional development opportunities” on a variety of issues.

The main goal of the program is to *promote effective teaching and use of instructional technology*. Concerning research, the main goal is to *share and discuss strategies for effectively mentoring students in research*. The program is presented in consultation with the Provost's Advisory Council on Instructional Excellence and attempts to assist faculty members with mentoring student research (by defining effective procedures for teaching students in the process of research, faculty expectations for being a research mentor, and students' expectations of their research mentors), course design (developing new or revising existing courses), and with developing courses using Blackboard⁷.

The Office of Research (OFFRES)

The Office of Research (OFFRES, 2009) sponsors various seminars, teleconferences, video workshops, and web/audio workshops for professional development in the field of research administration. OFFRES services provide information about research, pre-award, and contract research administration. The information is available for faculty members through the OFFRES website. Additionally, faculty members can request copies of workshops on different forms of media such as CD-ROM or DVD.

The Office of Academic Career Development (OACD)

The Office of Academic Career Development (OACD, 2009) is another party involved with faculty research socialization. However, OACD is designed almost exclusively for faculty members in the health sciences discipline as the program is *uniquely charged with a mission that encompasses not only those professionals who learn and train within the health sciences, but also includes those scientists and clinicians whose life's work continues within the university's academic health science community*. It also is *dedicated to providing professionals in the schools*

⁷ A web-based system that facilitates the development of course web pages

of the health sciences (the Schools of Dental Medicine, Medicine, Nursing, Pharmacy, Public Health, Health and Rehabilitation Sciences) with the professional tools, resources, and support they need to achieve their full potential as leaders in biomedical research, education, and clinical practice.

Office of Research, Health Sciences (OORHS)

The Office of Research, Health Sciences (OORHS, 2009) is another research service program that exclusively targets faculty members in health related departments at the institution. OORHS offers support services, including assistance in developing competitive grant applications, for investigators throughout the Graduate School of Public Health, the School of Dental Medicine, the School of Health and Rehabilitation Sciences, the School of Medicine, the School of Nursing, and the School of Pharmacy. It also aims to foster both the emerging and the established research enterprises within and across the six schools of the Health Sciences at the University.

Research Conduct and Compliance Office

The Research Conduct and Compliance Office's (RCCO, 2009) mission is to provide education to individuals involved in clinical research at the University ... and to strive for research excellence and integrity throughout the University. The RCCO offers web-based research training modules for research professionals, faculty, and others at the university. The training includes Federal regulations, institutional policies, protection of human subjects, and good clinical practices.

Survival Skills and Ethics

The Survival Skills and Ethics Program (SSEP, 2009) mission is to provide training and resources to assist professionals in the development of the "survival skills" needed for success in

research and related careers. The SSEP offers several series of workshops aimed at providing training in professional development and ethics. Series geared towards faculty include:

- *Saturday Series*; workshops covering several issues that relate to writing research articles, job hunting, and grant writing and are geared towards junior faculty in addition to graduate & professional students, postdoctoral fellows, and residents.
- *Grants Over Lunch Series*; brownbag session providing information on obtaining funding from government and private agencies and are geared towards research-grant applicants.
- *Annual Trainer-of-Trainers Conference; Teaching Survival Skills and Ethics*. The conference programs aims at guiding faculty, administrators, and staff to *implement or improve instruction on professional development and ethics* with around half of the participants coming from biomedical sciences.
- Finally, *Moving Towards Tenure Series*; discussions designed *specifically* for junior faculty at the University with the objective of discussing ideas regarding *how best to successfully negotiate the path to tenure*.

3.2 RESEARCH DESIGN

The study utilizes Weidman's (2006) Socialization in Higher Education framework with some adaptation; as the original framework was designed to address student socialization. Building on the framework's higher education foundation, the study was designed to adjust for both similarities and differences between faculty and students.

Weidman's (2006) framework deals with the socialization as a three-stage process; inputs, environment, and outcomes (I-E-O). This study utilized the I-E-O structure as illustrated in table (5).

First, the anticipatory phase refers to previous interactions and educational preparation, which mainly reflects graduate experiences. This involves examining the type of higher education institution where the highest degree was attained, the type of doctoral degree, quantity and type of publications during graduate school, and the expectations of the research-related role(s) of the job based on graduate preparation.

Table 5. Study Structure

Phase	Corresponding Component(s)
Anticipatory	Highest degree, institution type, publications, expectations
Environment	Publications, memberships, research awareness, interactions within & outside institution
Outcomes	Research output, time allocation, institutional commitment

The second phase, environment, refers mainly to interactions occurring within the early-career stage. This phase involves examining early-career publications, membership(s) with and contribution level(s) to the different professional [disciplinary] associations, and acquaintance with recent published research in the discipline. The other part of this phase deals with the different interactions in the work environment. This involves examining the interactions *within* the institution which includes communication with colleagues and senior faculty and interactions with the different institutional research policies. It also involves examining the interactions *outside* the institution which includes communication with disciplinary association(s) in the form of presenting in conferences and workshops in addition to interactions with practitioners and professionals outside the institutional environment. The focus in this phase is on examining

experiences that reflect the level of interaction with the different research-related roles of the profession.

Finally, the outcomes phase reflects current experiences. The early-career phase, according to the literature, is where most socialization interactions mainly occur. Therefore, this phase involves looking at research output levels, time allocation among the different position roles, and the level of institutional commitment after being exposed to the different socialization interactions.

The study examined faculty perceptions on personal and environmental factors that contribute to their research socialization experiences at a large research university. The study utilized a descriptive self-report instrument to collect participant data, which was achieved with an online questionnaire.

A quantitative descriptive approach was utilized to investigate faculty perceptions regarding their research socialization experiences at a large public research university. The study attempted to identify the key elements related to faculty perceptions of previously identified independent variables and their relationship to the dependent variable.

3.2.1 Sample

The literature does not specifically identify an appropriate number of participants to represent the population. However, Gay and Airasian (2003) mentioned that “in some rare cases, when the population is small, the entire group may make up the sample” (p. 283). In this case, the targeted population does not involve a large number of individuals; therefore, the sample size is equal to the size of the targeted population.

Thus the study aimed at assessing the perceptions of the entire population (sample) of fulltime faculty members (full, associate, and assistant professors) in the School of Education at the “case” university (n=76). Selecting the entire population allows for more generalization, to some degree, to school of education faculty at other research universities.

3.2.2 Survey Instrument

The questionnaire gathered quantitative data on faculty perceptions of personal and environmental factors measured on a Likert-scale. The questionnaire was sent to all fulltime faculty members in the School of Education holding doctorate degrees.

The questionnaire was designed to include items based partially on Weidman’s Socialization in Higher Education framework (2006) and items from the 2004 NSOPF questionnaire.

3.2.3 “NSOPF” Survey

The instrument was designed by the National Center for Education Statistics (NCES) and is considered “the most comprehensive study of faculty in postsecondary educational institutions ever undertaken” (NCES, 2009).

The study included a sample of 1,080 public and private not-for-profit degree granting postsecondary institutions and a sample of 35,000 faculty and instructional staff. The weighted response rates for the two surveys were 86 and 76 percent, respectively.

The 2004 NSOPF gathered information regarding “backgrounds, responsibilities, workloads, salaries, benefits, attitudes, and future plans of both full- and part-time faculty. In

addition, information was gathered from institutional and department-level respondents on such issues as faculty composition, turnover, recruitment, retention, and tenure policies” (NCES, 2009).

The study utilized a “two-stage stratified, clustered probability design was used to select the various NSOPF samples” as they “were stratified based on the highest degrees they offered and the amount of federal research dollars they received. These strata distinguished public and private institutions, as well as several types of institutions based on the Carnegie Foundation's classification system” (NCES, 2009).

Study participants included “all those who were designated as faculty, whether or not their responsibilities included instruction, and other (non-faculty) personnel with instructional responsibilities” (NCES, 2009).

The instrument gathered “sociodemographic characteristics; academic and professional background; field of instruction; employment history; current employment status including rank and tenure; workload; courses taught; publications; job satisfaction and attitudes; career and retirement plans; benefits and compensation” (NCES, 2009).

Two factors were considered for utilizing this instrument. First, the instrument was created by a team of experts in the field and is more likely to have been revised and perfected.

The NCES statistical standard 1-1-1-2 ensures that every study includes:

A discussion of the sample design that describes how it will yield the data required to meet the objectives of the survey. The discussion must include the following: identification of the sampling frame and the adequacy of the frame ... sampling strata; power analyses to determine sample sizes and effective sample size for key variables by reporting domains, sample size by stratum; the known probability of selection; expected yield by stratum; estimated efficiency of sample design; weighting plan; variance estimation techniques appropriate to the survey design; and expected precision of estimates for key variables.(NCES, 2002).

Second, using such an instrument would eliminate the need for conducting a pilot study. Hence, the researcher assumed that instrument validity and reliability were suitable.

3.2.4 The FRS Instrument

The *Faculty Research Socialization* instrument (Appendix 1) was designed to collect quantifiable data for the present study. It was guided by Weidman's Socialization in Higher Education framework (2006) and was structured following the sequence of the framework's organization. The questionnaire also included selected items from the 2004 NSOPF survey. Items were selected based on relevancy to the research issue as items relating to personal, compensation, and instructional inquiries were disregarded.

Participants were requested to select the appropriate level of agreement to each question measured on a Likert-scale. The instrument gathered data in seven sections:

1. The first section included three questions ensuring respondents' eligibility to participate in the questionnaire. Participants were required to verify that they:
 - a. Are over 18 years of age (else will be redirected to final page),
 - b. Have a doctoral degree by selecting the type of degree, and
 - c. Have fulltime faculty status (else will be redirected to final page).
2. The second section included questions regarding participants' research activities during their *graduate*, *early career*, and *currently*; including self-reports of number of:
 - a. Articles published in refereed professional journals,
 - b. Articles published in non-refereed journals,
 - c. Published reviews of books, articles, and chapters,
 - d. Textbooks, monographs, and any other types of books,
 - e. Presentations at conferences and workshops, etc., and

- f. Membership(s) in discipline-related associations/societies
3. The third section included questions regarding participants' demographic information. This included items regarding:
- a. Gender,
 - b. Institution and year of highest degree,
 - c. Year started at the current institution,
 - d. Tenure status.
4. The fourth section included questions regarding participants' graduate and current perceptions on :
- a. The different research-related roles, duties, and responsibilities of the job,
 - b. Expected quality of research,
 - c. Expected quantity of research,
 - d. Research-related tenure requirements,
 - e. Level of communication among colleagues within the institution,
 - f. Level of communication among colleagues outside the institution,
 - g. Time allocation for research-role components, and
 - h. Senior faculty contribution(s).
5. The fifth section included questions regarding participants' professional information. This included items regarding:
- a. Year started at the institution,
 - b. Personal academic preference(s), and
 - c. Academic rank.
6. The sixth section included questions seeking participants' perceptions on the currently available research socialization programs at the institution. This included participants' self-reports of their perception of the:

- a. Number of available programs,
 - b. Effectiveness of available programs,
 - c. Range of research issues covered by available programs,
 - d. Range of research approaches covered by available programs,
 - e. Convenience/accessibility of available programs':
 1. Times
 2. Locations
7. The seventh and final section asked participants to self-report their perceptions on institutional commitment and any additional information they feel did or did not facilitate their research socialization experience(s) at the institution.

In an attempt to lessen any discomfort participants may experience with the length and intensity of the main questions in the instrument, demographic questions were distributed throughout the instrument rather than being included in a single section. Table (6) links research questions, questionnaire items, and study variables.

Table 6. Research Questions, Corresponding Questionnaire Items, & Variables

<i>Research Question</i>		<i>Questionnaire Item</i>		<i>Variable</i>
1.a.	Available Socialization Programs	2	Doctoral Degree Type	Independent
		7	Tenure Status	
		13	Institutional Programs	Dependent
1.b.	Socialization Experiences	8	Socialization Environment	Dependent
		9	Socialization Outcomes	
1.c.	Personal Variables	2	Doctoral Degree Type	Independent
		6	Institution Type	
		9	Socialization Outcomes	Dependent
		11	Personal Academic Preferences	Independent
1.d.	Work-environment Variables	7	Tenure Status	Independent
		9	Socialization Outcomes	Dependent
		10	Year Started at Institution	Independent
		12	Academic Rank	
		13	Institutional Programs	Dependent
1.e.	Research Activities	4	Graduate, Early-career, and Current Publication(s)	Dependent

3.2.4.1 Validity and Reliability The instrument was carefully designed to achieve high reliability and validity. During the different stages of instrument design, several steps were taken to ensure that the goal was achieved. The design procedure involved three major steps;

The first step taken was to ensure a careful review of the literature in search for previously utilized instruments that would enhance the study’s validity. A plethora of studies were reviewed including several instruments.

Though the literature included several of valid and reliable instruments, the researcher found none that would capture the essence of the study and its framework. The majority of valid instruments were either designed to collect a wide range of data or were tailored and case-specific.

Many instruments were designed to collect national data. This kind of instrument would take into consideration several types of institutions, campuses, disciplines, and regional and/or state specific attributes. The other types of instruments were case-specific and tailored to fit a precise institution and/or research problem.

This was the first predicament that faced the researcher in selecting an appropriate previously designed instrument. It was also the main reason behind the initial thought of designing an instrument that would incorporate both the framework and institutional attributes.

The second step was selecting several items from the 2004 NSOPF survey to be included in the data collection instrument. The rationale was that the large scale of such a national-level study would implicitly denote being constantly reviewed by major authorities in the different fields relating to higher education and research methodology.

Though the NSOPF was a national-scale survey, selected items pertained to collecting data that were attuned to the study's goal as illustrated in table (7). Additionally, table (8) illustrates the study variables and corresponding questionnaire items.

Table 7. Items Selected from the 2004 NSOPF Instrument

n	NSOPF	Proposed	Label
1.	3	3	Faculty Status
2.	4	11	Principal Activity
3.	5	3	Full-time or Part-time
4.	9	10	Year Started at Institution
5.	10	12	Academic Rank
6.	12	7	Tenure Status
7.	17A1	2	Highest Degree
8.	17A4N	6	Institution Highest Degree Awarded
9.	52A	4	Scholarly Activities (career)
10.	52B	4	Scholarly Activities (past 2 years)

Table 8. Research Questions & Corresponding Questionnaire Items

Research Question		Questionnaire Item	
1.a.	Available Socialization Programs	2	Doctoral Degree Type
		7	Tenure Status
		13	Institutional Programs
1.b.	Socialization Experiences	8	Socialization Environment
		9	Socialization Outcomes
1.c.	Personal Variables	2	Doctoral Degree Type
		6	Institution Type
		9	Socialization Outcomes
		11	Personal Academic Preferences
1.d.	Work-environment Variables	7	Tenure Status
		9	Socialization Outcomes
		10	Year Started at Institution
		12	Academic Rank
		13	Institutional Programs
1.e.	Research Activities	4	Graduate, Early-career, and Current Publication(s)

3.2.4.2 Pilot Testing The instrument underwent pilot testing study twice. The goal of the pilot testing was to ensure the overall clarity of the questions in addition to verifying the required time identified by the researcher to complete the instrument. In both occurrences, four senior faculty members from the case institution including a professor emeritus reviewed the instrument. It was essential to the researcher that testing would be conducted in the same environment as the participants would experience the instrument.

Therefore, an electronic mail that included a web-link to the instrument was sent to the individuals testing the instrument. Based on the recommendation of the testers, modifications were made to the instrument. The modifications included corrections to several misspelled words and minor revisions of the scales used to collect participants' publication rates across several career stages.

A second test was also conducted to ensure the instrument was correctly modified. Similar to the first test, an electronic mail was sent to the testers including a web-link to the instrument. Upon approval of the testers, the instrument was ready to be disseminated to participants.

3.2.5 Data Collection Procedures

Data collection continued for a period of eight weeks. Individual electronic mail addresses were acquired from the school's webpage. Being displayed on the webpage categorized the information as being available to the public, thus required no written or other type of institutional permission.

After collecting electronic mail addresses from the case institution's School of Education webpage, an initial electronic mail was sent out on Monday January 11th of 2010 to fulltime

faculty members. The email introduced the researcher and informed potential participants of the subject and objectives of the study. The introductory electronic mail also ensured participants complete confidentiality and anonymity as no identifiers were collected. The notification also informed the recipients that they would receive further communication within the following week that would include web-link to the survey instrument.

The following week, an electronic mail was sent to the whole body of fulltime faculty members in the School of Education at the case institution on Monday January 18th 2010. The electronic mail reminded recipients of both the subject and objectives of the study and reassured total and complete anonymity and confidentiality. Finally, recipients were provided a web-link that would direct them to the online survey instrument.

After two weeks, an electronic mail was sent to all the previous recipients on Monday February 1st 2010. Similar to the previous communications, the recipients were reminded of the study. The researcher expressed gratitude to those who have already completed the instrument and requested those who had not, to kindly follow the web-link and complete the instrument. By the time this reminder was sent out, 42 faculty members had initially responded yielding 24 complete responses.

Three weeks later, a second and final electronic mail reminder was sent to the faculty members on Friday February 26th 2010. The researcher selected the end of the work week to send the reminder hoping to induce more responses during the weekend. Once again, recipients were reminded of the study and reassured anonymity. Recipients were also informed that this would be the final reminder and that data collection would conclude by the following week. By the time this reminder was sent out, 46 faculty members had responded yielding 26 complete responses.

Finally, data collection ceased on Sunday March 7th 2010. The survey was closed by the researcher and the web-link informed potential participants that the study was closed.

3.2.6 Response Rate

The final response to the study included 29 complete responses⁸ forming 38.16% of the targeted 76 fulltime faculty members sought.

⁸ For the exception of 1 respondent who did not provide responses on the two questions asking for dates.

4.0 RESULTS

This chapter describes study findings concerning faculty members' research socialization at a large research university. Data were collected through the Faculty Research Socialization (FRS) survey using an online questionnaire. The instrument mostly collected quantitative data, which were analyzed utilizing the *Statistical Package for the Social Sciences* (SPSS) computer software. Qualitative data were grouped into themes and dimensions for further analysis.

4.1 DATA COLLECTION

Data was collected utilizing the FRS quantitative survey: an online questionnaire that was created by the researcher. Questions were formed based on the study's framework, Weidman's *Socialization in Higher Education* (2006) in addition to incorporating several items from the 2004 NSOPF.

4.1.1 Demographic Profiles

The population (sample)⁹ represented in this study was aimed at fulltime faculty members at the School of Education in a large research university. While originally seeking responses from the whole body of fulltime faculty (N=76), responses were initially collected from 72.36% (n=55).

⁹ See p.59

However, the response rate was only 38.16% (n=29) as they have completed the entire data collection instrument. Twenty-eight participants provided complete data by answering the whole instrument; the exception was one respondent who did not complete both questions related to specifying dates of year doctoral degree was received and year started at the case institution. Additionally, the number of respondents decreased by two from (n=29) to (n=27) as two respondents did not specify their academic rank within the institution.

Respondents were 1.23 times more likely to be male (n=16) than female (n=13) as they represented 55.2% and 44.8% respectively. Tables (9) and (10) summarize the basic demographic profiles of the study participants regarding gender, academic rank, tenure status, and academic interests.

Table 9. Gender, Tenure Status, & Rank Crosstabulation

Rank		Tenure Status							
		Tenured		ON Tenure Track		NOT on Tenure Track		Total	
		n	percent	n	percent	n	percent	n	percent
Professor	Female	1	20	0	-	0	-	1	16.7
	Male	4	80	0	-	1	100	5	83.3
	Total	5	100	0	-	1	100	6	22.2
Associate Professor	Female	3	42.9	1	50	2	50	6	46.2
	Male	4	57.1	1	50	2	50	7	53.8
	Total	7	100	2	100	4	100	13	48.1
Assistant Professor	Female	0	-	2	33.3	2	100	4	50
	Male	0	-	4	66.7	0	-	4	50
	Total	0	-	6	100	2	100	8	29.6
TOTAL		12	-	8	-	7	-	27	100

Table 10. Rank, Tenure Status, & Academic Interests Cross-tabulation

Rank			Academic Interests					Total	
			Primarily in <i>Teaching</i>	Primarily in <i>Research</i>	<i>Equally</i>	Leaning toward <i>Teaching</i>	Leaning toward <i>Research</i>		
Professor	Tenured	Count	-	1	2	-	2	5	
		Percent	-	20	40	-	40	100	
		Percent/Total	-	16.7	33.3	-	33.3	83.3	
	Not on Tenure Track	Count	-	-	1	-	-	1	
		Percent	-	-	100	-	-	100	
		Percent/Total	-	-	16.7	-	-	16.7	
	Total	Count	-	1	3	-	2	6	
	Associate Professor	Tenured	Count	4	1	1	1	-	7
			Percent	57.1	14.3	14.3	14.3	-	100
Percent/Total			30.8	7.7	7.7	7.7	-	53.8	
On Tenure Track		Count	-	-	2	-	-	2	
		Percent	-	-	100	-	-	100	
		Percent/Total	-	-	15.4	-	-	15.4	
Not on Tenure Track		Count	1	1	-	1	1	4	
		Percent	25	25	-	25	25	100	
		Percent/Total	7.7	7.7	-	7.7	7.7	30.8	
Total		Count	5	2	3	2	1	13	
Assistant Professor		On Tenure Track	Count	-	-	1	-	5	6
			Percent	-	-	16.7	-	83.3	100
	Percent/Total		-	-	12.5	-	62.5	75	
	Not on Tenure Track	Count	1	-	1	-	-	2	
		Percent	50	-	50	-	-	100	
		Percent/Total	12.5	-	12.5	-	-	25	
	Total	Count	1	-	2	-	5	8	

4.1.1.1 Academic Rank One fifth of respondents were *professors* (n=6). Almost half of the respondents were *associate professors* (n=13). Finally, almost one-third of respondents were *assistant professors* (n=8) as illustrated in figure (3) in addition to a comparison with the school data.

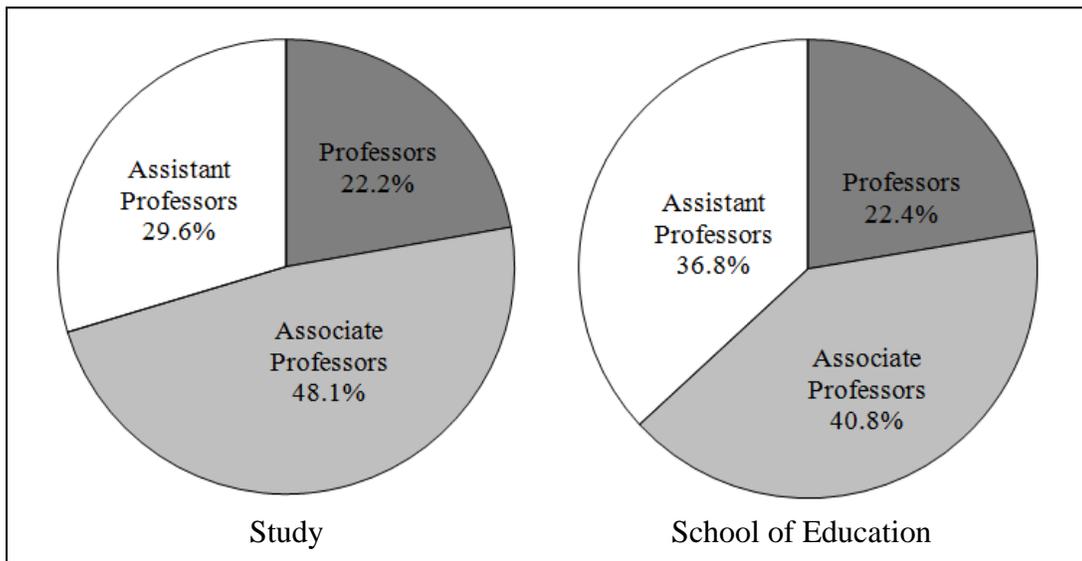


Figure 3. Respondents by Rank

Among *professors*, male faculty were five times as much as female faculty. However, figures were closer among *Associate Professors* as the number of males was only 1.2 times that of females. Finally, male and female faculty were equally represented in the *Assistant Professors* group as they both were represented with a 1:1 ratio of the total group as illustrated in figure (4).

Among *professors*, one sixth had interests primarily lying in research (n=1). Half were equally interested in both teaching and research (n=3). Finally, one third were interested in both teaching and research but had interests leaning towards research (n=2). Among *associate professors*, the largest group was primarily interested in teaching (n=5). The second largest group had equal interests in both teaching and research (n=3). Two equal groups (n=2) had

respondents who were interested primarily in research and in both but leaning towards teaching. The final individual had interests in both teaching and research but leaning towards research.

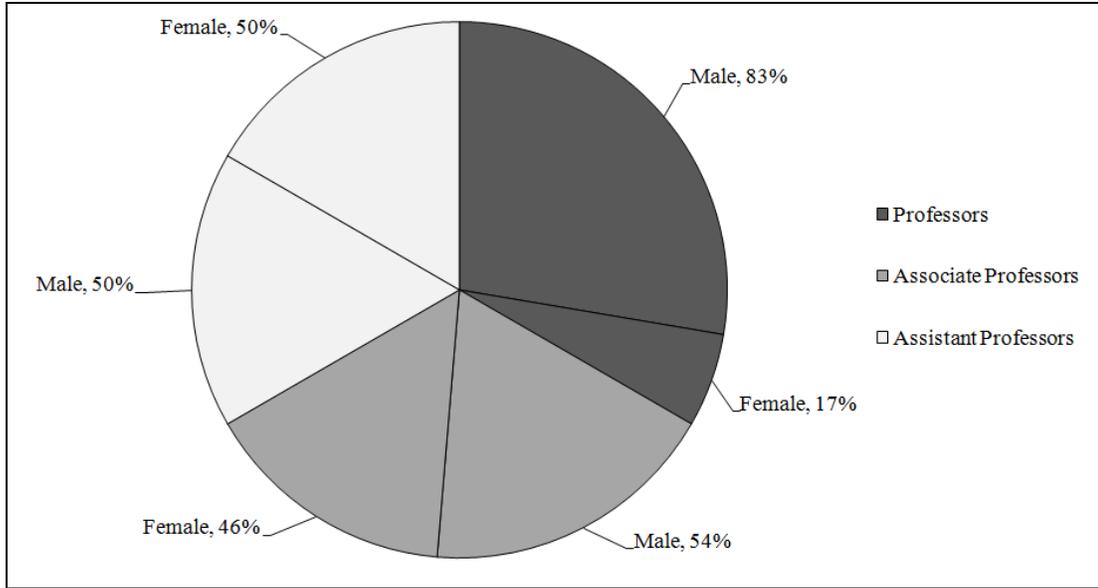


Figure 4. Respondents by Rank & Gender

Among *assistant professors*, the largest group was interested in both but leaning towards research (n=5). The second largest group had equal interests in both teaching and research (n=2). The final individual had interests in primarily in teaching. Figure (5) illustrates the findings.

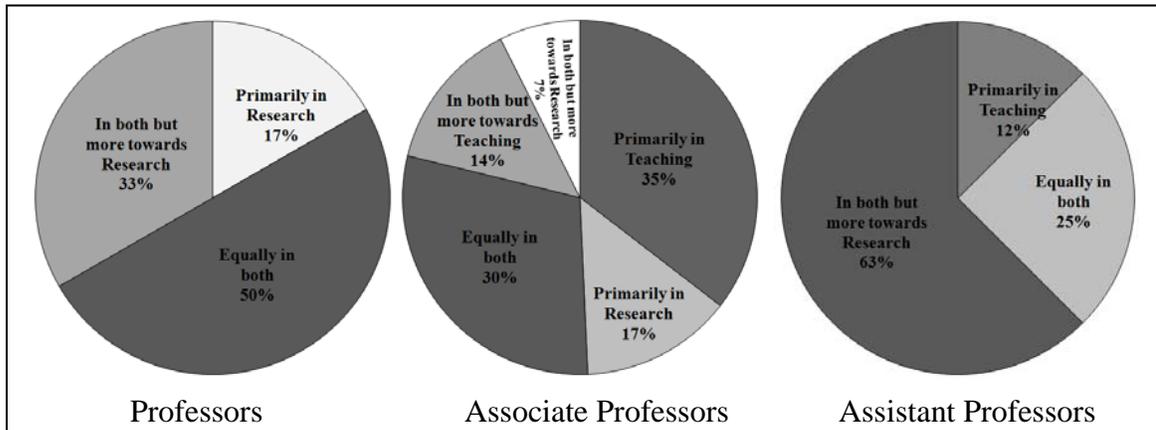


Figure 5. Respondents by Rank & Academic Interest

Professors were five times more likely to be tenured than not with only a single case of being non tenured and not on tenure track. Meanwhile, slightly more than half of the *associate professors* were tenured (54%) while non-tenured were twice as much more likely to be not on tenure track (31%) as those who were (15%). On the other hand, none of the *assistant professors* were tenured, while they were three times more likely to be on tenure track (75%) than those who were not (25%). Figure (6) illustrates the findings.

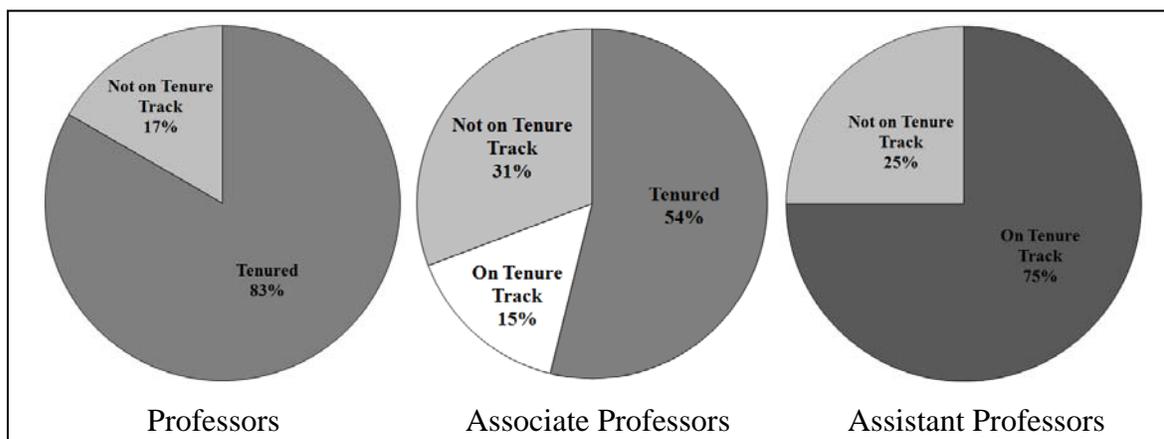


Figure 6. Respondents by Rank & Tenure Status

Finally¹⁰, regarding years served at the institution, *professors* (n=5) had the highest mean among the groups with 20.4 years \pm 15.13, while *associate professors* (n=13) had a mean of 18 years \pm 14.27, and, *assistant professors* (n=8) had a mean of 4.25 years \pm 3.11. Figure (7) illustrates the data for individual responses.

¹⁰ History with the institution involved only 26 respondents.

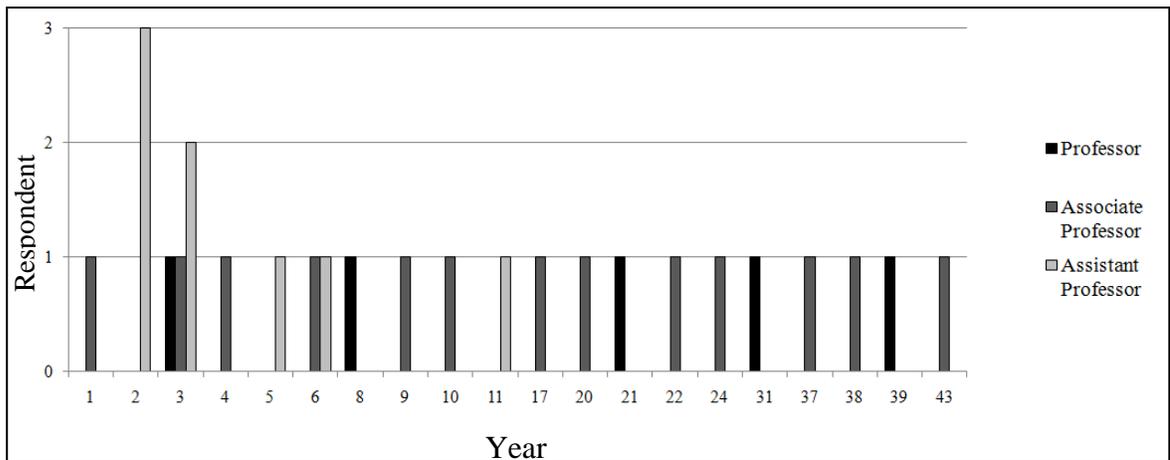


Figure 7. Respondents by Rank & Years at the Institution

4.1.1.2 Tenure Status Respondents were almost 1.5 times more likely to be non-tenured (n=17) than tenured (n=12). Of those not tenured, respondents are 1.13 times more likely to be not on tenure track (n=9) than those who are (n=8), as illustrated in figure (8).

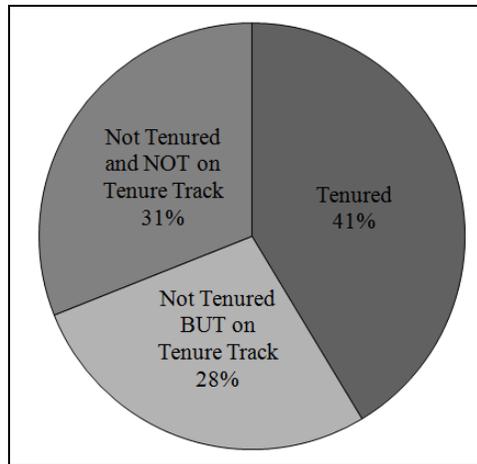


Figure 8. Respondents by Tenure Status

Tenured respondents have a 2:1 ratio to be primarily interested in teaching than research. In contrast, tenured respondents have a 2:1 ratio of being interested in both but leaning toward research more than leaning towards teaching. The remaining quarter of tenured respondents have interests that lie equally in both teaching and research.

Of those non tenured but on tenure track, respondents were 1.5 times more likely to be interested in both teaching and research but lean more toward research than have interests that lie equally in both teaching and research.

Finally, respondents who are not on tenure track have a 3:1 ratio of being interested in teaching over research. They also have a 2:1 ratio of being interested in both but leaning toward teaching rather than leaning toward research. The remaining fifth are interested in both teaching and research equally as illustrated in figure (9).

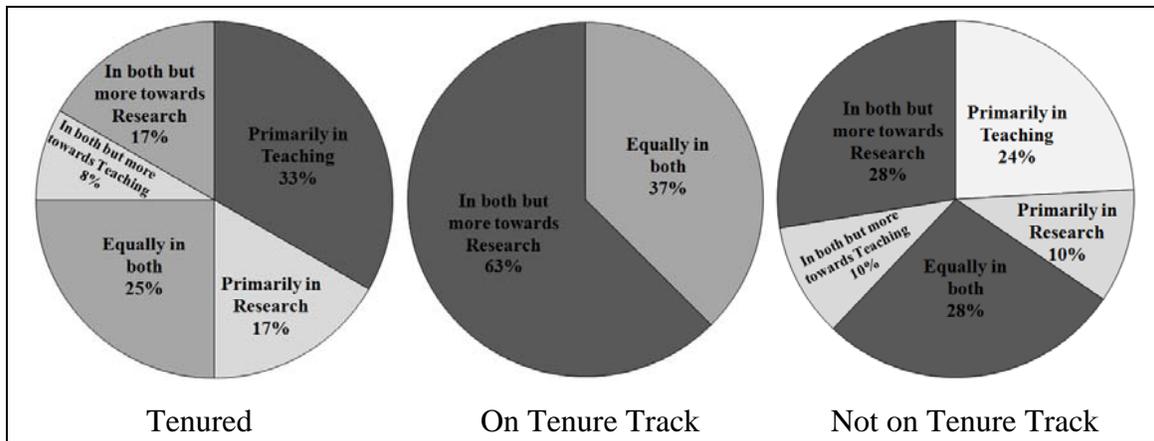


Figure 9. Respondents by Tenure & Academic Interest

Male respondents (66%) had a 2:1 ratio of being tenured when compared to female respondents. Among those non tenured, male respondents were 1.6 times more likely to be on tenure track (63%) while female respondents (66%) had a 2:1 ratio of not being on tenure track when compared to male respondents as illustrated in figure (10).

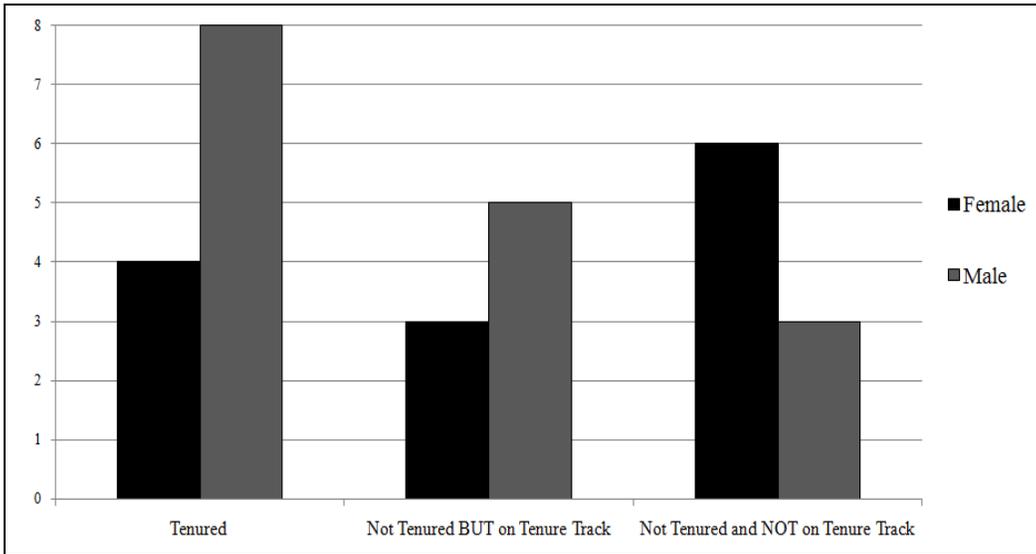


Figure 10. Respondents by Tenure Status & Gender

The mean number of years for tenured respondents (n=11) is 25.18 years \pm 13.59 while it is only 3.62 years \pm 1.77 for those on tenure track (n=8) and 9.11 years \pm 7.29 for those not on tenure track (n=9)¹¹. Figure (11) illustrates respondents' years at the institution by tenure status.

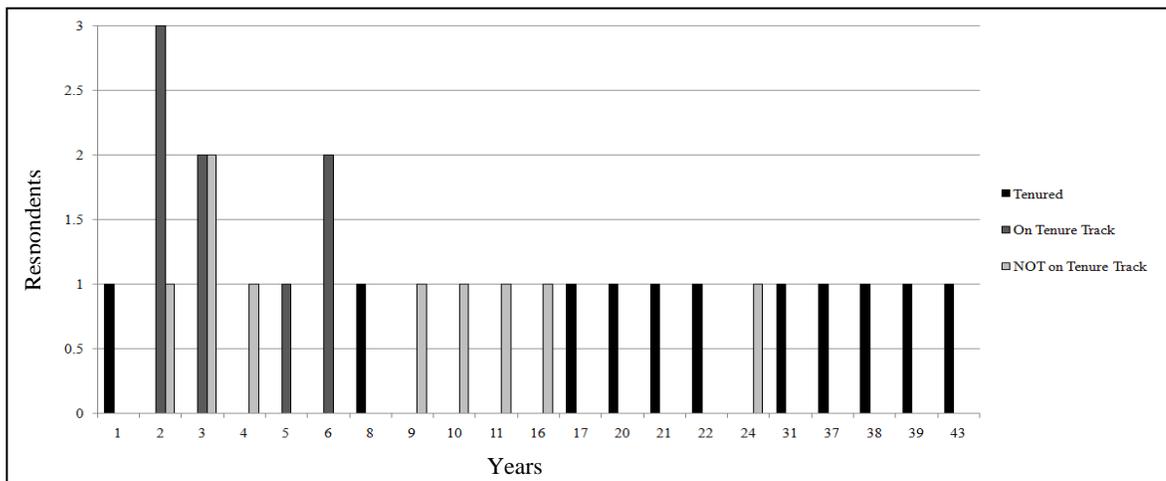


Figure 11. Respondents by Tenure & Years at the Institution

¹¹ Number of total respondents compared is 28 as a single respondent did not provide the number of years at the institution

4.1.1.3 Academic Interests Respondents were 2.33 times more likely to be primarily interested in teaching than research. On the other hand, respondents were 2.66 times more likely to be interested in both but leaning toward research than leaning toward teaching. The two largest groups involved respondents equally interested in both teaching and research and those interested in both but leaning towards research. On the other hand, respondents interested primarily in research formed the smallest group. Figure (12) illustrates responses by academic interest:

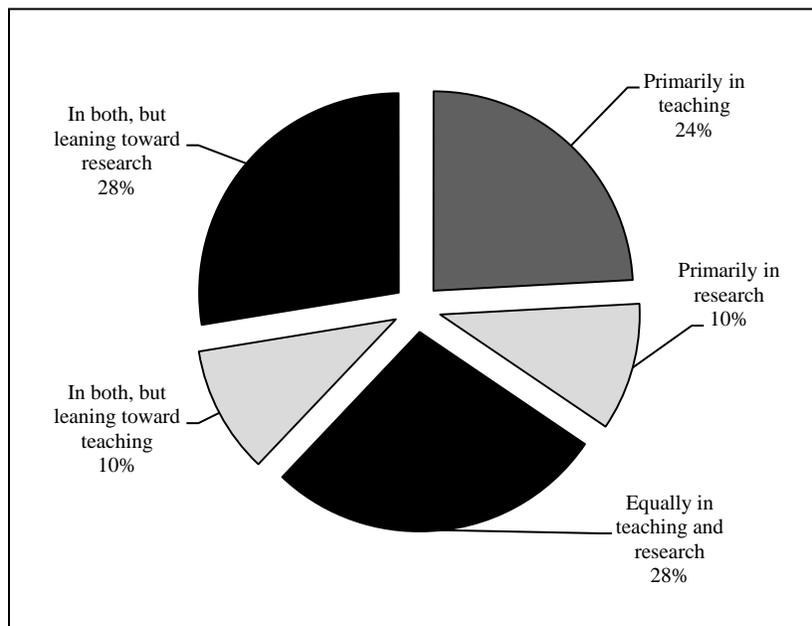


Figure 12. Academic Interests

Female respondents had a 3:4 ratio to males being primarily interested in teaching while they were twice as likely as males to be primarily interested in research. Additionally, female respondents had a ratio of 5:3 to males being equally interested in both teaching and research while they were twice as likely to be interested in both but leaning toward teaching. Finally, male respondents had a 7:1 ratio to females for being more likely to be interested in both but leaning toward research as illustrated in figure (13).

Finally, respondents primarily interested in teaching had the largest number of years at the institution (25%); with a mean of 21.86 years \pm 13.85. However, the largest majority of

respondents were those equally interested in teaching and research (29%) with a mean of 12.12 years \pm 12.89. Respondents primarily interested in research (11%) had a mean of 6 years \pm 4.36. on the other hand; respondents interested in both but leaning toward teaching (11%) had a mean of 16.67 years \pm 18.90 and those leaning toward research (25%) had a mean of 10 years \pm 12.21.

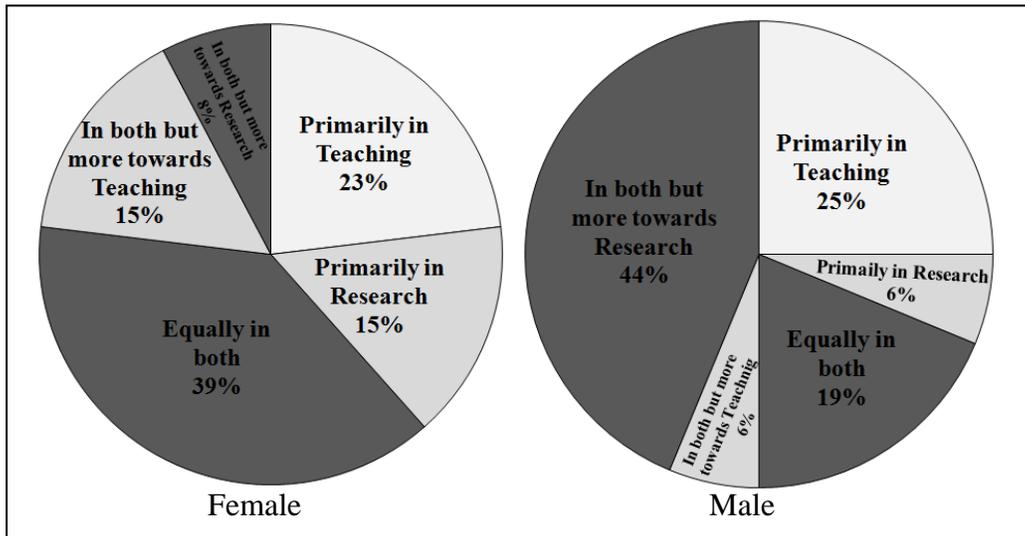


Figure 13. Respondents by Gender & Academic Interest

4.1.1.4 Years with Institution As for number of years with the case institution¹², participants' range was vast (R=42). Participants had a minimum of working at the case institution for a single year and a maximum of 43 years. The mean years of working at the case institution was 13.86 years and there were two modes of two (n=4) and three (n=4) years as shown in figure (14).

¹² Both variables pertaining to specifying years have an N=28 as a single participant responded incorrectly on the data collection instrument

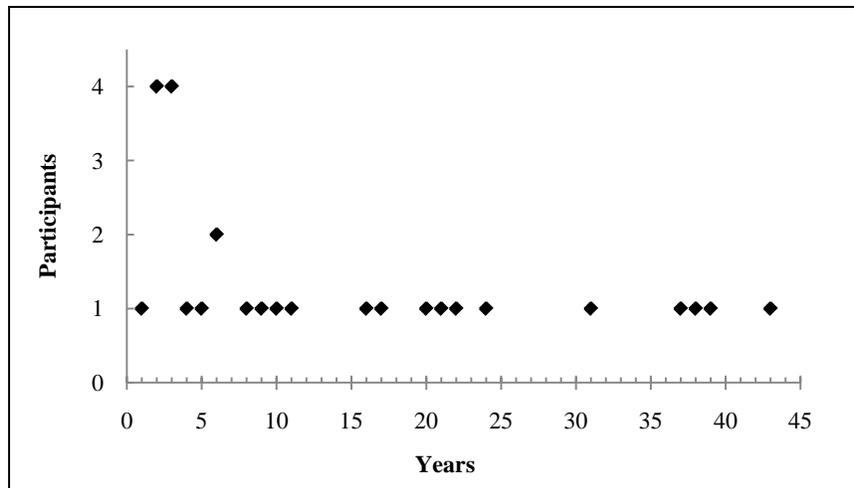


Figure 14. Years with the Institution

The mean for number of years served at the institution varies between both gender groups. Among male respondents (n=15), the mean was 17.87 ± 16.02 years while it was only 9.23 ± 7.26 years among female respondents (n=13).

4.1.1.5 Research Activities Data were gathered regarding participants academic activities during their graduate, early career, and current years¹³. Figure (15) illustrates respondents' the mean scores for academic activities during these stages.

With the exception of two categories, academic activities rose as participants matriculated from graduate to early career and finally to their current years. The exceptions involved an increment in academic activities during participants' early career years. Afterwards, activities, though still being more than during graduate years, declined during participants' current years. Further detailed examination of the activities is provided.

¹³ Participants were requested to report activities during the last 2 years under "Current".

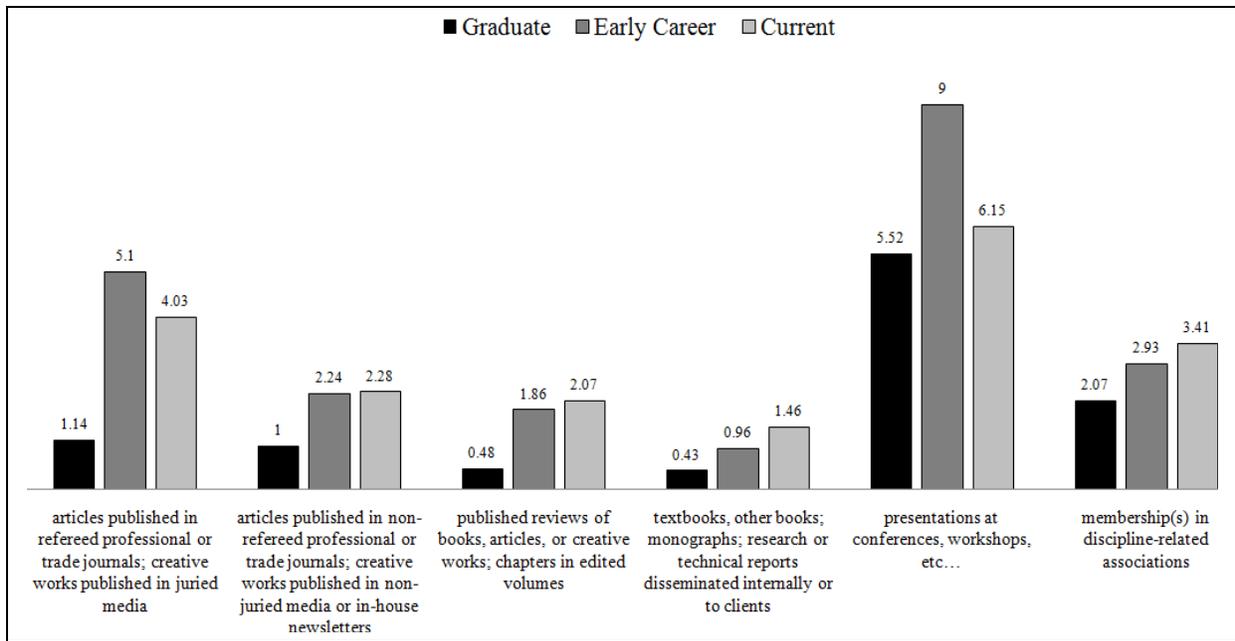


Figure 15. Research Activities (means)

(a) Graduate Activities

Examination of data regarding participants' graduate articles *published in refereed professional or trade journals and creative works published in juried media* yields a mean score of 1.14 (± 1.382) and a total of 33 publications. Additionally, nearly half of the participants did not have any publications. Furthermore, about one fifth had published a single article and almost a quarter had published two. Figure (16) illustrates the findings.

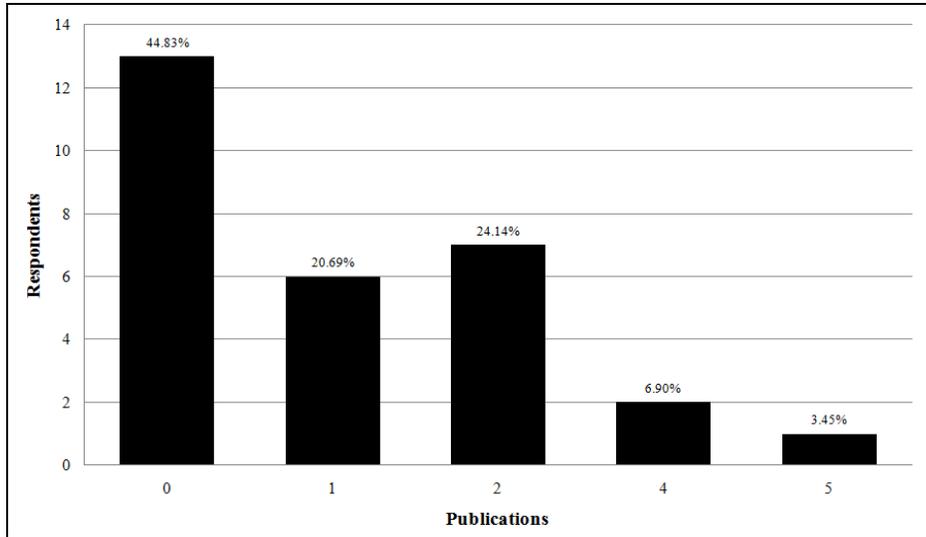


Figure 16. Articles Published in Refereed Professional or Trade Journals; Creative Works Published in Juried Media

Graduate articles published in non-refereed professional or trade journals and creative works published in non-juried media or in-house newsletters had a mean score of 1.00 (± 2.268) and a total of 29 publications. Additionally, more than two thirds of the participants did not have any published. Figure (17) illustrates the findings.

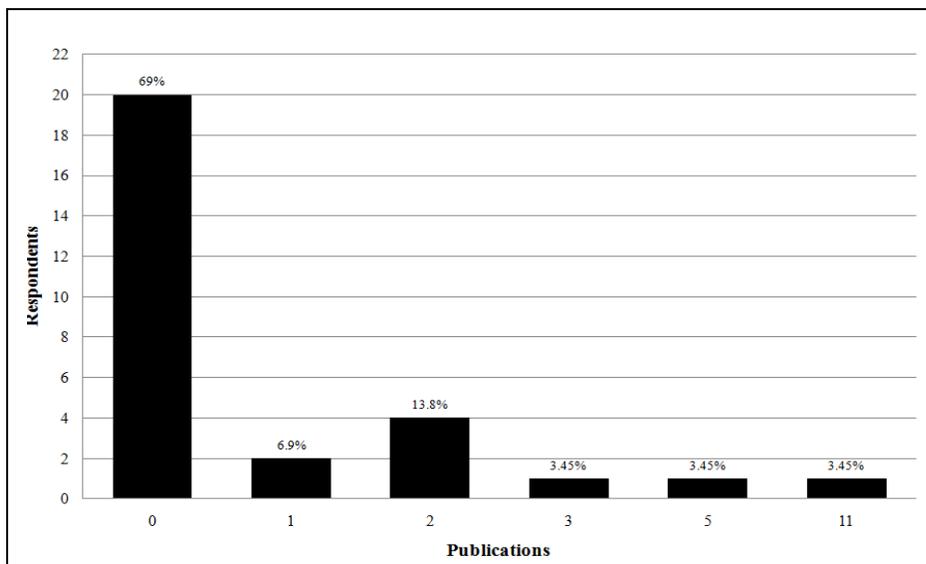


Figure 17. Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters

Graduate *published reviews of books, articles, or creative works and chapters in edited volumes*; had a mean of .48 (\pm .688) and a total of 14 publications. Additionally, slightly less than two thirds of the participants did not have any published. Furthermore, slightly more than a quarter had published a single article and one tenth had published two. Figure (18) illustrates the findings.

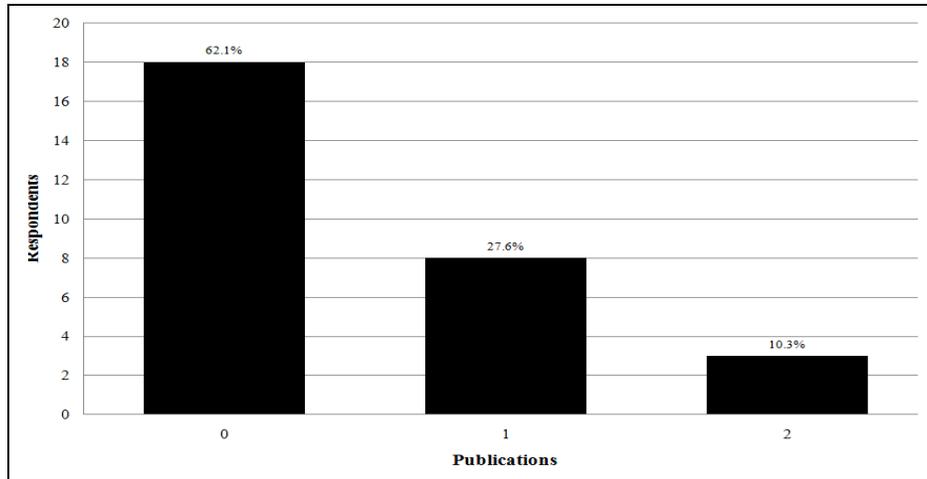


Figure 18. Published reviews of books, articles, or creative works; chapters in edited volumes

Graduate *textbooks and other books, monographs, research or technical reports disseminated internally or to clients*¹⁴ had a mean of .43 (\pm .690) and a total of 12 publications. Additionally, slightly more than two thirds of the participants did not have any published while slightly more than a fifth had published a single article. Figure (19) illustrates the findings.

¹⁴ Data for this category are missing one respondent (n=28)

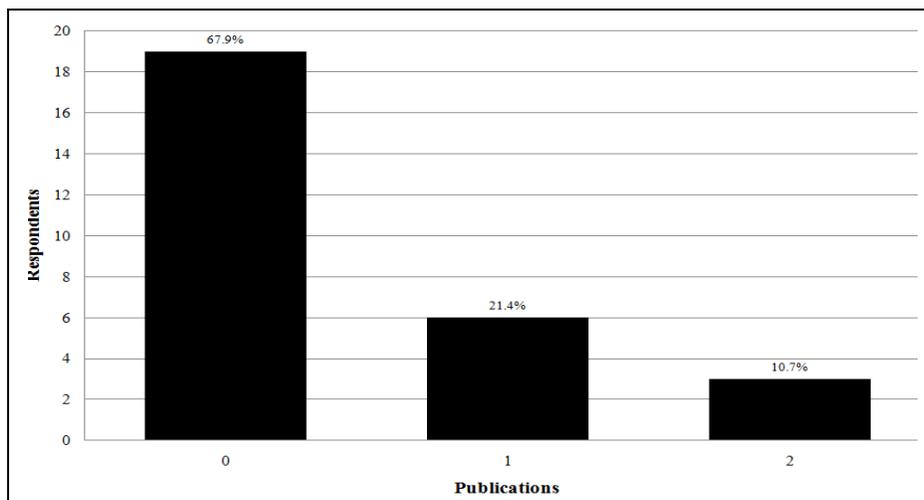


Figure 19. Textbooks, other books; monographs; research or technical reports disseminated internally or to clients

Graduate *presentations at conferences, workshops, etc.* had a mean of 5.52 (± 4.595) and a total of 160 presentations. About one tenth of the participants did not have any. Furthermore, slightly more than one sixth had three presentations and the largest group consisting of a fifth of the respondents had four presentations. Figure (20) illustrates the findings.

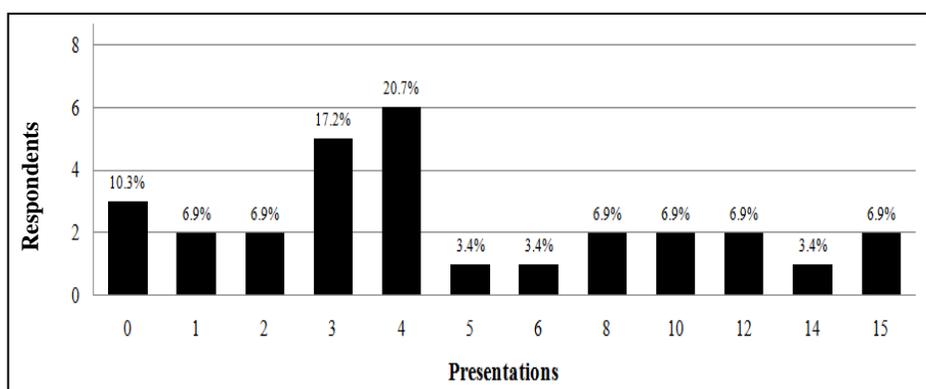


Figure 20. Presentations at conferences, workshops, etc.

Finally, graduate *membership(s) in discipline-related associations*; had a mean score of 2.07 (± 1.280) and a total of 60 memberships. Two groups of slightly less than a third of respondents had a single and two memberships. Figure (21) illustrates the findings.

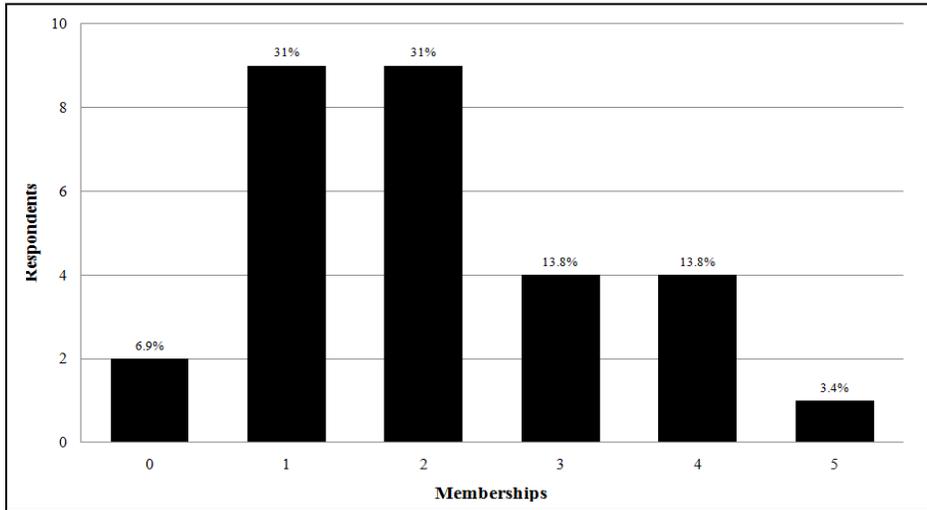


Figure 21. Membership(s) in discipline-related associations

(b) Early-Career Activities

Examination of the data regarding participants' early-career *articles published in refereed professional or trade journals and creative works published in juried media* yields a mean of 5.10 (± 4.865) and a total of 148 publications. Less than one-fifth of the participants did not have any published. Furthermore, another group less than one-fifth had published two articles. Figure (22) illustrates the findings.

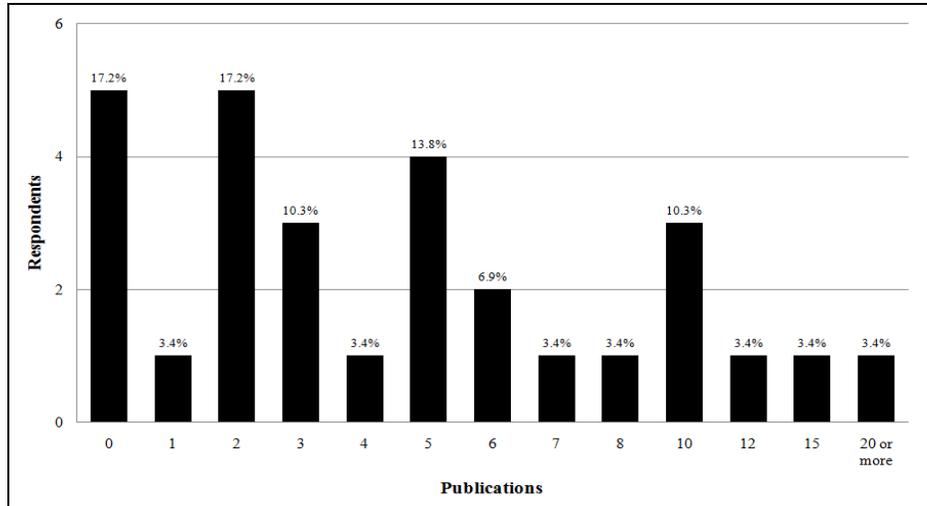


Figure 22. Articles Published in Refereed Professional or Trade Journals; Creative Works Published in Juried Media

Early-career articles published in non-refereed professional or trade journals and creative works published in non-juried media or in-house newsletters had a mean of 2.24 (± 2.695) and a total of 65 publications. Additionally, more than two-thirds of the participants did not have any published. Figure (23) illustrates the findings.

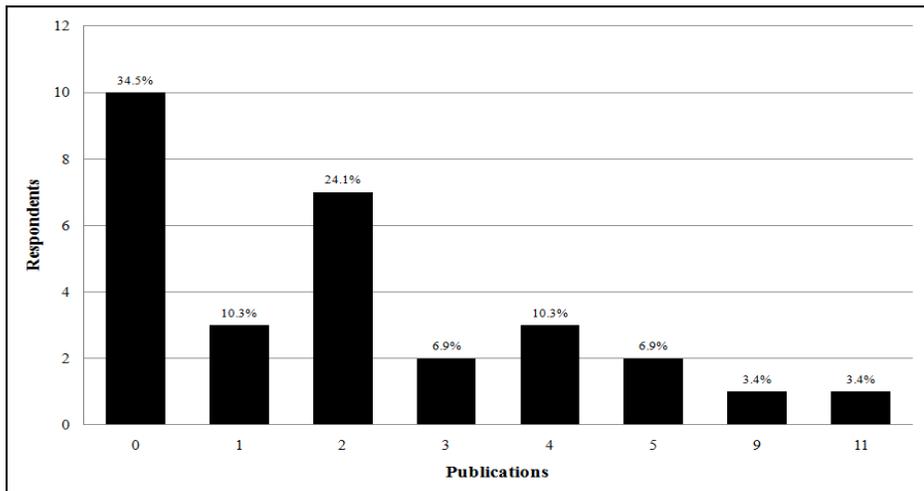


Figure 23. Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters

Early-career *published reviews of books, articles, or creative works and chapters in edited volumes* had a mean of 1.86 (± 2.248) and a total of 54 publications. Additionally, slightly more than one-third of the participants did not have any published, while slightly less than a quarter had published two. Figure (24) illustrates the findings.

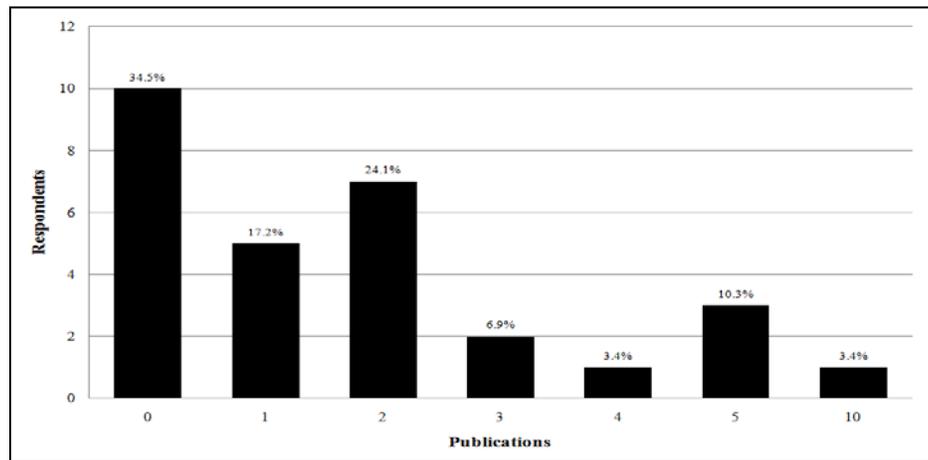


Figure 24. Published reviews of books, articles, or creative works; chapters in edited volumes

Early-career *textbooks, other books and monographs and research or technical reports disseminated internally or to clients*¹⁵ had a mean of .96 (± 1.347) and a total of 27 publications. Half of the participants did not have any published, while slightly more than a quarter had a single publication. Figure (25) illustrates the findings.

¹⁵ Statistics excluded a single respondent (n=28)

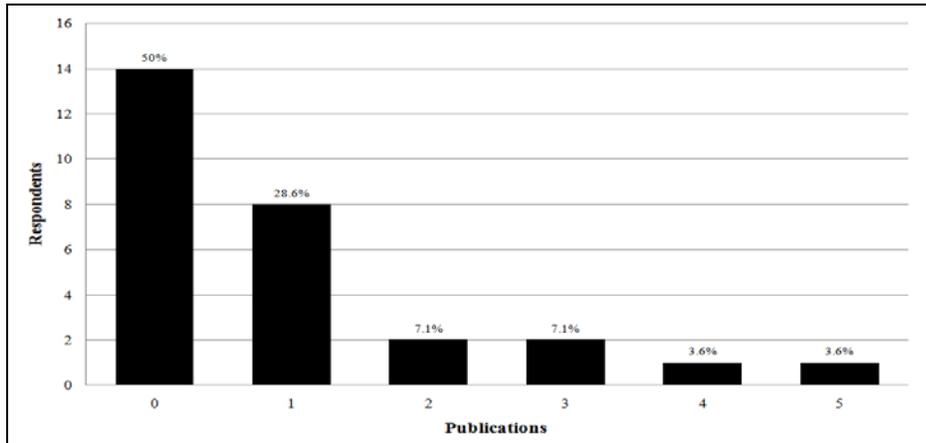


Figure 25. Textbooks, other books; monographs; research or technical reports disseminated internally or to clients

Early-career *presentations at conferences, workshops, etc.*¹⁶ had a mean of 9.00 (± 6.691) and a total of 243 presentations. Slightly more than one-fifth of the respondents had four presentations while slightly less than one-fifth had more than twenty presentations. Figure (26) illustrates the findings.

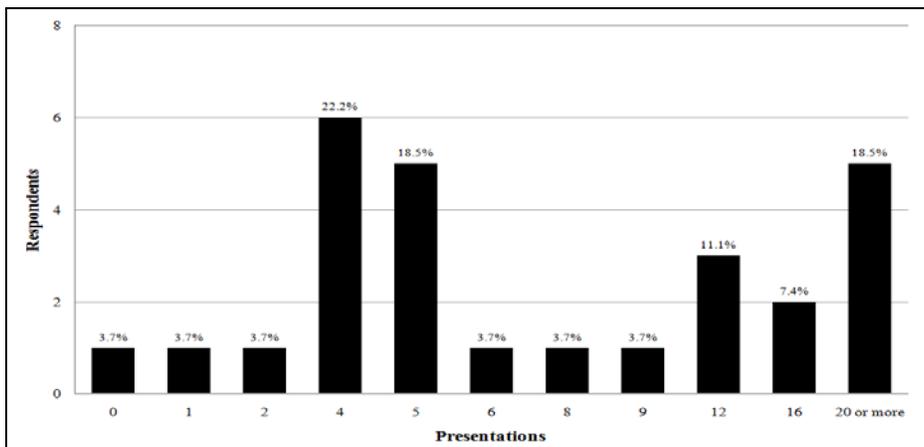


Figure 26. Presentations at conferences, workshops, etc

¹⁶ Statistics excluded a single respondent (n=28)

Finally, early-career *membership(s) in discipline-related associations* had a mean of 2.93 (± 1.193) and a total of 85 memberships. Additionally, slightly more than one-fifth of the respondents had three memberships. . Figure (27) illustrates the findings.

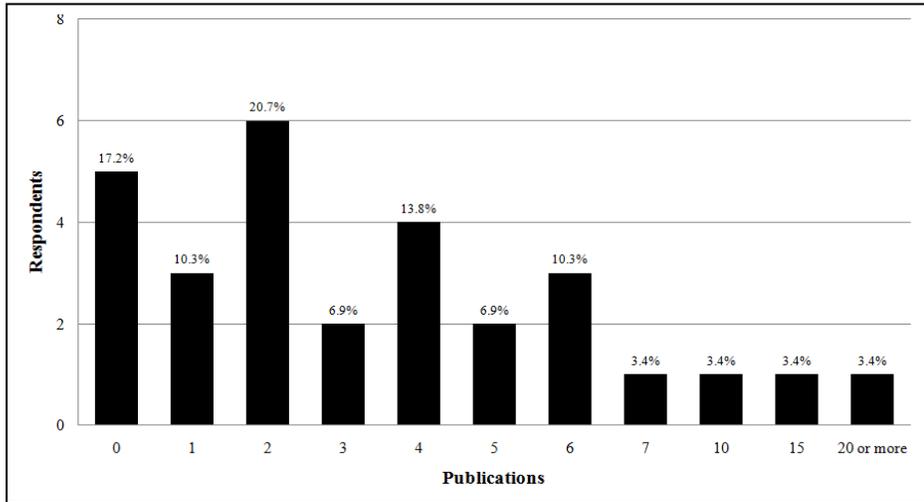


Figure 27. Membership(s) in discipline-related associations

(c) Current Activities

Examining data regarding participants' current *articles published in refereed professional or trade journals and creative works published in juried media* with a mean of 4.03 (± 4.508) and a total of 117 publications. Additionally, about one-fifth of the respondents had two publications. Figure (28) illustrates the findings.

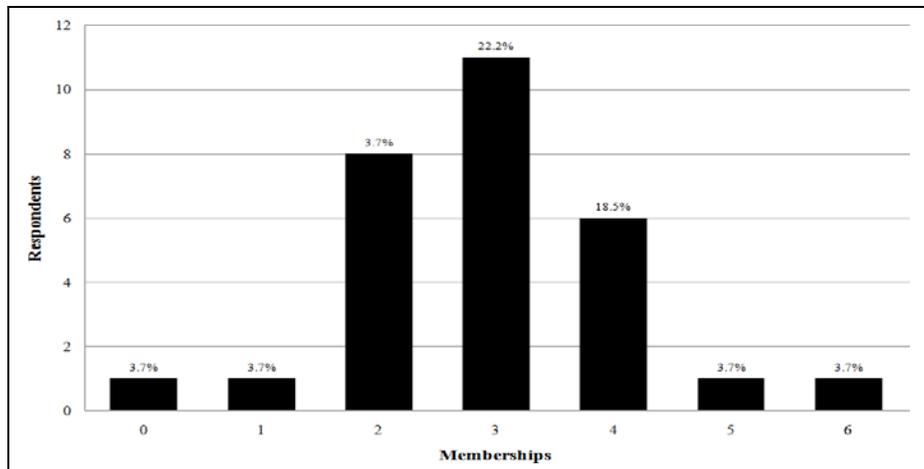


Figure 28. Articles Published in Refereed Professional or Trade Journals; Creative Works Published in Juried Media

Current articles published in non-refereed professional or trade journals and creative works published in non-juried media or in-house newsletters had a mean of 2.28 (± 4.140) and a total of 66 publications. Additionally, slightly less than half of the respondents did not have any published. Figure (29) illustrates the findings.

Current published reviews of books, articles, or creative works and chapters in edited volumes had a mean of 2.07 (± 2.187) and a total of 60 publications. Additionally, slightly less than one-third of the participants did not have any published while one-fifth had published four. Figure (30) illustrates the findings.

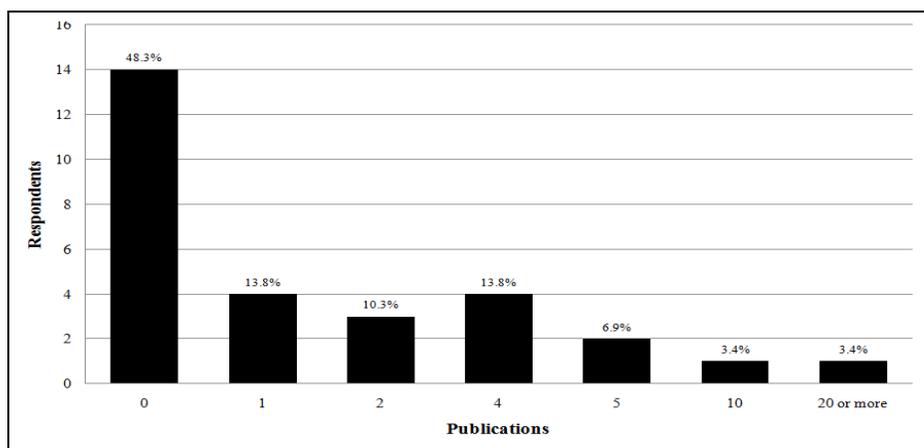


Figure 29. Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters

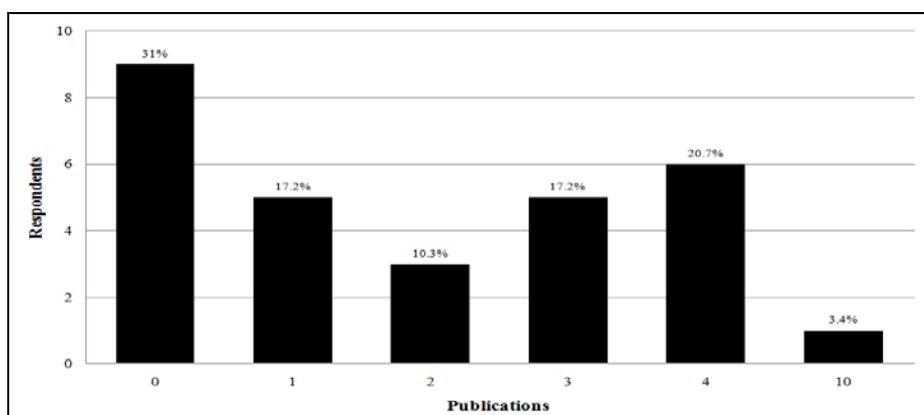


Figure 30. Published reviews of books, articles, or creative works; chapters in edited volumes

Current *textbooks, other books and monographs and research or technical reports disseminated internally or to clients*¹⁷ had a mean of 1.46 (± 3.756) and a total of 41 publications. Additionally, slightly more than half of the respondents did not have any published, while a quarter of the respondents had published two. Figure (31) illustrates the findings.

¹⁷ Statistics excluded a single respondent (n=28)

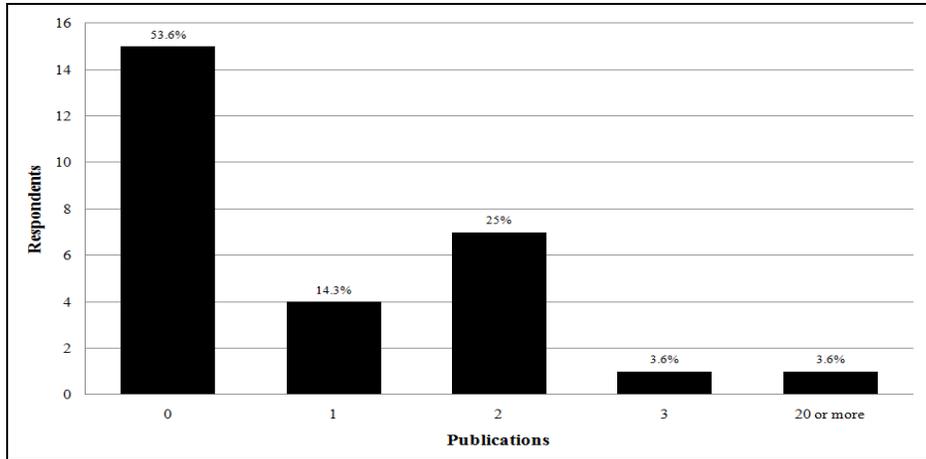


Figure 31. Textbooks, other books; monographs; research or technical reports disseminated internally or to clients

Current *presentations at conferences, workshops, etc.*¹⁸ had a mean score of 6.15 (± 4.130) and a total of 166 presentations. Figure (32) illustrates the findings:

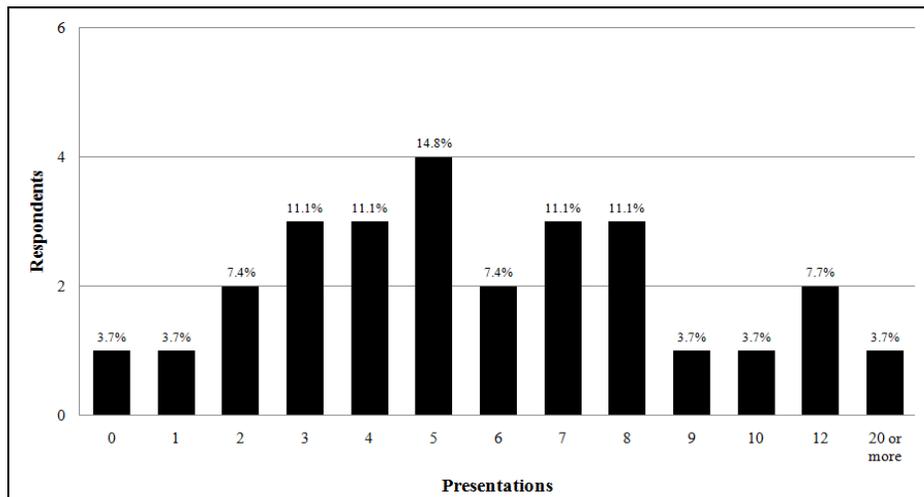


Figure 32. Presentations at conferences, workshops, etc.

Finally, Current *membership(s) in discipline-related associations;* had a mean score of 3.41 (± 1.524) and a total of 99 memberships. Additionally, slightly more than a quarter of the

¹⁸ Statistics excluded 2 respondents (n=27)

respondents had three memberships, while slightly less than a quarter had four. Figure (33) illustrates the findings.

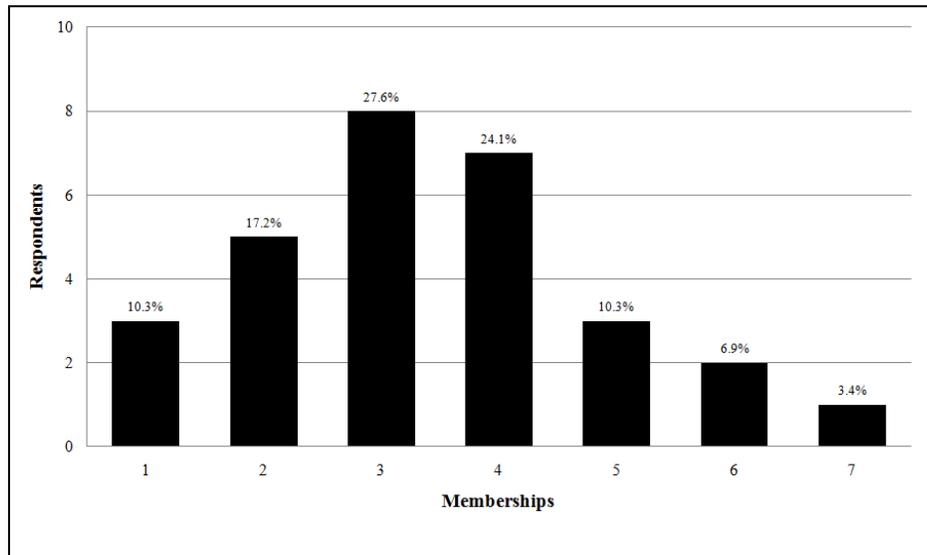


Figure 33. Membership(s) in discipline-related associations

(d) By Tenure Status

Regarding *articles published in refereed professional or trade journals and creative works published in juried media*: respondents with tenure and those on tenure track were almost five times more likely than faculty who were not on tenure track to have more graduate publications.

Tenured respondents were 30% more likely to more publications than faculty on tenure track and 4 times more likely than faculty not on tenure track to have more early-career memberships.

Finally, while tenured respondents were slightly less likely than faculty on track, they were still twice as much more likely than faculty not on tenure track to have more current memberships. Figure (34) illustrates the findings.

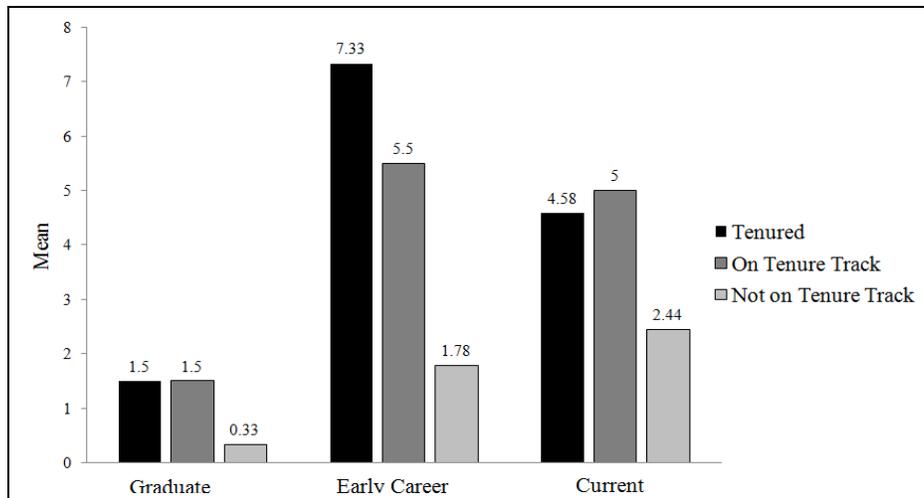


Figure 34. Articles Published in Refereed Professional or Trade Journals; Creative Works Published in Juried Media by Tenure Status

Regarding *articles published in non-refereed professional or trade journals and creative works published in non-juried media or in-house newsletters*; respondents who were not on tenure track had slightly more than tenured faculty and almost 4 times more than those who were on tenure track to have more graduate publications respectively. Tenured respondents were 3 times more than faculty on tenure track and almost twice as much more likely than faculty not on tenure track to have more early-career publications. Finally, tenured respondents were more than 3.5 times more likely than faculty on tenure track and almost 2.5 times more likely than faculty not on tenure track to have more current publications. Figure (35) illustrates the findings.

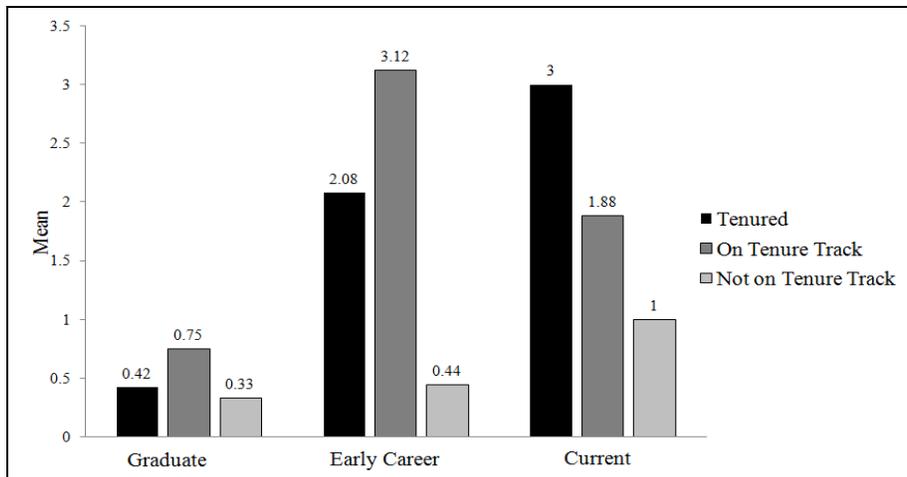


Figure 35. Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters by Tenure Status

Regarding *published reviews of books, articles, or creative works and chapters in edited volumes*; tenured respondents were half as much than those on tenure track and almost similar to faculty not on tenure track in having more graduate published reviews. Respondents on tenure track were 1.5 times more likely than tenured faculty and seven times more than faculty not on tenure track to have more early-career published reviews. Finally, tenured respondents were 1.5 times more than faculty on tenure track and 3 times more than faculty not on tenure track to have more current published reviews. Figure (36) illustrates the findings.

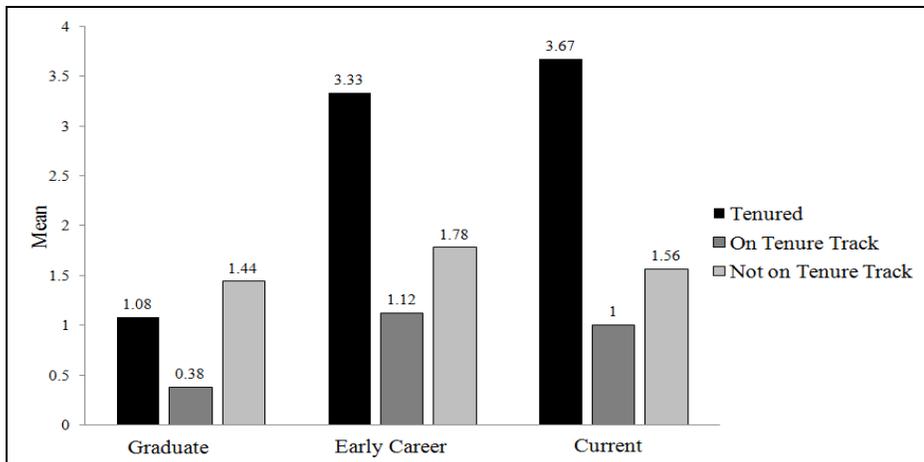


Figure 36. Published reviews of books, articles, or creative works; chapters in edited volumes by Tenure Status

Regarding *textbooks, other books; monographs and research or technical reports disseminated internally or to clients*; respondents not on tenure track were more than 19 times more likely than those who were on tenure track and more than 3 times more likely than tenured faculty to have more graduate books. Respondents not on tenure track were 5 times more likely than those on tenure track and more than 2.5 times more likely than tenured faculty to have more early-career books. Finally, while respondents not on tenure track were almost similar to tenured faculty, they were 28 times more likely than faculty on tenure track to have more current books. Figure (37) illustrates the findings.

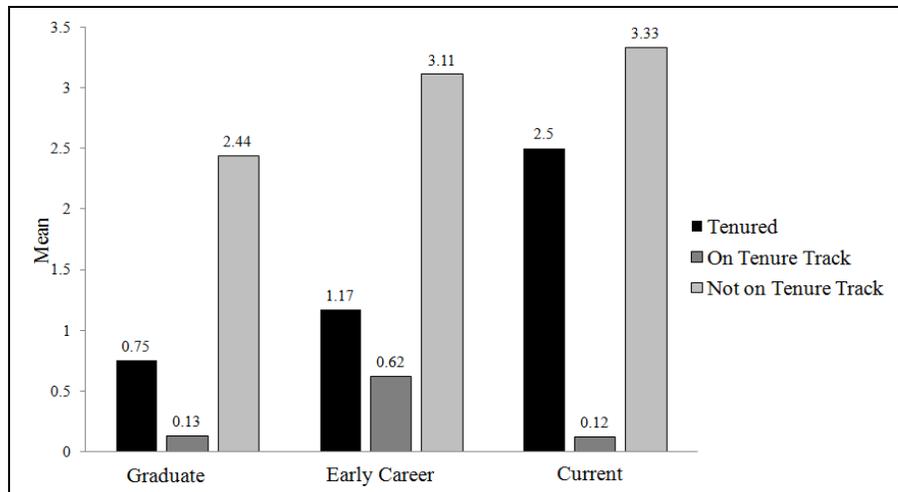


Figure 37. Textbooks, other books; monographs; research or technical reports disseminated internally or to clients by Tenure Status

Regarding *presentations at conferences, workshops, etc.* respondents on tenure track were almost twice as much more likely than tenured faculty and about 1.5 times more likely than faculty not on tenure track to have more graduate presentations. Respondents across all tenure status groups had almost similar early-career presentations. Finally, tenured respondents and those not on tenure track while almost having equal responses were still 1.5 times more likely than faculty on tenure track to have more current presentations. Figure (38) illustrates the findings.

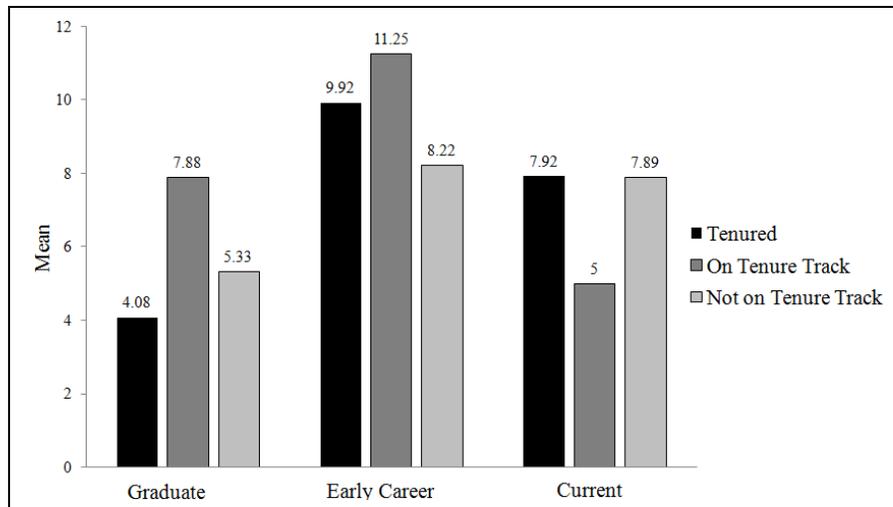


Figure 38. Presentations at conferences, workshops, etc. by Tenure Status

Regarding *membership(s) in discipline-related associations* respondents on tenure track were 1.5 times more likely than tenured faculty and more than twice as much likely than faculty not on tenure track to have more graduate memberships. Respondents across all tenure status groups had almost similar early-career and current discipline-related memberships. Figure (39) illustrates the findings.

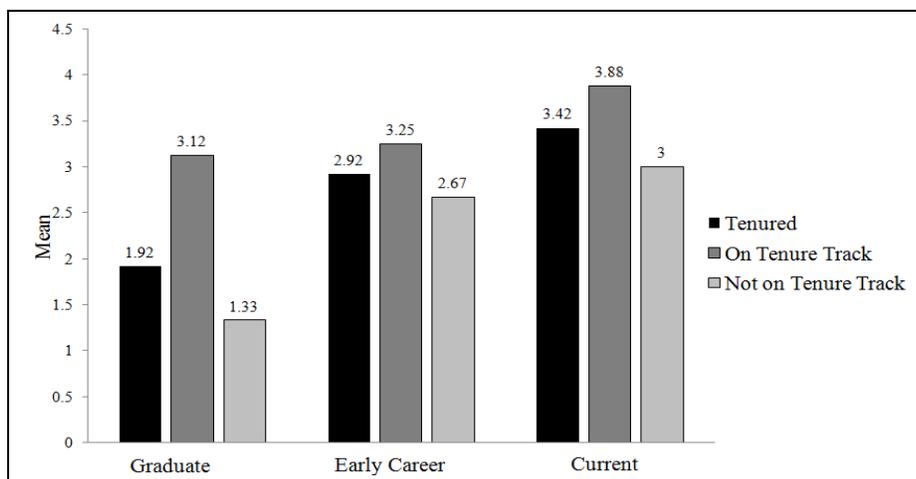


Figure 39. Membership(s) in discipline-related associations by Tenure Status

(e) By Rank

Regarding *articles published in refereed professional or trade journals and creative works published in juried media*; professors and assistant professors were more than 2.5 times more likely than associate professors to have more graduate publications. Professors and associate professors were almost similar while they were more than 1.5 times more likely than assistant professors to have more early-career publications. Finally, professors were 2.5 times more likely than associate professors and 1.5 times more likely than assistant professors to have more current publications. Figure (40) illustrates the findings.

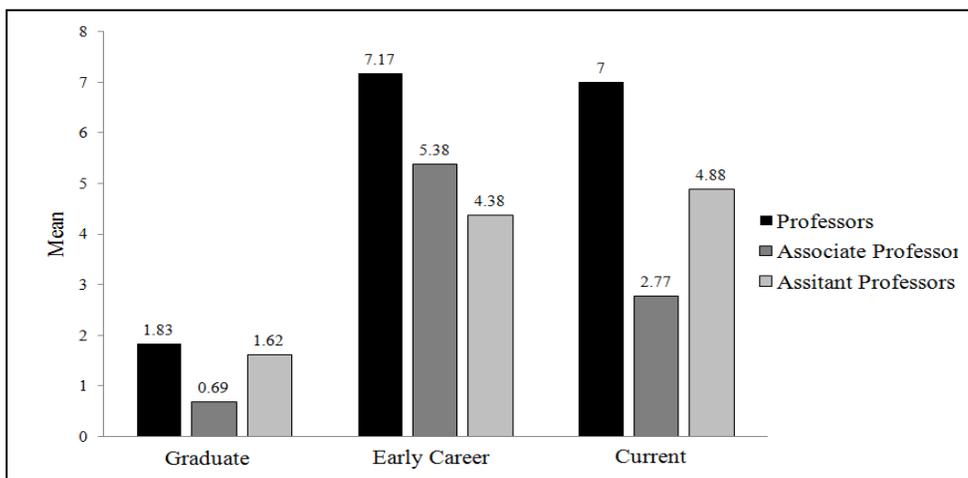


Figure 40. Articles published in refereed professional or trade journals; creative works published in juried media by Rank

Regarding *articles published in non-refereed professional or trade journals and creative works published in non-juried media or in-house newsletters*; associate professors were 2.5 times more likely than professors and 4 times more likely than assistant professors to have more graduate publications. Professors and associate professors were almost similar while they were more than 5 times more likely than assistant professors to have more early-career publications.

Finally, professors were 3.5 times more likely than associate professors and 12.5 times more likely than assistant professors to have more current publications. Figure (41) illustrates the findings.

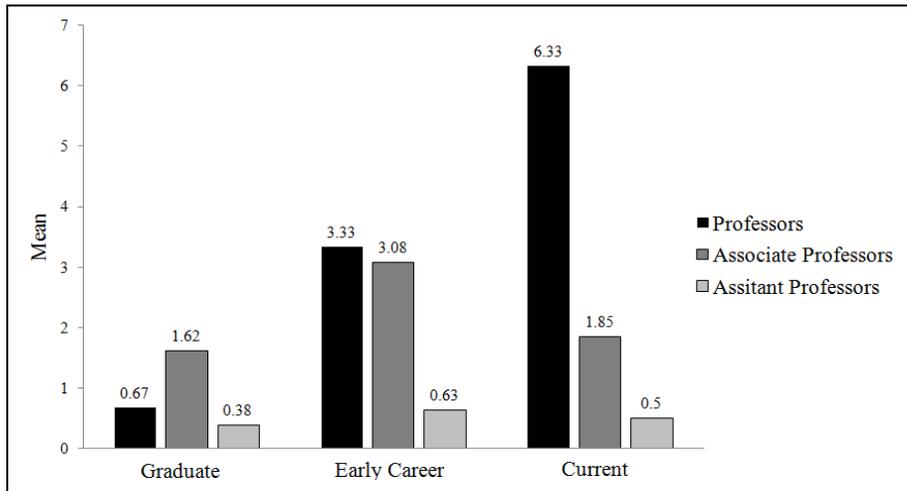


Figure 41. Published reviews of books, articles, or creative works; chapters in edited volumes by Rank

Regarding *published reviews of books, articles, or creative works* professors and assistant professors were almost similar while they were more than 3 times more likely than associate professors to have more graduate published reviews. Professors were 1.5 times more likely than associate professors and assistant professors to have more early-career published reviews. Finally, professors were twice as much more likely than associate professors and more than 2.5 times more likely than assistant professors to have more current published reviews. Figure (42) illustrates the findings.

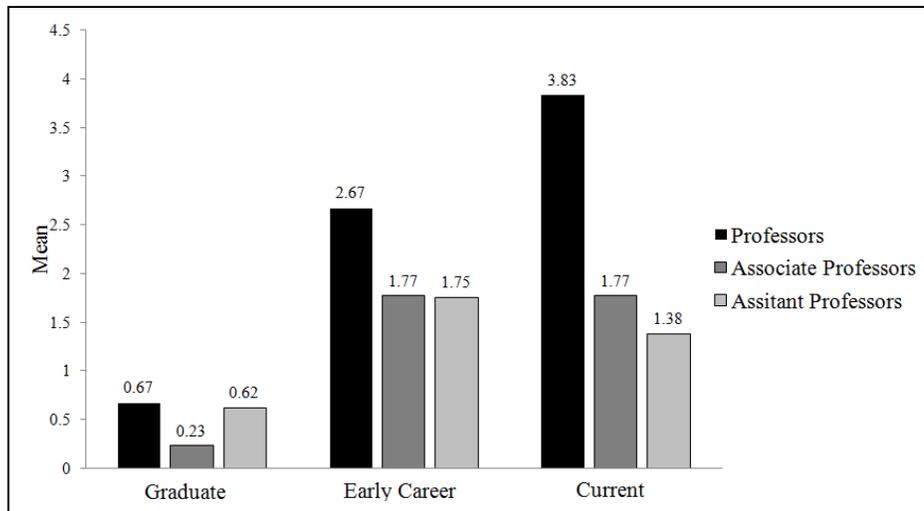


Figure 42. Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters by Rank

Regarding *textbooks, other books; monographs and research or technical reports disseminated internally or to clients*; associate professors were 4 times more likely than professors and 16 times more likely than assistant professors to have more graduate books. Associate professors were also 2.5 times more likely than professors and 11.5 times more likely than assistant professors to have more early-career books. Finally, professors were twice as much more likely than associate professors and more than 17 times more likely than assistant professors to have more current books. Figure (43) illustrates the findings.

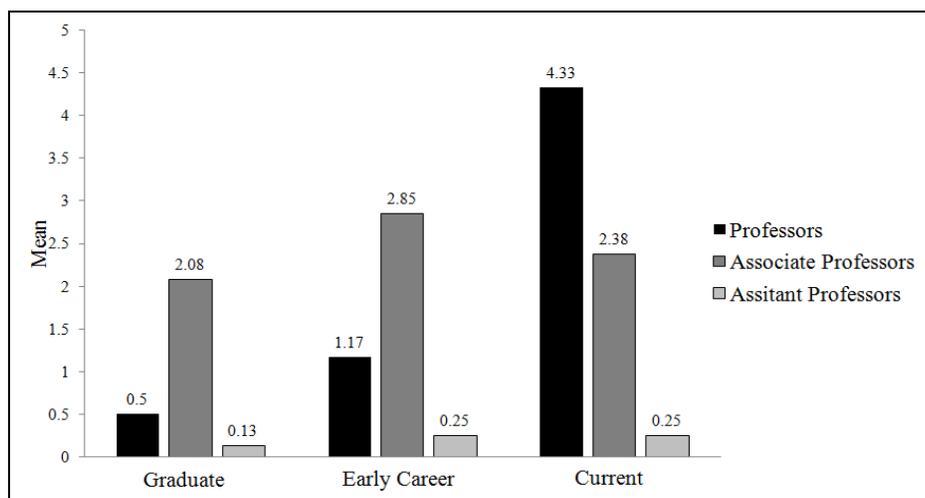


Figure 43. Textbooks, other books; monographs; research or technical reports disseminated internally or to clients by Rank

Regarding *presentations at conferences, workshops, etc.* assistant professors were twice as much more likely than professors and 1.5 times more likely than associate professors to have more graduate presentations. Associate professors were almost 1.5 times more likely than professors and assistant professors to have more early-career presentations. Finally, professors were almost 1.5 times more likely than associate professors and almost 2.5 times more likely than assistant professors to have more current presentations. Figure (44) illustrates the findings.

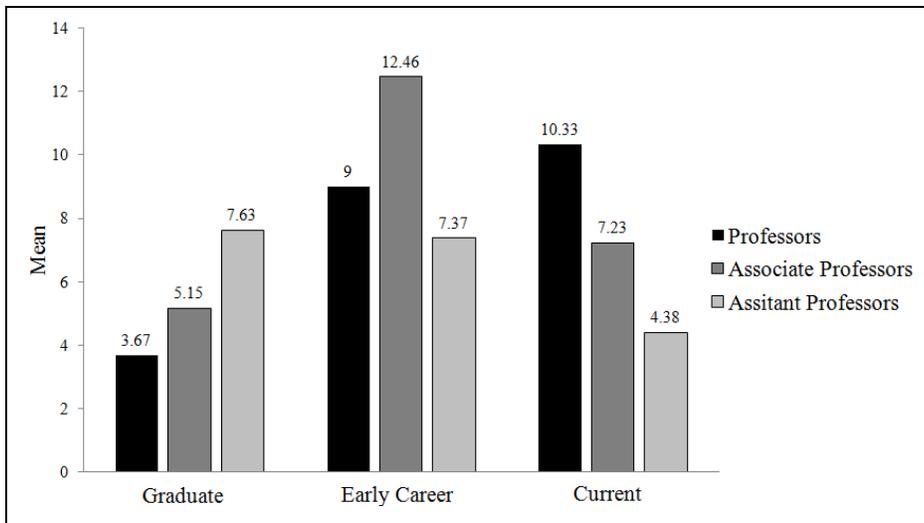


Figure 44. Presentations at conferences, workshops, etc. by Rank

Regarding *memberships in discipline-related associations* assistant professors and associate professors were almost twice as much more likely than professors to have more graduate memberships. Respondents across all rank groups had almost similar early-career presentations. Finally, associate professors were slightly more likely than professors and assistant professors to have more current presentations. Figure (45) illustrates the findings.

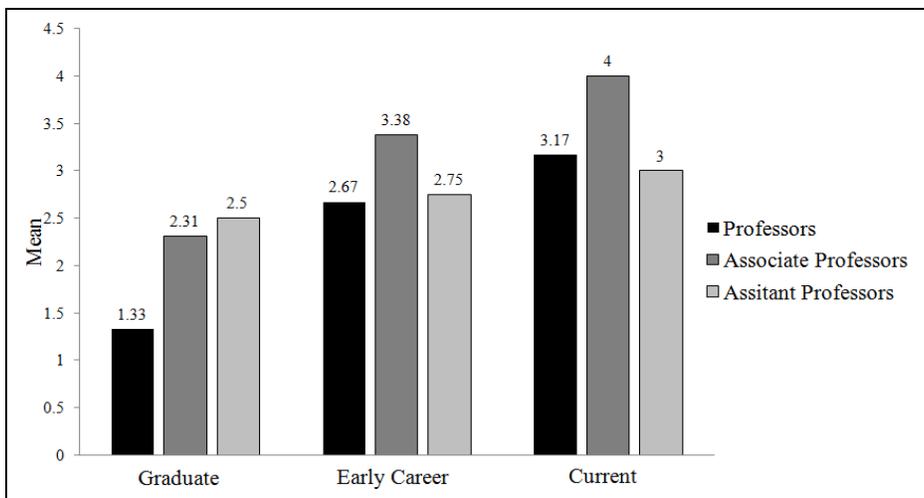


Figure 45. Membership(s) in discipline-related associations by Rank

4.1.1.6 Research Experiences Figure (46) illustrates participants' perceptions regarding their research-related academic experiences during graduate school and currently. Questions were related to several dimensions that cover most of the research-related aspects of the faculty position in a research institution. Respondents reported the case institution effectively contributed to their understanding of the quantity of expected research levels and the research-related requirement to achieve tenure at the institution. Finally, participants expressed that both their graduate preparation and institutional experiences have contributed to the same levels of understanding with regards to the level of senior faculty contribution(s) towards the research roles of junior faculty.

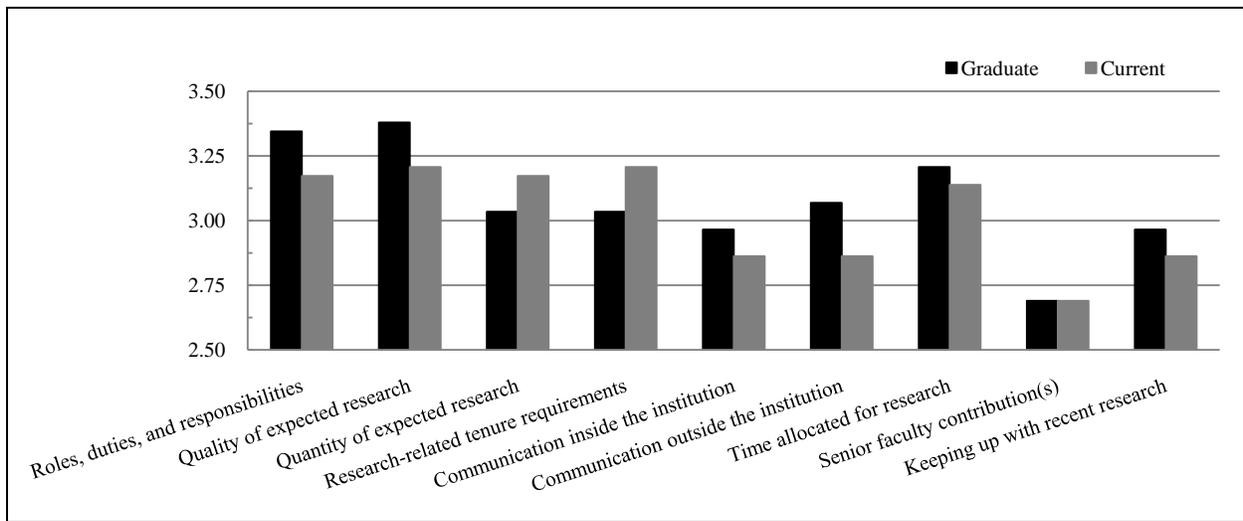


Figure 46. Research-related Experiences

In contrast, respondents illustrated that among six of the nine dimensions; participants have expressed less positive institutional experiences. The data illustrates a decrease in participants' agreement levels regarding their career preparation. Responses to 66.6% of the relevant items illustrated that participants' graduate preparation was favored towards what the case institution had provided them with. Participants' graduate preparation was favored as

having a more positive level of understanding regarding the faculty position; roles and duties, quality of expected research, levels of communication with disciplinary colleagues within and outside of the institution, time they should allocate for research activities, and the level frequency of keeping up with published research.

Professors reported that their understanding of *the different research-related roles, duties, and responsibilities of the job at this institution* was moderately based on both institutional policies and graduate preparation equally. Associate professors reported that institutional policies contributed slightly more than their graduate preparation. Finally, assistant professors reported that their graduate preparation was almost 25% more contributing than the institutional policies. Figure (47) illustrates the findings.

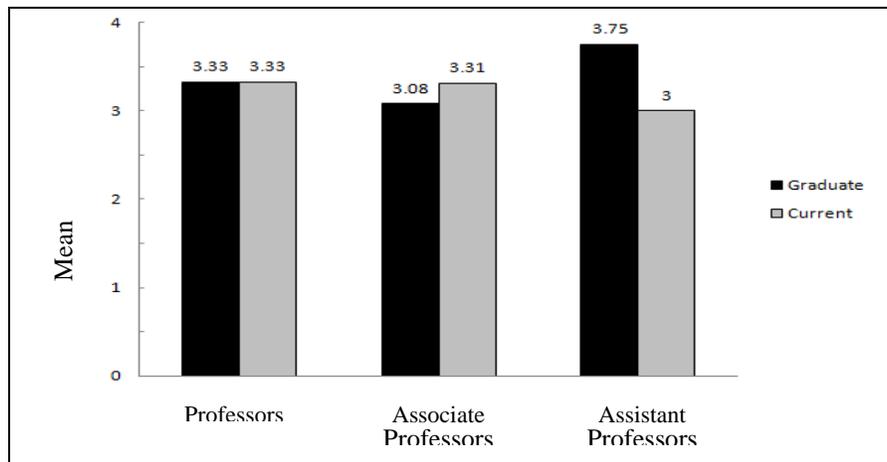


Figure 47. The different research-related roles, duties, and responsibilities of the job at this institution by Rank

Professors reported that regarding *the quality of research expected from faculty at this institution*; their graduate preparation was slightly more contributing than the institutional policies. Associate professors reported that the institutional policies were slightly more contributing than their graduate preparation. Finally, assistant professors reported that their graduate preparation was more contributing than the institutional policies to their understandings.

Figure (48) illustrates the findings.

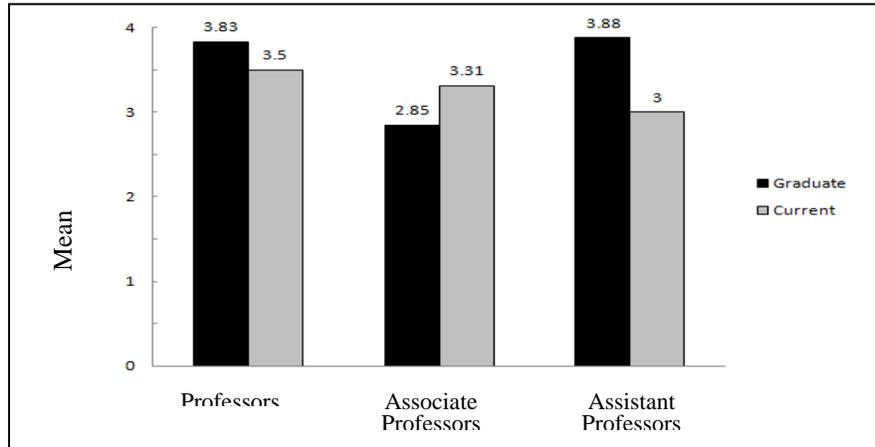


Figure 48. The quality of research expected from faculty at this institution by Rank

Professors reported that regarding *the quantity of research expected from faculty at this institution*; their graduate preparation had slightly more contribution than institutional policies. Associate professors reported that the institution policies were slightly more contributing than their graduate preparation. Finally, assistant professors reported that the institutional policies contributed less than their graduate preparation. Figure (49) illustrates the findings.

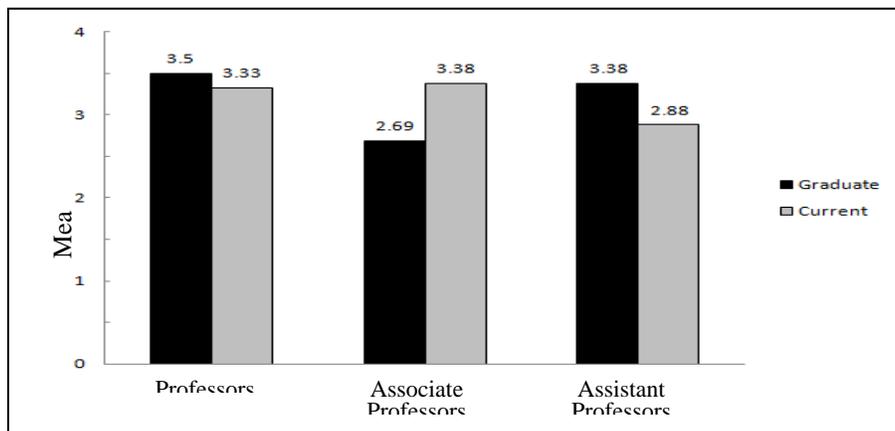


Figure 49. The quantity of research expected from faculty at this institution by Rank

Professors and associate professors reported that regarding *research-related requirements of achieving tenure at this institution*; the institutional policies were slightly more contributing to

their experiences than their graduate preparation. Finally, assistant professors reported that the institutional policies and their graduate preparation contributed equally. Figure (50) illustrates the findings.

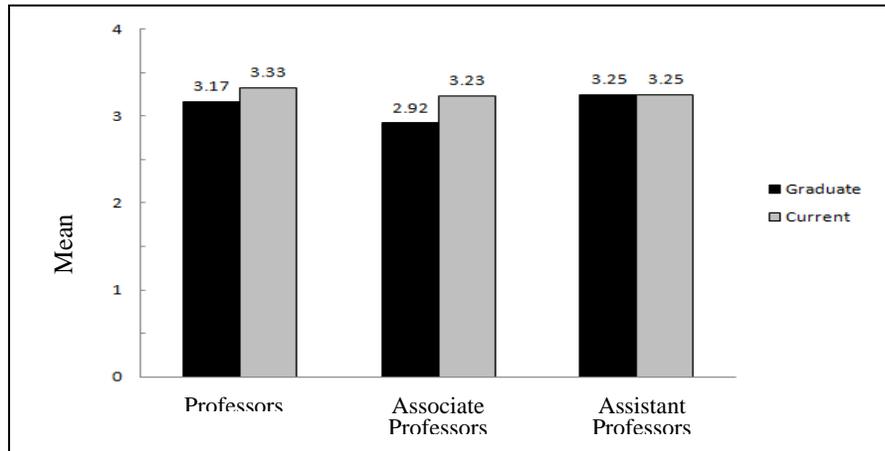


Figure 50. Research-related requirements of achieving tenure at this institution by Rank

Professors reported that regarding *the level of research-related communication with disciplinary colleagues inside the institution*; the institutional policies and their graduate preparation contributed equally. Associate professors reported that the institutional policies contributed slightly more than their graduate preparation. Finally, assistant professors reported that their graduate preparation was almost 1.5 times more contributing than the institutional policies. Figure (51) illustrates the findings.

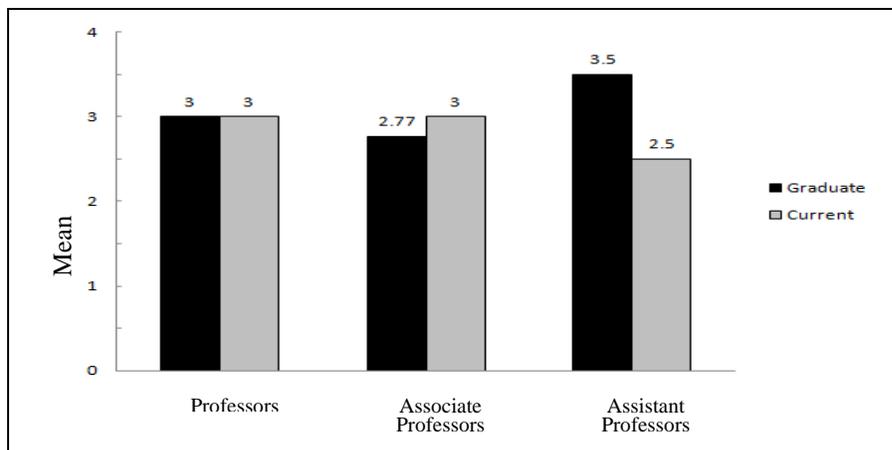


Figure 51. The level of research-related communication with disciplinary colleagues inside the institution by Rank

Professors reported that regarding *the level of research-related communication with disciplinary colleagues outside the institution*; the institutional policies were slightly more contributing than their graduate preparation. Associate professors reported that the institutional policies were slightly less contributing than their graduate preparation. Finally, assistant professors reported that their graduate preparation was almost 1.5 times more contributing than the institutional policies. Figure (52) illustrates the findings.

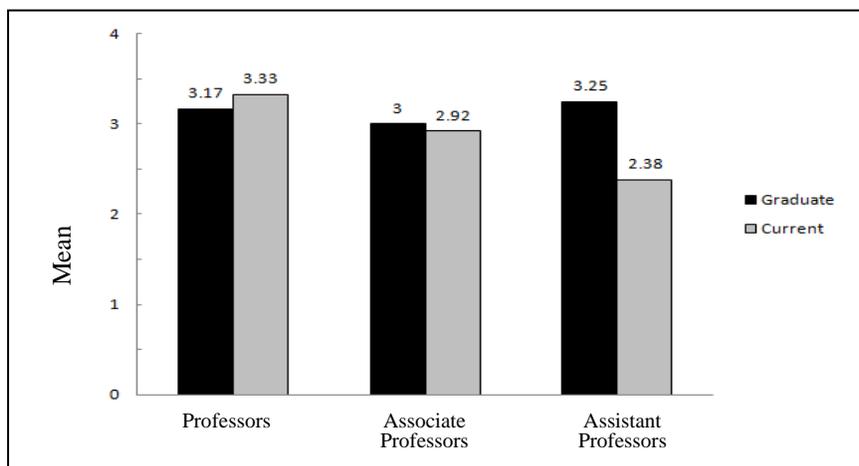


Figure 52. The level of research-related communication with disciplinary colleagues outside the institution by Rank

Professors and associate professors reported that regarding *time faculty would allocate to the research-role component of the job*; the institutional policies were slightly more contributing than their graduate preparation. Finally, assistant professors reported that their graduate preparation was more contributing than the institutional policies. Figure (53) illustrates the findings.

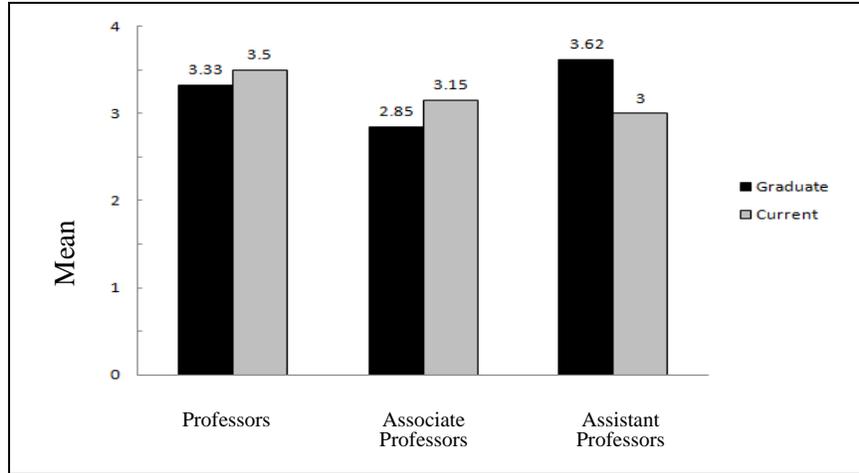


Figure 53. Time faculty would allocate to the research-role component of the job by Rank

Professors reported that regarding *senior faculty contribution(s) towards research-related roles of junior faculty*; the institutional policies were slightly less contributing than their graduate preparation. Associate professors reported that the institutional policies were slightly more contributing than their graduate preparation. Finally, assistant professors reported that their graduate preparation was slightly more contributing than the institutional policies. Figure (54) illustrates the findings.

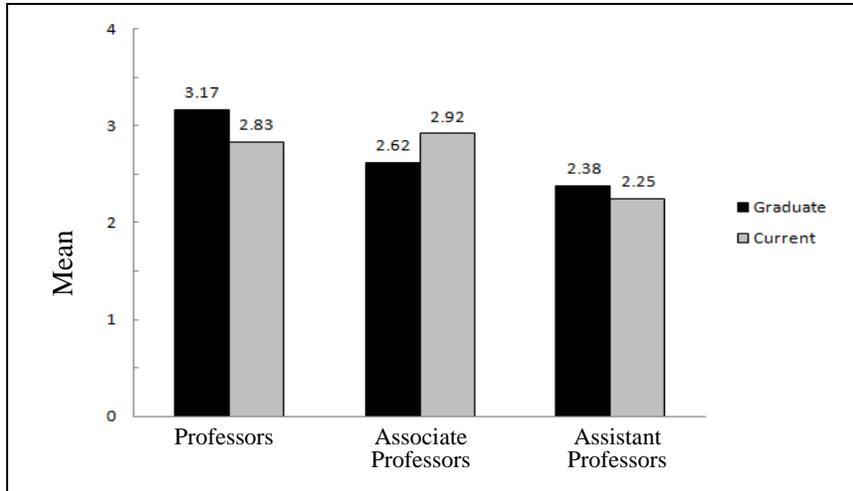


Figure 54. Senior faculty contribution(s) towards research-related roles of junior faculty by Rank

Professors reported that regarding *time allocated to keeping up with recent published research*; the institutional policies were slightly less contributing than their graduate preparation. Associate professors reported that the institutional policies were slightly more contributing than their graduate preparation. Finally, assistant professors reported that their graduate preparation was slightly more contributing than the institutional policies. Figure (55) illustrates the findings.

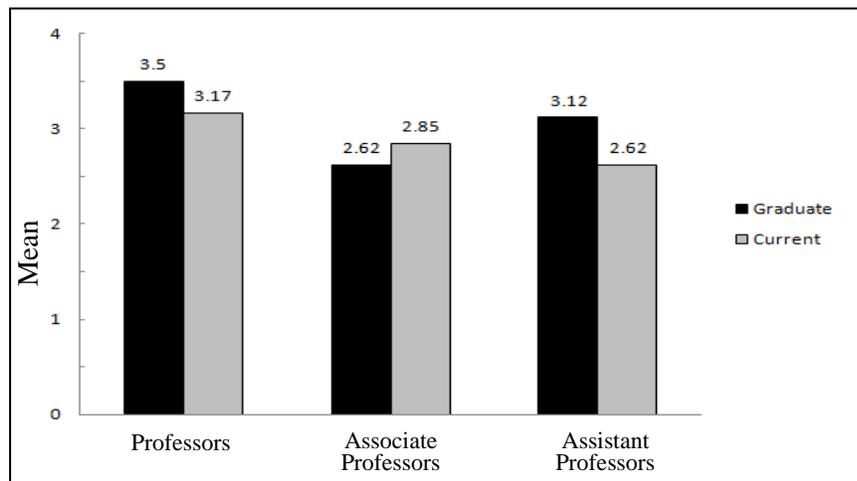


Figure 55. Time allocated to keeping up with recent published research by Rank

4.1.1.7 Institutional Socialization Respondents’ perceptions regarding their experiences with the case institution’s socialization programs were generally low. Though statistically, perceptions were mainly positive¹⁹, respondents’ perceptions ranged between the scores “to a low degree” and “to a moderate degree”. Figure (56) illustrates the relationships between the mean scores.

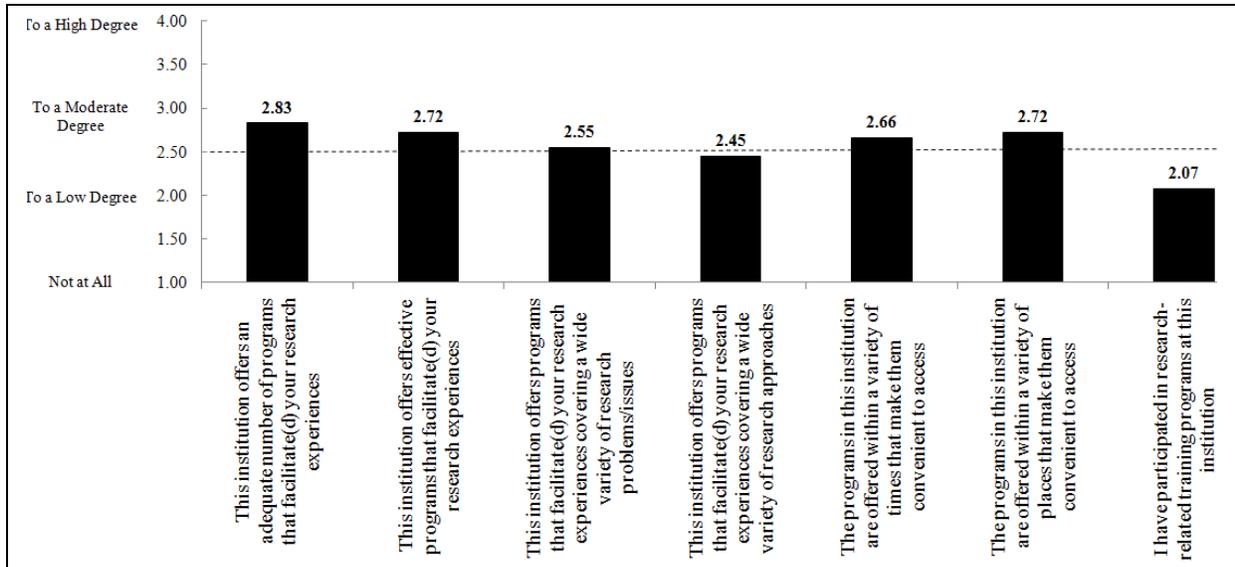


Figure 56. Perceptions on Institutional Socialization Programs (means)

For the exception having participated in the institution socialization programs, positive perceptions of the institutional socialization policies were mostly noted by professors (2.83 ± 0.619), assistant professors (2.54 ± 0.847), then associate professors respectively (2.47 ± 0.758). Figure (57) illustrates the different mean scores.

¹⁹ Positive was defined as having a mean >2.5

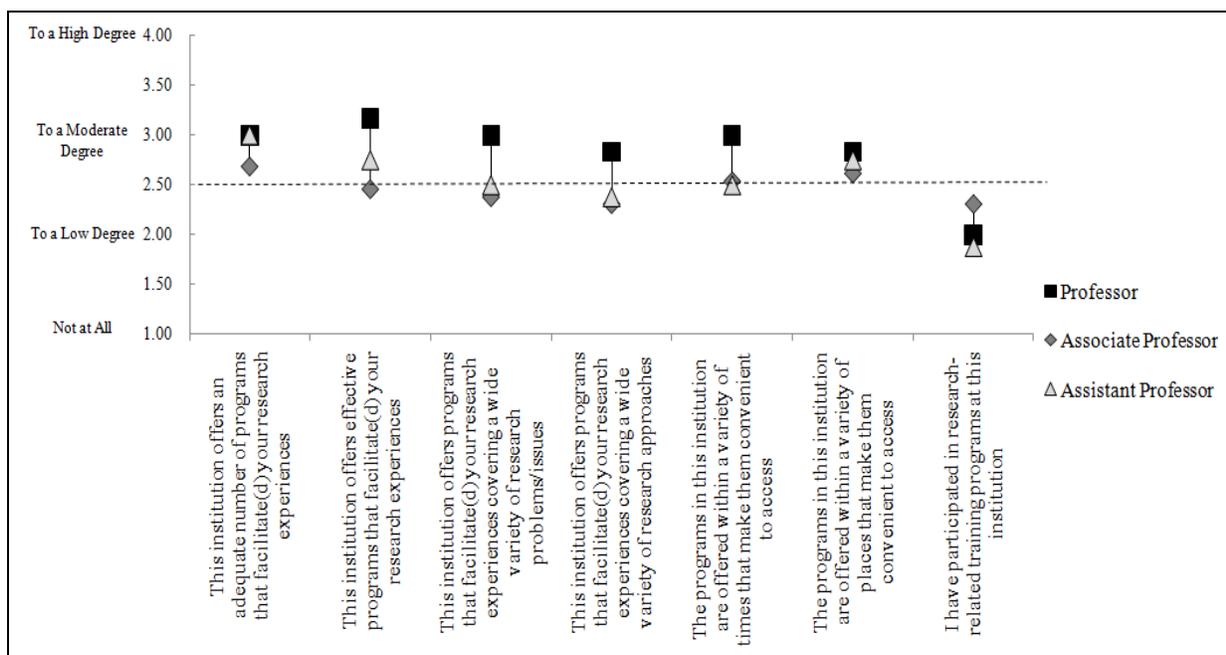


Figure 57. Perceptions on Institutional Socialization Programs by Rank (means)

Respondents who were tenured and those on tenure track had positive perceptions about the first 6 questions regarding the in the institution’s socialization programs. For respondents not on tenure track, positive perceptions were noted for 4 of the 7 questions. All respondents among the different tenure status groups had negative²⁰ perceptions regarding having participated in the institutional programs. Overall, tenured respondents scored a positive perception ($2.57 \pm .833$), respondents who were not tenured but on tenure track scored a positive overall perception ($2.68 \pm .830$), finally respondents who were not tenured and were not on tenure track scored a negative overall perception ($2.48 \pm .612$). Figure (58) illustrates the different mean scores.

²⁰ “negative” is defined as being <2.5

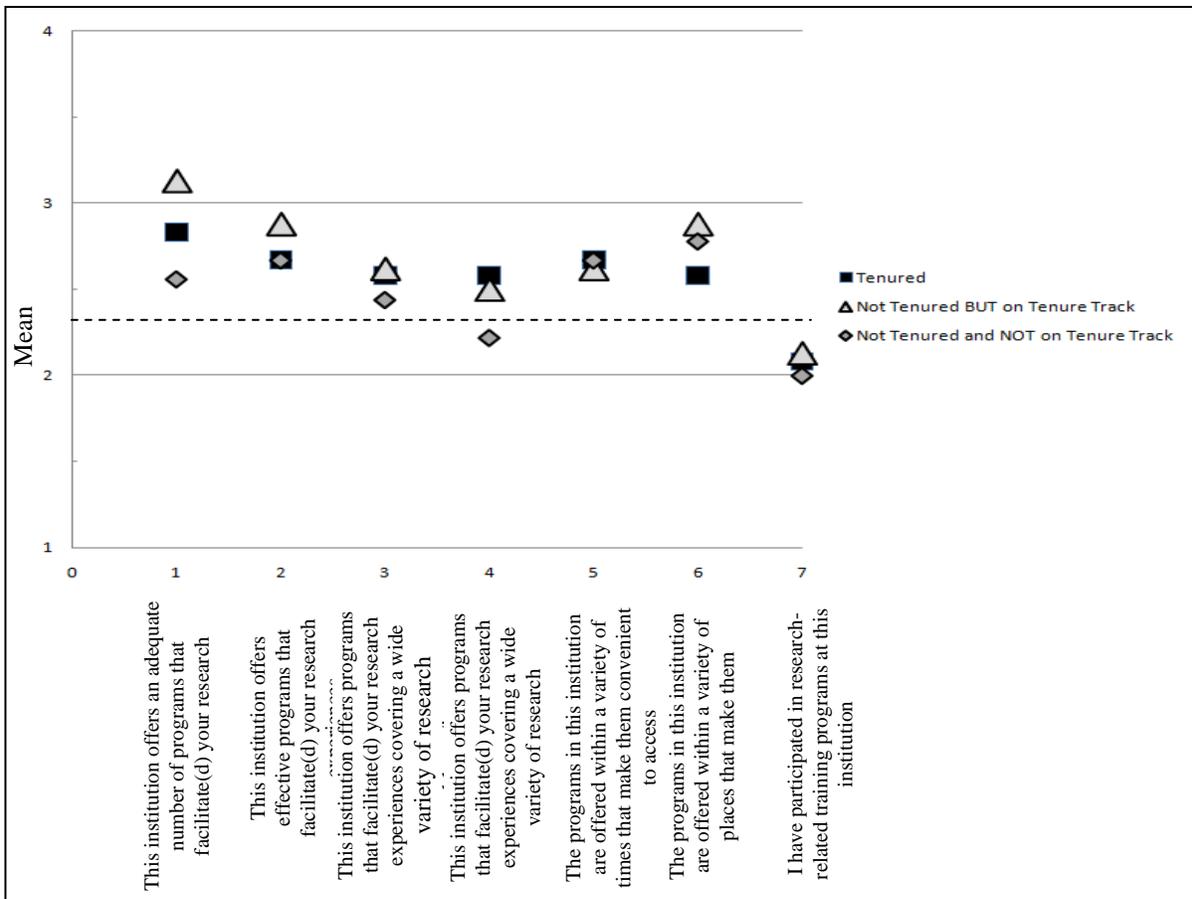


Figure 58. Socialization Perceptions by Tenure Status

Respondents who were interested primarily in research had more positive perceptions about the first 6 questions regarding the in the institution’s socialization programs. Those interested in both but leaning towards teaching had most negative perceptions and were followed by those interested in both but leaning toward research then those primarily interested in teaching. Overall, respondents interested *primarily in teaching* had a positive perception (2.57 ± 0.697), respondents interested *primarily in research* had a positive perception (2.95 ± 0.555), respondents interested *equally in teaching and research* had a positive perception (2.73 ± 0.967), respondents interested *in both, but leaning toward teaching* had a negative perception (2.29

± 0.473), respondents interested *in both, but leaning toward research* had a negative perception (2.37 ± 0.673). Figure (59) illustrates the different mean scores.

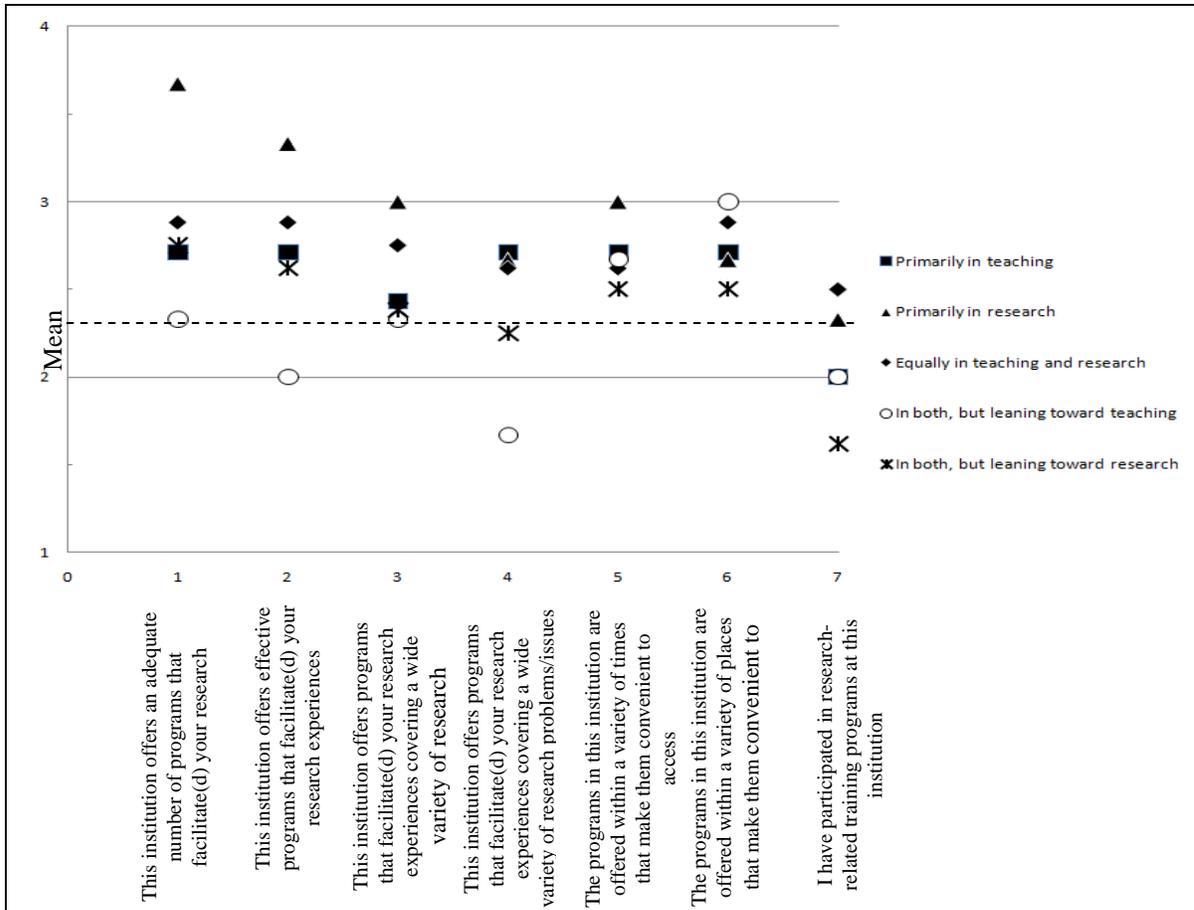


Figure 59. Socialization Perceptions by Interests

Based on their years working at the institution, respondents' overall perceptions regarding the available socialization programs were barely positive²¹ ($2.57 \pm .580$). Respondents' perceptions of the available socialization programs at the case institution had a tendency to be more positive in association to having served more years at the institution. Respondents with fewer years at the institution had tendencies to have less positive perceptions. Figure (60) illustrates the relationships.

²¹ Items in this question were summed

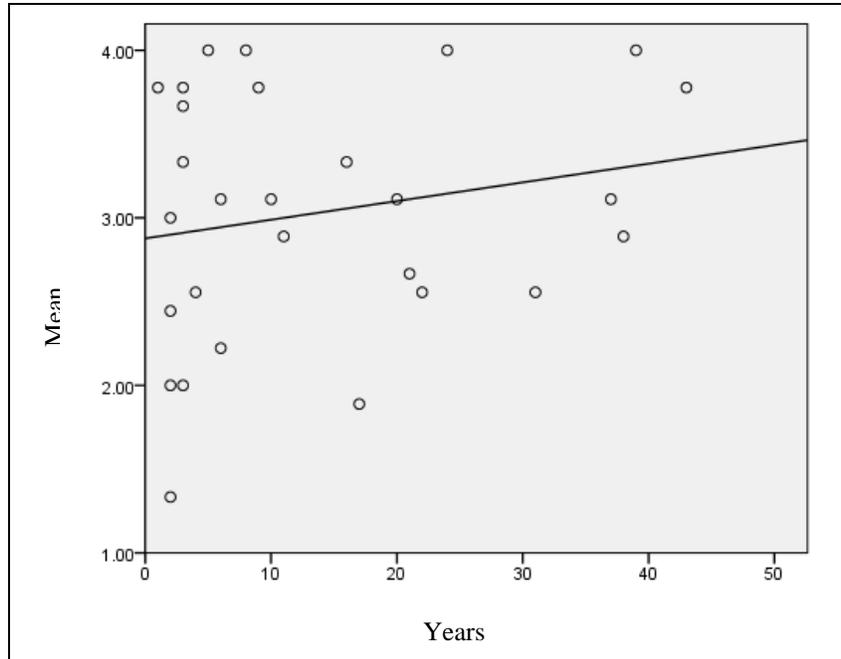


Figure 60. Socialization Perceptions by Years at the Institution

4.1.1.8 Overall Career Respondents were asked if they had a chance to go back and select a career again, would they still choose an academic career at this institution. Ninety-one percent of respondents indicated they would choose a career in the institution if offered to do it again while the remaining respondents (n=2) indicated they would not choose the same career at this institution (mean= .93±.258).

(a) By Gender

All the female respondents indicated they would select the same career at the institution. On the other hand, only thirteen percent of male respondents (n=2) indicated they would not redo the same career at the institution.

(b) By Rank²²

All the *professors* and *assistant professors* indicated they would select the same career at the institution. 15% of *associate professors* (n=2) indicated they would not choose a faculty career at this institution.

(c) By Tenure Status

Sixteen percent of *tenured* respondents (n=2) indicated they would not choose a faculty career at this institution. On the other and all the respondents *on tenure track* and *not on tenure track* indicated they would select the same career at the institution.

(d) By Academic Interests

Fourteen percent of respondents *primarily interested in teaching* (n=1) and 33% of those *interested in both but lean towards teaching* (n=1) indicated they would not choose a faculty career at this institution. On the other and all the respondents *primarily interested in research*, *equally interested in both teaching and research*, and *interested in both but leaning towards research* indicated they would select the same career at the institution.

(e) By Years at the Institution

The respondent who had been working at the institution for the longest period (43 years) and the respondent with the third longest working period (38 years) were the *only* respondents who had indicated they would not choose a faculty career at this institution.

²² Number of respondents= 27 as 2 respondents did not indicate their academic rank.

4.1.2 Qualitative Variables

The instrument collected included two optional sections that gathered qualitative data. Both sections involved one open-ended question which participants responded to with words of their choice. Although answering these questions were optional, only a small number of respondents (n=4) did not illustrate on the first question. However, on the second optional open-ended question, only few respondents (n=7) had provided their remarks.

4.1.2.1 Explaining Overall Career Perception Eighty six percent of respondents (n=25) provided their perception whether to select a similar career at the institution if they had second chance. While the majority (92%) indicated they would choose the same career, two individuals indicated they would not choose to.

However, a single main theme emerges as the majority of respondents have mentioned it. This involves a positive notation that both the school and the institution provide adequate support and resources to those interested in conducting research. Several respondents (n=14) mentioned this fact in their responses.

Responses were mixed and issues discussed were positive and negative. Respondents commended the institution and school on several facets; the school and institution provide adequate collegial and peer support to those interested in conducting research, offering good mentoring opportunities, reducing teaching loads for researchers, and offering opportunities for pragmatic research. Individual actual comments included:

- “I believe that the landscape is changing at the university and more support is being provided”,
- “Has been a supportive place overall”,

- “University has grown in its ability to support effective research”,
- “The department I am associated with is a nice fit for my research interests. The school has adequate supports for me to conduct my research. I have a number of peer collaborators and have benefitted from some mentoring from more senior faculty. The culture of the institution is a good fit - my peers are high-achieving but faculty also have the time and ability to maintain stable home lives (this is not as true in other institutions)”,
- “It is an exceptional institution for the study of the humanities and social sciences. I believe I have just begun to tap into the resources of the institution after 5 years”,
- “I have been supported in my research here at [the case institution] to a very high degree--funding, reduced course loads”,
- “I have completely changed my career interests four or five times. Each time, the University has accommodated the change and been completely supportive”,
- “Compared to other institutions where colleagues work, I feel that [the case institution] has a nice level of collegiality, a higher focus on faculty having a balance of work/home life, and more flexibility for faculty to pursue their own interests”,
- “Compared to other major universities, [the case institution] offers a very collaborative environment. Thus, while very competitive internally, resources are usually able to be pulled together to create a positive research environment”, and
- “I was fortunate to learn the value and role of a concise and clear research agenda to guide my development as a researcher and teacher”

Both respondents who indicated they would not elect the same career at his institution referred to the same overall reason which is: the institution's shift in focus more towards research and less towards teaching. Respondents also denigrated the institution and school on several facets; not providing equal opportunities for both teaching and research simultaneously and a lack of collegial support. Some of the actual comments included:

- "Much more emphasis on research and much less on teaching and student support"
- "The University of Pittsburgh was primarily a teaching institution when I was initially hired. After I arrived, it developed into a research institution"

4.1.2.2 Institutional Support This variable emerged as a theme from the qualitative data provided by respondents through the open-ended question. The question was whether respondents would choose to have an academic career at this institution if they had a chance to do it again. Then they were asked to elaborate on their answer.

Respondents agreed that both the institution and school offers adequate amounts of support and resources to faculty for research purposes. Regarding respondents gender, 40% of those respondents were female. Based on their tenure status, respondents represented all tenure groups and were very similar across the groups as illustrated in figure (61).

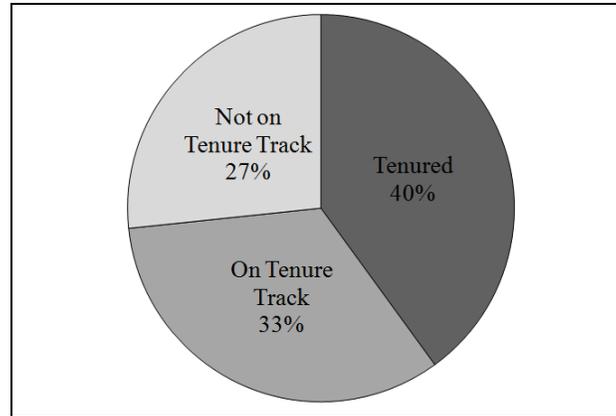


Figure 61. Institutional Support by Tenure Status

As for rank, respondents represented the three different rank groups with an equal number of respondents (n=5). Regarding academic interests, one fifth of respondents were *primarily interested in teaching* while a slightly less group (one seventh) was *primarily interested in research*. The remaining two groups of one third were *equally interested in both teaching and research* and *in both but leaning towards more research* as illustrated in figure (62).

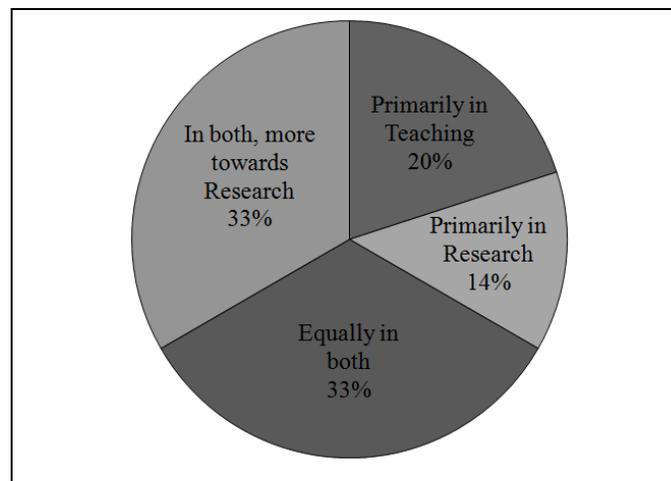


Figure 62. Institutional Support by Academic Interests

Finally, respondents varied in their number of years at the institution. As illustrated in figure (63), there were two modes of (2) and the mean number of years is 11.43 years \pm 11.47.

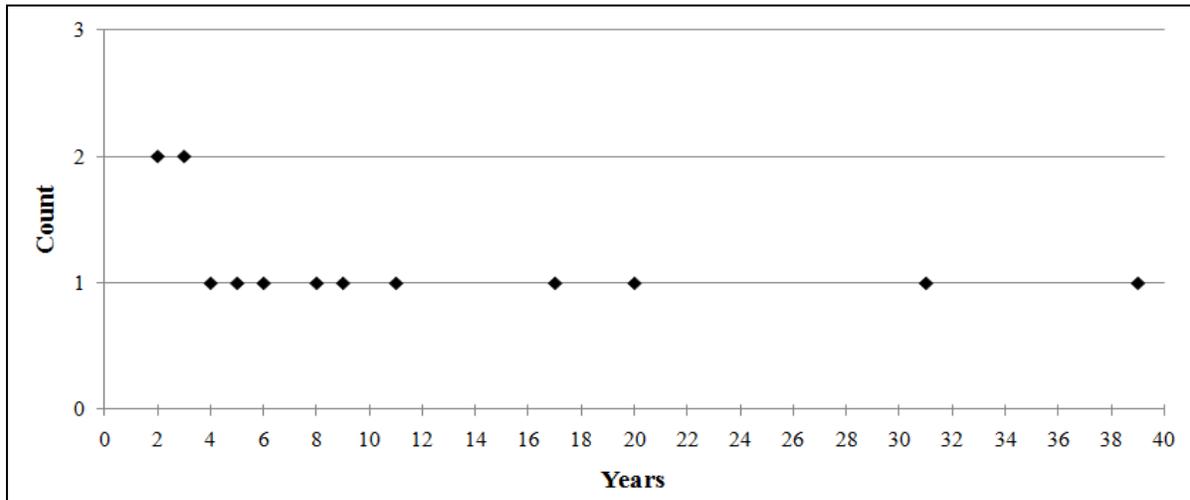


Figure 63. Institutional Support by Years at the Institution

4.1.2.3 Additional Remarks Respondents were asked to provide any additional remarks and/or any additional information regarding policies and/or activities of the institution that are related to their research experience(s). However, the participants did not generously provide responses.

Only several (n=7) respondents provided their remarks. With the exception of two issues that were discussed by two respondents each, several issues were discussed. Responses were mainly divided as responses were not recurring. Thus, themes could be identified.

Discussed issues involved that the institution did not offer socialization programs that focused on research and that all programs were mainly directed towards teaching socialization. Additionally, other issues involved the institution and school need to offer more support for clinical research, the need to reduce institutional bureaucracy pertaining to research conductivity, the school should encourage more collaborative research activities, the institution values research

on a symbolic basis, and that some administrative research procedures are only tailored for medical research.

4.1.3 Eliminated Variables

Graduate institution type was eliminated from any further advanced statistical analysis. Collected data revealed that all participants graduated from institutions of one type -research universities- so no comparison for different types could be made. With the exception of a single individual, participants (n=28) had received their doctoral degrees from major research universities within the United States while one individual had received their doctoral degree from a large Canadian research university.

Doctoral degree type was the other variable eliminated from further statistical analysis for the same reason. Respondents with Ph.D. degrees (n=27) were significantly more than those with Ed.D. degrees (n=2) as they represented 93.1% and 6.9% of the sample respectively.

4.2 DATA ANALYSIS

Utilizing Weidman's (2006) framework, data analysis will look at the relations between: *personal variables* (doctoral degree type, graduate institution type, and personal preferences), *work-environment variables* (academic rank, tenure status, history with institution, and available (current) socialization programs), *socialization experiences* (early-career and current perceptions regarding being prepared for the different aspects of the job), *available socialization programs* at the selected institution, and *research activities* of participants during graduate school, early-career, and currently.

4.2.1 Research Variables

Independent variables are work experience and personal/professional background(s) including previous research experience.

The *dependent* variable is research socialization experience(s). This variable includes many sub-variables such as early-career and current perceptions as well as research activities.

4.2.2 Research Questions

Collected (quantitative) data were processed with SPSS, a statistical software package. Descriptive statistics were examined to assess normality in the data and to describe the sample. In order to answer the research sub-questions, the following statistical procedures were followed:

1.a. What are the relationships among (1) Graduate and early-career research publication rates? and (2) Early-career and current research publication rates?

1.a.(1) Responses were examined to find out whether or not there is a relationship between the number of publications at the Early Career level (Y) and the Graduate Career level (X) using a regression between Y and X and test if the slope between Y and X is equal to zero. Analysis excluded two respondents who had indicated “more than 20” research activates (presentations) in both stages. The concern was that activities would be counted twice thus skewing the analysis and resulting in a non accurate representation of the data. Findings for this sub-question are summarized in Table (11).

Table 11. Correlations of Graduate and Early-Career Research Activities

No.	Item	n	Correlation	p Value ²³
1	<i>articles published in refereed professional or trade journals; creative works published in juried media</i>	29	.572	<u>.001</u>
2	<i>articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters</i>	29	.672	<u>.000</u>
3	<i>published reviews of books, articles, or creative works; chapters in edited volumes</i>	29	.276	.148
4	<i>textbooks, other books; monographs; research or technical reports disseminated internally or to clients</i>	29	.416	<u>.028</u>
5	<i>presentations at conferences, workshops, etc...</i>	27	.419	<u>.030</u>
6	<i>membership(s) in discipline-related associations</i>	29	.541	<u>.002</u>

The relationship between graduate and early career *articles published in refereed professional or trade journals; creative works published in juried media* had a correlation of .572 and the relationship was significant ($p < .01$). This translates to that faculty who had more graduate publications of this type, had more publications also during their early career stages. Data are illustrated in the corresponding scatter diagram figure (64).

²³ Significant values were underlined

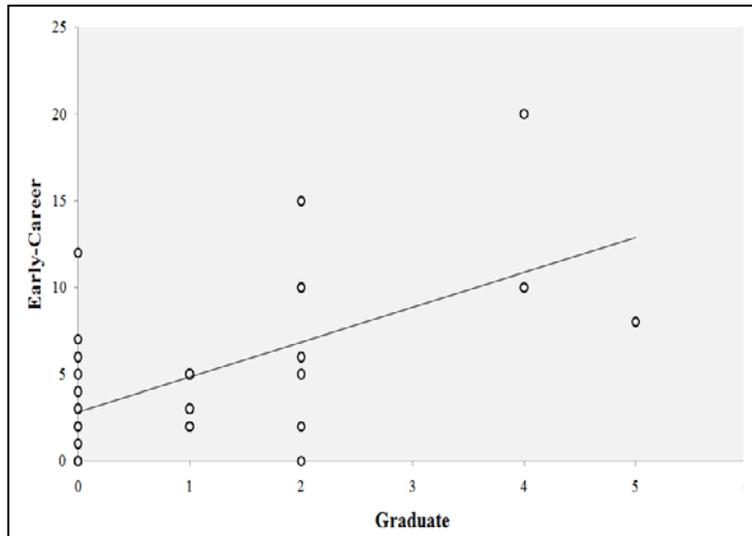


Figure 64. Correlation of articles published in refereed professional or trade journals; creative works published in juried media

The relationship between graduate and early career articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters had a correlation of .672 and the relationship was significant ($p < .01$). Again the same conclusion as the previous publication type can be made here. Data are illustrated in the corresponding scatter diagram figure (65).

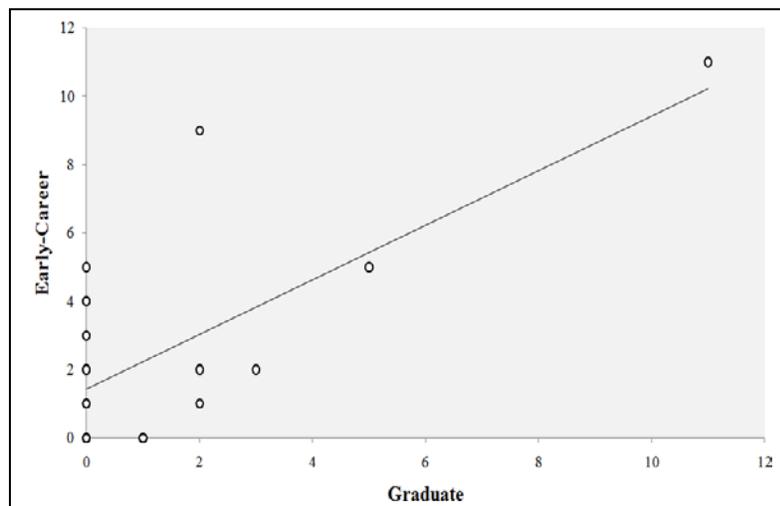


Figure 65. Correlation of articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters

The relationship between graduate and early career *published reviews of books, articles, or creative works; chapters in edited volumes* had a correlation of .276 and the relationship was not significant ($p > .05$). In this case, more graduate publications of book reviews do not translate into more early-career book review publications.

The relationship between graduate and early career *textbooks, other books; monographs; research or technical reports disseminated internally or to clients* had a correlation of .416 and the relationship was significant ($p < .05$). So the more respondents had published text and other books during their graduate years, the more they seemed to have published during their early-career stages. Data are illustrated in the corresponding scatter diagram figure (66).

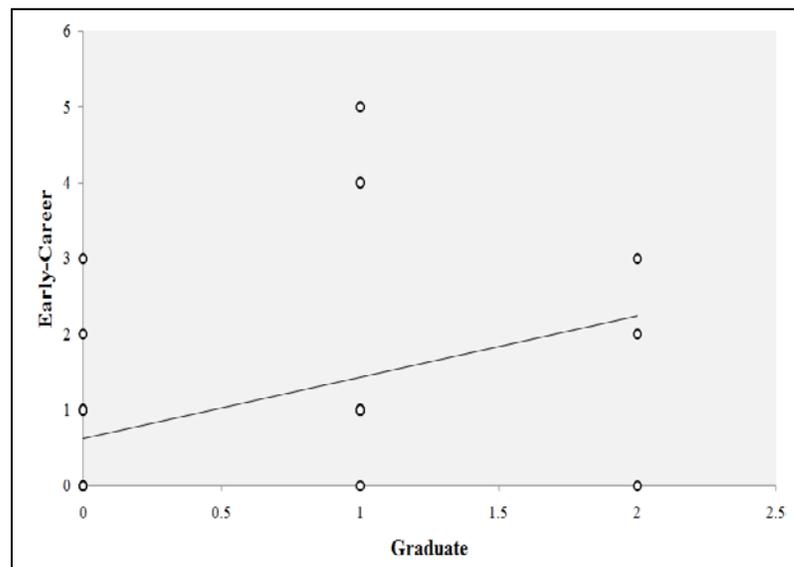


Figure 66. Correlation of textbooks, other books; monographs; research or technical reports disseminated internally or to clients

The relationship between graduate and early career *presentations at conferences, workshops, etc...* had a correlation of .418 and the relationship was significant ($p < .05$) as illustrated in the corresponding scatter diagram figure (67).

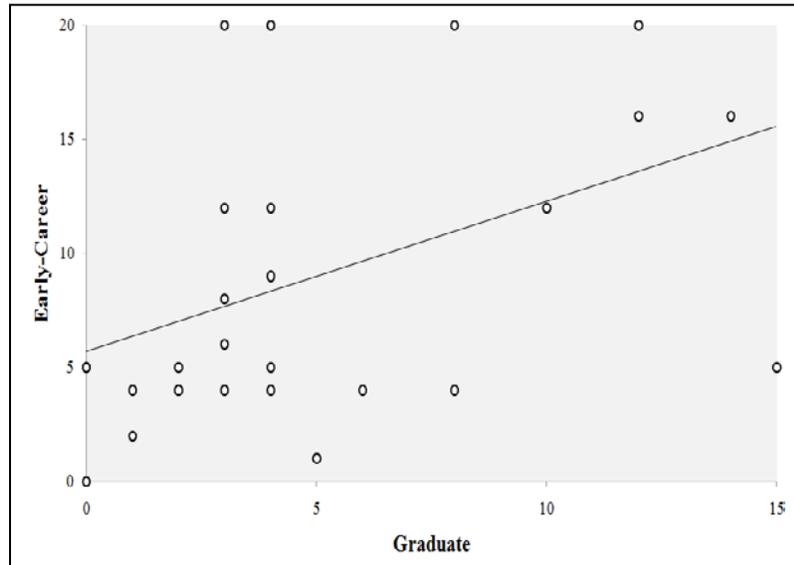


Figure 67. Correlation of presentations at conferences, workshops, etc...

The relationship between graduate and early career *membership(s) in discipline-related associations* had a correlation of .541 and the relationship was significant ($p < .01$) as illustrated in the corresponding scatter diagram figure (68).

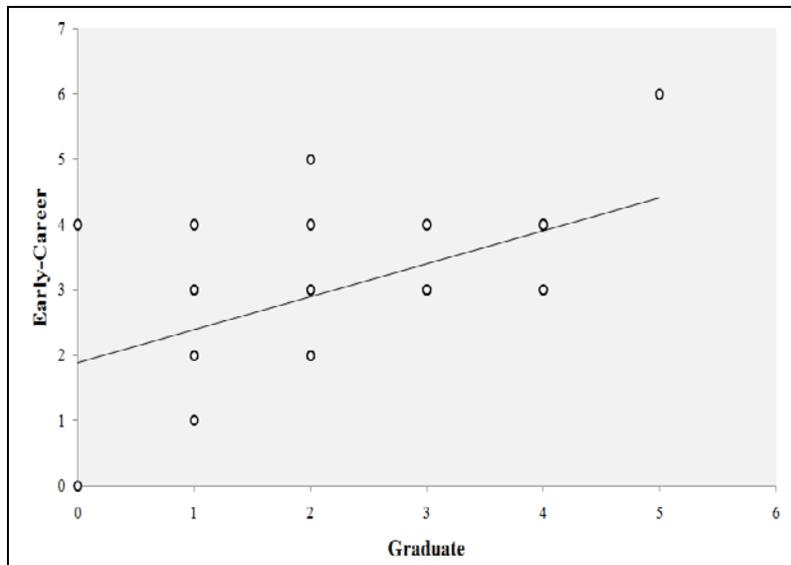


Figure 68. Correlation of membership(s) in discipline-related associations

1.a.(2) Responses were examined to find out whether or not there is a relationship between the number of publications at the Current level (Y) and the Early Career level (X) using a regression between Y and X and test if the slope between Y and X is equal to zero. Analysis excluded one response that indicated “more than 20” research activates (textbooks) and two responses (presentations) in both stages. The concern was that activities would be counted twice thus skewing the analysis and resulting in a non accurate representation of the data. Findings for this sub-question are summarized in Table (12).

Table 12. Correlations of Early-Career and Current Research Activities

No.	Item	n	Correlation	p Value ²⁴
1	<i>articles published in refereed professional or trade journals; creative works published in juried media</i>	29	.348	.064
2	<i>articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters</i>	29	.455	<u>.013</u>
3	<i>published reviews of books, articles, or creative works; chapters in edited volumes</i>	29	.307	.105
4	<i>textbooks, other books; monographs; research or technical reports disseminated internally or to clients</i>	28	.106	.592
5	<i>Presentations at conferences, workshops, etc...</i>	27	.124	.538
6	<i>membership(s) in discipline-related associations</i>	29	.664	<u>.000</u>

Regarding the relationship between early career and current *articles published in refereed professional or trade journals; creative works published in juried media.*, the correlation was .348 and the relationship was not significant ($p > .05$).

Regarding the relationship between early career and current *articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters*, the correlation was .455 and the relationship was significant ($p < .05$) as illustrated in the corresponding scatter diagram (figure 69).

²⁴ Significant values were underlined

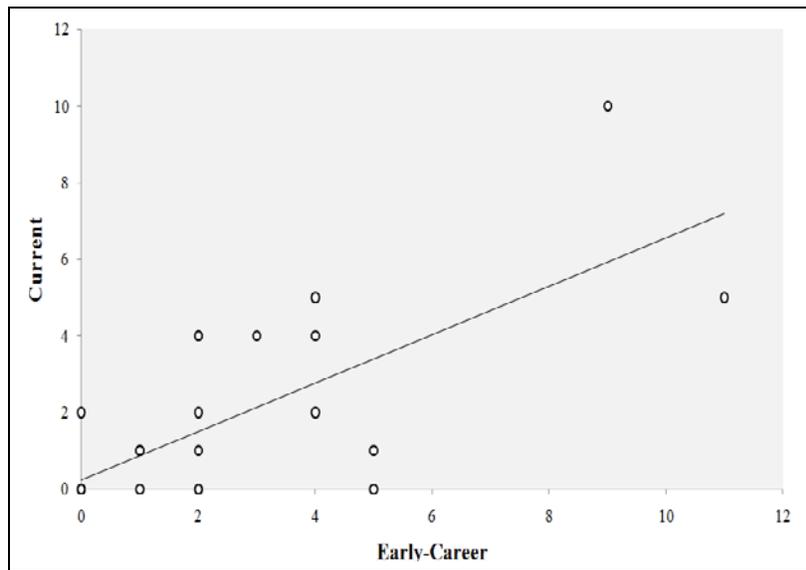


Figure 69. Correlation of Early Career and Current Publications

Regarding the relationship between early career and current *published reviews of books, articles, or creative works; chapters in edited volumes*, the correlation was .307 and the relationship was not significant ($p > .05$).

Regarding the relationship between early career and current *textbooks, other books; monographs; research or technical reports disseminated internally or to clients*, the correlation was .106 and the relationship was not significant ($p > .05$)

Regarding the relationship between early career and current *presentations at conferences, workshops, etc.*, the correlation was .354 and the relationship was not significant ($p = .060$).

Regarding the relationship between early career and current *membership(s) in discipline-related associations*, the correlation was .664 and the relationship was significant ($p < .01$) as illustrated in the corresponding scatter diagram (figure 70).

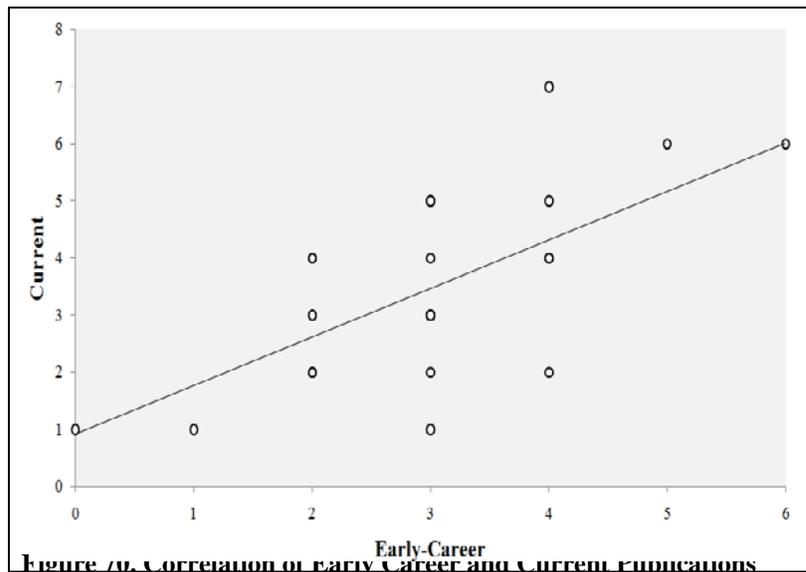


Figure 10. Correlation of Early Career and Current Perceptions

1.b. What is the relationship between faculty members’ perception of their socialization experiences when they were graduate students and their and current perceptions?

In this question, responses were examined to find out whether or not there is a difference between perceptions gained from graduate experiences and understandings gained from the selected institution.

To achieve this, a matched pairs t-test was performed for each question. None of the pairs had any significant relations. Correlations were small and none were significantly different from zero. For questions 1, 2, 5-7, and 9, participants’ mean graduate experiences were more positive when compared to current experiences. Both experiences had equal means for Q8 and participants’ current experiences had higher means in Q3 and Q4. Findings for this sub-question are summarized in table (13).

Table 13. Relationship between Participants' Graduate & Current Perceptions of their Socialization Experiences

Questions		Phase	Mean	Std. Dev.	t	df	p Value
Q1	The different research-related roles, duties, and responsibilities of the job at this institution	Graduate	3.34	.670	.757	28	.455
		Current	3.17	.848			
Q2	The quality of research expected from faculty at this institution	Graduate	3.38	.820	.723	28	.475
		Current	3.21	.819			
Q3	The quantity of research expected from faculty at this institution	Graduate	3.03	.944	-.559	28	.581
		Current	3.17	.848			
Q4	Research-related requirements of achieving tenure at this institution	Graduate	3.03	.981	-.757	28	.455
		Current	3.21	.819			
Q5	The level of research-related communication with disciplinary colleagues inside the institution	Graduate	2.97	.944	.378	28	.708
		Current	2.86	.990			
Q6	The level of research-related communication with disciplinary colleagues outside the institution	Graduate	3.07	.884	.797	28	.432
		Current	2.86	.990			
Q7	Time faculty would allocate to the research-role component of the job	Graduate	3.21	.774	.319	28	.752
		Current	3.14	.875			
Q8	Senior faculty contribution(s) towards research-related roles of junior faculty	Graduate	2.69	.930	.000	28	1.000
		Current	2.69	1.039			
Q9	Time allocated to keeping up with recent published research	Graduate	2.97	.778	.532	28	.599
		Current	2.86	.915			

1.c. How do faculty members perceive the (1) available research socialization programs at the institution as contributing to their experiences? Are there any differences in perceptions based on (2) doctoral degree type and (3) tenure status?

1.c.(1) For the first part of the question, responses were examined for the overall positive (any mean value greater than 2.5) or negative (any mean value less than 2.5) perception of the available research socialization programs at the institution. “Perception” was defined as the mean of the answers given on every item in Question 13 of the instrument; a greater number of positive (+) perception(s) indicated that faculty members perceived the available research socialization programs in a positive/favorable manner. On the other hand, negative (-) perception(s) indicated that faculty members perceived the available research socialization programs in a negative/non-favorable manner. Table (14) illustrates the findings.

Table 14. Perceptions on Institutional Socialization Programs

	Questions	Mean	Std. Dev.	Perception
Q1	This institution offers an adequate number of programs that facilitate(d) your research experiences.	2.83	.805	+
Q2	This institution offers effective programs that facilitate(d) your research experiences.	2.72	.751	+
Q3	This institution offers programs that facilitate(d) your research experiences covering a wide variety of research problems/issues.	2.55	.783	+
Q4	This institution offers programs that facilitate(d) your research experiences covering a wide variety of research approaches.	2.45	.736	-
Q5	The programs in this institution are offered within a variety of times that make them convenient to access.	2.66	.769	+
Q6	The programs in this institution are offered within a variety of places that make them convenient to access.	2.72	.702	+
Q7	I have participated in research-related training programs at this institution.	2.07	.799	-

Responses were positive for five out of seven questions (71.4%). With an overall positive perception, around a fifth of respondents highly agreed, almost half moderately agreed, a third agreed to a low degree, and a single respondent did not agree at all that the institution offered the adequate *number* of research socialization programs.

Again having an overall positive perception, almost a seventh of respondents highly agreed, nearly half moderately agreed, a third agreed to a low degree, and only a single respondent did not agree at all that the institution offered *effective* socialization programs.

Although overall a positive perception was found, only two respondents highly agreed, slightly more than half moderately agreed, slightly less than a third agreed to a low degree, and only a tenth of respondents did not agree at all that the socialization programs at the institution covered a variety of research issues.

On the other hand, with an overall negative perception, a single respondent highly agreed, while almost half of the respondents moderately agreed, slightly more than a third agreed to a low degree, and only a tenth of respondents did not agree at all that the socialization programs at the institution covered a variety of research approaches.

With an overall positive perception, one tenth of respondents highly agreed, slightly more than a half moderately agreed, slightly less than a third agreed to a low degree, and only two respondents did not agree at all that the socialization programs at the institution were offered within a variety of convenient times.

Again with an overall positive perception, one tenth of respondents highly agreed, slightly more than a half moderately agreed, slightly less than a third agreed to a low degree, and

only single respondent did not agree at all that the socialization programs at the institution were offered within a variety of convenient places.

Finally, regarding the *seventh* and final question, overall, respondents had a negative perception as nearly half had indicated their participation was “to a low degree”. Meanwhile, a single respondent, reported participating “to a high degree”, almost a quarter of respondents had participated “to a moderate degree”, and the other quarter of respondents had not participated in any socialization program offered by the institution at all.

Though, in general, perceptions were positive, none appeared to express any strong perception. Mean scores were barely positive, indicating that respondents’ experiences were overall average.

1.c.(2) Responses were examined to find out whether or not participants with different doctoral degree types have the same perception. A t-test for the mean of Q13 responses from respondents with Ph.D.'s versus the mean participants with Ed.D.'s was to be analyzed. However, given the disparity between numbers in both groups ultimately resulted in eliminating the proposed statistical procedure.

1.c.(3) Responses were examined to find out whether or not participants with different tenure status have the same perception. To achieve this, a one-way analysis of variance (ANOVA) was performed to determine if at least one rank group is different. The test results found no significance between participants in the three different groups. Thus illustrating that tenure status was not a contributing variable to respondents’ perceptions.

1.d. To what extent are following personal variables related to perceiving current socialization experiences; (1) Doctoral degree type, (2) Institution type and (3) Personal academic preferences?

“Perceived socialization experiences” (PSE) was defined as the mean degree of socialization experiences from question 9.

1.d.(1) Responses were examined to find out whether or not participants with different doctoral degree types had the same perception. A t-test for the mean of Q9 responses from respondents with Ph.D.'s versus the mean participants with Ed.D.'s was to be analyzed. However, given the disparity between numbers in both groups ultimately resulted in eliminating the proposed statistical procedure.

1.d.(2) Responses were examined to find out whether or not participants with different graduate institution types had the same perception. An analysis of variance (ANOVA) for the mean of Q9 responses from respondents from different institutional types was to be analyzed. However, all participants graduated from institutions of one type -research universities- so no comparison for different types could be made.

1.d.(3) Responses were examined to find out whether or not participants with different personal preferences have the same perception. To achieve this, a one-way analysis of variance (ANOVA) was performed to determine if at least one rank group is different from the others. No such difference was found.

1.e. To what extent are the following work-environment variables related to perceiving current socialization experiences; (1) current institutional programs,(2) academic rank, (3) history with institution, and (4) tenure status?

“Degree of agreement” (DOA) was defined as the mean degree for responses from question (13) dealing with perceptions on the current socialization programs at the institution. Table (15) summarizes the overall findings²⁵.

Table 15. Mean Comparisons

section	Variables	t	F	r	Sig.
1.e.1	PSE & DOA	-3.712	-	-	<u>.001</u>
1.e.2	PSE by Rank	-	.922	-	.411
1.e.3	PSE by History with Institution	-	-	.200	.308
1.e.4	PSE by Tenure Status	-	.142	-	.868

1.e.(1) Responses were examined to find out whether the PSE mean and the DOA mean are significantly different. This was performed to find out the relationship(s) between respondents’ perceptions of the institution’s contribution to their understanding of the different aspects of the faculty role and their perception(s) of the offered institutional socialization programs.

To achieve this, a matched pairs t-test was performed on the differences which were found to be significant ($p < .01$) as illustrated in table (16).

²⁵ Significant values are underlined.

Table 16. Paired Samples t-test for PSE and DOA

Variable	Mean	N	Std. Dev.	Correlation		t-test				
				r	Sig.	Mean	Std. Dev.	t	df	Sig.
DOA	2.57	29	.580	.528	.003	-.45	.649	-3.712	28	.001
PSE	3.02	29	.729							

In addition, it may be noted that the correlation between DOA and PSE was .528 which is statistically significant ($p < .01$). The data provide strong evidence that respondents' perceptions regarding institutional contribution to their socialization experiences were strongly linked to their perception on the socialization programs offered by the institution. Figure (71) illustrates the correlation.

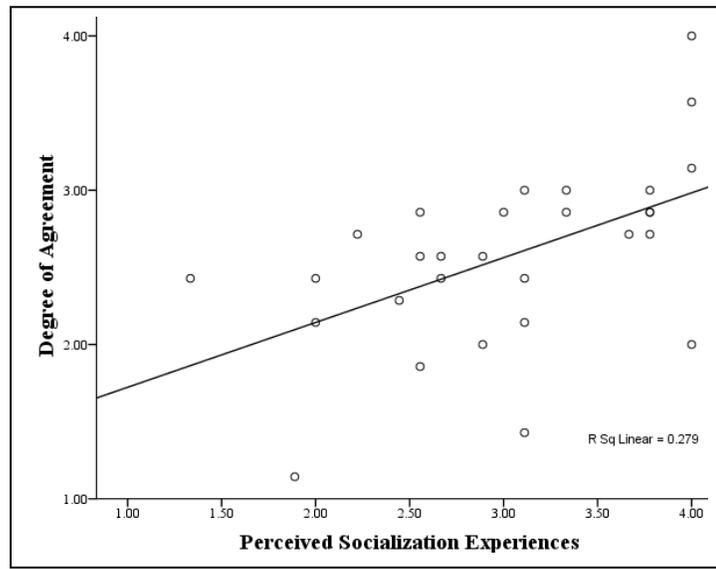


Figure 71. Correlation of DOA & PSE

1.e.(2) Responses were examined to find out whether or not PSE differs between groups of academic ranks. To achieve this, a one-way analysis of variance (ANOVA) was performed

to determine if at least one rank group is different from the others. No such difference was found ($p > .05$).

1.e.(3) Responses were examined to find out whether or not a higher PSE corresponds to higher years at the institution. To achieve this, a correlation was calculated to see if the correlation between PSE and years is equal to zero. The correlation turned out to be .200, which is not statistically significant ($p > .05$).

1.e.(4) Responses were examined to find out whether or not PSE differs based on tenure status. To achieve this, an analysis of variance (ANOVA) was performed to compare the mean PSE scores for the three tenure status groups. No such difference was found ($p > .05$).

4.3 CONCLUSION

Although the surveyed population involved a modest number of participants, analysis of the data provided depicts several remarkable findings. Moreover, several variables could not be examined as the collected data could not support grounds for the intended examinations.

On the bright side, examination of the remaining variables generated several interesting findings. First, publication and other research-related activity rates were significantly correlated between participants' graduate and early careers. Though numbers of early-career research activities were also correlated with current activities, fewer activities were significantly correlated.

Respondents' perceptions regarding institutional socialization efforts, though statistically positive, did not represent strong positive attitudes. Participation levels in institutional

socialization programs were low and participants had barely positive perceptions on several aspects relating to content and means these were programs were offered for them.

Nonetheless, further examination of the data illuminated yet an additional finding. Respondents indicated that, though the level of experiences with the institutional socialization programs was low, those experiences still contributed highly to their perception regarding the institution. The data correlates decreased perceptions of the available socialization programs with decreased perceptions about the institution's overall role in socializing its members.

The following final chapter highlights the major findings of this study. Additionally, links will be made between findings of this study and findings of other studies within the body of literature.

5.0 DISCUSSION & CONCLUSION

This final chapter is divided into four sections. The first section consists of a discussion of socialization results. Following is a discussion regarding noteworthy participant characteristics. This will lead to the researcher's recommendations for developing the case institution's socialization programs and suggestions for future studies on faculty research socialization. Finally, the study will end with some general comments from the researcher.

5.1 RESEARCH SOCIALIZATION

The study was based on Weidman's (2006) framework that presents socialization as a three-phase process. The framework examines relationships between participants' graduate, early-career, and current perceptions. These stages correspond to the anticipatory, environment, and outcomes phases of socialization respectively. The framework links interactions and outputs from the three phases as being relevant to participants' socialization experiences.

Comparing respondents' publication activities during their graduate and early-career phases revealed significant positive relations. Faculty members who had more research activities²⁶ during their graduate years had more early-career activities than those who had fewer

²⁶ research activities are explained on p.61

or no graduate publications at all. Moreover, findings support the same conclusion regarding having significant positive relations between early-career and current research activities.

This finding coincides with the anticipatory phase of Weidman's (2006) socialization framework, the individual's background, previous interactions, and "academic preparation"(p. 256). As all the respondents were graduates of research universities, it is rational to claim their familiarity with research production was helpful during their matriculation to the new academic positions. Weidman (2006) illustrated that as graduate students, individuals learn to "anticipate what might occur" based on their academic experiences (p. 257). Weidman explained that this process occurs as graduate students acquire knowledge, involve themselves, and engaged in their academic environment(s). Later on, as faculty members, these previous interactions help shape their understanding of the roles and requirements of the academic position they have been socialized to.

After admission to the academic career, further "involvement and engagement" with the environment also results in additional socialization (p. 257). The data in this study has correlated faculty members perceptions regarding their institution based on their interactions within the institution itself. Though respondents' perceptions regarding their institutional socialization experiences were positive, the perceptions were not very strong, as they were barely positive.

This also has been explained by Blackburn and Lawrence (1995) as they illustrated that "faculty educated and trained in graduate departments where research is the dominant value will be more prolific scholars than will those who attended institutions less committed to the research role" (p. 37). Additionally, researchers (Blackburn & Lawrence, 1995; Fox, 1985) illustrated that early publishing, referring to publication before acquiring the doctoral degree, is a predictor for

the individuals' future production rate(s). Faculty members at the case institution were extremely familiar with conducting research, as they were all doctoral graduates of research universities.

A different, yet related, finding regarding respondents' graduate and institutional perceptions on socialization is critical to the discussion. As evident from the data in table (13), respondents clearly gave more credit to their graduate experiences as having more contribution to their understanding of the academic position than the case institution. Respondents ranked their graduate preparation higher than what they had ranked the case institution.

Respondents indicated that their graduate experiences had greater impacts regarding better understandings of two-thirds of the identified research aspects of the faculty position. However, respondents also indicated that the institution had provided them with a clearer understanding of two vital aspects of the academic position: the quantity of expected research and research-related tenure requirements.

Faculty perceived the institution as having achieved an average²⁷ job with regards to research socialization. The highest positive²⁸ score was for *the number of research socialization programs* offered by the institution. On the other hand, the lowest positive score²⁹ was given to the statement that the institutional research socialization programs covered a wide variety of research problems/issues. Additionally, participation in the socialization programs offered by the institution was very low³⁰. Nearly a quarter of the respondents had not participated in any research socialization program at all, while almost half had indicated low participation.

²⁷ Mean of 2.66 with the lowest score of 1) *Not at All* and highest of 4) *To a high degree*

²⁸ Mean of 2.83 with the same previous scale

²⁹ Mean of 2.55 with the same previous scale

³⁰ Mean of 2.07 with the same previous scale

Additionally, the other statement that received a negative score was whether the programs cover a variety of research approaches³¹.

Further examination of the data for the purpose of explaining respondents' current socialization experiences yielded a major finding. Respondents indicated that their experiences with the different institutional research socialization programs significantly affected their perception on the different research-related aspects of the faculty position. As illustrated in table (16), the relationship is significant; so is the correlation.

Furthermore, given the observed positive relationship between respondents' perception of the available programs and their perceptions of the institution, it is reasonable to expect that had the respondents experienced programs that socialized them to research in a more effective manner, their perceptions regarding the institution facilitating their mission would be more positive. This translates into being a highly critical fact that should be focused on by the institution's policy makers.

Examining the relationships between graduate and institutional input towards having a stronger socialization effect yielded not a single significant relationship. It is then imperative for institutional policy makers to note the previous finding: developing socialization programs to ease faculty roles at the institution correlates to a higher and more positive perception towards the institution.

³¹ Mean of 2.45 with the same previous scale

5.2 FACULTY CHARACTERISTICS

In addition to seeking answers for the specific questions of the study, further examination of the data reveals yet an additional set of interesting findings that relate to faculty members' characteristics.

Comparing results with the latest NSOPF 2004 study revealed that the majority of education faculty members were tenured. However, study results were only consistent with the most recent report regarding the representation of on tenure track and not on tenure track respondents. Examining data from previous NSOPF reports (1992 and 1987) reveals that while tenured faculty were still a majority, faculty on tenure track represented a larger group than those not on tenure track.

Comparing³² data revealed that tenured faculty represented 60.5%, 54.9%, and 36.1% corresponding to the 1987 NSOPF, 1992 NSOPF, and 2004 NSOPF³³. Meanwhile, faculty on tenure track represented 18.9%, 3.6%, and 24.7% respectively³⁴. Finally, faculty members not on tenure track represented 12.5% 14.1%, and 32.6% respectively³⁵.

Tenure data from this study depict percentages that are slightly higher than the latest (2004) NSOPF study. However, compared to previous NSOPF data, it seems that there is no growth among the number of tenured faculty in the field of education. In contrast, percentages seem to be increasing slightly among faculty on tenure track and more firmly among faculty not on tenure track. This has also been noted by Tierney (2001) as he illustrated that “the field of education is not in a period of robust growth, but it is in a time of dynamic change” (p. 101).

³² **Sources:** NSOPF 1992 & 1987 data (Tierney, 2001) and NSOPF 2004 data (National Center for Educational Statistics, 2005)

³³ Compared to 41% representing tenured faculty in this study.

³⁴ Compared to 25% representing tenured faculty in this study.

³⁵ Compared to 31% representing tenured faculty in this study.

Tierney (2001) illustrated that the decreasing number of tenured faculty is explained by the increasing numbers of part-time faculty and those hired on non-tenure track positions.

The notion of decreased numbers of tenured and simultaneously increasing numbers of non-tenure track faculty is restricted neither to education faculty nor to research institutions. Gappa, Austin, and Trice (2007) illustrate that this fact is true across all the different types of higher education institutions. The researchers have found that across all institutional types, tenure and on tenure-track faculty have decreased from 79.4% in 1987 to 68.1% in 2003, while faculty members not on tenure streams have increased from 20.6% to 31.9% during the same period. A similar decrease was also noticed among research institutions, as tenure and on tenure-track faculty have decreased from 84.9% in 1987 to 67.5% in 2003, while faculty members not on tenure streams have increased from 15.1% to 32.5% during the same period. Finally, comprehensive institutions also experienced a parallel decline among tenure and on tenure-track faculty from 86.5% to 78.1% and an increment for faculty members not on tenure streams from 13.5% to 21.9% during the same years.

Regarding current publications, findings were consistent with the literature concerning faculty within the different tenure groups. Tenured faculty and those on tenure track tend to have more publications than faculty members that are not on tenure track (O'Meara, et al., 2008; Schuster & Finkelstein, 2006). Comparing findings with those of the 2004 NSOPF³⁶ also illustrates a clearer depiction of the data.

³⁶ Source: (National Center for Educational Statistics, 2005)

Among five types of research activities³⁷, tenured faculty members had the most publications in both this study³⁸ and the 2004 NSOPF. They were followed by faculty members on tenure track and finally by faculty members not on tenure tracks followed by faculty members on tenure track and finally by faculty members not on tenure tracks³⁹

The research output for education faculty is generally low (Tierney, 2001). One explanation is the rising numbers for non-tenure track faculty that is coinciding with the decreasing numbers of tenured faculty. The increasing number of non-tenure track positions can be linked to several reasons, which may include institutional expansion, declining state support, rising numbers of students, and growth of online courses (Gappa, et al., 2007).

5.3 RECOMMENDATIONS FOR THE CASE INSTITUTION

Analyzing the collected data suggests several recommendations for the consideration of the case institution's policy makers. Respondents' perceptions about the available research-related socialization programs were barely positive. Based on the analysis of respondents' perceptions, following are several suggestions that are likely to enhance the experiences of new and existing fulltime education faculty members:

³⁷ These include: *Articles published in refereed professional or trade journals, articles published in non-refereed professional or trade journals, published reviews of books, articles, or creative works, textbooks and other books, and presentations at conferences, workshops, etc.*

³⁸ With the exception of *articles published in refereed professional or trade journals*

³⁹ With the exception of *articles published in refereed professional or trade journals, articles published in non-refereed professional or trade journals, textbooks and other books, and presentations at conferences, workshops, etc.*

- Developing additional programs/seminars that introduce/socialize new and existing faculty to the different aspects of research and the different technologies utilized to assist with conducting and publishing research.
- Increasing the frequency of offered programs and adding several on-campus locations thus creating additional opportunities for faculty to attend and benefit.
- Considering online programs that would save faculty members, especially new faculty, substantial amounts of time as they could be accessed from virtually anywhere (office, school computer laboratory, home, etc.).
- Emphasize the role of graduate programs in the creation of future faculty members through enticing more interactions between graduate faculty and doctoral students.

5.4 RECOMMENDATIONS FOR FUTURE STUDIES

Although there is a plethora of literature on studies that relate to research production among faculty, there is also a need for more research in several aspects that relate to research socialization. This would involve suggesting more research on:

- Graduate students' perceptions of their readiness and comprehension levels of the different aspects of academic positions.
- Graduate publication, especially among graduate students aspiring for academic positions.
- Faculty perceptions on graduate research socialization/preparation during their career-entry and early-career stages.

- Faculty perceptions on institutional research socialization efforts during their career-entry and early-career stages.
- Faculty perceptions on which specific programs or certain aspects of programs they find more contributing to their socialization.
- Faculty perceptions on institutional efforts for research socialization involving larger sample sizes.

5.5 FINAL CONCLUSION

Higher education institutions, among other social organizations, have been utilizing socialization for various purposes and to various targets. Socializing undergraduate and graduate students to the different missions of the institution is merely one facet. Additionally, faculty members are socialized to the different administrative and academic cultures and norms with the institution.

This study has examined faculty perceptions regarding their institutional research socialization experiences. Respondents were asked to share their graduate, early-career, and current research experiences with regards to contributing to facilitating research-related role(s) of the faculty position at the selected institution.

Major findings involved faculty members' perceptions of how their graduate experiences had contributed more to their research socialization than the institution. However, two exceptions to the previous statement were also found. Faculty members reported their graduate experiences were undermined regarding the amount of expected research and tenure requirement. Faculty members reported that the institution provided them with the necessary and germane information as they entered into their positions. They also reported that their graduate expectations of both

statements were not as accurate as their expectations were on the other aspects of the research-related job requirements.

Another finding involved the available institutional efforts to socialize faculty members. Faculty members reported that, though on average the programs were positively rated, the institutional programs barely do the job. Faculty members' ratings were marginally positive and many individuals had not participated in any.

Research socialization is a vital component ensuring faculty amalgamation to the institutional system, especially in the case of faculty in research universities. Though the majority of training for academic positions is processed through graduate school, institutions still shoulder a considerable amount of easing faculty members' roles and functions. Successful socialization into the research role of the academic position leads to further research production.

Moreover, socialization helps faculty members develop a stronger sense of commitment as they feel the institution is providing them with additional support to succeed. Strong relations also lie between what the institution offers to socialize its faculty members and how they perceive their overall work environment. The more relevant the support provided by the institution, the more positive faculty members did perceive their experiences.

The diversity of fulltime faculty members at the case institution in terms of years served at the institution is an excellent target for future studies on research socialization as the current study was limited because of the modest response rate. Further qualitative research may capture what this study could not, ultimately adding to, as well as advancing, researchers' grasp over faculty research socialization.

APPENDIX

FACULTY RESEARCH SOCIALIZATION INSTRUMENT (FRS)

Faculty Research Socialization

1. Introduction

Thank you for choosing to participate in this research study.

The purpose of this research study is to examine how higher education institutions facilitate the research role of faculty members' job functions.

In this study, faculty members in the School of Education at the University of Pittsburgh are kindly asked to complete a brief online questionnaire (approximately 15 minutes).

If you are willing to participate, you will initially be required to verify that you are over 18 years of age. You will then be asked about your academic background (e.g., highest earned degree, years in current position, professional-career experiences) as well as your perceptions about your research experiences at the University of Pittsburgh.

There are no foreseeable risks associated with this project, nor are there any direct benefits to you. This is an entirely anonymous questionnaire, and so your survey responses will not be identifiable in any way as now identifying information will be gathered nor will there be any way to identify individual responses. All responses are confidential, and results will be kept under lock and key. Your participation is voluntary, and you may withdraw from this project at any time.

This study is being conducted by Omar Jalloun, a doctoral candidate in the Department of Administrative & Policy Studies (ADMPS), and if you have any questions, please do not hesitate to contact the researcher through clicking the link below.

Your cooperation is deeply appreciated.



Omar A. Jalloun, M.Ed.

Ph.D. Candidate

Social & Comparative Analysis in Education

Administrative & Policy Studies

School of Education

University of Pittsburgh

[Contact the Researcher](#)

Faculty Research Socialization

2. Age Verification

This question is required by the Institutional Review Board

1. Prior to participating in this questionnaire, please verify that your age is

- over 18 years.
- under 18 years.

Research Socialization

3. Qualifying step #1

2. What is the highest degree you have completed?

(Please do not include honorary degrees.)

- 1) Doctor of Philosophy degree (Ph.D.)
- 2) Doctor of Education degree (Ed.D.)
- 3) Other degree (please specify)

Faculty Research Socialization

4. Qualifying step #2

3. During the current 2009-2010 academic year at the University of Pittsburgh, are you considered to have full-time or part-time faculty status?

- Full-time
- Part-time

Faculty Research Socialization

5. Research Activities

4. How many of the following have you completed?

(If not sure, give your *best estimates*. For items related to research publication, please include only works that have been accepted for publication. Count multiple publications/presentations of the same work only once. Include electronic publications that are not published elsewhere in the appropriate categories.)

	During Graduate School	During Early-Career*	Currently**
1) Articles published in refereed professional or trade journals; creative works published in juried media.	<input type="text"/>	<input type="text"/>	<input type="text"/>
2) Articles published in non-refereed professional or trade journals; creative works published in non-juried media or in-house newsletters.	<input type="text"/>	<input type="text"/>	<input type="text"/>
3) Published reviews of books, articles, or creative works; chapters in edited volumes.	<input type="text"/>	<input type="text"/>	<input type="text"/>
4) Textbooks, other books; monographs; research or technical reports disseminated internally or to clients.	<input type="text"/>	<input type="text"/>	<input type="text"/>
5) Presentations at conferences, workshops, etc.	<input type="text"/>	<input type="text"/>	<input type="text"/>
6) Membership(s) in discipline-related associations.	<input type="text"/>	<input type="text"/>	<input type="text"/>

* Early-Career refers to the first 5 years of your faculty career after receiving your doctoral degree

** Currently refers to activities within the last 2 years

Faculty Research Socialization

6. Demographics

5. Are you

female?

male?

6. Please type the name of the institution that awarded you your doctoral degree and the year you were awarded that degree.

Institution

Year

Faculty Research Socialization

7. Tenure Status

7. Please indicate your tenure status for the current 2009-2010 academic year at the University of Pittsburgh.

- 1) Tenured
- 2) On tenure track but not tenured
- 3) Not on tenure track
- 4) Other (please specify)

Faculty Research Socialization

8. Socialization Environment

This section deals with your experiences/perspectives during your **1st five years** as a faculty member at a large research university after receiving your doctoral degree.

8. As you started working as faculty member at a research university, to what extent did you believe your experience(s) during **GRADUATE SCHOOL** had contributed to your understanding of each of the following?

	Not at All	To a Low Degree	To a Moderate Degree	To a High Degree
1) The different research-related roles, duties, and responsibilities of the job at this institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) The quality of research expected from faculty at this institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) The quantity of research expected from faculty at this institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Research-related requirements of achieving tenure at this institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) The level of research-related communication with disciplinary colleagues inside the institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) The level of research-related communication with disciplinary colleagues outside the institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7) Time faculty would allocate to the research-role component of the job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8) Senior faculty contribution(s) towards research-related roles of junior faculty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9) Time allocated to keeping up with recent published research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Faculty Research Socialization

9. Socialization Outcomes

This section deals with your **CURRENT** experiences/perspectives as a faculty member at the University of Pittsburgh.

9. As a faculty member currently working at a research university, to what extent do you believe the University of Pittsburgh has contributed to your understanding of each of the following?

	To a			
	Not at All	To a Low Degree	Moderate Degree	To a High Degree
1) The different research-related roles, duties, and responsibilities of of the job at this institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) The quality of research expected from faculty at this institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) The quantity of research expected from faculty at this institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Research-related requirements of achieving tenure at this institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) The level of research-related communication with disciplinary colleagues inside the institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) The level of research-related communication with disciplinary colleagues outside the institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7) Time faculty would allocate to the research-role component of the job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8) Senior faculty contribution(s) towards research-related roles of junior faculty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9) Time allocated to keeping up with recent published research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Faculty Research Socialization

10. Demographics (continued)

10. In what year did you start working as a faculty member at the University of Pittsburgh?

11. Where do your interests regarding teaching and research lie?

- 1) Primarily in teaching
- 2) Primarily in research.
- 3) Equally in teaching and research.
- 4) In both, but leaning toward teaching.
- 5) In both, but leaning toward research.

12. During the current 2009-2010 academic year, what is your academic rank, title, or position at the University of Pittsburgh?

- 1) Professor.
- 2) Associate professor.
- 3) Assistant professor.
- 4) Other (please specify).

Faculty Research Socialization

11. Institutional Programs

Questions on this page relate to the **research-related** programs available at the University of Pittsburgh

13. To what extent do you agree with the following statements?

	Not at All	To a Low Degree	To a Moderate Degree	To a High Degree
1) This institution offers an adequate number of programs that facilitate(d) your research experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) This institution offers effective programs that facilitate(d) your research experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) This institution offers programs that facilitate(d) your research experiences covering a wide variety of research problems/issues .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) This institution offers programs that facilitate(d) your research experiences covering a wide variety of research approaches .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) The programs in this institution are offered within a variety of times that make them convenient to access.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) The programs in this institution are offered within a variety of places that make them convenient to access.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7) I have participated in research-related training programs at this institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Faculty Research Socialization

12. Job Satisfaction

14. If you had to do it over again, would you still choose an academic career at the University of Pittsburgh?

- No
 Yes

Please explain your answer

15. Finally, please feel free to share any additional information regarding policies and/or activities of the University of Pittsburgh that are related to your research experience(s)?

Thank you for your time, support, and effort.

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