Health Science Faculty Retention At Small And Mid-Sized Sized Private Universities

Thomas Pahnke

University of New England

Follow this and additional works at: https://dune.une.edu/theses

Part of the Educational Leadership Commons, Higher Education Administration Commons, and the Higher Education and Teaching Commons

© 2020 Thomas Pahnke

Preferred Citation

Pahnke, Thomas, "Health Science Faculty Retention At Small And Mid-Sized Sized Private Universities" (2020). All Theses And Dissertations. 303.
https://dune.une.edu/theses/303

This Dissertation is brought to you for free and open access by the Theses and Dissertations at DUNE: DigitalUNE. It has been accepted for inclusion in All Theses And Dissertations by an authorized administrator of DUNE: DigitalUNE. For more information, please contact bkenyon@une.edu.
Health Science Faculty Retention at Small and Mid-Sized Sized Private Universities

By

Thomas Pahnke

BS University of Wisconsin 1992
MS Purdue University 1999

A DISSERTATION

Presented to the Affiliated Faculty of
The College of Graduate and Professional Studies at the University of New England

Submitted in Partial Fulfillment of Requirements
For the degree of Doctor of Education

Portland & Biddeford, Maine

May, 2020
HEALTH SCIENCE FACULTY RETENTION AT SMALL AND MID-SIZED PRIVATE UNIVERSITIES

ABSTRACT

Health science faculty shortages are one factor limiting the ability of institutions of higher education (IHE) to meet healthcare workforce demands. To address this problem IHE leaders must not only recruit, but also retain faculty. Given this problem, the purpose and question of this research study was to identify personal and workplace factors that contribute to health science faculty retention at small and mid-sized private Midwestern IHEs. To explore this question, a descriptive and exploratory quantitative survey research design was used. This design specifically sought to identify incentives for continued employment, as well as disincentives that cause a faculty member to consider leaving their academic position.

A total of 158 of 889 (17.8%) nursing, occupational therapy, physician assistant and physical therapy faculty at small to mid-sized (<9,999) private Midwestern IHE responded to the survey request. The Incentives and Disincentives for Employment Survey (IDES) was used for data collection. The IDES asked respondents to select factors important for retention from a list of previously validated incentives and disincentives for employment. Respondents were also asked to complete two qualitative questions asking which factors were most important for retention.

Results of this research study revealed faculty were predominantly female (84.8%), nearly half were primary caregivers (47.5%), a low percentage were tenured (26.3%), a high percentage worked on a 12 month annual contract (57%), and the sample had limited teaching
experience (M=10.7, SD=9.8). This research study found that key factors that incentivize continued employment parallel factors that when absent, would cause a faculty member to consider leaving. Manageable workloads, flexibility in the workplace, a collegial atmosphere, and a supportive direct supervisor were most frequently reported as important for health science faculty retention. In addition, salary is an emerging factor for some faculty.

These findings revealed health science faculty needs do not fully align with established job satisfaction theory. To improve health science faculty retention, it is recommended that IHE leaders 1) assess and address workload issues, 2) utilize the inherent flexibility of academic work, 3) lead through an understanding of individual needs, 4) develop collegiality through collective responsibility and 5) regularly benchmark salary to academic and practice environments.

Keywords: health science faculty, faculty retention, satisfaction
University of New England

Doctor of Education
Educational Leadership

This dissertation was presented by

Thomas Pahnke

It was presented on
May 18, 2020
and approved by:

William Boozang, Ed.D.
Lead Advisor,
University of New England

Debra Welkley, Ed.D.
Secondary Advisor,
UNE or other affiliation

Pam Pinahs-Schultz, Ph.D.
Affiliate Committee Member
Carroll University
ACKNOWLEDGEMENTS

I would like to thank my primary and secondary advisors, Dr. Bill Boozang and Dr. Debra Welkley for their support and guidance throughout the research study. Your thoughtful and thorough feedback was invaluable in this process. I would also like to acknowledge my affiliate advisor Dr. Pam Pinahs-Schultz, her influence extends beyond this dissertation. I have been blessed by her mentorship, advice and friendship throughout my academic career. Her wisdom and thoughts are greatly appreciated.

While I thank my academic advisors, this dissertation and my doctoral studies could not have occurred without the unwavering support of my wife Laura and daughter Brielle. Their unselfish giving of family time allowed me to complete this work, my success is their success. I look forward to giving back to them in the years to follow. Lastly, I would like to thank my parents for instilling a work effort and sense of perseverance that allowed me to continue when things got tough and time was short. Thank you all.
TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION ....................................................................................  1
  Statement of Problem ..........................................................................................  4
  Purpose of Research Study ..................................................................................  5
  Research Questions ............................................................................................  5
  Conceptual Framework .......................................................................................  6
  Assumptions and Limitations ..............................................................................  7
  Significance .........................................................................................................  10
  Definition of Terms .............................................................................................  13
  Conclusion ...........................................................................................................  15

CHAPTER 2: LITERATURE REVIEW .........................................................................  17
  Organization of Literature Review ......................................................................  17
  Topic of Research Study .....................................................................................  18
  Context of Review ...............................................................................................  19
  Conceptual Framework .......................................................................................  20
    Positionality Statement ..................................................................................  22
    Topical Research ............................................................................................  23
    Theoretical Framework ..................................................................................  24
  Literature Search Procedure ..............................................................................  29
  Review of Previous Research Methodology ......................................................  31
    Qualitative Methodology ..............................................................................  31
    Quantitative Methodology ............................................................................  32
    Literature Review Methodology ....................................................................  34
<table>
<thead>
<tr>
<th>CHAPTER 4: RESULTS</th>
<th>77</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis Methods</td>
<td>78</td>
</tr>
<tr>
<td>Quantitative Analysis Methods</td>
<td>79</td>
</tr>
<tr>
<td>Qualitative Analysis Methods</td>
<td>80</td>
</tr>
<tr>
<td>Presentation of Results</td>
<td>83</td>
</tr>
<tr>
<td>Demographic Profile</td>
<td>84</td>
</tr>
<tr>
<td>Quantitative Incentives for Continued or Future Employment</td>
<td>87</td>
</tr>
<tr>
<td>Qualitative Incentives for Continued or Future Employment</td>
<td>89</td>
</tr>
<tr>
<td>Quantitative Disincentives for Continued or Future Employment</td>
<td>92</td>
</tr>
<tr>
<td>Qualitative Disincentives for Continued or Future Employment</td>
<td>94</td>
</tr>
<tr>
<td>Conclusion</td>
<td>97</td>
</tr>
<tr>
<td>CHAPTER 5: CONCLUSION</td>
<td>100</td>
</tr>
<tr>
<td>Interpretation of Findings</td>
<td>102</td>
</tr>
<tr>
<td>Response Rate and Health Science Discipline Representation</td>
<td>103</td>
</tr>
<tr>
<td>Demographics</td>
<td>104</td>
</tr>
<tr>
<td>Incentives for Employment</td>
<td>108</td>
</tr>
<tr>
<td>Disincentives for Employment</td>
<td>113</td>
</tr>
<tr>
<td>Summary of Research Question Findings</td>
<td>117</td>
</tr>
<tr>
<td>Theoretical Framework Alignment</td>
<td>118</td>
</tr>
<tr>
<td>Implications</td>
<td>122</td>
</tr>
<tr>
<td>Recommendations for Action</td>
<td>123</td>
</tr>
<tr>
<td>Manageable Workload</td>
<td>124</td>
</tr>
<tr>
<td>Flexibility</td>
<td>125</td>
</tr>
<tr>
<td>Supportive Direct Supervisor</td>
<td>126</td>
</tr>
<tr>
<td>Collegiality</td>
<td>127</td>
</tr>
<tr>
<td>Salary</td>
<td>128</td>
</tr>
<tr>
<td>Recommendations for Further Study</td>
<td>129</td>
</tr>
</tbody>
</table>
LIST OF TABLES

1. Herzberg’s Motivator and Hygiene Factors ........................................................... 26
2. Qualitative Codes and Theoretical Alignment ....................................................... 83
3. Participant and Respondent Academic Discipline ................................................. 84
4. Demographic Profile .............................................................................................. 86
5. Number and Percentage of Incentives Selected for Continued Employment ....... 88
6. Quantitative Incentive Factor Responses Classified by Theory Alignment ............ 89
7. Number and Percentage of Codes Most Important for Continued Employment ... 90
8. Qualitative Incentive Codes Classified by Theory Alignment .............................. 92
9. Number and Percentage of Disincentives Selected for Leaving an Institution..... 93
10. Quantitative Disincentive Responses Classified by Theory Alignment ............... 94
11. Number and Percentage of Factors Reported as Most Important for Leaving ..... 96
12. Qualitative Disincentive Codes Classified by Theory Alignment ........................ 97
LIST OF FIGURES

1. Conceptual Framework of Research Study..................................................  22
2. Essential Elements of Faculty Work.............................................................  28
3. Theoretical Framework...................................................................................  29
CHAPTER 1
INTRODUCTION

The United States Department of Labor, Bureau of Labor Statistic’s Occupational Outlook Handbook notes that healthcare occupations are growing much faster than other occupation groups and are projected to add more jobs than any other sector of the economy (United States Department of Labor [USDL], 2018). The Department of Labor predicts a 14% growth in sector employment from 2018 to 2028, as opposed to 5% for all other occupations (USDL, 2018). However, the capacity of higher education to meet both current and projected healthcare workforce demand is limited, with the availability of health science faculty noted as one of the limiting factors for educational program growth and development (American Association of Colleges of Nursing [AACN], 2017; AACN, 2019a; Physician Assistant Education Association [PAEA], 2018a).

Faculty vacancies are a concern across most high demand health science education programs (AACN 2019a; American Occupational Therapy Association [AOTA], 2018; Commission on Accreditation in Physical Therapy Education [CAPTE], 2019; PAEA, 2018a) Nationally, 6.3% of physical therapy, 8% of occupational therapy, 8% of nursing, and 12% of physician assistant programs have open faculty positions, and 90% of physician assistant programs are seeking to hire new faculty (AOTA, 2018; AACN, 2019a; CAPTE, 2019; PAEA, 2018a). These faculty vacancies are in part limiting the ability of higher education to increase enrollment and meet workforce demands (AACN 2019b; Lee, Miller, Kippenbrock Rosen & Emory, 2017). Thus, an understanding of factors related to health science faculty recruitment and retention are of importance for institutions of higher education (IHE). While faculty retention
may not be an issue across all sectors of higher education, in health science education, retention is an area of great concern (AACN 2019a; Berent & Aderko, 2017; Derby-Davis, 2013; Lee et al., 2017).

Ampuda (2015) and Gormley (2003) note a relationship between job satisfaction and a faculty’s intent to remain employed in academia. To explore factors related to job satisfaction, Herzberg’s (2008) classic Motivation-Hygiene Theory, first introduced in 1959, remains a widely used approach for studying satisfaction and dissatisfaction in the workplace. In this dichotomous theory, six intrinsic motivators are associated with job satisfaction, whereas, ten external hygiene factors are associated with job dissatisfaction (Herzberg, 2008). In this framework, acknowledging and addressing hygiene factors does not lead to a satisfied or a retained employee, rather it leads to an employee who is not dissatisfied, while the six intrinsic motivators lead to satisfaction and retention. The intrinsic motivators in this theory include items like personal achievement and growth, recognition, and the work itself, while hygiene factors focus on environmental factors like collegiality, supervisor relationships, salary, and workplace policies. While this theory has historic roots, and is still referenced in retention and satisfaction literature (Basset-Jones & Lloyd, 2005; Beavers, 2010; Berent & Anderko, 2011; Derby-Davis, 2014; Jamieson, Kirk, Wright, & Andrew, 2015; Lane, Esser, Holte & McCusker, 2010; Tourangeau et al., 2012; Tourangeau et al., 2014), more recent, alternative theories have emerged (Gappa, Austin & Trice, 2007).

Gappa, Austin, and Trice (2007) propose a theory that is specific to higher education faculty and the changing landscape of higher education. Gappa et al. (2007) noted institutional financial pressures; calls for increased higher education accountability; a shifting of tenure track to non-tenure track faculty appointments; and increased female and diverse populations in the
academy as factors that have influenced what is currently important for faculty job satisfaction. These authors noted the importance of Herzberg's motivators and hygiene items, with autonomy, flexibility, employment equity, professional growth, collegiality, and respect as factors required for faculty satisfaction.

Further complicating the identification of which factors are important for faculty retention, Xu (2008) demonstrated that discipline-specific orientation within higher education significantly impacts satisfaction. Xu’s research assesses faculty job satisfaction factors based on the Biglan (1973) classification system for faculty. In this context, the Biglan framework clusters academic disciplines as hard versus soft, pure versus applied, and living versus non-living fields of study. After assessing faculty job satisfaction based on their academic discipline orientation, Xu concluded, "discipline-specific information was indispensable to institutional administrators and policy makers for effective faculty retention" (p. 40) and that “discipline-specific models should always be constructed to study faculty turnover whenever feasible” (p. 56). Additionally, Xu noted that setting and location variables also play a role in satisfaction. Thus, if one is interested in faculty retention, Xu’s research suggests that job satisfaction be studied from a discipline specific perspective, with the size and location of the institution controlled.

Given Xu’s (2008) recommendations, if health science faculty retention is to improve, academic administrators must understand what specific factors are important in the health science education setting. While previous literature related to general higher education faculty satisfaction exists (Gappa et.al, 2007; McCoy, Newell, & Gardner, 2013; O’Meara, Louder & Campbell, 2014; Rosser, 2004; Ryan, Healy, & Sullivan, 2012) and some limited nursing and physician assistant research has been published (Ampuda, 2015; Beltyukova & Graham, 2017; Derby-Davis, 2014; Tourangeau et.al., 2012), little is known about other allied health professions
and no literature was located that is sensitive to small or mid-sized private IHE settings. Thus, the goal of this research study is to identify what factors are important for health science faculty satisfaction and retention at small and mid-sized private IHE. This information can be used by academic administrators to create specific strategies that support health science faculty and foster environments that retain these individuals (Ampuda, 2015; Berent & Aderko, 2011; Candela, Guiterrez & Keating, 2015; Gormley, 2003; Wang & Liesveld, 2015).

Statement of Problem

Extensive research on general higher education faculty satisfaction and retention exists, however Xu’s (2008) comprehensive and seminal work on faculty satisfaction noted there was “convincing evidence that substantial and systematic variations exist among different disciplines with regard to the major factors driving faculty turnover” (p. 58). Xu also suggested institutional size and scope be considered, as faculty teaching, scholarship, and service demands differ based on size and scope of the institution. Ryan, Healy, and Sullivan (2012) similarly noted differences between disciplinary fields and recommended “it may be more effective for institutional leaders to pursue differential strategies across faculty groups” (p.433). While a limited amount of nursing or physician assistant retention literature has been located, this researcher did not identify any studies specific to physical or occupational therapy, or an aggregate sample of health science faculty that included nursing, physician assistant and allied health programs. Additionally, no research was located that controlled for the size of the institution or specifically assessed faculty at small or mid-sized private institutions. This lack of information subsequently limits the ability of the higher education administrator to design programs focused on improving faculty retention and creating an atmosphere that supports the specific needs of this population group, health science faculty.
Purpose of Research Study

The purpose of this research study was to identify personal and workplace factors that contribute to health science faculty retention at small and mid-sized private Midwestern IHE. A descriptive survey methodology was employed to explore and describe current factors associated with retention in this subgroup of higher education faculty. As little previous satisfaction or retention research has focused on health science faculty and this researcher had located no previous research specific to small and mid-sized private IHE, this research study sought to bridge the gap between what is known about historical job satisfaction factors and their relevance within a specific subset of academic faculty. Through identification of important job satisfaction factors, administrators at small and mid-sized private IHE will be more informed, allowing them to foster an environment that supports retention of this in demand faculty group.

Research Questions

To determine health science faculty member’s needs, the following research question (RQ) was asked:

RQ: What workplace factors influence health science faculty retention at small and mid-sized private Midwestern institutions of higher education (IHE)?

To further explore the research question, two research sub questions (SQ) were asked:

SQ1: What workplace factors entice health science faculty members at small and mid-sized private Midwestern IHE to remain employed in a current or future academic setting?

SQ2: What workplace factors cause health science faculty members at small and mid-sized private Midwestern IHE to consider leaving a current or future academic setting?
Conceptual Framework

As the importance of retaining health science faculty is documented, the need to understand what factors influence health science faculty’s desire to stay or leave an IHE is paramount. If an IHE is interested in developing an environment that supports the retention of faculty, an understanding of the needs of that specific faculty is important. The conceptual framework of this research references the need to study satisfaction from a discipline specific perspective, with the size and location of the IHE controlled (Ryan et al., 2018; Xu 2008). Exploration of satisfaction and dissatisfaction was guided by Herzberg’s Motivation-Hygiene theory (2008), the Gappa et al. (2007) Essential Elements of Faculty Work, and personal needs thought to be specific to the higher education setting (Derby-Davis, 2013; Dunphilly, 2011; Tourangeau et al., 2014, Tourangeau et al., 2015). The Tourangeau et al. (2015) research methods, which asked faculty to select from a list of previously identified and validated incentives and disincentives for continued employment at an IHE, was replicated in the population of interest.

Underpinning this research design are findings that demonstrated discipline specific orientation within higher education faculty significantly impacts satisfaction and retention (Ryan et al., 2018; Xu 2008). Therefore, if eventual interventional strategies for health science faculty retention are to be recommended, the specific needs and desires of that faculty group, controlling for institutional size, must be assessed. To assess the multifactorial needs of this health science faculty group, an underlying premise was that a satisfied faculty is a retained faculty. This concept was noted in Gormley’s (2003) meta-analysis on nursing job satisfaction and again asserted in findings by Ampuda (2015). This concept allows the researcher to identify what
specific factors are associated with job satisfaction, a topic that has a broad and established research base to draw from.

In order to assess the breadth of factors that may influence faculty satisfaction and retention, Herzberg’s classic Motivation-Hygiene Theory (Herzberg, 2008) and the more recent Gappa et al. (2007) Essential Element of Faculty Work paradigm were used to explore job satisfaction and dissatisfaction and served as the theoretical framework of this research. As these theories differ as to what is important for job satisfaction, with personal needs also playing a potential role in retention (Derby-Davis, 2013; Dunphilly, 2011; Tourangeau et al., 2014, Tourangeau et al., 2015), all are considered in the conceptual framework for this research study.

As there did not appear to be a clear and universally accepted theoretical framework that fully explained job satisfaction and retention, and no previous research was located that was specific to health science faculty at small to mid-sized private IHE, an exploratory, descriptive survey research design, similar to Tourangeau et al. (2015), was employed. In this design, faculty identify personal and workplace incentives and disincentives that would entice them to remain employed in their setting or prompt them to consider leaving their setting. Survey incentives and disincentives were developed in the context of Herzberg’s Motivation-Hygiene theory and the higher education work environment (Tourangeau et al., 2015). This design was exploratory and descriptive, as participants identify factors that do or would contribute to retention and factors that would or could cause them to consider leaving their position.

Assumptions and Limitations

The design of this research study includes several underlying assumptions. First, it was assumed that the Tourangeau et al. (2015) list of incentives and disincentives and the additional four incentives and four disincentives added to the survey are comprehensive and inclusive of
what is important for health science faculty. Second, the tool employed was valid for the population sampled and third, the population sampled was a homogenous faculty grouping.

The incentives and disincentives used in this research were developed and validated in a population of Canadian nurses (Tourangeau et al., 2015). These incentives and disincentives were developed by Tourangeau et al. (2015) in the context of Herzberg’s Motivation-Hygiene Theory and included motivators, hygiene factors, personal needs and other items found relevant in the academic environment. The incentives and disincentives used in Tourangeau et al. (2015) were the result of a comprehensive two-phase process for survey development. This process included nursing faculty focus groups and comparisons of results to multiple validated satisfaction research surveys used in a population of nurse faculty. An additional four incentives and four disincentives were added to the original Tourangeau et al. (2015) list, so as to include specific attributes consistent with the Gappa et al. (2007) Essential Elements of Faculty Work frame. While the original survey was designed for use with Canadian nurse educators, it was assumed that it is also valid in this research population. The shortage of health science faculty, concerns for faculty retention, and the similarity of demographics of Canadian nursing faculty as compared to the United States health science faculty population, provided the rationale for the use of this survey. To further assure participants are able to express what is important to them, two additional qualitative questions that were not part of the Tourangeau et al. (2015) research were added to the survey. These questions provide participants an opportunity to write what factors are most important as relates to staying or leaving a faculty position. Lastly, while the population sampled in the proposed research is limited to private IHE, with institutional size controlled, the research focus of the IHE is not specifically controlled. The Carnegie Classification of Institutions of Higher Education (2019) stipulates the research activity of
doctoral institutions, however, it does not stipulate the research classification of baccalaureate or master’s level institutions, of which this research sample is comprised. As research is not quantified for these institutions, it is assumed that the majority of small to mid-sized IHE sampled had a similar teaching and research agendas.

Limitations of this research study include the descriptive design methodology and generalizability of the research. The descriptive nature of this research sought to explore what factors health science faculty feel are important for them to stay employed at an IHE. While these factors are important to consider, correlation and causality for intent to stay or leave was not determined (Creswell, 2015). This research study allowed the researcher to identify the frequency of which incentives and disincentives are reported, however, it does not allow the researcher to make definitive recommendations as to what factors are necessarily most important for faculty retention, as rankings of importance are not included and the faculty surveyed have not actually left an institution. As definitive rankings were not present and the research population did not consist of faculty who actually left, the absolute degree of importance cannot be discerned. For example, many faculty may report flexible work hours as important, however, the extent to which this factor actually motivated them to stay or leave is not known. Likewise, a faculty member may say a low salary would motivate them to leave, however this study did not specifically sample faculty who actually left. The transferability of this research may also be limited to health science faculty at small and mid-sized private IHE, as faculty at larger or public IHE were not sampled. The premise of this research study was that faculty discipline, as well as the size and scope of an institution, play a role in determining what is important for faculty satisfaction and retention. Thus, the results of this research should be used with caution if applied to other groupings or settings of higher education faculty. Lastly, the open-ended qualitative
questions are exploratory and personal in nature. While aggregate trends and themes of responses are reported, the transferability of these responses to other faculty groups is not known or assessed.

**Significance**

The importance of understanding and subsequently addressing the factors that influence health science faculty satisfaction and retention was evident through a review of projected needs for health care providers, the state of health science education programs, the impact of health care shortages on patient care, and the influence that health science education programs play in the economic viability of private IHE. The USDL (2018) reported a 14% growth in health care occupations between 2018-2028. This is considered much faster than the 5% all occupation growth rate. Occupational therapy (18%), physical therapy (22%), and physician assistant positions (31%) are reported as some of the areas with the highest growth and need (USDL, 2018). Nursing has a lower growth rate (12%), however, it is also the largest sector in healthcare employment (USDL, 2018). Over the next decade nursing will add over 400,000 new positions, while more than 1 million nurses will reach retirement age (USDL, 2018). As the need for healthcare providers increases, the ability of higher education to keep pace with these demands will be challenged.

Faculty shortages in nursing and physical therapy have impacted program capacity, forcing programs to turn away qualified applicants. Derby-Davis (2013) noted higher education struggles to maintain faculty with academic and experiential qualifications needed for delivery of nursing programs and faculty vacancies are directly impacting the supply of nurses available for the workforce (as cited in Lee, Miller, Kippenbrock, Rosen, & Emory, 2017, p. 261). Similarly, the American Association of Colleges of Nursing (2019a) reported that educational programs
turned away 75,000 qualified applicants in 2018, with 2/3 of the schools responding faculty or preceptors’ shortages as reasons for limiting enrollment. Physical therapy faculty shortages also influence educational program capacity. In 2018, the average physical therapy program enrolled 45 students per cohort, while attracting 312 qualified applicants (CAPTE, 2019). While faculty shortages limit educational program capacity, faculty recruitment and retention are further complicated by plentiful private sector healthcare jobs.

As educational programs seek to increase capacity, they must compete with private sector employment opportunities for faculty talent. Physician assistant faculty literature (PAEA, 2018b) notes that 76% of faculty come from clinical practice, 44% of faculty are considering leaving academia, and the mean and median employment length for faculty is only 4 and 2.5 years respectively. Additionally, physician assistant salary in academia is typically 10% less than practicing clinicians (PAEA, 2018b; USDL 2018). Previous research with nursing faculty and a review of health science faculty also noted this phenomenon, Reed (2006) and Romig, O'Sullivan, Maillet, and Denmark (2011) state faculty can easily return to clinical practice, achieving the same or greater salary than they make in the university setting. Thus, if IHE do not want to lose faculty to clinical practice environments, it can be important for administrators to understand why health science faculty would choose to stay in the lower paying academic environment.

As faculty shortages limit health education capacity, the resulting healthcare provider shortage has the potential to negatively impact patient care. Needlemen (2011) reported that insufficient nurse staffing was related to higher patient mortality. While Aiken (2010) found the ability to increase nurse staffing decreased patient mortality. The overall perception of quality and safety of care was also found to be improved when appropriate nursing staffing models,
limiting the use of overtime (Cho et al., 2016). Thus, a trickle-down effect is realized when health science education programs are unable to graduate the needed number of healthcare providers, alternative models of staffing are used, requiring the use of overtime staffing.

As the physical health of our society is affected by education capacity issues, an economic impact is also realized. Health science education programs not only educate our future healthcare providers; they are also a means to support enrollment and finances at IHE. Student tuition is typically the primary source of revenue at private IHE. Jaschik & Lederman (2018) note the traditional 18 - 22-year-old undergraduate student demographic is decreasing and there is a greater focus on post-graduation jobs and employment. With these circumstances, small to mid-sized private IHE are pressured to offer educational programs that are responsive to both student and societal needs. As health science programs often have qualified applicant pools that exceed available seats (AACN, 2017; CAPTE, 2019a; PAEA 2018a), these programs may be a means to sustain enrollment. However, faculty shortages impact the ability to develop or expand these programs (AACN, 2019a; CAPTE, 2019a; PAEA 2018b). Thus, an understanding of health science faculty needs and the ability to retain health science faculty not only impacts students and programs they serve, but institutions as a whole.

As many small to mid-sized IHE have added health science programs over the last decade (AOTA, 2018; CAPTE 2109; PAEA 2018a), it is important for these IHE administrators to understand what factors are important to new faculty within these programs. Most health science faculty are employed through non-tenure-track positions, hail from clinical practice, and enter the academy at different lifetime points than traditional higher education faculty (AOTA, 2018; CAPTE, 2109; Lee et al., 2017; PAEA, 2018a). Thus, it was important to get an accurate view of this subsection of faculty to support health science faculty retention efforts. Upon review of the
literature no empirical research was identified that assessed job satisfiers and job dissatisfier across a broad context of health science faculty members, at small to mid-sized private IHE settings.

Lastly, it was hoped that findings from this research would allow health science administrators at small to mid-sized private IHE to understand how and where to deploy resources for faculty retention efforts. From a transformational leadership perspective, information from this research could be useful for tailoring strategies specific health science faculty needs. Bass’s (2008) transformational leadership theory describes individualized consideration as one of four components of effective leadership. Individualized consideration focuses on understanding the needs of the employee, empowerment, and environments where an employee can thrive (Bass, 2008). Thus, this research has the potential to help IHE administrators better understand health science faculty needs and provide context for future retention strategies at small to mid-sized IHE.

**Definition of Terms**

This research study was focused in nature, with specific contextual definitions. The key terms in this research include health science faculty, private IHE, small to mid-sized private IHE, retention and job satisfaction. Health science faculty in this research includes nursing, physician assistant, and the allied health professions of physical therapy and occupational therapy. The PEW Health Professions Commission (as cited by Romig, et al., 2011) states that “allied health comprises over 200 healthcare professions and occupations, including virtually every health profession except medicine, osteopathy, nursing, dentistry, pharmacy, optometry, and podiatry” (p. 3), however, the allied health professions in this study were limited to physical and occupational therapy. These disciplines were chosen as they have clearly documented faculty
shortages (AOTA, 2018; AACN, 2019a; CAPTE, 2019; PAEA, 2018a), significant workforce needs (USDL, 2018), and are often found in small and mid-sized IHE (AOTA, 2019; CAPTE, 2019b; CCNE, 2019; PAEA, 2019).

Private institutions of higher education (IHE) are defined as those that do not receive funds or subsidies from state legislatures, classification as not-for-profit and private by the Carnegie Classification of Institutions of Higher Education (CCIHC, 2019), and were baccalaureate, master's or doctoral degree-granting institutions accredited by the Higher Learning Commission. Small to mid-sized institutions of higher education (IHE) were those that meet the very small, small or mid-sized definition set forth by the CCIHE (CCIHE, 2019). The Carnegie classification system notes "very small" institutions as those with <1,000 full time enrolled students, "small" institutions as those with 1,000 to 2,999 students, and "mid-sized" as 3,000-9,999 total students.

No previous research reviewed for this study specifically defined faculty retention in a context appropriate for this research study. Manjounes’ (2016) dissertation related to tenure, subsequent scholarly productivity, and faculty retention, defined retention as the “institution’s effort to facilitate a working environment that supports an individual staying with said company” (p. 15) and a retained employee as one who stays at a university longer than one year. Stanford University’s Retention Guidelines (2019) discuss the importance of retention and suggest strategies for it but fails to specifically define it. Thus, somewhat related to Manjounes, this research study defined retention as continued employment of a faculty member within their current faculty appointment or within their current IHE. Retention in this research includes, within their current IHE, as a developing faculty may move from a faculty position to an administrative appointment within an institution.
Conclusion

The need to understand health science faculty retention was documented through the projected growth of healthcare professions and the inability of higher education to respond to these needs, in part by health science faculty shortages. The USDL (2018) statistics noted the growth of health profession nearly triples “all occupations” categories. As the demand for providers increases, health science education accrediting agencies report education program faculty vacancies ranging from 8-12% (AOTA, 2018; CAPTE, 2019; CCNE, 2019; PAEA, 2018a), limiting higher education’s ability to develop and expand health science education programs. Existing health provider shortages influence caregiving staffing patterns and are noted to adversely affect patient care (Aiken, 2010; Cho et al., 2016; Needlemen, 2011). As academic administrators hope to retain qualified health science faculty and expand education programs, they are challenged by faculty’s ability to return to clinical practice, where salaries often exceed those in academia (PAEA 2018a; Reed, 2006; Romig et al., 2011). It is for these reasons an understanding of factors related to health science faculty retention is important.

To understand health science faculty needs, this research study expands on established job satisfaction theory and explores it in the health science faculty context. Herzberg’s Motivation-Hygiene Theory (2008) and Gappa et al. (2007) Essential Elements of Faculty work underpins the exploration of health science faculty needs. Referencing Xu’s (2008) research, this research study underscores the importance of exploring faculty satisfaction and retention from a discipline perspective, acknowledging the size and scope of IHE. Thus, a descriptive research design was employed. Specifically, the purpose of this research was to identify personal and workplace factors that contribute to health science faculty retention at small and mid-sized private institutions of higher education (IHE).
In the following chapters both general higher education faculty and the limited amount of health science faculty literature related to job satisfaction and retention is reviewed. The literature review reinforces Xu’s (2008) and Ryan et al.’s (2012) findings that discipline variations do exist. A review of contemporary literature also notes that Herzberg’s framework consisting of motivator and hygiene factors remains important, however, discrepancies as to which factors are important in the health science faculty context warrants further exploration (Derby-Davis, 2013; Derby-Davis, 2014; Dunphilly, 2011; Gappa et al., 2007; Tourangeau et al., 2012; Tourangeau et al., 2014). These findings guided the development of a conceptual framework, which limited the sample population to a specific subset of faculty, with the size and scope of the institution controlled. This framework then explored factors that could or would entice health science faculty to stay or leave an academic faculty position. The exploration of factors that influence retention is viewed through the lens of Herzberg’s (2008) motivators and hygiene factors, as well as Gappa et al. (2007) Essential Elements of Faculty Work. The findings of the literature review led to a descriptive exploratory methodology that is outlined in Chapter Three. The results of this exploratory research are presented in Chapter Four, identifying personal and workplace factors that contribute to health science faculty retention at small and mid-sized private Midwestern IHE. This information is the discussed and recommendation and strategies or improving health science faculty retention are presented in the Chapter Five.
CHAPTER 2
LITERATURE REVIEW

A key component of the United States’ provision of quality healthcare lies in its ability to develop and educate a healthcare workforce. The United States Department of Labor, Bureau of Labor Statistic’s Occupational Outlook Handbook (2018) notes healthcare occupations are growing much faster than other occupation groups and are projected to add more jobs in the next 10 years than any other sector of the economy, predicting a 14% growth in sector employment from 2018 to 2028 (USDL, 2018). Currently, the capacity of higher education to meet the health care workforce demand is limited (American Association of Colleges of Nursing [AACN], 2019b; Wisconsin Hospital Association [WHA], 2018). The capacity of educational programs is in part affected by a lack of qualified health science faculty (AACN, 2019a; Physician Assistant Association [PAEA], 2019a). Given the lack of available faculty, an understanding of factors related to faculty retention are of great importance. To explore these factors a comprehensive review of literature was performed.

Organization of the Literature Review

To explore factors related to health science faculty retention the scope of this topic is defined, context of the review discussed, and the problem statement and significance of research is presented. The conceptual framework for this research study is then outlined, with faculty retention being studied from a discipline- and setting-specific perspective (Ryan, Healy & Sullivan, 2018; Xu, 2008), with job satisfaction being explored through the theoretical frameworks of Herzberg’s (2008) Motivation-Hygiene theory and the Gappa, Austin and Trice (2007) Essential Elements of Faculty Work paradigm.
Based on the conceptual framework employed, a comprehensive review of satisfaction and retention literature was performed. This literature review was broken down into three main sections: Review of Previous Research Methodologies, Job Satisfaction and Intent to Stay, and Job Dissatisfaction and Intent to Leave. Each section was further explored by relevant subsections based on common literature findings, concluding with summative key findings.

**Topic of Research Study**

As health science faculty shortages are documented across nursing (American Association of Colleges of Nursing [AACN], 2017; AACN, 2019a), physician assistant (PAEA, 2019a; PAEA 2019b) and allied health professions (American Occupational Therapy Association [AOTA], 2018; Commission on Accreditation in Physical Therapy Education [CAPTE], 2019), faculty retention is of high priority. Previous research has noted when higher education administrators are aware of factors that contribute to health science faculty satisfaction and turnover they are better prepared to create environments and programs that promote faculty retention (Ampuda, 2015; Berent & Aderko, 2011; Candela, Giterrez & Keating, 2015; Gormley, 2003; Wang & Liesveld, 2015). Thus, the purpose of this research study was to identify personal and workplace personal factors that contribute to health science faculty retention at small and mid-sized private Midwestern IHE. To explore health science faculty needs, the following research question was posed:

RQ: What workplace factors influence faculty retention at small and mid-sized private Midwestern institutions of higher education (IHE)?
To further explore the research question, two research sub questions (SQ) were asked:

SQ1: What workplace factors entice health science faculty members at small and mid-sized private Midwestern IHE to remain employed in a current or future academic setting?

SQ2: What workplace factors cause health science faculty members at small and mid-sized private Midwestern IHE to consider leaving a current or future academic setting?

**Context of Review**

The context of this review was specific to health science faculty at small and medium-size private IHE as defined by the Carnegie Classification of Institutions of Higher Education (CCIHC, 2019). When studying job satisfaction and faculty retention Xu (2008) suggested faculty be studied in specific discipline groupings. Xu noted that nursing is in a separate discipline cluster than occupational therapy, physician assistant and physical therapy, however, a slightly broader context of health science faculty was the population of interest in this research study. This grouping was chosen, as nursing, physician assistant, and allied health science programs are typically housed within a school or college at small and mid-sized private IHE and each of these disciplines fall within the “applied, life” cluster. With this grouping, the needs of multiple health science discipline faculty are represented, allowing administrators access to information that can be used for school or college-level strategies.

The institution size is also articulated in this exploration, as faculty at different types of institutions may have different needs and motivating factors (Xu, 2008). Although no research was located that specifically compared the needs of faculty across institutional size or research expectations, it is hypothesized that differences may exist. In the Carnegie Classification (2019)
system, IHE are classified as Research I or II if the institution had at least five million dollars of research expenditures and conferred 20 or more research/scholarship doctorates. The designation of Research I versus II is further determined by the research activity index that document four additional correlates of research activity. As IHE with Research I or II designations have high research expenditures, it is assumed that faculty at these institutions have greater research expectations than faculty at institutions without this designation, who have their own set of concomitant needs. Likewise, teaching loads at Research I or II universities and small and mid-sized private universities may also vary. To control for these potential variables, the size and scope of the institutions surveyed was controlled.

Further demonstrating the need to control for institutional size are faculty characteristics. Faculty positions at Research I or II doctoral institutions typically require that faculty have research focused doctorate degrees. Whereas, faculty at smaller teaching focused institutions often hail from years of clinical practice and then transition to academia without a terminal research focused degree (AOTA, 2018; CAPTE, 2018; Derby-Davis, 2014; Feldman et al., 2015; PAEA, 2019a).

**Conceptual Framework**

As multiple professional organizations and researchers have noted the importance of retaining qualified health science faculty (AACN, 2017; AACN 2019a; Berent & Aderko, 2011; Lee, Miller, Kippenbrock, Rosen & Emory, 2017), the strategies used to facilitate retention warrants attention. Assuming that issues related to faculty retention are multifactorial, a conceptual framework that acknowledges both the individual and environmental factors was constructed. In this framework, both incentives and disincentives that do or would lead a faculty member to remain employed or cause them to consider leaving an IHE are explored.
Guiding this research is the assumption that if a faculty member is satisfied with their workplace, they will be retained by their employer. This concept was noted in Gormley’s (2003) meta-analysis on nursing job satisfaction and again asserted by Ampuda (2015). This underlying assumption allowed this researcher to identify what specific factors were associated with job satisfaction. Herzberg’s (2008) classic Motivation-Hygiene Theory, first described in 1959, continues to be referenced in job satisfaction and dissatisfaction research (Bassett-Jones & Lloyd 2005; Berent & Anderko, 2011; Derby-Davis, 2014; Sachau, 2007; Tourangeau, 2011) and was used as a foundation for this research. Additionally, a theoretical framework described by Gappa et al. (2007) was also used, as it describes what is needed for job satisfaction in higher education faculty populations. While the Herzberg theory has historic and established roots, the Gappa et al. (2007) theory is specific to higher education faculty and accounts for the changing landscape of higher education. As both the classic and contemporary theories may have relevance, and personal circumstances and needs have also been shown to influence faculty job satisfaction, all were included in the overarching conceptual framework. In this conceptual framework Herzberg’s motivators and hygiene factors, Gappa et al. Essential Elements, and personal variables deemed important from previous research (Tourangeau et al., 2015), informed the creation of a list of potential incentives and disincentives for continued employment. Through an identification of important incentives and disincentives by the population of interest, it is hoped administrators will be better informed to create an environment and policies that facilitate faculty retention (Figure 1).
Figure 1. Conceptual framework of this research study.

Positionality Statement

As a student, clinician, faculty, and higher education administrator, the effects of faculty turnover and vacancies have been experienced by this researcher. As a student, faculty turnover caused undue stress. Anxiety resulted from the unknown. I questioned who my new professor would be and if I would like them. I wondered why my former professor left and if there was a problem with my program. These questions detracted from the learning experience. As a clinician and faculty member, peer vacancies resulted in increased caseloads, the need to teach extra courses, and increased service responsibilities. As a department chair, time spent identifying adjunct faculty, organizing faculty searches, and orienting new faculty further complicated the task of delivering cohesive academic curricula. As a dean, I note how faculty vacancies impact department and university morale, limiting the ability to evolve academic programing, and negatively impacting the financial bottom line. It is from these experiences that my interest in faculty retention strategies emerged.
As the circumstances that impact faculty retention are multifactorial, multiple theories and perspectives have emerged on this topic, of which there is limited consensus. As an academic administrator, I am interested in what factors are most important for the faculty in my academic unit. I want to know where to focus my time and resources in order to build a work environment where faculty are satisfied and want to stay. Are internal motivators like professional growth, ability to satisfy intellectual curiosity, or making a positive impact on students important for satisfaction; or are extrinsic factors like increased salary, collegiality, or positive relationships needed for retention. Perhaps, if we knew what was most important to health science faculty, we could develop specific strategies with their needs in mind. While seeking to uncover strategies, I noted significant research related to job satisfaction and retention. However, research specific to my population of interest was limited.

To facilitate an environment that fosters long term faculty retention, it is important to understand what contributes to job satisfaction, dissatisfaction and the circumstances that lead to health science faculty departures in my setting, a private mid-sized university. Previously, as I observed faculty turnover, each faculty has had their own reasons for leaving. In some cases, individual situations like a spouse transfer, family emergencies or retirement led to a resignation. However, many times I believe it may have been environmental or modifiable workplace circumstances that created the impetus for leaving. It is goal of this research study to identify these circumstances.

**Topical Research**

As one explores higher education faculty job satisfaction, an abundance of general higher education faculty research exists. While this information gives a general overview of what is important to higher education faculty at large, Xu (2008) demonstrated that discipline-specific
orientation within higher education faculty significantly impacts satisfaction. Xu concluded that “discipline-specific information was indispensable to institutional administrators and policy makers for effective faculty retention” (p. 40) and that “discipline-specific models should always be constructed to study faculty turnover whenever feasible” (p. 56). In addition to discipline orientation, Xu noted institution setting and location variables may also play a role in satisfaction, as faculty teaching, scholarship, and service demands may differ based on size and scope of the institution. These findings were subsequently reinforced by Ryan’s et al. (2012) research related to higher education faculty’s intent to leave a large research institution. Ryan et al. noted differences for faculty intent to leave intent based on Biglan’s (1973) academic disciplines classification and suggested differential satisfaction and retention strategies be created based on the faculty member’s academic discipline. These findings parallel Xu’s research, suggesting that job satisfaction research be studied within specific faculty subgroupings, across similar institutions.

**Theoretical Framework**

The overarching conceptual framework for this research is that if environmental factors related to job satisfaction can be identified and personal need characteristics are known within a setting, an administrator can be better prepared to develop targeted retention strategies. Based on the work of Ryan et al. (2012) and Xu (2008), the population of interest for this research study was limited to a subset of higher education faculty. As specific college-level retention strategies are sought, the population for this research was limited to health science faculty at small and mid-sized private Midwestern IHE. To understand what contributes to retention, incentives and disincentives for employment are explored. To identify potential incentives and disincentives, existing job satisfaction theory served as a framework for exploration.
The assessment of job satisfaction has been viewed from multiple theoretical frameworks, resulting in a breadth of employee and motivation research to draw from. In a dated, yet still relevant literature review, Pardee (1990) reviewed classic motivation theories in the context of job satisfaction. In this review, Maslow's Hierarchy of Needs, Herzberg's Motivation-Hygiene Theory, MacGregor’s XY Theory, and McClelland's Need for Achievement Theory are discussed. Pardee notes that both Maslow’s and Herzberg’s theories require personal ego status and self-actualization needs be met for an individual to achieve job satisfaction. These theories also note that meeting lower order needs, while important, do not create satisfaction and that reward systems should be viewed in this context. Reviewing recent employment satisfaction research in faculty populations, it is noted Herzberg’s theory continues to serve as a widely used theoretical framework (Beygatt, 2018; Dickens, 2011; Gullickson, 2011; Jamieson, Kirk, Wright & Andre, 2015; Smith & Shields, 2013; Waltman, Bergom, Hollenshead, Miller & August, 2012), as such, it is foundational to this research.

Herzberg’s Motivation-Hygiene Theory was first proposed following the study of engineer and accountant work environments in the 1950's (Herzberg, 2008). Herzberg’s theory proposed that two discrete groups of characteristics influence employee job satisfaction or dissatisfaction. He proposed factors that influence or promote job satisfaction are discretely different than those related to job dissatisfaction. In this context, he stated the “opposite of job satisfaction is not dissatisfaction, but rather, no job satisfaction and similarly, the opposite of job dissatisfaction is not job satisfaction but no job dissatisfaction" (p. 9). Herzberg’s dichotomous theory outlines intrinsic motivators are associated with job satisfaction, whereas external hygiene factors are associated with job dissatisfaction. This framework notes addressing hygiene factors does not lead to a satisfied or retained employee, rather it leads to an employee who is not
dissatisfied, while facilitating of motivators leads to satisfaction. Herzberg’s six motivators and
ten hygiene factors are outlined in Table 1.

Table 1

*Herzberg’s Motivator and Hygiene Factors*

<table>
<thead>
<tr>
<th>Motivators</th>
<th>Hygiene Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>Company Policy and Administration</td>
</tr>
<tr>
<td>Recognition</td>
<td>Supervision</td>
</tr>
<tr>
<td>The Work Itself</td>
<td>Relationship with Supervisor</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Work Conditions</td>
</tr>
<tr>
<td>Advancement</td>
<td>Salary</td>
</tr>
<tr>
<td>Growth</td>
<td>Relationship with peers</td>
</tr>
<tr>
<td></td>
<td>Personal Life</td>
</tr>
<tr>
<td></td>
<td>Relationships with Subordinates</td>
</tr>
<tr>
<td></td>
<td>Status</td>
</tr>
<tr>
<td></td>
<td>Security</td>
</tr>
</tbody>
</table>

Since Herzberg’s theory was developed in the late 1950’s work culture, some question its relevance 60 years later. Bassett-Jones and Lloyd (2005) sought to explore its relevance and found that Herzberg’s proposition continues to play an important role in 21st-century employees. Likewise, Sachau (2007) found that Herzberg’s motivation factors play a significant role in individual satisfaction. While the Herzberg theory continues to be used and supported, some contradictory evidence exists in the population of interest.

While Herzberg proposed only motivators lead to satisfaction, more recent literature with higher education faculty noted that hygiene factors may also be important. Waltmen et al. (2007) research with non-tenure track faculty found that flexibility, as well as, improved job security, led to increased job satisfaction. This is significant for this research, as many health science
faculty are in non-tenure track positions. Similarly, Beavers (2010), Girot and Albarran (2012), Gullickson (2011), Jamieson et al. (2015), and Shockness (2015) all noted that multiple hygiene factors play a key role in faculty job satisfaction. This growing trend was consistent with an alternative theoretical framework.

Gappa et al. (2007) proposed a paradigm that outlined five Essential Elements leading to higher education faculty job satisfaction, all of which centered around respect. This theory built off historic motivation theory, proposed a more contemporary model, relevant in the current higher education environment. In their comprehensive text, Rethinking Faculty Work, the authors noted institutional financial pressures, calls for increased IHE accountability, a shifting of tenure track to non-tenure track faculty appointments, and an increase in female and diverse populations in the academy have influenced what is currently important for higher education faculty job satisfaction. The authors stated there are five essential elements for job satisfaction revolving around faculty/administrator respect. Gappa et al. stated equity in academic appointments, academic freedom, flexibility, professional growth, and collegiality are required for faculty job satisfaction (Figure 2). The elements of flexibility, employment equity, and collegiality in this theory seem to align with Herzberg’s hygiene items, contradicting Herzberg’s theory that hygiene factors do not contribute to job satisfaction.
Lastly, several authors identified demographic and personal circumstances may have an impact on job satisfaction and retention. Age, level of education, years in academia, previous faculty development and gender have all been shown to impact satisfaction (Jamieson et al., 2015; Lee et al., 2017; Rosser 2004; Tourangeau, Wong, Saari, & Patterson, 2015). Neither Herzberg’s (2008), nor Gappa et al.’s (2007) theories directly acknowledged these individual variables, as their focus was centered on the environment. As such, both individual and environmental circumstances are included in the theoretical framework for this research study.

To identify the influence of environmental and personal factors important for faculty retention, an exploratory descriptive survey design was used this research study. In this design, Tourangeau’s et al. (2015) 29 incentives and 32 disincentives for employment were used. Four new incentives and disincentives were added, blending Herzberg’s 16 motivator/hygiene categories as well as personal and workplace factors previously demonstrated to be important in academia (Tourangeau et al., 2012; Tourangeau et al., 2014). Replicating Tourangeau et al., (2015) research, health science faculty were asked which of 33 incentives and 36 disincentives
would or could entice faculty to remain in their current faculty position or would lead them to consider leaving their position. Faculty are also be asked to respond to two added free response questions: “what are the most important factors that could or would contribute to you staying in your academic faculty position” and “what are the most important factors that would cause you to consider leaving your academic faculty position,” to help assure faculty have the opportunity to express what is important to them. Results of the survey provided insight as to what factors are most frequently reported as important for retention, identifying whether the factors were consistent with Herzberg’s theory (2008), or if they align with Gappa et al (2007) Essential Elements of Faculty Work (2007). The interplay and assessment of these factors is displayed in Figure 3.

![Figure 3. Theoretical Framework](image)

**Figure 3. Theoretical Framework**

**Literature Search Procedure**

Consistent with the conceptual framework proposed, a comprehensive, yet focused search and review of higher education health science faculty retention was performed. To identify
research related to health science faculty, three strategies were employed. First, an electronic query related to "health science faculty retention" was performed using the CINHAL database. Within the CINHAL database, the Academic Search Complete, ERIC, and the Health and Psychosocial databases were included. The CINHAL database was chosen as it is a comprehensive tool for searching allied health and nursing literature, the ERIC database was chosen due to its access to educational research, while the Health and Psychosocial Instruments database was used due to its inclusion of behavioral measurement instruments and journals related to health and psychosocial sciences. Academic Search Complete was added due its multidisciplinary offerings. With this strategy, over 1000 articles were identified. At this time, it was noted that the search term “retention” had many non-employment related connotations in medical literature. To address this finding, an additional search term of “satisfaction” was included in various combinations to narrow results.

The results of these searches were reviewed in the context of specific inclusion and exclusion criteria for literature review selection. To be included in selection, research must have been related to higher education faculty, with a preference for allied health or nursing disciplines. Some general higher education faculty research with large sample sizes were also included for review. Initial inclusion criteria were limited to research from 2008-2018, however, this range was expanded to 2000-2019 and then beyond due to the limited research meeting inclusion criteria. Research related to student retention, health science practitioners, and online teaching was excluded. A similar process was employed with the University of New England library Quick Search tool, which is linked to 250 electronic databases. Following electronic searches, the bibliographic references of the research retrieved were reviewed, and additional research meeting inclusion/exclusion criteria were reviewed for relevance. Lastly, a secondary search was
completed using “Herzberg” in combination with faculty, higher education faculty, and retention to identify research related to the Herzberg Motivation-Hygiene theory use as a theoretical framework.

**Review of Previous Research Methodology**

In order to determine an appropriate methodology for exploring satisfaction and retention in health science faculty at small and mid-sized private IHE, a review of research methodologies was performed. Research studies in this review included qualitative (3 studies), quantitative (20 studies), mixed method (1 study), and literature review (5 studies) designs. Research questions related to employee retention focused on identifying areas related to job satisfaction and/or intent to stay (12 studies), job dissatisfaction and/or intent to leave/leaver (7 studies) and research that explored both (10 studies).

**Qualitative Methodology**

Qualitative research has focused on interviews or photo voice submissions of faculty within individual education programs or departments (Kirkham, 2016; O'Meara, Lounder, & Campbell, 2014; Turrin, 2016). These methods of study allowed the researcher to develop open-ended, non-guiding questions to explore lived experiences within a given setting. This method allowed the researcher to explore the environment and provide participants an opportunity to relate their perceptions and responses to local environmental stimuli. Weick, Sutcliffe, & Obstfeld (2005) described this process as “sensemaking,” or the means by which an author can understand the circumstances that have led to a behavior or feeling.

While this method is likely to identify specific issues in particular settings, the generalizability needed to answer the research question posed is questioned. Creswell (2015) noted caution should be exercised when broadly applying qualitative findings from limited
settings, as they may only be applicable to very specific circumstance from which the data was
gathered. The applicability of this methodology for the proposed research study is limited if one
is looking to identify consistent job satisfaction retention factors across a larger group of health
science faculty, across multiple IHE. Previous research using qualitative methods was completed
using interview methods, with small sample sizes at single institutions. Applying these methods
across multiple IHE throughout the Midwest was deemed impractical for this this research.

**Quantitative Methodology**

Quantitative research in this review of literature generally consisted of two survey
methods. The least used method was retrospective analysis of comprehensive faculty responses,
retrieved from either the Collaborative on Academic Careers in Higher Education (COACHE) or
the National Study of Postsecondary Faculty (NSOPF) national datasets. The more frequent
method of study was quantitative surveys from discrete faculty populations, either higher
education faculty as a whole or discipline-specific faculty within or across multiple IHE's.

**National dataset quantitative methodology.** One quantitative method of studying
factors associated with faculty retention was to use aggregate data collected from national
clearinghouse datasets. The COACHE and NSOPF national datasets produce large national
datasets comprised of higher education faculty survey responses. Rosser (2004), Wang and
Liesveld (2015), and Xu (2008) used data from the NSOPF to identify factors associated with job
satisfaction. The positives of this methodology were that these databases are comprised of
27,000-35,000 faculty responses, across 1,080 IHE. The negatives of this method were that the
context of the database was not designed to identify specific factors related to faculty retention or
satisfaction, and data collected did not explore relationships at the department/college level.
Additionally, the most recent results from the NSOPF survey is dated 2004, and no future survey
is currently planned. While some important information could be gleaned from this dataset, significant political, financial, and higher education changes have occurred since 2004, potentially limiting its usefulness.

Lee, Miller, Kippenbrock, Rosen, and Emory (2017) utilized data from the COACHE database to research factors associated with retention specifically related to nursing faculty. From this dataset, the researchers were able to access survey responses from 1350 nurse educators, across 200 different universities, thus providing a generalizable population. Like the NSOPF this data set, the COACHE data can be manipulated from many disciplines, demographic and IHE perspectives, allowing the researcher to fine-tune results to their population of interest. This dataset also dives much deeper into faculty life within an institution. Should a researcher want to explore unique differences within a single institution, additional questions can be added for a cost. While this database is quite comprehensive, the researcher’s university must subscribe to the Collaborative to access this data. Correspondingly, as the population of interest is small and medium-size private universities, the number of schools in this demographic who participate in this survey may be small due to the high cost of membership, limiting the usefulness of this dataset for this research study.

Population specific quantitative descriptive methodology. By far, the most common method for studying factors associated with faculty retention are through surveys of specific faculty populations by independent researchers. Sixteen studies using this methodology were located. Researchers using this method employed previously validated survey tools related to job satisfaction/dissatisfaction factors or created their own surveys. While some researchers provided descriptive studies of what can be associated with a satisfied or dissatisfied faculty, others correlated satisfaction factors with "intent to stay” or "intent to leave" variables. Most
commonly, researchers surveyed faculty within a specific discipline across multiple schools or faculty within a single institution. This method of study is particularly relevant and appropriate for retention research, as the target population, health science faculty at small and mid-size private IHE’s, can be controlled and surveyed. This structure allows for consistency with Xu's (2008) recommendations that discipline-specific and location sensitive needs be assessed.

**Literature Review Methodology**

Previous researchers have also used the literature review methodology to study health science faculty retention issues. Several authors employed this method to summarize the limited literature in this area and aggregately propose factors related to job satisfaction and retention (Derby-Davis, 2013; Duphily, 2011; Gormley, 2003; Reed, 2006; Romig, O'Sullivan, Maillet, & Denmark, 2011). This method of study primarily occurred in nursing, where some breadth of literature does exist. One review specifically reviewed allied health faculty job satisfaction in individual programs (Romig, O'Sullivan, Maillet, & Denmark, 2011). This author reviewed 11 studies from 6 discrete allied health disciplines. Due to the limitations of literature in this area, five of the studies in this review predated the year 2000. While the literature review methodology can be an effective means for synthesizing data in established topics of research, its usefulness in this research topic is limited. As no aggregate health science faculty research at small to mid-size IHE's exists, the literature review methodology as a mean of answering the proposed research question was not possible.

**Key Findings**

Researchers have used qualitative, quantitative, mixed methods, and literature review methodology to study factors related to faculty retention. As multiple factors are associated with faculty retention, the most common and accepted means is to collect information related to job
satisfaction or dissatisfaction and then discuss or correlate factors with faculty’s intent to stay or leave. To a lesser degree, qualitative methods have been employed to more organically identify factors related to job satisfaction/dissatisfaction in specific settings.

While the qualitative methods involving focus groups, interviews or photo voice submission may be effective at identifying issues related to satisfaction and retention at a specific setting or within a specific discipline, it is not practical for the identified population of interest which includes multiple health science disciplines. As input from faculty across multiple small and mid-sized IHE is needed to reduce potential site bias, the qualitative method was impractical for this research’s purpose and questions.

As a representative picture of health science faculty at small and mid-size private IHE was desired, a descriptive survey approach, across multiple disciplines and schools within the identified demographic most aligned with this research study’s purpose and question. As multiple and varying factors have been associated with job satisfaction and retention, it was determined that a faculty survey that is grounded in established satisfaction theory and including all aspects of academic employment and important personal variables be used.

**Job Satisfaction and Intent to Stay**

Job satisfaction and intent to stay have been studied from multiple perspectives. Significant research exists related to job satisfaction in general higher education faculty contexts. However, much less job satisfaction and intent to stay research was located specific to health science disciplines. The bulk of health science faculty literature reviewed was in the nursing and physician assistant disciplines. No research was located specific to small or mid-sized private IHE.
Job Satisfaction in All Higher Education Faculty

Over the last three decades an evolution of research and factors related to job satisfaction and intent to stay has occurred. Ehrenberg, Kasper, and Rees’s (1990) early research on faculty turnover at American colleges and universities was based on analysis of data collected by the American Association of University Professors (AAUP). At that time, the researchers analyzed 20 years of data related to faculty retention and compensation. These researchers found that increased levels of compensation were associated with increased retention rates for assistant and associate professors, and less so for full professors. They also found that the magnitude of importance of salary increased as they moved from universities with graduate programs to primarily undergraduate teaching programs, to two-year institutions. While this information was meaningful at the time, salary is less of a focus in more contemporary general higher education faculty research.

Contributing to the knowledge as to what makes a higher education faculty member satisfied, Rosser (2004) examined the information from the national NSOPF:99 dataset. This dataset included survey responses from over 12,500 faculty in a variety of higher education settings. Rosser concluded faculty worklife has a direct impact on their satisfaction. In this context, worklife is defined as administrative and technical support, policies and procedures, and committee work, as opposed to work life balance. Rosser also noted tenured faculty members and tenure track assistant professors generally perceive their work life as less positive than non-tenure track or higher-ranking faculty and females tended to be less satisfied. While Rosser’s study provides a glimpse into faculty satisfaction, it is not specific to health science faculty or small to mid-sized private institutions. Additionally, the database from which this information was retrieved was not designed to assess job satisfaction and/or retention. Thus, multiple
components of faculty life and the environmental factors were not included, limiting the scope of this research.

McCoy et al. (2013) surveyed faculty at a large university related to the importance of environmental conditions and faculty well-being. This research found that, the more respect faculty perceived, the higher was their job satisfaction. They also noted increased flexibility in work-life integration resulted in increased job satisfaction for both men and women. Work-life in this context refers to the balance between employment and home responsibilities. These authors concluded that work-life balance is not a female-related issue as some authors have proposed. These researchers noted that women generally have a higher intent to leave, however universities should address work-life balance for all employees. This study noted their finding contradicts some previous research that asserted work-life balance is a “woman’s issue” and that work-life balance is a hygiene issue, thus unimportant for job satisfaction.

To promote faculty retention and satisfaction, Scott, Lemus, Knotts, and Oh (2016) suggested that learner-centered faculty orientations are a means to develop a supportive organizational culture and improve faculty retention at a large public institution. This premise was based on previous literature and suggestions from the COACHE dataset. The authors noted positive feedback from faculty who completed this programming, however, no comparison group or long-term follow-up related to retention was reported. While these recommendations in programming seem logical, no empirical evidence was provided to ascertain its true effectiveness for faculty retention.

The Gappa et al. (2007) text, Rethinking Academic Work and Workplaces, provided a holistic context as to how the landscape of higher education has changed and how factors deemed important to today's higher education faculty have evolved. These authors stated a
shifting of tenure to non-tenure track faculty positions, a general questioning of the value of higher education and mounting economic pressures in higher education, as factors that influence what is important for faculty job satisfaction. Based on previous empirical research, these authors synthesized five Essential Elements of Faculty Work, centering around a theme of respect. Interestingly, the Gappa et al. Elements combine both Herzberg’s (2008) motivators and hygiene factors. The authors also stated that the type of employment or discipline orientation may influence the importance of each factor. Their Essential Elements included 1) employment equity and clear policies, 2) academic freedom and the ability to express views 3) flexibility and the ability to maintain work-life balance, 4) the opportunity for professional growth, and 5) collegiality and the ability for faculty to feel that their presence and contributions are meaningful to the institution. The Elements of this theory were seen in much of the general and health science faculty job satisfaction studies reviewed.

**Job Satisfaction in Health Science Faculty**

Discipline-specific research related to job satisfaction and intent to stay is primarily reported in nursing and physician assistant literature. In general, high job satisfaction was related to intent to stay (Ampadu, 2015). Researchers identified multiple factors associated with job satisfaction, including demographic variables, position type and educational factors; collegiality, respect and leader relations; work-life balance and flexibility; autonomy; and compensation.

**Demographics, faculty status, and employment status.** In a 2003 meta-analysis review of factors related to job satisfaction in nursing faculty, Gormley (2003) found that program size and tenure are not related to nursing faculty job satisfaction or career gratification. This limited review did not identify any demographic, faculty status, or educational factors associated with
job satisfaction. This study was limited to six studies that were performed from 1976-1996, thus its relevance to today's faculty is questioned.

In a large study utilizing the COACHE dataset, Lee et al. (2017) explored nursing job satisfaction and retention from the perspective of 1350 nurse educators, across 200 universities. This research found that younger faculty plan to stay at their current institution longer than older faculty. Interestingly, tenured faculty had a significantly lower intent to stay than their non-tenured or non-tenure track colleagues, although it is thought this may be due to tenured faculty age and proximity to retirement. Tenure track employees had a greater intent to stay than non-tenure track employees. Assistant professors have significantly greater intent to stay than those with higher rank, again this may be age related, but was not specifically studied. Lastly, institutions with clear tenure guidelines have faculty with increased intent to stay. This study provided recent information related to nursing faculty across all institutional sizes. This study agreed with Rosser’s (2004) findings that tenured faculty have lower intent to stay.

Unfortunately, as both of these studies were a secondary analysis of large external datasets, one cannot ascertain causation, as these surveys were not designed in the context of faculty retention. In this case, Rosser hypothesized advancing age of tenured faculty and retirement may contribute to their decreased intent to stay, however, this cannot be specifically determined.

Tourangeau et al. (2014) surveyed 650 Canadian nurse educators to identify factors associated with intention to remain employed. Several validated surveys were used allowing the researcher to assess 26 independent variables, thus providing a comprehensive study of the topic. Proximity to retirement, having dependents, quality of relationships, full-time employment status, work-life balance, level of education, access to support resources being employed in the employee preferred state (full or part time), less access to advanced education funds and
unionization were related to intent to remain employed. This research was a well-designed correlational study that had a large sample size and was able to uncover previously unreported findings related to job status and unionization. As this study was limited to Canadian nurse educators, it is unknown if findings can be transferred to American educators; however, faculty shortages and the demographic of nursing faculty in Canada are similar to the United States (Canadian Nurses Association, 2012; McDermid, Peters, Jacks & Daly, 2012; Tourangeau, 2014). Lastly, Derby-Davis (2013) reviewed nursing retention literature and notes that the higher the level of education, the greater the intent to stay. The hypothesis for this finding is that if a nurse is going to dedicate the time and expense to pursue a doctoral education, they most likely would stay in the academic environment, as clinical practice does not typically reward traditional doctoral education.

**Collegiality, respect, and leadership relations.** Factors related to collegiality, respect, and active participation within departments and/or universities is associated with increased job satisfaction and intent to stay (Berent & Aderko, 2011; Candela, Gutierrez & Keating, 2015; Derby-Davis, 2013 Derby-Davis, 2014; Evans, 2013; Lee, 217; Quincy, 2012; Stegen & Wankier, 2018; Tourangeau, 2014; Turrin, 2016). These findings are consistent across the individual health science disciplines, settings, and modes of research that researchers have used to study this topic. Significant breadth exists in nursing education, while smaller amounts of research exists in the physician assistant, medical, and radiation science fields. These findings contrast with the established Herzberg’s (2008) Motivation-Hygiene Theory. In Herzberg’s theory, work conditions and relationships with peers and superiors are considered hygiene factors, which do not lead to job satisfaction.
Berent and Aderko (2011) surveyed 1,171 tenured nurses and found the sense of community between nurses in the academic environment and the respect afforded faculty members were associated with increased job satisfaction. Candela, Gutierrez, and Keating (2015) used the Nursing Faculty Worklife Survey to determine that perceptions of administrative support and respect were important for job satisfaction. They recommended that administrators personalize their relationships with faculty, work to understand their unique needs, and acknowledge their workplace efforts. Similarly, in a 2013 nursing literature review and a 2014 nursing faculty correlational study, Derby-Davis (2013, 2014) noted that hygiene factors such as collegiality, good working conditions, appropriate supervision, and positive communication were positively associated with intent to stay scores. Evans (2013) used a custom designed survey to ask over 2,100 nurse educators what factors are important as they relate to recruitment and retention of nurse educators. This researcher found that the hygiene factors of a positive work environment and an environment that fosters collegiality were important for faculty retention. Lastly, the Tourangeau et al. (2014) surveys of Canadian nurse educators found quality of relationships with colleagues associated with intent to remain employed. Each of these studies within the field of nursing used a correlational method to associate workplace factors with either job satisfaction or intent to stay. While each of these researchers used different surveys, similar findings occurred, leading one to believe that collegiality in relationships is indeed important for nursing education faculty.

Other modes of research within the nursing field also document similar findings. The Lee et al. (2017) comprehensive review and secondary analysis of the COACHE nursing data revealed the strongest relationship to job satisfaction is institutional leadership, with department engagement also playing an important role. In a novel pre-post intervention, Stegen and Wankier
(2018) implemented a campaign of gratefulness within a single school of nursing. Results of this gratefulness campaign resulted in a 17.9% increase in faculty reports of moderate to high job satisfaction. While this study was limited to one school of nursing and may not be generalizable to other locations or faculty populations, it does provide unique evidence that an intervention related to improving relationships can improve job satisfaction within a given population.

Qualitative research also supports the importance and prominence of collegiality, leadership quality, and satisfactory work environments as components of faculty retention. Turrin (2016) noted the importance of open and honest communication, supportive and civil work environments, and the ability to trust colleagues as important factors contributing to the nursing faculty's intent to stay.

Research in other health science fields also identified the importance of collegiality and relationships between peers and leaders. Quincy (2012) noted that the building of collegial relationships in the physician assistant field, through a participation national educator workshop, was associated with increased job satisfaction. The researchers proposed that workshop participation allowed faculty to quickly build a peer network for support. In a review of physician assistant literature, Reed (2006) concluded that internal variables related to student and administration relationships and organizational climate are important factors related to job satisfaction. Thus, the limited amount of literature in the physician assistant field generally seems to agree with the reviewed nursing research studies.

Chung et al. (2010) surveyed medical school faculty and found an association between strong department leadership and job satisfaction. In this context, department leadership sets the collegial tone and culture for the department, as well as the resources and feelings of value to the individual faculty. In a descriptive study, Kevorkian and Tuel (1994) surveyed 49 physical
medicine physicians who left the academic environment. These authors reported that a resolution of administrative and political issues within a department would reduce faculty exodus. In this case, actual reports from faculty who left are consistent with factors associated with intent to stay in other disciplines and settings. In the one limited review of factors related to allied health faculty’s job satisfaction, Romig et al. (2011) concluded that collegiality was an important factor related to health science faculty job satisfaction and that these needs are similar to identified needs in general higher education faculty. This conclusion was based on the result of 11 studies from 6 distinct health science fields.

In contrast to the plethora of research noting the importance of collegiality and coworker relationships, evidence from a population of radiation therapists downplays its importance. Swafford and Legg (2009) used the Minnesota Satisfaction Questionnaire survey and found that social and clinical interactions with the public were an important factor related to job satisfaction. In this population, relationships with coworkers and supervisors were less valued. Although not formally studied or reviewed, perhaps the hospital-based radiation therapy education setting accounts for the difference noted from the traditional nursing or physician assistant IHE setting.

**Work-Life balance and flexibility.** Contradicting the Herzberg’s Motivation-Hygiene Theory (2008), discipline-specific, health science faculty research finds the hygiene factors of work-life integration and flexibility important for job satisfaction (Candela et al., 2015; Chung et al., 2010; Evans, 2013; Kirkham, 2013; Romig, 2011). The bulk of the research reviewed comes from nursing education. Candela et al. (2015) noted that workload strongly influences a faculty course development time and that teaching proficiency is associated with positive job satisfaction. These researchers found it is important to these nurse educators to have the time
needed to hone their teaching skills. Flexible working hours contribute to a positive work environment in Evans’ (2013) large scale study of nursing educators. Evans noted that flexibility could be a key neutral cost recruitment/retention strategy. In a qualitative study, Kirkham (2016) found that the time associated with travel to and from clinical sites impacts faculty satisfaction. Often, this travel time is not accounted for in workload, yet it impacts a faculty's ability to complete work and home life demands. Consistent in Canadian nurses, Tourangeau et al. (2014) found work-life balance influenced faculty's intent to stay employed in education for at least five years. While the evidence for work-life balance is not as widespread as collegiality, it certainly appears to be a significant factor in job satisfaction, as multiple researchers, using various validated tools, had similar results.

Chung et al. (2010) noted work-life balance as an important factor associated with job satisfaction within the medical education discipline. While this was a significant finding in a well-designed, large (n=783) research study, it occurred at a single medical school. This finding could be limited to this one setting; however, the author noted these factors could also be informative for other medical schools. Romig et al.s’ (2011) review of allied health science programs also identified the importance of personal/professional balance across the disciplines they reviewed (physical therapy, occupational therapy, physician assistant, athletic training, radiation therapy educators, dental hygienist, and allied health department chairpersons).

Research reviewed documents that work-life balance is an important issue impacting health science faculty job satisfaction (Candela et al., 2015; Chung et al., 2010; Evans, 2013; Kirkham, 2013; Romig, 2011). These findings were produced by several authors, across multiple disciplines and settings. These findings contradict Herzberg’s (2008) thoughts, as work-life balance would fall in the hygiene factor category.
**Academic freedom and autonomy.** Gappa et al. (2005, 2007) synthesized previous research and found autonomy and academic freedom as important factors for higher education faculty. Consistent with the broad context of higher education faculty, but to a lesser extent, academic freedom and autonomy has been noted as an important for health science faculty. Tenured nursing faculty noted the ability to shape the future of the nursing practice as an important motivator and job satisfier (Berent & Aderko, 2011). A research study conducted with medical education faculty (Chung et al., 2010) and literature review that assessed physician assistant needs (Reed, 2006) both found autonomy and clinical freedom as important for job satisfaction. Lee et al. (2017) found that shared governance is important for faculty satisfaction and retention in the nursing subset of 2012-2014 COACHE data.

In contrast to these findings, the Gormley (2003) literature review of nursing faculty found autonomy and control have little or no relationship to work gratification or satisfaction. While these authors did not find these factors as important, they were based on dated literature (1976-1996), and their relevance today is questioned. Likewise, Romig et al. (2007) noted the importance of decision-making powers and autonomy as important trends in allied health literature, however, under detailed appraisal of the research reviewed, only one of 11 studies noted these factors. While the actual literature in the Romig et al. review did not find autonomy as an important factor, it was also based on dated research (1983 to 2004).

In summary, it appears that autonomy and academic freedom are emerging satisfiers in health science faculty. While health science faculty have historically noted the importance of shaping the future of education, it is only in the last decade that autonomy has specifically emerged and been documented in the literature reviewed.
**Compensation.** Previous literature has noted that compensation level is important, however, this finding is not as nearly widespread or consistent as other factors reviewed. Medical education faculty and physician assistants reported compensation as an important variable related to job satisfaction and intent to stay (Chung et al., 2010; Kevorkian & Tuel, 1994; Reed, 2006). Somewhat recently, salary is being more important in nursing faculty. Evans (2013), Wang and Liesveld (2015), and Turrin (2016) found salary was an important satisfaction or retention issue for nurse educators.

Explanations for educator feelings related to compensation may be somewhat dictated by salaries in clinical practice. Historically, salary has been an issue with physician and physician assistants (PAEA, 2018b). In these populations, compensation in clinical practice has traditionally been higher than academic settings, thus these individuals must deal with the dichotomy of desire to work in academia versus the higher compensations noted in clinical practice. Similarly, as a nursing shortage expands across the country, salaries for practicing nurses have increased, while academic salaries may not be keeping pace with those available in clinical practice (Wang, 2015).

**Key Findings Related to Job Satisfaction**

Faculty job satisfaction reviewed is studied from a broader higher education context and a more limited health science discipline perspective. Within these distinctions, several similarities and differences are noted. In research related to all general higher education faculty—autonomy, work-life balance, professional growth, and respect are recurring themes associated with job satisfaction and intent to stay (Gappa et al., 2007; McCoy, 2013; Rosser, 2004; Xu; 2008). These trends identify more with professional roles and aspirations. Trend factors for health science faculty populations seem to revolve around collegiality, relationships with peers,
work-life balance, administrator/leader relations, ability to shape curriculum, years in academia (more years, greater intent to stay), and salary to a lower extent (Berent & Aderko, 2011; Candela et al., 2015; Derby-Davis, 2013; Derby-Davis, 2014; Evans, 2013; Lee, 2017; Quincy, 2012; Stegen & Wankier, 2018; Tourangeau et al., 2014; Tourangeau et al., 2015; Turrin, 2016). Differences between health sciences disciplines is less clear, due to the lack of research in non-nursing related fields. These review findings document a trend, when research is conducted across all faculty populations, the Herzberg “motivators” tend to be consistently important, whereas, health science faculty also prioritize several “hygiene” factors for job satisfaction.

**Job Dissatisfaction and Intent to Leave**

Fewer researchers have explored faculty retention from the job dissatisfaction and intent to leave perspectives. Research focused in general higher education faculty and that specific to health science faculty perspectives is explored. Generally, there is consistency with job satisfaction research, however some differences between general and health science faculty.

**Job Dissatisfaction in All Higher Education Faculty**

A more limited amount of research related to job dissatisfaction and intent to leave exists. In addition to identifying why faculty stay, O'Meara et al. (2014) explored factors as to why faculty leave, in the context of a single large research university. The authors interviewed faculty who had left or intended to leave the university, as well as administrators associated with these faculty. Additionally, the researchers surveyed existing faculty related to work-life balance, professional development, and other factors associated with retention. These authors found significant differences occur in the work environments for those faculty who intend to stay versus those who had planned to leave. While administrators and colleagues of departed faculty felt the primary reason for the departure was higher pay or that the faculty had a better
opportunity, the majority of faculty who left (9 of 13), noted problematic work environments being the main cause. Environmental factors included lack of collegiality, poor work-life balance, limited rewards, poor leadership, lack of mentoring and discrimination. Another finding from this research was that those faculty who came from prestigious doctoral programs were more concerned about prestige. Interestingly, those who reported they had an intent to leave versus those who left, noted the opportunity to go to a more prestigious institution as the dominant factor. Thus, those with intent to leave were associated with a “better offer” versus those who left identified environmental factors (collegiality, respect, leadership) as causation.

This research is important in that it illuminated most administrators or colleagues of “leavers” attribute departures due to outside opportunities, when in fact it is the work environment that plays a more significant role (O'Meara et al., 2014). It should be noted that this research was done at a large research institution with tenured or tenure-track faculty, thus generalizability to non-tenure track allied health faculty at smaller institutions is not known.

When McCoy et al. (2013) related findings of faculty well-being and job satisfaction to an intent to leave dependent variable at a single large university, the only significant finding was if a faculty member was female. While these authors looked at demographics, collegial relationships, climate, and administration factors; none of these variables specifically predicted intent to leave. These authors were able to identify factors related to job satisfaction, however they were less useful in predicting intent to leave. In this research it is noted that most people identify common factors for job satisfaction, while dissatisfiers or factors associated with intent to leave are less consistent between faculty.
Job Dissatisfaction in Health Science Faculty

Health science specific research related to job dissatisfaction and intent to leave is primarily reported in nursing and physician-assisted literature. Researchers have identified fewer factors associated with job dissatisfaction, these include age; administrative support and collegiality; and compensation.

**Age.** It appears that age and transition to academia are related to faculty intent to leave across multiple health science disciplines (Coniglio & Akroyd, 2015; Berry & Hosford, 2014; Dunphilly, 2011). In a survey of physician assistant faculty, Coniglio and Aykroyd (2015) analyzed responses from 271 faculty, across multiple institutions. The authors examined demographic and multiple variables with intent to leave and found that as faculty age, they are less likely to leave. This study’s authors did not specifically hypothesize a reason for this finding, however, they did note that faculty role delineation needs to be clearly outlined. Perhaps as younger faculty transition to academia they struggle with the faculty roles and responsibilities, ultimately prompting them to return to clinical practice.

The influence of age was also present in the physical therapy assistant program director population and nursing populations. Berry and Hosford (2014) noted that newer physical therapy assistant program directors reported emotional exhaustion and were less likely to stay in their position. Similarly, in a review of nursing literature, Dunphilly (2011) found the transition to academics from clinical practice is difficult for many novice nursing faculty. Dunphilly notes change and conflict negatively affects job satisfaction and retention and suggest that mentoring and nurturing relationships be encouraged with young transitioning faculty.

Lee et al. (2017) noted that tenured nursing faculty were less satisfied than younger faculty and they had an increased intent to leave. Similar to the Coniglio and Aykroyd (2015)
and Dunphilly (2011), these authors thought these population departures would be for retirement or movement to another institution, while younger faculty intent to leave may signal a return to clinical practice. As a whole, literature seems to suggest that if younger faculty are considering leaving it may be due to the difficulty transitioning from clinical practice to academia, while older faculty consider other positions or retirement.

**Administrative support and collegiality.** A lack of support from administration and limited collegiality appear to be significant contributors to health science faculty intent to leave. In the physician assistant population, both Beltyukova and Graham (2017) and Coniglio and Akroyd (2015) noted factors like recognition by administration, sense of community, and organizational support for the program as significant factors related to intent to leave. Both studies had large participant populations (n= 427 and n=271), used validated established survey tools, and correlated results with intent to leave. Their findings identify recognition and collegiality as factors important for retention. Consistent with the physician assistant findings, Derby-Davis’s (2014) review of nursing literature revealed similar findings. She noted lack organizational and administrative support as a dissatisfier among nursing faculty. Based on this literature, health science faculty value strong administrative support and collegiality, contradicting Herzberg (2008) theory, as he felt supervision and relationships were hygiene factors and addressing them did not significantly influence retention.

**Compensation.** Compensation was noted to be a dissatisfier with radiation therapy educators and academic physical medicine physicians. In a survey of 90 radiation therapy educators, Swafford and Legg (2009) documented that satisfaction with current compensation was ranked 20th out of 20 variables associated with job satisfaction. These researchers discussed stagnant salaries and a significant pay differential between educators and clinicians as factor
associated with job dissatisfaction. Survey data completed by physical medicine faculty who left the academic setting also reported a primary reason for leaving the academic setting was limited financial reward (Kevorkian & Tuel, 1994). In these two situations, compensation concerns were in medically oriented providers, whereas it was not reported or studied as a dissatisfier in the nursing or physician assistant disciplines.

While compensation has been noted to contribute to job satisfaction, currently it does not appear to be a significant factor related to dissatisfaction or intent to leave. In the two studies reviewed above, Kevorkian and Tuel’s (1994) data is 25 years old and it is not directly related to the health science faculty of interest. The Swafford and Legg (2009) research involved a limited number of individuals, within a small niche radiation therapy academic program. As a whole, this review of literature findings is consistent with O’Meara et al. (2014) conclusions. O’Meara found administrators or colleagues of those who left often perceive the “leaver” as departing for a better offer or increase compensation, when the reality, the “leavers” typically depart for more environmental reasons, with compensation being less important. Thus, in most of the literature reviewed, there seems to be agreement with the Herzberg (2008) theory, where salary is considered a hygiene factor and less important intent to leave. However, caution should be exercised in these findings, as there was much less dissatisfaction research available for review. Therefore, the lack of findings related to compensation and dissatisfaction could simply be due to the lack of research in this area.

**Key Findings Related to Job Dissatisfaction**

Less literature is available describing factors related to job dissatisfaction and intent to leave. Several studies document factors associated with dissatisfaction are consistent with factors associated with job satisfaction (Belyukova & Graham, 2017; Coniglio & Akroyd, 2015;
O’Meara et al., 2014). While support, recognition from administration, and work-life balance are associated with high job satisfaction, a lack of these factors is also associated with dissatisfaction and increased intent to leave. These factors are similar between general higher education faculty and health science faculty (Beltyukova & Graham, 2017; Coniglio & Akroyd, 2015; O’Meara et al., 2014). Compensation has been a satisfier (Evans, 2013; Wang and Liesveld, 2015; Turrin, 2016), though it seems less associated with intent to leave than one would expect, which may be secondary to the limited amount of research conducted from the dissatisfaction and intent to leave perspective (Swafford & Legg, 2009).

One significant difference between general faculty and health science faculty is the impact of age and intent to leave. Health science faculty who are younger have a greater intent to leave than more established faculty (Berry & Hosford, 2014; Coniglio & Akroyd, 2015; Dunphilly, 2011; Lee, 2017). This finding has not been seen in general higher education literature. This difference may be the result of the alternate paths faculty follow to academia and ability to return to clinical practice. While traditional higher education faculty often complete an educational path straight to the doctorate level and academia, many health science faculty do not follow this route. Physician assistant and physical therapy literature note many health science faculty enter academia following years of clinical practice and do not possess terminal doctoral degrees (CAPTE, 2019a; PAEA, 2018b). Upon entrance to academia, the transition from clinician to educator is often stressful and difficult (Berry and Hosford, 2014; Lee 2017). Should the young or new health science faculty become frustrated or disenchanted with academia, they can easily leave and return to clinical practice (PAEA, 2018b).
Conclusion

Significant growth in the health science employment sector has led to increased demand and enrollment in health science educational programs. As many schools look to maintain or increase their health science offerings, demand for qualified health science faculty outpaces the supply (AACN, 2019a; Lee, 2017; PAEA, 2018a). Faculty shortages limit higher education's ability to meet society’s demand for health care providers, which then have the potential to impact the provision of current and future patient care (Aiken, 2010; Cho et al., 2016; Needlemen, 2011). Additionally, the financial health of small to mid-size private universities is at risk, as many schools are dependent on health science student enrollment for revenue. Thus, the importance of health science faculty retention is significant. This review of the literature identified several key factors related to health science faculty retention and the need for additional research in this area.

A search of the literature did not identify any comprehensive studies related to aggregate health science faculty job satisfaction or retention factors. While there is some breadth in nursing specific literature, other individual allied health discipline research was limited. Additionally, no studies were identified specific to health science faculty at small or medium-size private institutions. This gap is significant in that previous research has demonstrated the need to study in job satisfaction and retention from discipline perspective, with sensitivity to the size and scope of the institution (Ryan et al., 2012: Xu, 2008).

Previous research related to job satisfaction and intent to stay in the nursing, physician assistant, and other allied health fields seems to revolve around relationships and human interactions. Health science faculty note collegiality, relationships with peers, work-life balance, relationships with administration, and the ability to influence curriculum and future practice as
important job satisfiers. These themes tend to revolve around the hygiene factors noted in Herzberg’s Motivation-Hygiene theory (2008). This is significant in that Herzberg’s (2008) theory outlines meeting hygiene needs will not increase satisfaction or retention. In contrast, general higher education faculty research that notes the importance of autonomy, work-life balance, professional growth and respect being associated with job satisfaction and intent to stay. Broadly, the general faculty findings tend to center on Herzberg’s motivators as means to increase satisfaction and retention. As job satisfaction factors seem to vary between faculty populations, a full exploration of what is important to health science faculty at small and mid-sized private IHE was warranted.

As no literature was located specific to the population of interest, methodologies used in related populations was for future study in this population. Previous researchers have utilized multiple methodologies to study job satisfaction and retention, quantitative survey research is the most common. While each of these different methods has positives and negatives, an exploratory descriptive survey approach was used to illuminate what is important for the population of interest. To reduce the chance of situational or site bias, a survey of health science faculty across a representative sample of small to mid-size private institutions was employed.

As existing job satisfaction and retention factors for health science faculty do not seem to cleanly fit into Herzberg’s (2008) theory or the more contemporary Essential Elements of Faculty Work (Gappa et al., 2007), an exploratory descriptive research study is warranted to identify what components are important in the population of interest. Identifying what specific factors are important for health science faculty satisfaction retention is a first step in addressing faculty shortages. Through an understanding of what is important for these faculty,
administrators at small and mid-sized private IHE can be better prepared to propose strategies that address faculty needs and foster a work environment that leads to retained faculty members.
CHAPTER 3

METHODOLOGY

The ability of higher education programs to meet current and projected healthcare workforce demands is limited, with the availability of health science faculty being a significant limiting factor for educational program growth and development (Association of Colleges of Nursing [AACN], 2017; AACN, 2019a; Physician Assistant Education Association [PAEA], 2018a). Due to these circumstances, the need to retain faculty in the health sciences is of great importance. The limited amount of health science literature on this topic notes that faculty job satisfaction has been correlated with intent to stay and faculty retention, however, what contributes to job satisfaction is less consistent and understood (Ampuda, 2015; Beltyukova & Graham, 2017; Derby-Davis, 2014; Gormley, 2003; Reed, 2006, Tourangeau et al., 2012; Tourangeau, Wong, Saari & Patterson, 2015). Xu (2008) demonstrated job satisfaction should be evaluated from a discipline specific perspective, accounting for the specific needs of different faculty groups, with sensitivity to the size and scope of the institution. A review of literature did not identify research about influence of job satisfaction needs on health science faculty retention at small to mid-sized private institutions of higher education (IHE).

Purpose and Research Question

The purpose of this research was to identify personal and workplace factors that contribute to health science faculty retention at small and mid-sized private Midwestern IHE. To determine what factors contribute to health science faculty retention, a descriptive survey methodology was employed. This research study attempts to bridge the gap between what is
known about historical job satisfaction factors and its relevance within a specific subset of academic faculty.

To identify health science faculty member’s needs, the following research question (RQ) was asked:

RQ: What workplace factors influence health science faculty retention at small and mid-sized private Midwestern institutions of higher education (IHE)?

To further explore the research question, two research sub questions (SQ) were asked:

SQ1: What workplace factors entice health science faculty members at small and mid-sized private Midwestern IHE to remain employed in a current or future academic setting?

SQ2: What workplace factors cause health science faculty members at small and mid-sized private Midwestern IHE to consider leaving a current or future academic setting?

Research Design

Research on job satisfaction and retention has commonly used a quantitative survey methodology (Beltyukova & Graham, 2017; Berent & Anderko, 2011; Candela, Gutierrez & Keating, 2015; Coniglio & Akroyd, 2015; Derby-Davis 2014; Evans 2013; Tourangeau et al., 2014; Tourangeau et al., 2015). To answer the research questions, a nonexperimental descriptive survey methodology was employed. The conceptual framework of this research study references Herzberg's classic Motivation Hygiene Theory (Herzberg, 2008) and the Gappa, Austin and Trice (2007) Essential Elements of Faculty Work as theoretical frameworks for identifying factors related to health science faculty job satisfaction and retention. The Herzberg Motivation - Hygiene theory framework has been commonly used in job satisfaction research, with multiple
health science researchers referencing this theory (Beavers, 2010; Berent & Anderko, 2011; Derby-Davis, 2014; Jamieson, Kirk, Wright, & Andrew, 2015; Lane, Esser, Holte & McCusker, 2010; Tourangeau et al., 2012; Tourangeau et al., 2014; Tourangeau et al., 2015). The survey employed in this research includes Herzberg’s 16 motivator and hygiene factors, Gappa et al. Essential Elements associated with job satisfaction, as well as other factors deemed potentially important in the academic environment (Tourangeau et al., 2012; Tourangeau et al., 2014; Tourangeau et al., 2015). The survey asked participants to select from a wide breadth of workplace incentives and disincentives for continued employment. These incentives and disincentives were previously validated and used in satisfaction research with nursing faculty (Tourangeau et al., 2015) and expanded upon to fully include the Gappa et al. Essential Elements. A web-based survey was chosen, as this delivery method has been shown to result in more complete and accurate survey responses and have a faster survey deployment and return versus mailed surveys (Dykema, Jones, Piche, and Stevenson, 2013).

In the research design, participants received a survey and responded to a list of personal and workplace incentives and disincentives that would entice them to remain employed in their setting or prompt them to consider leaving their setting. In this survey, participants select but do not rank items. Participants were also allowed to qualitatively describe things most important for satisfaction and retention. This design is exploratory and descriptive, as participants could identify current factors that do or other factors that would contribute to retention, as opposed to rating their current level of satisfaction. Descriptive results are reported in the form of responses and percentages in tabular format, identifying those factors most commonly selected as important for retention or intention to leave, as well as a listing of factors faculty noted as most important in the qualitative response section. It was hypothesized that participants would choose
a combination of both Herzberg’s motivators and hygiene factors as important for continued employment, with personal circumstance also playing a role.

**Population and Sampling Methods**

A purposive, theory/concept and homogenous sampling method was used in this research study (Creswell, 2015). The sampling method is purposive in nature, as the research question asks about a specific group of higher education faculty and participant recruitment is targeted at only those that meet all inclusion criteria in order to answer the research questions (Creswell, 2015). As the conceptual framework of the research is based on established satisfaction theory and the concept of faculty discipline and setting has relevance in job satisfaction, a theory or concept sampling method was also used. This method allowed the researcher to choose a discrete population to assess consistency or inconsistency with existing theory, helping the researcher understand the relevance of these concepts (Creswell 2015). Lastly, the sampling was homogenous in nature, as participant must have hailed from specific health science disciplines and be employed at private small or mid-sized IHE in the Midwestern region.

The research study sampled health science faculty at small and mid-sized private institutions across Illinois, Indiana, Iowa, Michigan, Minnesota and Wisconsin. Health science faculty in the research included representation from nursing and physician assistant programs, as well as the allied health professions of physical therapy and occupational therapy. These disciplines were chosen as significant faculty shortages exist in these accredited educational programs, they are common across small and mid-sized private IHE, and there is great demand for them in the healthcare practice environment (AACN, 2019a; American Occupational Therapy Association [AOTA], 2018; Commission on Accreditation in Physical Therapy Education [CAPTE], 2019; PAEA, 2018a; United States Department of Labor [USDL], 2018). This cluster
of health science programs is grouped together in the Biglan classification system (Biglan, 1973) and termed "applied life science," based on curriculum and professional program foci. Other health science programs such as medical and pharmacy education programs, while in the applied life science category, were excluded, as these programs are typically housed in larger institutions or in free-standing professional schools, which is not included in the population of interest. A population of health science faculty versus a sample of physical therapists or nurses was chosen as health science programs at small and mid-sized private institutions are often grouped within a single college or school. This level of grouping is important as health science faculty vacancies are often present across multiple disciplines and information gained from this research may then be used to inform college-wide retention efforts impacting multiple programs. Broadening the population sample to health science faculty decreases the chances of representing individual program nuances, yet still provides a homogenous health science group as recommended by Xu (2008).

The faculty surveyed were employed at small and mid-sized private Midwestern IHE. Specific inclusion criteria included 1) employment at a private IHE that does not receive funds or subsidies from state legislatures, 2) classification as a not-for-profit IHE, 3) baccalaureate, master's or doctoral degree-granting institutions accredited by the Higher Learning Commission (HLC), 4) located in the upper Midwestern states of Illinois, Indiana, Iowa, Michigan, Minnesota, and Wisconsin, and 5) classification as "very small", "small" or "mid-sized" by the Carnegie Classification of Institutions of Higher Education (CCIHE, 2019). The Carnegie classification notes "very small" institutions as those with <1,000 full time enrolled students, "small" institutions as those with 1,000 to 2,999 students, and "mid-sized" as 3,000-9,999 students. Exclusion criteria are faculty employed at for-profit IHE's, associates level, medical,
and pharmacy programs, as well as the university where the researcher is employed as a current health science administrator.

To identify schools meeting the inclusion criteria, the Higher Learning Commission Institution Directory (HLC, 2019) was consulted to determine accreditation status. The states of Indiana, Illinois, Iowa, Michigan, Minnesota, and Wisconsin were entered in the "Find Institution" search feature. To determine which of the IHE met the size and private versus public inclusion criteria, the CCIHE (2019) website "Custom Listing" function was used to create a list of very small, small and medium IHE's in the inclusion states. Cross-referencing these two lists resulted in 166 schools meeting the inclusion criteria. Following the identification of the IHE meeting inclusion criteria, the American Occupational Therapy Association (AOTA, 2019), Commission on Accreditation in Physical Therapy Education (CAPTE, 2019b) Commission on Collegiate Nursing Education (CCNE, 2019), and Physician Assistant Education Association (PAEA, 2019) websites were accessed to identify accredited occupational therapy, physical therapy, nursing and physician assistant programs at the schools meeting inclusion criteria. This search resulted in 78 nursing, 14 occupational therapy, 14 physical therapy, and 15 physician assistant education programs meeting the inclusion criteria. To balance the discipline distribution, IHE that only included nursing programs were eliminated, leaving 23 nursing programs. For IHE meeting inclusion criteria a list of health science faculty names and email addresses were retrieved from program websites for study inclusion. This list identified 931 faculty eligible for study in inclusion. While the names of the subjects were listed for survey dissemination, the survey responses did include their name or institutional affiliation in order to protect the subject identity and preclude the ability of creating school profiles.
**Instrumentation**

The survey used for this research was based on previous research done by Tourangeau et al. (2015) which blended aspects of Herzberg's theory and specific workplace factors previously demonstrated to be important in academia (Tourangeau et al., 2012; Tourangeau et al., 2014). While the survey questions and incentives/disincentives responses used in the Tourangeau et al. (2015) research were not named by the original authors, it was referred to as the Incentives and Disincentives for Employment Survey (IDES) in this research study. This survey sought to specifically describe what current or future incentives and disincentives are important for remaining employed in the participant's current or future academic workplaces (Appendix A). Permission to use the incentives/disincentives in this research study was granted by the original primary author (Appendix B). The descriptive survey methodology used allowed for sampling of a large population of faculty across related disciplines at multiple schools, letting the author explore what factors are important for job satisfaction and retention. The likelihood of individual site bias is minimized, as sampling occurred across multiple programs and schools meeting inclusion criteria.

The incentives and disincentives in IDES are based on questions developed and used in previous satisfaction and retention research in the academic nursing setting (Tourangeau et al., 2012; Tourangeau et al., 2014; Tourangeau et al., 2015). This survey references both motivators and hygiene factors included in Herzberg’s theory, as well as other factors deemed important in an academic environment. As little is known about this subgrouping of higher education faculty, this instrument was chosen as it is exploratory in nature. This validated instrument allows participants to note what could or would affect their job satisfaction versus other surveys that ask for participants to rate their current level of satisfaction.
After receiving permission from the primary author (Appendix B), two questions and the 29 incentive and 32 disincentive responses used in the Tourangeau et al. (2015) research were incorporated in the IDES. An additional four incentives and four disincentives were added to the original Tourangeau et al. research, to include specific attributes consistent with the Gappa et al. (2007) Essential Elements of Faculty Work frame. Slightly different demographic information which was more relevant to this population sample was included. Two new exploratory qualitative questions were also added to the survey. The purpose of this addition was to assure participants had the opportunity to relate all factors important for faculty retention, should a factor not be included in the incentives or disincentives list. These questions allow the participant to relay what is most important to them for workplace retention.

Demographic information collected in the IDES included age, sex, discipline, race, ethnicity, dependents (children under 18 or if they are a primary caregiver for an individual), discipline, years in clinical practice, years in a full-time academic appointment, faculty line (non-tenure track, tenure track, tenured), years of professional credentialing and questions related to the participant’s highest academic degree. The IDES then asks, “which of the following does or would entice you to remain employed in your current college/university,” the respondent then selects items from a list of 33 incentives, followed by the free response question “what are the most important factors that could or would contribute to you staying in your academic faculty position.” The participant then responded to the question, “which of the following makes or would make you think about leaving your current college/university employment,” then selected items from a list of 36 disincentives, followed by the free response question “what are the most important factors that would cause you to consider leaving an academic faculty position.” Estimated time for completion of the survey was 5-10 minutes. Time for completion was
determined based on a pilot sample of 5 nursing and allied health faculty. This timeframe fell within the recommended survey length for improving participant response rates (Creswell, 2015).

**Validation of Instrument**

The IDES is based on previous work validated by Tourangeau et al. (2015). Cognizant of the nurse educator shortage, Tourangeau et al. sought to understand what factors are important for nurse faculty retention between generations of nurse faculty. To determine generational differences, she asked nurse educators to select from a list of 29 incentives and 32 disincentives that were important for continued employment and then compared between generations. This list of characteristics was developed in the context of Herzberg’s Motivation-Hygiene theory and previous research the authors had conducted in this area (Tourangeau et al., 2012; Tourangeau et al., 2014). The result of Tourangeau et al.’s 2012 and 2014 work resulted in a two-phase validation process for the IDES list of incentives and disincentives (Tourangeau et al., 2015).

In Phase I of the incentive/disincentive validation process, Tourangeau et al. (2012) used a descriptive qualitative focus group methodology to identify determinants of nurse faculty intentions to remain employed. Six focus groups were asked, “what factors in your work or life influence your decision to stay or leave your faculty position?” (p. 256). This research subsequently identified multiple incentives and disincentives that were grouped into four themes; personal characteristics, job content, external characteristics work environment/organizational support.

As a Phase II follow-up, Tourangeau et al. (2014) used a quantitative survey method to determine intent to remain employed. In this work, the author used eight distinct, previously validated instruments to identify factors that correlated with intent to remain employed. The
authors concluded it is not a single aspect of job satisfaction that influenced intent to remain employed, rather it is multiple aspects within the employment setting that influence intent to stay. The combination Phase I and II research culminated in a final list of incentives and disincentives used in the Tourangeau et al. (2015) study, which was then used in this research study.

Content validity of the IDES incentive/disincentive list was strengthened through extensive Phase I focus group exploration/analysis, similar quantitative findings noted in Phase II, and subsequent pilot testing with five established nurse faculty (Tourangeau et al., 2015). In the Tourangeau et al. (2015) research the author noted no participants selected all items incentives/disincentives and at least one item was selected by all respondents, further supporting content validity and ability to discriminate between retention factors.

Data Collection

Creswell (2015) notes that web-based data collection methods are applicable and have widespread use with survey research methods due to ease of used, low cost, and ability to reach large audiences. Dykema, Jones, Piche, and Stevenson (2013) note that web-based surveys allow flexibility in survey design, results in more complete and accurate survey responses, and have a faster survey deployment and return versus mailed surveys. While internet access, computer literacy and difficulty obtaining correct email addresses are noted as disadvantages of web-based surveys, these issues were not a concern as internet access and literacy can be assumed in a faculty population and the means by which email addresses were generated provided an accurate list of faculty meeting the inclusion and exclusion criteria. The one disadvantage noted in this model was a concern for decreased response rates for web-based versus mailed surveys (Dykema et al., 2013). The REDcap web-based survey platform was used for survey dissemination and
data collection as this platform is approved by the University of New England’s (UNE) Institutional Review Board and is the required survey platform for research conducted through the UNE.

A low to moderate web-based survey response rate has been reported in health science faculty literature (Dykema et al., 2013). The Dykema et al. (2013) literature review reported web-only response rates in health and medical science literature ranging from 13%-68%, with all researchers including one to three follow-up emails to improve their response rates. In contrast, most satisfaction and retention literature reviewed for this research reported a response rate in the mid to high end of the spectrum reported (Dykema et al., 2013). Beavers (2010) reported nuclear medicine faculty response rates ranging from 29-42%, Coniglio & Akroyd (2015) had a 34.5% response rate in a physician assistant population, while Derby-Davis (2014) and Tourangeau et al. (2014) reported 45% and 48.9% respectively, in nursing populations. As similar nursing and physician assistant job satisfaction research conducted between 2010-2015 yielded a response rates ranging from 29-48.9% response rates (Beavers, 2010; Coniglio & Akroyd, 2015; Derby-Davis, 2014; Tourangeau et al, 2014), a 25% response rate was the goal for this research. This target was proposed as it aligns with, although on the low end, of similar research in field. As the conceptual framework of this study requires the participant pool be discretely identified and limited, all faculty identified meeting inclusion criteria were included in the participant list. As this research study is descriptive in nature, no consensus minimum response rate for representation was located in the literature, rather attention to potential non-response bias is noted (Creswell, 2015).
Data Collection Methods

The IDES asked participants to choose from a list of 69 incentives/disincentives, provide basic demographic information, and respond to a qualitative question; therefore, this web-based survey format offered a convenient mode for distribution across multiple institutions and collations of survey responses. This survey was delivered via email through the REDCap platform. As no readily accessible, comprehensive physical address or personal email list exists allowing the researcher to separate the target population from all health science faculty (i.e. type of institution, size of school, and location), distribution of the survey occurred through solicitations to faculty email addresses retrieved from IHE websites. The process for email address identification occurs through the protocol articulated in the Population and Sampling Methods section.

Data Collection Process

All health science faculty identified in Indiana, Illinois, Iowa, Michigan, Minnesota and Wisconsin meeting the inclusion criteria were targeted for this research. The distribution of the survey occurred over a three-week period. Initially, faculty received an email describing the purpose of this study, a note that survey responses are confidential, and appeal to their desire for job satisfaction and encouragement to complete the survey through the embedded link. The faculty were informed the research study had received institutional research board approval, participation in the study was voluntary, and their completion of the survey served as their consent. One week later a second reminder email was sent to the faculty who had not completed the survey asking for study participation. A third and final reminder email was sent one week later.
At the completion of the 3-week timeframe, data from the REDcap survey tool was exported to a password protected Microsoft Excel file for data analysis. Participant email addresses were not be included in the data download to protect participant confidentiality. While faculty demographic information was collected, no institutional or geographic information was collected, further protecting the participants identity.

**Data Analysis**

Information collected from the IDES survey distributed through the REDCap platform was downloaded to a password protected Microsoft Excel file for analysis. Demographic information is represented to describe the sample population characteristics. Age, years they have been professionally credentialed (e.g., RN, OT, PT, etc.), years in full-time clinical practice and years in full-time academic position will be reported as a mean and standard deviation. Demographic questions related to gender, race, dependents, academic terminal degree (PhD., EdD., etc.), professional degree in their discipline (e.g. DPT, OTD MSPAS, etc.), and those pursuing a terminal academic degree are reported as percentage of total respondents. The discipline of academic appointment is reported by the number of respondents per discipline and the percentage of the respondent and total sample population.

Data from the quantitative questions “which of the following incentives does or would entice you to remain employed in your current college/university” and “which of the following make or would make you think about leaving your current college/university employment” was reported as the number of responses and a selection percentage rate of total respondents. Specifically, and similar to the Tourangeau et al. (2015), each of the 33 incentives and 36 disincentives for employment are reported as the percentage of faculty who checked the factor from the total number of faculty responding and presented in tabular format, from highest
percentage to lowest percentage for each factor. In addition, each of the incentives and disincentives on the IDES was coded as a Herzberg (2008) or motivator or hygiene factor, Gappa et al. (2007) Essential Element or personal circumstance as relevant.

Answers from the qualitative questions “what are the most important factors that could or would contribute to you staying in your current workplace” and “what are the most important factors that would cause you to consider leaving an academic faculty position” were coded and explored to identify any repetitive patterns or consistencies that arose between participants. A process of pre-coding, first coding, and second coding as described by Saldana (2009) was used to guide this exploration. In vivo coding or exact quotations or words from the participant were used when appropriate, noting what was truly important for each participant. Special attention was be paid to terms that reflect Herzberg’s (2008) motivators or hygiene factors, as well as Gappa’s et al. (2007) Essential Elements.

Analysis of the qualitative responses began with pre-coding as described by Saldana (2009). In this phase answers to the qualitative questions were read as a whole to get a sense of the breadth of responses. Items that referred to workplace practices, social encounters and relationships, emotional aspects and feelings, as well as other comments that gave sense of importance to specific incentives and disincentives were highlighted, detecting what factors were most important. Analytic memos were also be used during this process. As advised by Saldana, these memos were recorded after every 8-12 responses reviewed. These memos reflected on code choices, which began the process of identifying the potential themes and/or consistencies with the Herzberg (2008) or Gappa et al. (207) Essential Element frameworks (Saldana, 2009).

Following the pre-coding process, highlighted terms, phrases and analytic memos were reviewed
and led into the initial coding phase. Again, attention was paid to consistency or inconsistency with Herzberg’s (2008) or Gappa’s et al. (2007) frameworks.

The initial coding process began with the recording of key codes for each response as outlined in Saldana (2009). As this research is exploratory in nature, codes related to the survey incentives/disincentives list or other thoughts or factors the participants noted as important for staying at or leaving a workplace. Following the initial or first coding, a list of code words was compiled, noting the frequency of each code. Following this initial coding and compilation of a code list, the second cycle of coding began.

The goal of the second phase coding was to identify the categories or themes that emerged from the initial coding process (Saldana, 2009). Using the compiled code list, themes or categories were grouped into Herzberg’s (2008) motivators or hygiene factors, Gappa et al. Essential Elements, or personal circumstance category. These themes aligned with the theoretical framework as it was hypothesized that participants would choose a combination of both Herzberg’s motivators and hygiene factors as important for continued employment. These findings were then tabulated compare alignment to the existing Herzberg (2008) and Gappa et al. (2007) theories.

**Participant Rights**

This research explores personal and workplace factors that influence job satisfaction and retention. As these factors may be sensitive information for some individuals, several measures were taken to protect the identity of participants and facilitate honest survey responses. This research was reviewed and approved by the University of New England Institutional Review Board to ensure the rights of participants. Invited study participants received an email message informing them of 1) the purpose of this research and survey, 2) the scope of the faculty sample,
3) the importance of articulating faculty perspectives related to workplace satisfaction,
4) assurance of UNE IRB approval, 5) the confidentiality of survey responses, including the lack
of institution-specific identifiers and 6) that response will only be used as part of aggregate data
representation. The participants were informed participation in this survey was voluntary, and
they could discontinue at any time. The introductory email included a statement that noted
completion of the survey implies participant’s informed consent.

**Limitations of Design**

The scope of the proposed research is limited to describing factors that could or would
influence a health science faculty to remain in or leave an academic appointment. While these
factors are important to consider, correlation and causality cannot be determined. This research
study allows the researcher to identify the frequency of which incentives and disincentives are
reported, however, it does not allow the researcher to make definitive recommendations as to
which factors are most important for actual intent to leave, nor does it suggest specifically state
how retention can be improved, as the faculty sample was not limited to those who actually left a
position. While the qualitative question asks, “what are the most important factors that could or
would contribute to faculty staying in at a workplace”, it does not correlate the responses with
faculty who have stayed at or left a workplace. Thus, the research should only be used inform the
reader of potential factors that influence faculty retention. In addition to this limitation, several
threats to internal and external validity exist.

**Threats to Internal Validity**

The purpose of this research is to determine what factors are important for faculty
retention at small to mid-sized private universities. This population although specific, may have
some variability which may limit the homogeneity of the sample and internal validity (Creswell,
A key tenet of this research study is that if one is interested in assessing job satisfaction, faculty should be assessed specific to their discipline and setting context (Ryan et al., 2012; Xu, 2008). In this research study, it was assumed exploring faculty retention by size of the institution provided a homogeneous faculty sample, however, there may be some variability between IHE. One limitation in this design is that the actual scope of the health science offerings at an IHE is not controlled. For example, some IHE health science programs may contribute 10% of total enrollment, whereas at other schools it may be as high as 70-80%. This variability may provide different faculty experiences and subsequent needs. Second, while the population sampled in this research was limited to private IHE, with institutional size controlled, the research focus of the IHE was not controlled. While none of the IHE in the research study have a Research I or II designation, if faculty teaching or scholarly expectations vary between institutions, differing incentives/disincentives may occur for those faculty groups, therefore, influencing retention factors.

A third threat to internal validity relates to the health science discipline make-up in the population sample. An underlying premise of this research is to identify broad categories of incentives/disincentives that are deemed important for faculty retention across health science disciplines. In this research design, the distribution of faculty discipline is not specifically controlled. There is a potential that responses may skew toward the needs of nursing-specific faculty. Nursing programs are the most common health science program in this IHE demographic. Nursing programs are also often the largest health science program within an IHE. Thus, it is expected that nursing faculty will be most represented in this population sample. No previous research studies were located comparing nursing faculty needs to those of other health
science disciplines. Therefore, it is not known how closely nursing faculty needs compare to other health science faculty or if their needs will skew results.

A nonresponse bias in the research study may also exist. The reasons why faculty may not respond to this survey are not known, however lack of participant time and interest in survey research are common factors that may decrease response rate (Creswell, 2015). Faculty may also not feel comfortable sharing their thoughts on satisfaction and dissatisfaction. While faculty responses were kept confidential and names of institutional settings were not asked, faculty may feel participating in this type of research could be considered a criticism of their employer or portray their needs in a negative light. Additionally, faculty at greatest risk of leaving may not be engaged in their academic appointment and unwilling to invest the time in this type of academic survey, therefore, limiting the ability of this research study to get their perspectives. These factors could result in a summative non-response bias and omission of responses that may be important for a holistic representation of faculty needs.

The final limitation to internal validity is the assumption that the IDES is valid across health science disciplines. The survey questions, incentives and disincentives were created in a population of nurses. Although this may be a limitation, it is not thought to be significant in that this survey was designed in the context of established theory, the stresses on health science faculty across health science disciplines are similar, and comparisons of the IDES incentives and disincentives with previous academic heath science retention research yielded similar characteristics (Coniglio & Akroyd, 2015; Gappa et al., 2007; Swafford & Legg, 2009).

**Threats to External Validity**

The external validity of the research is threatened if inferences from this study are applied to non-similar faculty populations (Creswell, 2015). Following the recommendations of Xu
(2008), the sample population for this research study was limited by the size and scope of the institution. Therefore, the relevance of the finding to general higher education faculty or health science faculty at public or research institutions is not known. The geographic distribution of the sample is also limited to upper Midwestern states. It is not known if the findings of this research will be transferable to similar populations outside of this region. Factors such as salary, convenience of location, ties to the community, external economic conditions and other employment opportunities may play a different role in other geographic areas.

**Ethical Considerations**

This research sought to explore what faculty feel is important for retention, therefore assurance of confidentiality was important and that I, in my current supervisory position, will not use this data as a means to identify and recruit faculty to my place of employment. From a participant perspective, as open honest feedback is desired, participants have been assured their responses will only be represented in aggregate. Without this identity protection and confidentiality, participants may feel their responses could be shared and reflect poorly on their priorities, their superior’s performance, or their employer’s characteristics. To address this issue, the IDES responses did not include participant name or IHE affiliation information in the survey responses. To track participant responses, email addresses from survey responses were recorded by the REDCap platform, however the faculty’s responses are not matched to email responses, thus this researcher is unable to link a response to an actual email address used.

As a sitting academic administrator that requires the researcher to recruit new faculty, the ethical use of the data collected is required. As a doctoral candidate at the University of New England, the researcher was identified as such during data collection and his UNE email was used for needed communication. Information collected during this research was used for the sole
purpose delineated in this research study. While his position requires him to recruit faculty, the faculty list procured for this research will not be used for future faculty recruitment initiatives or disseminated to any third party. While faculty at other IHE have the potential to receive information about faculty opportunities from the researcher’s institution or a third party, it will not be the result of data collected from this research.

**Conclusion**

The purpose of this research was to identify personal and workplace factors that contribute to health science faculty retention at small and mid-sized private Midwestern IHE. A descriptive survey method was used to answer the research question, “what workplace factors influence faculty retention at small and mid-sized private Midwestern IHE?” To further explore the research question, two research sub questions were asked, “what workplace factors entice health science faculty members at small to mid-sized private Midwestern IHE to remain employed in a current or future academic setting?” and “what workplace factors cause health science faculty members at small to mid-sized private Midwestern IHE to consider leaving a current or future academic setting?”

Following Xu’s (2008) recommendations, this research study identified a specific subset of academic faculty, assessing what is important to them, as opposed to assuming all groups of faculty, at all types of IHE, have the same needs and desires. This research study is grounded in Herzberg’s (2008) Motivation-Hygiene Theory and Gappa’s (2007) Essential Element of Faculty Work, as well as, incorporating other factors thought to be important in health science faculty. Data from this research study can help to identify what factors are most commonly reported as important for remaining employed or leaving an IHE. Research participants were also be able to qualitatively report what factors are most important to them for current or future employment.
Through this research, it is hoped that health science faculty needs are better understood, allowing IHE to propose and implement targeted strategies for faculty retention.
CHAPTER 4

RESULTS

The ability of higher education programs to meet current and projected healthcare workforce demands is limited, with the availability of health science faculty being a significant limiting factor for educational program growth and development (American Association of Colleges of Nursing [AACN], 2017; AACN, 2019a; Physician Assistant Education Association [PAEA], 2018a). Considering these circumstances, the purpose of this research was to identify personal and workplace factors that contribute to health science faculty retention at small and mid-sized private Midwestern institutions of higher education (IHE). To specifically identify health science faculty member’s needs and factors associated with retention, the following research question (RQ) was asked:

RQ: What workplace factors influence health science faculty retention at small and mid-sized private Midwestern institutions of higher education (IHE)?

To further explore the research question, two research sub questions (SQ) were asked:

SQ1: What workplace factors entice health science faculty members at small and mid-sized private Midwestern IHE to remain employed in a current or future academic setting?

SQ2: What workplace factors cause health science faculty members at small and mid-sized private Midwestern IHE to consider leaving a current or future academic setting?

To answer the research questions a descriptive survey methodology was employed. The Incentives and Disincentives for Employment Survey (IDES) was used to quantify and explore
current factors associated with retention in this subgroup of faculty. The IDES uses a list of previously validated employment incentives and disincentives (Tourangeau et al., 2015), from which respondents can select items important for retention. Additionally, the IDES provided an opportunity for respondents to qualitatively comment on what is most important for continued employment and what circumstances would cause them to leave their current or future academic position. The current research study and its result are framed by two theoretical job satisfaction constructs, the classic Herzberg Motivation-Hygiene Theory (2008) and the more recent Essential Elements of Faculty Work (Gappa, Austin & Trice, 2007), which is specific to the higher education setting, while also considering the influence of personal circumstances.

The results of this research exploration are prefaced by a description of the analysis methods. Following this description, survey response rate, participant demographics, and the incentive and disincentive responses are presented. Aggregate quantitative and qualitative responses are framed in both the Herzberg (2008) and Gappa et al. (2007) theories, as well as personal circumstance variables.

**Analysis Methods**

To answer what workplace factors may influence health science faculty retention at small and mid-sized private Midwestern institutions of higher education (IHE) a descriptive survey methodology was employed. A purposive and homogenous sampling of all nursing, occupational therapy, physician assistant, and physical therapy faculty employed at small to mid-size private IHE in Illinois, Indiana, Iowa, Michigan and Minnesota were identified for sample inclusion. To identify schools meeting the inclusion criteria, the Higher Learning Commission Institution Directory (HLC, 2019) and Carnegie Classification of Institutions of Higher Education (CCIHE, 2019) websites were used to create a list of very small, small, and medium IHE’s in the inclusion
states. Following the identification of the IHE meeting inclusion criteria, the American Occupational Therapy Association (AOTA, 2019), Commission on Accreditation in Physical Therapy Education (CAPTE, 2019b) Commission on Collegiate Nursing Education (CCNE, 2019), and Physician Assistant Education Association (PAEA, 2019) websites were accessed to identify accredited occupational therapy, physical therapy, nursing and physician assistant programs at the schools meeting inclusion criteria. This search resulted in 78 nursing, 14 occupational therapy, 14 physical therapy, and 15 physician assistant education programs meeting the inclusion criteria. To balance the discipline distribution, IHE that only included nursing programs were eliminated, leaving 23 nursing programs. For IHE meeting inclusion criteria, a list of health science faculty names and email addresses were retrieved from program websites for study inclusion. This list consisted of a homogenous sample of 931 health science faculty eligible for study inclusion. The research study sample then received an email invitation with an embedded link to complete the IDES which was hosted on the University of New England secured REDCap platform. Faculty who did not respond to the initial survey received a follow-up email one week after the initial mailing. A third and final email solicitation to non-respondents occurred one week after the second attempt.

Quantitative Analysis Methods

At the completion of the 3-week data collection period, data from the REDcap survey tool were exported to a password protected Microsoft Excel file for data analysis. The total number of faculty and discipline distribution of respondents is reported in the Presentation of Results section of this chapter. Aggregate participant demographic variables are presented as means, standard deviations and a percentage of total respondents as appropriate. The outcomes from the incentives and disincentives lists are presented as the number of times a factor was
chosen and a percentage of the total number of respondents. Additionally, each of the incentives and disincentives were coded for alignment with Herzberg’s (2008) motivator or hygiene factors, the Gappa et al. (2007) Essential Elements, and/or personal circumstances. The number of coded responses, and percentage of category codes compared to the total number of responses are reported in tabular format. This coding and analysis were used to assess if the factors important retention in this health science faculty population were similar to or divergent from established theory. This aspect of the research study allowed the researcher to determine if recommendations for retention from previous work should be used or if new strategies were warranted. The classification of incentives/disincentives for theoretical framing was clear for most factors, however some factors, such as supportive direct supervisor or supportive administration, could be classified as a motivator or hygiene factor. Likewise, an argument for including reasonable workload into the balance and flexibility category of the Essential Elements could be made. In situations where questions occurred, classification was based strictly on the definition described by Herzberg (2008) and the Gappa et al. (2007) text, if a factor was not specifically mentioned, it was not included. Personal circumstances were defined as factors important to a specific individual due to their unique life perspective.

**Qualitative Analysis Methods**

To guide exploration and analysis of the qualitative responses, a process of pre-coding, first coding, and second coding, as described by Saldana (2009), was used. Saldana described the pre-coding phase as reading all respondents’ comments to get a sense of the breadth of participant responses. It is also recommended that during this phase the evaluator use memos to get a sense of patterns or themes. Following pre-coding, initial coding is then advised. In the initial coding phase, key codes are recorded that represent the thoughts of each qualitative
response. Each response may consist of a single or multiple codes. Following initial coding, Saldana recommended a process of secondary coding. In the secondary phase, Saldana advises codes be grouped into categories or themes which represent the key findings of the research. In this research study the secondary coding process was aligned with the theoretical frameworks of this research, with codes being classified as a Herzberg motivator, Herzberg hygiene factor, a Gappa et al. (2007) Essential Element or a personal circumstance variable. This coding allowed the researcher to assess if the factors important retention in this health science faculty population were similar to or different from existing theory. This aspect of the research study allowed the researcher to determine if recommendations for retention from previous satisfaction research should be used or if unique strategies were warranted in this study’s health science faculty population.

In the analysis of this research the pre-coding phase recommended by Saldana (2009) was followed. The responses to the questions “what are the most important factors that could or would contribute to you staying in your current workplace” and “what are the most important factors that would cause you to consider leaving an academic faculty position” were read as a whole, with memos being recorded after 10 responses. These memos were recorded to provide a sense of existing patterns and alignment with the quantitative response list. At the conclusion of the pre-coding, 20 codes or themes emerged between participants. Following pre-coding process, the initial coding of individual responses began.

In the initial coding process (Saldana, 2009), each participant’s responses were reviewed, with key codes or factors being recorded. These codes represented the essence of each response. Codes were exact words or themes that emerged from the precoding process. For example, many faculty noted having flexibility was very important, thus the word “flexibility” became a code.
Often faculty reported that having an understanding leader or a leader who kept their needs in mind was vital, thus “supportive leader” became a code. Depending on the length of the faculty response, 1-5 codes was typical per participant. The frequency of each code and the percentage of respondents whose response included a code was recorded and is displayed later in this chapter in the Presentation of Results section. These codes were then further reviewed and analyzed in the secondary coding process.

In the secondary coding process, each of the codes were classified as a Herzberg (2008) motivator, Herzberg hygiene factor, a Gappa et al. (2007) Essential Element or personal circumstance, for subsequent discussion of theory alignment. Codes were used in multiple categories due to relevancy. For instance, a code that reflected both a Herzberg (2007) motivator and an Essential Element (Gappa et al., 2005) was then classified in both categories. A specific example was the code “flexibility.” In secondary coding process “flexibility” aligned with Herzberg’s hygiene factor “company policy and administration,” while also being one of the six tenets of the Gappa et al. (2005) Essential Elements. To display the theoretical theme alignment of the factors faculty felt were most important in the current research sample, the percentage of codes representing motivators, hygiene factors, essential elements and personal circumstance is displayed in tabular format in the Presentation of Results. The 20 codes and subsequent theoretical alignment used for analysis are presented in Table 2.
### Table 2

**Qualitative Codes and Theoretical Alignment**

<table>
<thead>
<tr>
<th>Qualitative Code</th>
<th>Herzberg Motivator</th>
<th>Herzberg Hygiene Factor</th>
<th>Essential Element</th>
<th>Personal Circumstance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advancement Opportunity</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Autonomy</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Clinical Practice</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Collegiality</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Personal Circumstance</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Professional Growth</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Professional Growth-Tuition</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Recognition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Respect</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Salary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Direct Supervisor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Senior Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparency/Equity of Policies</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Tuition Remission for Children</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding of Needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Stability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Itself</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Workload</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

### Presentation of Results

Nine hundred thirty-one nursing, occupational therapy, physician assistant, and physical therapy faculty at small to mid-size private universities in Illinois, Indiana, Iowa, Michigan, Minnesota and Wisconsin were sent an email invitation to participate in this research study. Forty-two emails were returned as undeliverable or the faculty had left their academic appointment, leaving a total participant pool of 889. One hundred fifty-eight faculty completed the survey, resulting in a 17.8% response rate. The aggregate results of this research sample are presented as a demographic profile of participants, incentive responses and disincentive responses. The incentives and disincentives sections are further broken down into quantitative
and qualitative responses, with additional tables indicating theoretical framework alignment. The inclusion of the theoretical framework alignment tables allowed the researcher to identify if this research study’s health science faculty retention factors aligned with accepted theory or if their needs were unique in some way. In these results, the higher percentage of theoretical codes reported, the more existing theory, or its components, were considered representative of faculty needs. Conversely, lower percentages of alignment would indicate other retention factors are important for the health science faculty in this research study.

**Demographic Profile**

The academic discipline distribution of faculty who received a survey compared to survey respondents is presented in Table 3. The nursing discipline represented the greatest number of faculty in the sample (58.5%) followed by physical therapy (15.9%), occupational therapy (15.5%) and physician assistant faculty (10.1%). The discipline of actual respondents continued to be led by nursing faculty, however they responded at a lower percentage (46.5%) than the initial sample pool, while occupational therapy (21.5%), physical therapy (17.7%) and physician assistant (13.9%) all responded at a rate slightly higher than the initial total sample representation. Table 3 presents the response rates by discipline in tabular format.

Table 3

*Participant and Respondent Academic Discipline*

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Number Faculty Sent a Survey (%)</th>
<th>Number Faculty Responded (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Faculty</td>
<td>931 (100%)</td>
<td>158 (17.8%) *</td>
</tr>
<tr>
<td>Nursing (%)</td>
<td>545 (58.5%)</td>
<td>74 (46.8%)</td>
</tr>
<tr>
<td>Occupational Therapy (%)</td>
<td>144 (15.5%)</td>
<td>34 (21.5%)</td>
</tr>
<tr>
<td>Physician Assistant (%)</td>
<td>94 (10.1%)</td>
<td>16 (13.9%)</td>
</tr>
<tr>
<td>Physical Therapy (%)</td>
<td>148 (15.9%)</td>
<td>28 (17.7%)</td>
</tr>
</tbody>
</table>

*Response rate based on 889 valid email addresses.*
The average age (standard deviation) of faculty in this sample was 50.0 (10.7) years and by far, the majority of respondents were female (84.8%), of white or European American descent (96.8%). A slight majority of faculty were tenured or on the tenure track (59%), with over half possessing a terminal degree (53.5%). The majority of faculty (57%) work year-round on 12-month contracts. On average, faculty were professionally credentialed for 20+ years, with over 10 years of clinical practice prior to transitioning to academia. The faculty were in an academic appointment for 10.7 (9.8) years. Table 4 presents the full demographic profile of the sample.
### Demographic Profile

<table>
<thead>
<tr>
<th>Category</th>
<th>M(SD) or %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>50.0 (10.7)</td>
</tr>
<tr>
<td>Gender Distribution</td>
<td></td>
</tr>
<tr>
<td>Female (%)</td>
<td>84.8%</td>
</tr>
<tr>
<td>Male (%)</td>
<td>14.6%</td>
</tr>
<tr>
<td>Other/Prefer not to answer (%)</td>
<td>0.6%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
</tr>
<tr>
<td>American Indian or Alaskan Native (%)</td>
<td>0.0%</td>
</tr>
<tr>
<td>Asian (%)</td>
<td>1.3%</td>
</tr>
<tr>
<td>Black or African American (%)</td>
<td>0.0%</td>
</tr>
<tr>
<td>Multiracial (%)</td>
<td>0.0%</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander (%)</td>
<td>0.0%</td>
</tr>
<tr>
<td>White or European American (%)</td>
<td>96.8%</td>
</tr>
<tr>
<td>Unknown or prefer not to answer (%)</td>
<td>1.9%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Hispanic, Latino, Latina, or Spanish in origin (%)</td>
<td>1.3%</td>
</tr>
<tr>
<td>Not Hispanic, Latino, Latina, Spanish in origin (%)</td>
<td>94.2%</td>
</tr>
<tr>
<td>Prefer not to answer (%)</td>
<td>4.5%</td>
</tr>
<tr>
<td>Serve as a Primary Caregiver</td>
<td></td>
</tr>
<tr>
<td>Yes (%)</td>
<td>47.5%</td>
</tr>
<tr>
<td>No (%)</td>
<td>52.5%</td>
</tr>
<tr>
<td>Faculty Appointment</td>
<td></td>
</tr>
<tr>
<td>Tenured (%)</td>
<td>26.3%</td>
</tr>
<tr>
<td>Tenure track (%)</td>
<td>32.7%</td>
</tr>
<tr>
<td>Non tenure track (%)</td>
<td>41.0%</td>
</tr>
<tr>
<td>Annual Length of Contract</td>
<td></td>
</tr>
<tr>
<td>9 month (%)</td>
<td>23.7%</td>
</tr>
<tr>
<td>10 months (%)</td>
<td>11.5%</td>
</tr>
<tr>
<td>11 months (%)</td>
<td>7.7%</td>
</tr>
<tr>
<td>12 months (%)</td>
<td>57.1%</td>
</tr>
<tr>
<td>Terminal Degree</td>
<td></td>
</tr>
<tr>
<td>Possess an academic terminal degree (%)</td>
<td>44.6%</td>
</tr>
<tr>
<td>Possess a professional terminal degree (%)</td>
<td>53.5%</td>
</tr>
<tr>
<td>Clinical and Academic Experience</td>
<td></td>
</tr>
<tr>
<td>Mean years of clinical practice prior to academic appointment (SD)</td>
<td>13.2 (9.1)</td>
</tr>
<tr>
<td>Mean years professionally credentialed (SD)</td>
<td>22.2 (12.4)</td>
</tr>
<tr>
<td>Mean years in academic appointment (SD)</td>
<td>10.7 (9.8)</td>
</tr>
</tbody>
</table>
Quantitative Incentives for Continued or Future Employment

To determine what is important for continued or future employment in an academic setting, respondents were asked to complete the Incentives and Disincentives for Employment Survey (IDES). The IDES asked respondents to choose from a list of 33 incentives that would entice them to remain employed in their current college/university. The IDES incentive list was based on a list of incentives developed and validated in a population of nursing faculty (Tourangeau et al., 2015). The Tourangeau et al. (2015) incentive list blended aspects of Herzberg's (2008) Motivation-Hygiene theory with specific workplace factors previously demonstrated to be important in academia (Tourangeau et al., 2012; Tourangeau et al., 2014). The original Tourangeau et al. (2015) research consisted of 29 incentives, however an additional four incentives and four disincentives were added, to include specific attributes consistent with the Gappa et al. (2007) Essential Elements of Faculty Work theoretical framework.

The aggregate results of the IDES incentive list were recorded as number of times an incentive was selected and percentage of faculty that chose the incentive. The incentives most frequently selected (% of faculty selecting) included flexible work hours (75.3%), reasonable workload (72.2%), adequate resources (70.9%), work/life balance (69.9%), and a respectful atmosphere (68.4%). Table 5 displays the full list of incentives by number of respondents who selected each incentive and the selection percentage rate of total respondents, from highest to lowest.
Table 5

*Number and Percentage of Incentives Selected for Continued Employment*

<table>
<thead>
<tr>
<th>Incentive</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible work hours</td>
<td>119</td>
<td>75.3%</td>
</tr>
<tr>
<td>Reasonable workload</td>
<td>114</td>
<td>72.2%</td>
</tr>
<tr>
<td>Adequate resources</td>
<td>112</td>
<td>70.9%</td>
</tr>
<tr>
<td>Work/life balance</td>
<td>110</td>
<td>69.6%</td>
</tr>
<tr>
<td>Respectful atmosphere</td>
<td>108</td>
<td>68.4%</td>
</tr>
<tr>
<td>Supportive colleagues</td>
<td>107</td>
<td>67.7%</td>
</tr>
<tr>
<td>Supportive direct supervisor (director, chair, dean)</td>
<td>106</td>
<td>67.1%</td>
</tr>
<tr>
<td>Academic freedom and autonomy</td>
<td>101</td>
<td>63.9%</td>
</tr>
<tr>
<td>Employment benefits</td>
<td>100</td>
<td>63.3%</td>
</tr>
<tr>
<td>Supportive senior leadership (dean, provost, chancellor, president, etc.)</td>
<td>99</td>
<td>62.7%</td>
</tr>
<tr>
<td>Higher salary</td>
<td>94</td>
<td>59.5%</td>
</tr>
<tr>
<td>Opportunity to work from home</td>
<td>94</td>
<td>59.5%</td>
</tr>
<tr>
<td>Manageable class sizes</td>
<td>84</td>
<td>53.2%</td>
</tr>
<tr>
<td>Supportive organization</td>
<td>80</td>
<td>50.6%</td>
</tr>
<tr>
<td>Opportunity to teach</td>
<td>79</td>
<td>50.0%</td>
</tr>
<tr>
<td>Paid education leave for school or conferences</td>
<td>76</td>
<td>48.1%</td>
</tr>
<tr>
<td>Family circumstances</td>
<td>75</td>
<td>47.5%</td>
</tr>
<tr>
<td>Convenience of college/university location</td>
<td>65</td>
<td>41.1%</td>
</tr>
<tr>
<td>Opportunity for clinical practice</td>
<td>60</td>
<td>38.0%</td>
</tr>
<tr>
<td>Opportunity to conduct/be involved with research</td>
<td>56</td>
<td>35.4%</td>
</tr>
<tr>
<td>Student mentoring/coaching opportunities</td>
<td>56</td>
<td>35.4%</td>
</tr>
<tr>
<td>Clear employment policies (promotion, tenure, evaluations...)</td>
<td>53</td>
<td>33.5%</td>
</tr>
<tr>
<td>Additional vacation time</td>
<td>52</td>
<td>32.9%</td>
</tr>
<tr>
<td>Opportunity for advancement</td>
<td>50</td>
<td>31.6%</td>
</tr>
<tr>
<td>Opportunity for leadership development</td>
<td>46</td>
<td>29.1%</td>
</tr>
<tr>
<td>Choice regarding employment status (Full time/part time)</td>
<td>45</td>
<td>28.5%</td>
</tr>
<tr>
<td>Ties to the community</td>
<td>44</td>
<td>27.8%</td>
</tr>
<tr>
<td>Faculty mentoring/coaching opportunities</td>
<td>43</td>
<td>27.2%</td>
</tr>
<tr>
<td>Personal economic status</td>
<td>33</td>
<td>20.9%</td>
</tr>
<tr>
<td>A phased in retirement plan</td>
<td>28</td>
<td>17.7%</td>
</tr>
<tr>
<td>Health issues</td>
<td>22</td>
<td>13.9%</td>
</tr>
<tr>
<td>External economic conditions</td>
<td>17</td>
<td>10.8%</td>
</tr>
<tr>
<td>Collective agreement arrangements</td>
<td>5</td>
<td>3.2%</td>
</tr>
</tbody>
</table>
To illustrate alignment of quantitative incentives important for retention, with the theoretical framework of this research study, incentives were classified as Herzberg (2008) motivators, Herzberg hygiene factors, Gappa et al. (2007) Essential Elements, or personal circumstances. This process allowed the researcher to assess if the retention factors were consistent with established theory, with the higher percentage of theoretical codes reported, the more existing theory or its components, were considered representative of faculty needs. Conversely, lower percentages of alignment would indicate other retention factors are important for the health science faculty in this study. Results of this analysis revealed that Herzberg’s hygiene factors and the Gappa et al. Essential Elements were selected at the highest frequency, 59.2% and 58.7% respectively, with Herzberg’s motivators (29.1%) and personal circumstances (12.2%) being reported at lower levels. Table 6 presents the total number of incentives selected by theoretical alignment.

**Table 6**

*Quantitative Incentive Factor Responses Classified by Theory Alignment*

<table>
<thead>
<tr>
<th>Theory Alignment</th>
<th>Number of Responses</th>
<th>Percent of Quantitative Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Element Factor Responses</td>
<td>1380</td>
<td>59.20%</td>
</tr>
<tr>
<td>Herzberg Hygiene Factor Responses</td>
<td>1370</td>
<td>58.70%</td>
</tr>
<tr>
<td>Herzberg Motivator Factor Responses</td>
<td>679</td>
<td>29.10%</td>
</tr>
<tr>
<td>Personal Circumstance Factors Responses</td>
<td>284</td>
<td>12.20%</td>
</tr>
</tbody>
</table>

**Qualitative Incentives for Continued or Future Employment**

To provide an opportunity for respondents to indicate what is most important for retention and explore any factors not on the incentive list, the IDES asked, “what are the most important factors that could or would contribute to you staying in your current workplace.” One
hundred forty-four respondents completed this qualitative question. Analysis of the responses was completed by assigning codes to each faculty response that represented the essence of the qualitative response. Following the precoding and initial coding process, 17 unique incentive codes represented what faculty felt was most important. A total of 311 codes were recorded for the 144 faculty that responded to this question. The codes most frequently reported by faculty (% of faculty) as most important were workload (38.9%), flexibility (25.7%), salary (25%), collegiality (20.1%), and the work itself (19.4%). These findings are similar in ranking to the quantitative findings, which resulted in flexibility (75.3%), workload (72.2%), adequate resources (70.9%), work/life balance (69.9%) and respectful atmosphere (68.4%) being in the top five frequently reported incentives. The complete list of codes recorded and percentage of faculty qualitatively reporting the codes, are illustrated in Table 7.

Table 7

Number and Percentage of Codes Most Important for Continued Employment

<table>
<thead>
<tr>
<th>Codes</th>
<th>Number of Responses</th>
<th>Percent of Faculty Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload</td>
<td>56</td>
<td>38.9%</td>
</tr>
<tr>
<td>Flexibility</td>
<td>37</td>
<td>25.7%</td>
</tr>
<tr>
<td>Salary</td>
<td>36</td>
<td>25.0%</td>
</tr>
<tr>
<td>Collegiality</td>
<td>29</td>
<td>20.1%</td>
</tr>
<tr>
<td>Work Itself</td>
<td>28</td>
<td>19.4%</td>
</tr>
<tr>
<td>Supportive Direct Supervisor</td>
<td>22</td>
<td>15.3%</td>
</tr>
<tr>
<td>Personal Circumstance</td>
<td>20</td>
<td>13.9%</td>
</tr>
<tr>
<td>Supportive Senior Leadership</td>
<td>17</td>
<td>11.8%</td>
</tr>
<tr>
<td>Professional Growth</td>
<td>15</td>
<td>10.4%</td>
</tr>
<tr>
<td>Respect</td>
<td>10</td>
<td>6.9%</td>
</tr>
<tr>
<td>Autonomy</td>
<td>9</td>
<td>6.3%</td>
</tr>
<tr>
<td>Tuition Remission for Children</td>
<td>9</td>
<td>6.3%</td>
</tr>
<tr>
<td>Professional Growth-Tuition</td>
<td>8</td>
<td>5.6%</td>
</tr>
<tr>
<td>Resources</td>
<td>6</td>
<td>4.2%</td>
</tr>
<tr>
<td>Clinical Practice</td>
<td>6</td>
<td>4.2%</td>
</tr>
<tr>
<td>Transparency/Equity of Policies</td>
<td>2</td>
<td>1.4%</td>
</tr>
</tbody>
</table>
To illustrate alignment of qualitative incentives important for retention, with existing theory and the theoretical framework of this research study, incentives were classified as Herzberg (2008) motivators, Herzberg hygiene factors, Gappa et al. (2007) Essential Elements, or personal circumstances. This allowed the researcher to assess if the retention factors were consistent with established theory or if this research study’s health science faculty needs were different than established theory. The higher percentage of theoretical codes reported, the more existing theory, or its components, is considered representative of faculty needs. Conversely, lower percentages of alignment would indicate other retention factors are important for the health science faculty in this study. In this process, 72.0% of codes aligned Herzberg’s hygiene factors, while 47.6% codes aligned with the Gappa et al. (2007) Essential Elements. Herzberg’s motivators (17.7%) and personal circumstances (8.4%) were present at a much lesser frequency. These results were similar to the quantitative findings, in that the Herzberg’s hygiene factors (59.2%) and the Gappa et al. Essential Element codes (58.7%) were reported at the highest frequencies. However, the qualitative results, where faculty reported what is most important, more strongly relate to Herzberg’s hygiene factors, with 72.0% of codes, as compared to 59.2% in the quantitative incentive checklist results. Table 8 presents the number of codes that reflect the theoretical framework alignment. This table also illustrates the percentage of responses within the theoretical categories to total number of qualitative survey response codes.
Table 8

*Qualitative Incentive Codes Classified by Theory Alignment*

<table>
<thead>
<tr>
<th>Theory Alignment</th>
<th>Number of Responses</th>
<th>Percent of Quantitative Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herzberg Hygiene Codes</td>
<td>224</td>
<td>72.00%</td>
</tr>
<tr>
<td>Essential Element Codes</td>
<td>148</td>
<td>47.60%</td>
</tr>
<tr>
<td>Herzberg Motivator Codes</td>
<td>61</td>
<td>17.70%</td>
</tr>
<tr>
<td>Personal Circumstance Codes</td>
<td>26</td>
<td>8.40%</td>
</tr>
</tbody>
</table>

**Quantitative Disincentives for Continued or Future Employment**

To determine what factors may contribute to faculty leaving an academic position, the IDES asks respondents to choose items from a list of 36 disincentive factors. Specifically, the survey asked, “which of the following makes or would make you think about leaving your current college/university employment?” The respondent could then choose all that applied. This list of disincentives was based on a list of 32 disincentives developed and validated in previous research with nursing faculty (Tourangeau et al., 2012; Tourangeau et al., 2014; Tourangeau et al., 2015). Four additional factors were added to further assess items noted as important in the Gappa et al. (2007) Essential Elements theoretical framework.

The aggregate results of the IDES disincentive list were recorded as number of times a disincentive was selected and percentage of faculty that chose the disincentive. The disincentives most frequently selected (% of faculty selecting) were unmanageable workload (75.3%), inadequate salary (69.6%), incivility in the workplace (60.8%), emotional or physical exhaustion (60.1%), and inadequate resources (58.9%). Table 9 displays the full list of disincentives by number of respondents who selected each disincentive and the selection percentage rate of total respondents, from highest to lowest.
Table 9

*Number and Percentage of Disincentives Selected for Leaving an Institution*

<table>
<thead>
<tr>
<th>Disincentive</th>
<th>Number of Responses</th>
<th>Percentage of Faculty Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unmanageable workload</td>
<td>119</td>
<td>75.3%</td>
</tr>
<tr>
<td>Inadequate salary</td>
<td>110</td>
<td>69.6%</td>
</tr>
<tr>
<td>Bullying, belittling and other types of incivility in your workplace</td>
<td>96</td>
<td>60.8%</td>
</tr>
<tr>
<td>Emotional physical exhaustion</td>
<td>95</td>
<td>60.1%</td>
</tr>
<tr>
<td>Inadequate resources</td>
<td>93</td>
<td>58.9%</td>
</tr>
<tr>
<td>Unsupportive direct supervisor (director, chair or dean)</td>
<td>90</td>
<td>57.0%</td>
</tr>
<tr>
<td>Poor work environment</td>
<td>89</td>
<td>56.3%</td>
</tr>
<tr>
<td>Unsupportive senior leadership (dean, provost, chancellor, president etc.)</td>
<td>85</td>
<td>53.8%</td>
</tr>
<tr>
<td>Work/life balance</td>
<td>82</td>
<td>51.9%</td>
</tr>
<tr>
<td>Unsupportive organization</td>
<td>76</td>
<td>48.1%</td>
</tr>
<tr>
<td>Micromanagement</td>
<td>75</td>
<td>47.5%</td>
</tr>
<tr>
<td>Family circumstances</td>
<td>74</td>
<td>46.8%</td>
</tr>
<tr>
<td>Unsupportive colleagues</td>
<td>73</td>
<td>46.2%</td>
</tr>
<tr>
<td>Inadequate institutional leadership</td>
<td>72</td>
<td>45.6%</td>
</tr>
<tr>
<td>Inadequate leadership from direct supervisor</td>
<td>69</td>
<td>43.7%</td>
</tr>
<tr>
<td>Unmanageable class sizes</td>
<td>63</td>
<td>39.9%</td>
</tr>
<tr>
<td>Health issues</td>
<td>53</td>
<td>33.5%</td>
</tr>
<tr>
<td>Inadequate continuing education/professional growth opportunities</td>
<td>52</td>
<td>32.9%</td>
</tr>
<tr>
<td>Inadequate work group cohesion</td>
<td>47</td>
<td>29.7%</td>
</tr>
<tr>
<td>Opportunity outside of college/university</td>
<td>47</td>
<td>29.7%</td>
</tr>
<tr>
<td>Inadequate paid education leave for school or conferences</td>
<td>45</td>
<td>28.5%</td>
</tr>
<tr>
<td>Inconvenient location of college/university</td>
<td>41</td>
<td>25.9%</td>
</tr>
<tr>
<td>Inadequate opportunity for advancement</td>
<td>39</td>
<td>24.7%</td>
</tr>
<tr>
<td>Inadequate opportunity to teach</td>
<td>39</td>
<td>24.7%</td>
</tr>
<tr>
<td>Inadequate opportunity to have a clinical practice</td>
<td>36</td>
<td>22.8%</td>
</tr>
<tr>
<td>Mandatory requirements</td>
<td>36</td>
<td>22.8%</td>
</tr>
<tr>
<td>Personal economic status</td>
<td>35</td>
<td>22.2%</td>
</tr>
<tr>
<td>Teaching assignment for which you are underprepared</td>
<td>31</td>
<td>19.6%</td>
</tr>
<tr>
<td>Unclear employment policies (tenure, promotion, evaluation…)</td>
<td>30</td>
<td>19.0%</td>
</tr>
<tr>
<td>External economic conditions</td>
<td>28</td>
<td>17.7%</td>
</tr>
<tr>
<td>Inadequate opportunity to conduct/ be involved in research</td>
<td>26</td>
<td>16.5%</td>
</tr>
<tr>
<td>Inadequate opportunity for leadership roles</td>
<td>24</td>
<td>15.2%</td>
</tr>
<tr>
<td>Faculty mentoring/coaching responsibilities</td>
<td>9</td>
<td>5.7%</td>
</tr>
</tbody>
</table>
To illustrate alignment of quantitative disincentives important for retention, with existing theory and the theoretical frameworks of this research study, incentives were classified as Herzberg (2008) motivators, Herzberg hygiene factors, Gappa et al. (2007) Essential Elements, or personal circumstances. This allowed the researcher to assess if the retention factors were consistent with established theory or if this study’s health science faculty needs were unique in some way. The higher percentage of theoretical codes reported, the more existing theory or its components is considered representative of faculty needs. Conversely, lower percentages of alignment would indicate other retention factor are important for the health science faculty in this study. The result of this analysis revealed that the Gappa et al. Essential Elements and Herzberg’s hygiene factors were selected at the highest frequency, 63.6% and 62.7% respectively. Table 10 presents the total number of incentives selected by theoretical alignment. This table also notes the percentage of factors within a theoretical category to the total number of factor responses.

Table 10

*Quantitative Disincentive Responses Classified by Theory Alignment*

<table>
<thead>
<tr>
<th>Theory Alignment</th>
<th>Number of Responses</th>
<th>Percent of Quantitative Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Element Factor Responses</td>
<td>1267</td>
<td>63.60%</td>
</tr>
<tr>
<td>Herzberg Hygiene Factor Responses</td>
<td>1250</td>
<td>62.70%</td>
</tr>
<tr>
<td>Herzberg Motivator Factor Responses</td>
<td>406</td>
<td>20.40%</td>
</tr>
<tr>
<td>Personal Circumstance Factors Responses</td>
<td>320</td>
<td>16.10%</td>
</tr>
</tbody>
</table>

**Qualitative Disincentives for Continued or Future Employment**

To provide an opportunity for respondents to indicate what factors or conditions would most contribute to them wanting to leave an academic position and explore any factors not on the
disincentive list, the IDES survey qualitatively asked, “what are the most important factors that would cause you to consider leaving your academic faculty position?” One hundred thirty-six respondents completed this qualitative question. Analysis of the responses was completed by assigning codes to each faculty response that represented the essence of the qualitative response. Following the precoding and initial coding process, 17 disincentive codes represented what faculty felt was most important. A total of 259 codes were recorded for the 136 faculty that responded to this question. The codes (% of faculty) most frequently reported by faculty as most important were workload (46.8%), collegiality (32.5%), salary (26.2%), supportive direct supervisor (22.2%), and supportive senior leadership (14.3%). These findings were similar to the quantitative disincentive findings, which resulted in workload (75.3%), salary (69.9%) and lack of collegiality (60.8%) being in the top three frequently reported disincentives. The complete results of the number of times a code was recorded and percentage of faculty noting the code are illustrated in Table 11.
Table 11

**Number and Percentage of Factors Reported as Most Important for Leaving**

<table>
<thead>
<tr>
<th>Codes</th>
<th>Number of Responses</th>
<th>Percent of Faculty Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload</td>
<td>59</td>
<td>46.8%</td>
</tr>
<tr>
<td>Collegiality</td>
<td>41</td>
<td>32.5%</td>
</tr>
<tr>
<td>Salary</td>
<td>33</td>
<td>26.2%</td>
</tr>
<tr>
<td>Supportive Direct Supervisor</td>
<td>28</td>
<td>22.2%</td>
</tr>
<tr>
<td>Supportive Senior Leadership</td>
<td>18</td>
<td>14.3%</td>
</tr>
<tr>
<td>Personal Circumstance</td>
<td>14</td>
<td>11.1%</td>
</tr>
<tr>
<td>Professional Growth</td>
<td>12</td>
<td>9.5%</td>
</tr>
<tr>
<td>Autonomy</td>
<td>10</td>
<td>7.9%</td>
</tr>
<tr>
<td>Resources</td>
<td>10</td>
<td>7.9%</td>
</tr>
<tr>
<td>Transparency</td>
<td>10</td>
<td>7.9%</td>
</tr>
<tr>
<td>Recognition</td>
<td>8</td>
<td>6.3%</td>
</tr>
<tr>
<td>Flexibility</td>
<td>4</td>
<td>3.2%</td>
</tr>
<tr>
<td>University Stability</td>
<td>4</td>
<td>3.2%</td>
</tr>
<tr>
<td>Understanding of Needs</td>
<td>4</td>
<td>3.2%</td>
</tr>
<tr>
<td>Lack of Diversity</td>
<td>2</td>
<td>1.6%</td>
</tr>
<tr>
<td>Work Itself</td>
<td>1</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

To illustrate alignment of qualitative disincentives important for retention, with existing theory and the theoretical framework of this research study, incentives were classified as Herzberg (2008) motivators, Herzberg hygiene factors, Gappa et al. (2007) Essential Elements, or personal circumstances. This allowed the researcher to assess if the retention factors were consistent with established theory or if this study’s health science faculty needs were unique in some way. The higher percentage of theoretical codes reported, the more existing theory or its components is considered representative of faculty needs. Conversely, lower percentages of alignment would indicate other retention factor are important for the health science faculty in this study. In this process, Herzberg’s hygiene factors were found to be most frequently reported (82.6%). The Gappa et al. Essential Elements (32.8%), Herzberg motivators (11.6%) and personal circumstances (5.8%) were present at a much lower frequency. These results were
different than the quantitative findings, where both Herzberg’s hygiene factors (63.6%) and the Gappa et al. Essential Elements (62.7%) were reported at the highest frequencies. Table 12 presents the full list of codes that reflect theoretical alignment. This table also illustrates the percentage of responses within the theoretical categories to total number of qualitative survey response codes.

Table 12

*Qualitative Disincentive Codes Classified by Theory Alignment*

<table>
<thead>
<tr>
<th>Theory Alignment</th>
<th>Number of Responses</th>
<th>Percent of Quantitative Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herzberg Hygiene Codes</td>
<td>214</td>
<td>82.60%</td>
</tr>
<tr>
<td>Essential Element Codes</td>
<td>85</td>
<td>32.80%</td>
</tr>
<tr>
<td>Herzberg Hygiene Codes</td>
<td>30</td>
<td>11.60%</td>
</tr>
<tr>
<td>Personal Circumstance Codes</td>
<td>15</td>
<td>5.80%</td>
</tr>
</tbody>
</table>

**Conclusion**

The purpose of this research study was to identify personal and workplace factors that contribute to health science faculty retention at small and mid-sized private Midwestern IHE. Specifically, this research sought to describe what factors would entice a faculty member to stay and what factors would cause them to consider leaving a current or future academic setting. The survey used in this research study asked faculty to choose from a previously identified list of incentives and disincentives (Tourangeau et al., 2015), as well as, an opportunity to qualitatively report what is most important to them.

The results of this research study revealed incentives most frequently checked as important for retention, were similar to the factors identified as most important in the qualitative question responses. Cross referencing the top seven most frequently selected incentives, with the
top 6 factors qualitatively reported as most important for continued employment, yielded a group of four factor that may play a strong role in contributing to continued employment. These factors include flexibility in the workplace, manageable workloads, collegial work environment, and a supportive direct supervisor. A classification of quantitative incentives selected, and qualitative responses coded by this study’s theoretical framework yielded consistent results. Both quantitative and qualitative responses aligned most with Herzberg’s (2008) hygiene factors and the Gappa et al. (2005) Essential Element of Faculty Work, while Herzberg’s motivators and personal circumstances were represented at much lower levels.

The results of this research study also revealed the most frequently selected disincentives of employment chosen from a prescribed list, were similar to those qualitatively reported as most important. The top three disincentives in both the quantitative checklist and qualitative responses include unmanageable workloads, a lack of collegiality or incivility in the workplace, and inadequate salary. An unsupportive direct supervisor follows, as the fourth most important and the sixth most frequently checked disincentives. Alignment of quantitative and qualitative disincentives responses with existing theoretical framework yield different result. The quantitative disincentives selected most closely aligned with the Herzberg’s (2008) hygiene factors and the Gappa et al. (2005) Essential Element of Faculty Work. Whereas, the qualitative responses that were identified as most important centered on the Herzberg hygiene factors. With Herzberg’s motivators, the Essential Elements, and personal circumstances being represented at a much lower level.

The overall results of this study highlight the importance of manageable workloads, flexibility, collegiality, and a supportive direct supervisor for retaining this grouping of health science faculty. Conversely, unmanageable workloads, incivility in the workplace, inadequate
salaries, an unsupportive direct supervisor would cause this faculty grouping to consider leaving. While the existing satisfaction theories used as a theoretical framework for this research study explain some of these findings as reflected in the theoretical framework data, neither theory fully encompasses all factors reported as important in this study’s subset of faculty. The results of this research study are of importance, in that they specifically identified what aspects of a work environment may influence health science faculty retention. With this information, it is hoped that higher education leaders will be better informed to develop retention strategies and foster environments that supports and retains this important subset of higher education faculty.
CHAPTER 5

CONCLUSION

The purpose and primary research question in this research study was to identify personal and workplace factors that contribute to health science faculty retention. A conceptual framework was designed that referenced the need to study faculty satisfaction from a discipline specific perspective, with the size and location of the university controlled (Ryan et al., 2018; Xu 2008). Exploration of satisfaction was guided by Herzberg’s Motivation-Hygiene Theory (2008), the Gappa et al. (2007) Essential Elements of Faculty Work, as well as, faculty personal circumstances (Derby-Davis, 2013; Dunphilly, 2011; Tourangeau et al., 2014, Tourangeau et al., 2015). Specifically, this research study had two research subquestions “What workplace factors entice health science faculty members at small to mid-sized private Midwestern institutions of higher education (IHE) to remain employed in a current or future academic setting” and “what workplace factors cause health science faculty members at small to mid-sized private Midwestern IHE to consider leaving a current or future academic setting?”

To answer the research question, an exploration of faculty satisfaction and dissatisfaction was developed using the theoretical frameworks of the Herzberg’s (2008) Motivation-Hygiene Theory; Gappa, Trice, and Austin’s (2005) Essential Elements of Faculty Work; and the influence of individual personal circumstances (Derby-Davis, 2013; Dunphilly, 2011; Tourangeau et al., 2014, Tourangeau et al., 2015). Based on these frameworks a descriptive survey methodology was employed, exploring and describing current factors associated with retention in this subgroup of faculty. This research study collected faculty responses through the Incentives and Disincentives for Employment Survey (IDES). The survey disseminated
combined checklists of employment incentives and disincentives important for retention from previous research (Tourangeau et al., 2015), as well as, an opportunity for faculty to qualitatively answer what is most important to them.

The results of this research study revealed incentives most frequently checked as important for retention, were similar to answers recorded in qualitative question “what are the most important factors that could or would contribute to you staying in your academic faculty position.” Cross referencing the top seven most frequently selected incentives (those selected by ~70% faculty), with the top 6 factors qualitatively reported as most important for continued employment (those reported by at least 15% of respondents), yielded a group of four factors that may play a strong role in contributing to continued employment. These factors include flexibility in the workplace, manageable workloads, a collegial work environment and a supportive direct supervisor.

Similarly, items checked most frequently on the disincentives list, aligned with the qualitative answer provided to the question “what are the most important factors that would cause you to consider leaving your academic faculty position.” The top three disincentives in both the quantitative checklist and qualitative responses include, unmanageable workloads, a lack of collegiality or incivility in the workplace, and inadequate salary. The fourth and fifth most important factors, an unsupportive direct supervisor and unsupportive senior leadership, are also recorded in the top seven most frequently reported distinctives on the quantitative list.

A review of the alignment of the incentive and disincentive findings, with the theoretical frameworks of this research study, yielded similar, but not identical results. The quantitative incentive checklist results and the qualitative most important responses were found to most strongly align with the Herzberg (2008) hygiene factors and Gappa et al. (2005) Essential
Elements. Similar to the incentives, the quantitative distinctives aligned also strongly with Herzberg hygiene factors and Essential Elements. Whereas, the qualitative most important disincentives were more centered on hygiene factors. In summary, no single theoretical framework accounted for all the factors reported important for retention in this faculty grouping.

The results of this research study provided new details regarding what is important for retention in a subset of higher education faculty. These results are important as there is a demonstrated shortage of faculty across multiple health science disciplines (American Association of Colleges of Nursing [AACN], 2019a; American Occupational Therapy Association [AOTA], 2018; Commission on Accreditation in Physical Therapy Education [CAPTE], 2019; Physician Assistant Education Association [PAEA], 2018a). A review and interpretation of these retention findings is provided, as is a discussion of how these finding align with previous job satisfaction theories. Following this review, the implications of this research and recommendations for action and further study are presented.

**Interpretation of Findings**

As the importance of retaining health science faculty is documented (AACN, 2017; AACN, 2019a; PAEA, 2018a), the need to understand what factors influence health science faculty’s desire to stay or leave an IHE is paramount. If an IHE is interested in developing an environment that retains faculty, an understanding of the needs of that specific faculty is important. The conceptual framework of this research study referenced the need to study satisfaction from a discipline specific perspective, with the size and location of the IHE controlled (Ryan, Healy, & Sullivan, 2018; Xu 2008). Exploration of satisfaction and dissatisfaction was guided by Herzberg’s Motivation-Hygiene theory (2008), the Gappa, Austin and Trice (2007) Essential Elements of Faculty Work, and personal needs thought to be specific
to the higher education setting (Derby-Davis, 2013; Dunphilly, 2011; Tourangeau et al., 2014, Tourangeau et al., 2015). To understand the unique attributes and needs of health science faculty at small to mid-sized private IHE, the demographics of this population are discussed, followed by findings related to the research question. An analysis of alignment with existing satisfaction theory is also provided.

**Response Rate and Health Science Discipline Representation**

The response rate for this research study was 17.8%. This rate is consistent with previous web-only research, although it is on the low end compared to faculty job satisfaction specific research. A literature review Dykema, Jones, Piche, and Stevenson (2013) found health and medical science literature web-only survey response rates ranged from 13-68%. Previous survey research reviewed specific to nursing and physician assistant job satisfaction had response rates ranging from 29-42% (Beavers, 2010; Coniglio & Akroyd, 2015; Derby-Davis, 2014; Tourangeau et al, 2014). While the specific reasons for this research study’s lower response rates are not known, one potential reason may be the increased use of spam or junk email filter used at many IHE. As internet security is heightening and the use email filters is increasing, some faculty surveyed in this study may not have seen the survey email and it may have gone straight to a “junk” email folder. Although the 17.8% response rate of this research study was below the target rate of 25%, it is deemed acceptable, as no consensus minimum response rate for a representation of a homogenous sample was located in the literature (Creswell, 2015; Dykema et al., 2013) and the number of faculty responding was above the minimum goal of 100 responses set at the outset of this research study. Creswell and Dykema do however suggest considering nonresponse bias when survey response rates are low. In this case, the primary concern was faculty would be too busy to respond. This concern was not realized in that manageable and
unmanageable workloads were reported as some of the top incentives and disincentive for academic employment.

A central tenet of the research study was that faculty needs must be studied from a health science faculty specific perspective (Ryan et al., 2018; Xu 2008). In this research study the nursing discipline represented the greatest number of health science faculty (58.5%), followed by physical therapy (15.9%), occupational therapy (15.5%) and physician assistant faculty (10.1%). This skewing of the population was expected as nursing programs are typically the largest health science programs at IHE, therefore it is logical they would have the largest number of faculty represented. As all nursing, occupational therapy, physician assistant and physical therapy faculty at small to mid-sized private IHE in the Midwest were identified, this distribution is not a concern, rather it is “typical” for these institutions. The distribution of health science faculty who actually responded to the survey continued to be led by nursing faculty, however, they did respond at a slightly lower percentage (46.5%) than the initial sample pool, while occupational therapy (21.5%), physical therapy (17.7%) and physician assistant (13.9%) all responded at a rate slightly higher than the initial total sample representation. Taken holistically this distribution is reflective of the initial sample and of a typical health science distribution at schools meeting the inclusion criteria.

**Demographics**

There are several unique characteristics in this research study’s sample demographics that may play a role in the incentive/disincentive findings. Gender, age, and caregiving roles may influence life responsibilities, therefore impacting what is important for health science faculty in this sample. Additionally, academic appointment status, contract length, and years in academia may also factor into workplace demands that subsequently influence faculty needs.
Gender, age, race and caregiving responsibilities. This sample was largely female (84.8%) and white or European in race (96.8%). These characteristics are consistent with previously published health science faculty demographic distributions. Nationally, nursing and physician assistant faculty are female dominated at 93% and 68% respectively (AACN, 2018; PAEA 2018b), with 84-89% of nursing, physician assistant, and physical therapy faculty being white or of European descent (AACN, 2017; CAPTE, 2019a; PAEA, 2018b). Thus, this research study sample was consistently female, with even less diversity than noted in national health science statistics. This contrasts higher education faculty as whole, where 51.4% of faculty are male and 69.8% are white (National Center for Education Statistics [NCES], 2018). The mean age of this sample was 50.4, which is similar to higher education as whole (NCES, 2018), however, there was a wide standard deviation at 10.7 years. This large standard deviation indicates that ~50% of this population between the ages 29-50. Related to age, nearly half of the respondents (47.5%) reported being a primary caregiver. No general higher education comparison data was located for comparison. In tandem, it is thought that the female distribution and caregiving responsibilities of this research sample may be contributing factors that help explain what is important for retention in this research study sample.

Females play a primary role in caregiving, both for children and aging parents (National Alliance for Caregiving [NAC], 2015; Pew Research Center [PRC], 2015). However, as more female parents are in the workplace, the demands of parenting continue, increasing the stresses on dual career parents (PRC, 2015). Adult caregiving has also been noted as a stressor. The National Alliance for Caregiving (2015), noted the average age of the caregivers was 49 years old, with 60% of caregivers being females. Thus, age, gender, and the large percentage of respondents being caregivers in this research study sample may help explain selected incentives
important for retention. Flexibility, reasonable workload, work/life balance, and supportive
director were the number one, two, four, and seventh most frequently important incentives for
continued employment. All of these factors may be important for faculty who are trying to
balance work with their caregiving responsibilities.

**Faculty appointments.** The academic appointment characteristics of health science
faculty in this sample were noted to be different than higher education faculty as whole. In this
sample, only 26.3% of faculty had tenure, versus 46% of faculty across higher education (NCES,
2018). Also thought to be different from general higher education demographics was the
structure of annual contracts. In the current sample 57% of health science faculty reported being
on 12-month annual teaching contracts. While no comparison data was located that summarized
the annual contract length of general higher education faculty, standard practice in non-health
science disciplines is 9 months. Thus, a large portion of these health science faculty teach year-
round, creating a unique stressor that may not be typical for non-health science faculty. The large
percentage of health science faculty on the tenure track or in non-tenure track (NTT) positions,
74% in total, may also compound the stress of a 12-month contract when compared to general
higher education faculty. If a faculty is teaching year-round, they may lack the time in the
summer to complete course updates and the scholarship required for progression on the tenure
track or meet the terms of their NTT contract.

This research study faculty sample also has less academic experience than general higher
education faculty. The faculty in this research averaged 10.7 years in academia. While the
average age of general higher education faculty and health science faculty are similar (~50
years), their actual academic experience may differ. In this sample, faculty averaged 13.2 years
of clinical practice prior to the transition to academia. The years in clinical practice, in
combination with the limited number of years in academia, indicate that health science faculty who responded to this survey may have started their academic career later than typical non-health science faculty, who often transition from doctoral studies straight to academia. It is also noted that the mean years in academia of this sample is 10.7, however there is a very large standard deviation (9.8 years), thus there is a large percentage of faculty in this sample that have very little academic experience. This parallels the physician assistant literature that notes the mean physician assistant faculty have been in their primary academic position for only 4 years (PAEA, 2018b). This relative lack of academic experience may be associated with stress of career transition and the demand of new course preparations. This may partially explain faculty concerns about manageable workloads and the need for a supportive director.

Lastly, a faculty appointment within nursing, occupational therapy, physician assistant and physical therapy may add stress in and of itself. Each of these disciplines are externally accredited. Discipline specific accreditation requirements can add additional stress and workload not seen in non-externally accredited programs. All programs represented in this research study must publish their student’s performance on external licensure examinations which may increase performance pressure, complete external annual and comprehensive program reviews every 5-10 years, and require faculty to demonstrate their ongoing competence as a faculty member, with some disciplines having minimum scholarship requirements (ACOTE, 2018; Accreditation Review Commission on Education for the Physician Assistant [ARC-PA], 2018; CCNE, 2013; CAPTE, 2015). These extrinsic demands may relate to the need for a manageable workload and supportive director.

In sum, the type and distribution of faculty appointments, the large percentage of faculty on 12-month annual contracts, the relative inexperience in academia and the requirements of
externally accredited programs, may raise the stress and demands in this health science faculty population. These findings may explain why manageable and unmanageable workloads are reported as top incentives and disincentives for employment. These demands may also explain faculty who responded to this survey indicating a need for a supportive director or leader.

**Incentives for Employment**

The primary research question for this study was “what workplace factors influence health science faculty retention at small and mid-sized private Midwestern institutions of higher education (IHE)?” The specificity of this questions was built around a conceptual framework that referenced the need to study satisfaction from a discipline specific perspective, with the size and location of the IHE controlled. To fully explore factors important for retentions, the research question was broken down into two research subquestions that explore of incentives and disincentives for employment. The first research subquestion states “what workplace factors entice health science faculty members at small to mid-sized private Midwestern IHE to remain employed in a current or future academic setting?” To answer this question health science faculty at Midwestern small to mid-sized private institutions were invited to complete the Incentives and Disincentives for Employment survey (IDES) that allowed them to choose from a previously validated list of incentives for employment (Tourangeau et al., 2015), followed by an opportunity to write is most important for continued employment.

The results of this research study revealed that incentives most frequently checked as important for retention were similar to answers recorded in qualitative question “what are the most important factors that could or would contribute to you staying in your academic faculty position.” Cross referencing the top seven most frequently selected, with the top 6 factors qualitatively reported as most important for continued, yields a group of four factors that may
play a strong role in contributing to continued employment. These factors include flexibility in the workplace, manageable workloads, a collegial work environment and a supportive direct supervisor. These findings both support previous literature, as well as provide new information that is specific to this previously unstudied population.

Flexibility. Workplace flexibility was the most frequently checked incentive for continuing employment (75.3% of respondents) and the second most important factor qualitatively reported for continued employment. This finding aligns with previous research in nursing faculty. Flexible working hours has been shown to contribute to a positive work environment in a large-scale study of nursing educators (Evans, 2013). In the Tourangeau et al., (2105) survey research from which the IDES was a based, flexible hours was the ninth most important incentive, with 66% of the nursing faculty checking it as important. However, the Tourangeau et al. research also breaks down the importance of incentives by generation, with Generation X and Generation Y reporting flexibility as the fourth and third most important incentive, with 78.7% and 76.5% of faculty checking this incentive. When one looks at the age of the health science faculty in this current research study, the mean faculty age of 50 is planted firmly in the middle of Generation X. Thus, when one controls age and compares with the Tourangeau et al. research, findings are nearly identical. Thus, this current research study’s finding seems to be supported by previous literature, however, one should note that this may be somewhat generational in nature, with middle age or younger faculty valuing this incentive more than late career faculty. This is logical as the younger age groups may be balancing caregiving responsibilities. The importance of flexibility is further supported in general higher education faculty satisfaction literature. McCoy et al. (2013) noted the importance of flexibility and work
life balance in at a large public university, while Gappa et al. (2007) also included flexibility as one of the five Essential Elements of faculty work.

**Reasonable workloads.** Reasonable workloads were rated as the second most frequently reported incentive (72.2%) and the most important factor for continued employment by health science faculty in this research study. This is consistent with the Tourangeau et al. 2015 research study, where reasonable workload was also the second most frequently reported incentive (80.2%) selected by nursing faculty. The importance of manageable workloads and work-life balance for health science faculty is also noted by Candela, Gutierrez, and Keating et al. (2015), Chung et al. (2010), Evans (2013), Kirkham (2016) and Romig, O’Sullivan Maillet, and Denmark (2011). Interestingly, literature on general higher education does not specifically mention workloads, rather it seems to discuss work life integration as it relates to flexibility in the workplace versus the amount of work (McCoy, 2013).

Based on the current research study and previous health science faculty satisfaction literature, manageable workloads are very important for satisfaction and retention. This is somewhat unique to this demographic, as this factor does not tend to appear in the more general higher education faculty literature and is not a theme in the Gappa et al. (2007) Essential Element of Faculty Work. Perhaps the importance of a reasonable workload can be explained by the unique demands reflected in demographic characteristics of this health science faculty sample. Faculty appointment type, a higher percentage of faculty on 12-month contracts, relative inexperience in academia, and demands of accredited programs may all be contributing to increased workload and stress in this research study population.

**Collegial work environment.** A respectful atmosphere (68.4%) and supportive colleagues (67.7%) were the fifth and sixth most frequently selected incentive, while collegiality
was reported as the fourth most important factor for continued employment in this research study. Similarly, Tourangeau et al. (2015) found supportive colleagues as the third most frequently reported incentive (76.3%) in nursing faculty. The Tourangeau et al. research study also found the younger the faculty, the more important this factor became. Collegiality is also supported as important in previous health science research studies. Berent and Aderko (2011) surveyed tenured nurses and found the sense of community between nurses in the academic environment and the respect afforded faculty members were associated with increased job satisfaction. Similarly, in a 2013 nursing literature review and a 2014 nursing faculty correlational study, Derby-Davis (2013, 2014) noted collegiality and good working conditions were positively associated with intent to stay scores. Physician assistant literature also suggests building collegial relationships and positive organizational climate as important factor for job satisfaction (Reed, 2006; Quincy 2012).

Collegiality in higher education faculty at large is also noted as important, however the context of collegiality is slightly expanded. Collegiality as referenced in Gappa et al. (2007) Essential Elements refer not only to interdepartmental collegiality and sociability, but also in a larger sense. For example, Gappa et al. notes having faculty involved in governance procedures, welcoming faculty and staff across a university, development of gathering spaces for cross departmental activities, and providing a structure for faculty to interact around common intellectual interests as important. Thus, there is much of evidence to support the current research study’s finding that collegiality is indeed important for health science faculty retention.

**Supportive direct supervisor.** Having a supportive direct supervisor was seventh most frequently selected incentive (67.1%) for continued employment. Qualitatively, it was reported as the sixth most important factor in the current health science faculty sample. While being noted
as important in the current research study, it did not occur at the frequency level noted in Tourangeau et al. (2015), where a supportive director was the most frequently reported incentive (80.8%). Candela et al. (2015) specifically noted perceptions of administrative support and respect were important for job satisfaction. They also recommended that administrators personalize their relationships with faculty to improve satisfaction. Lee et al. (2017) noted the importance strong leadership and departmental engagement. Overall, there seems to be consensus between the current research and previous research studies, that a supportive leader is important for health science faculty retention.

As the importance of a supportive leader has been shown in health science faculty, it plays a less prominent role in higher education at large. It is not specifically mentioned as an Essential Element for Faculty Work (Gappa et al., 2005). While Gappa et al. suggested leaders play a role in developing faculty, it does not come through as strong, or as important, as the current research study suggests, and previous health science literature supports. To explain this difference, demographic and discipline perspectives may again play role. In the current research study, many of the faculty had limited experience in academia, thus they may need additional mentoring. A leader of an externally accredited program must educate faculty to required accreditation-based content standards, guide curriculum in mission consistent directions, manage budgets, assess if curriculum is meeting student and program objectives, and be held responsible for student performance on licensure examination. These tasks and responsibilities occur while balancing faculty professional and personal needs. Perhaps it is the sum of these task that makes a supportive director an important factor for health science faculty in this research study.

**Salary.** Salary was reported as the third most important variable for continued employment qualitatively, whereas, it was eleventh on the quantitative incentive frequency list.
Hence, salary is very important to those faculty who completed the qualitative question, however, it is of lesser concern across the full spectrum of respondents. Perhaps, as salary is very important to some individuals, it may be more related to specific personal faculty circumstances, the unique aspect of an IHE pay scale, or specific to one of the disciplines represented. This finding is consistent with previous health science literature, in that there is some evidence that salary is important (Evans, 2013; Wang and Liesveld, 2015; Turrin, 2016), however, it is not as widespread as workplace factors like collegiality, workload, and flexibility.

While salary may not be as frequently reported as important for retention as other items, some pause is warranted, as it may be an emerging incentive for this group of health science faculty. Salary has been an issue with nursing and physician assistant faculty (Evans, 2013; PAEA, 2018b; Turrin, 2016 Wang and Liesveld, 2015). In these populations, compensation in clinical practice has traditionally been higher than academic settings, thus these individuals must deal with the dichotomy of desire to work in academia versus the higher compensations noted in clinical practice. Similarly, as a nursing shortage expands across the country, salaries for practicing nurses have increased, while academic salaries may not be keeping pace with those available in clinical practice (AACN 2019c; Wang, 2015).

**Disincentives for Employment**

To further explore factors important for health science faculty retention, a second research subquestion was posed, “what workplace factors cause health science faculty members at small to mid-sized private Midwestern IHE to consider leaving a current or future academic setting?” To answer this question the IDES asked survey respondents choose from a previously validated list of disincentive for employment (Tourangeau et al., 2015), followed by an
opportunity to qualitatively respond to the question, “what are the most important factors that would cause you to consider leaving your academic faculty position?”

The results of this research study revealed disincentives most frequently checked as reasons to consider leaving, were similar to answers recorded in qualitative question which asked which factors were most important for leaving. The top three disincentives checked in the quantitative checklist and top three frequent qualitative responses include, unmanageable workloads, a lack of collegiality or incivility in the workplace, and inadequate salary. An unsupportive direct supervisor and unsupportive senior leadership closely follows the top three disincentives. Thus, the factors that would cause the health science faculty to consider leaving are generally the converse of the incentives that would encourage them to stay. These finding are supported by previous literature, while also providing new information that is specific to this previously unstudied population.

**Unmanageable workload.** An unmanageable workload was the most frequently reported disincentive (75.3%) for employment. Qualitatively, it was also reported as the most important factor that would contribute to a health science faculty wanting to leave their academic position. This finding parallels Tourangeau et al. (2015) results where 74.8% of nursing faculty selected this disincentive. Shockness (2015) also discussed the toll excessive workload takes on faculty satisfaction and retention. Related to unmanageable workloads, previous research by Berry and Hosford (2014) noted physical and emotional exhaustion as a factor associated with younger physical therapy assistant program directors and their intent to leave academia. While there is less previous research on intent to leave and dissatisfaction, it appears that previous concerns of unmanageable workloads does extend to the health science faculty in the current research study (Berry and Hosford, 2014, Tourangeau et al., 2015, Shockness, 2015).
The concerns related to workload are important, as unmanageable workload is most frequently checked disincentive and most important qualitative disincentive, while the converse, manageable workload is the number two quantitative incentive and number one qualitative incentive. The reason why unmanageable workloads rank high in frequency of disincentives is hypothesized to be the same as those noted in the manageable workload incentive interpretation. Faculty appointment type, a higher percentage of faculty on 12-month contracts, relative inexperience in academia, and demands of accredited programs may be contributing to increased workload and stress in this research study population.

**Collegiality and incivility in the workplace.** A lack of collegiality or incivility in the workplace is an important factor that could cause faculty to seek alternate employment. This factor was third most checked disincentive (60.1% of faculty) and the second most important factor reported contributor for leaving. This is similar to Tourangeau et al. (2015) findings where poor work environment (68.5%) and incivility in the workplace (68.2%) were third and fourth most frequently checked disincentive. Beltyukova and Graham (2017) and Coniglio and Akroyd (2015) also noted a lack of collegiality as factors important for intent to leave in physician assistant faculty. Thus, the current research study’s finding agrees with related previous health science literature, a lack of collegiality appears to be an important factor that could cause health science faculty to consider leaving.

**Inadequate salary.** Salary is the one factor that did not clearly overlap on the incentive/disincentive checklist. Inadequate salary was the second most frequently checked disincentive (69.6% of faculty) and the third most commonly reported qualitative disincentive in the current research study. These findings are of note, while higher salaries were not as strong of an incentive to retain faculty, an inadequate salary is an important factor that would cause faculty
to look for other employment. This finding starkly contrasts the finding in Tourangeau et al. (2015), where inadequate salary was the 18th most frequently reported factor, with a 32.3% frequency. While scope of the current research does not include explanations as to why health science faculty choose incentives/disincentives, several hypotheses can be made for these differences. First, the Tourangeau et al. study occurred with nursing faculty in Canada, where size and scope of the institution was not controlled. Second, it is not known how Canadian nurse educator salary compares with nurses in local practice environments during the years that study was conducted. Third, more recently it has been noted that nursing and physician assistant academic salaries are not keeping pace with practice environments in the United States (CCNE, 2019c, Evans, 2013; Turrin, 2016; PAEA, 2018b, Wang and Liesveld, 2015), thus faculty in this sample may be becoming increasingly dissatisfied as this gap widens. Lastly, in some disciplines and faculty appointment levels, private religious IHE lag public and secular IHE salaries (AACN 2019c, CAPTE, 2019a; PAEA, 2018b).

**Unsupportive direct supervisor.** An unsupportive direct supervisor was the fifth most frequently reported disincentive (57%) for employment. Qualitatively, it was also reported as the fourth most important factor that would contribute to a health science faculty wanting to leave their academic position. This aligns with the Tourangeau et al. (2105) where an unsupportive director/dean was the fifth most frequently selected disincentive (67.7%). A nursing literature review (Derby-Davis, 2014), as well as studies conducted with physician assistant faculty (Beltyukova & Graham, 2017; Coniglio and Akroyd, 2015) noted an unsupportive leader, lack of recognition by administration, and little organizational support for the program as significant factors related to intent to leave. The importance of a strong, supportive and understanding leader was also heightened by the findings of O’Meara et al. (2014). These authors found significant
differences occur in the work environments for those faculty who intend to stay versus those who left. They noted administrators who oversaw departed faculty often felt the primary reason for the departure was higher pay or that the faculty had a better opportunity, while the majority of faculty who actually left noted problematic work environments being the main cause. Thus, the current study aligns with previous health science literature, noting the importance of supportive leadership. Interestingly, no comments or needs related to unsupportive direct supervisor in general higher education literature were located in the literature review.

**Summary of Research Question Findings**

This research study was descriptive and exploratory in nature, with the intent of answering what workplace factors influence health science faculty retention at small and mid-sized private Midwestern institutions of higher education. To fully understand the factors that contribute to retention, both incentives to remain employed and disincentives that would cause a faculty member to leave were explored. The finding of this research revealed that factors that incentivize continued employment, parallel factors that when absent, would cause faculty to consider leaving. Appropriate and manageable workloads, flexibility in the workplace, a collegial atmosphere, and a supportive director were identified as the leading factors for retention of health science faculty employed at small to mid-sized private Midwestern universities. Furthermore, increasing salaries was not seen as retention strategy, unless the salary is significantly below what can be earned in the clinical practice setting. These findings have been noted in previous nursing literature; however, this is the first time they have been demonstrated in a slightly broader context of health science faculty and specifically in private small and mid-sized IHE. These findings differ from previous research in general higher education faculty research, in that manageable workloads, collegiality within departments, and a
supportive director are highlighted. A potential explanation of these findings can be noted in the age, caregiving status, limited teaching experience, faculty appointment type, contract length, and added responsibilities noted in accredited health science program.

**Theoretical Framework Alignment**

In this research study Herzberg’s (2008) Motivation-Hygiene Theory, Gappa et al. (2007) Essential Elements of Faculty Work and personal circumstances were considered to explore factors related to faculty retention. Herzberg’s theory proposed that two discrete groups of characteristics influence employee job satisfaction or dissatisfaction. This theory proposed factors that influence or promote job satisfaction are discretely different than those related to job dissatisfaction. In this context, he stated the “opposite of job satisfaction is not dissatisfaction, but rather, no job satisfaction and similarly, the opposite of job dissatisfaction is not job satisfaction but no job dissatisfaction” (p. 9). Herzberg’s dichotomous theory outlines intrinsic motivators are associated with job satisfaction, whereas external hygiene factors are associated with job dissatisfaction. This framework notes addressing hygiene factors does not lead to a satisfied or retained employee, rather it leads to an employee who is not dissatisfied, while facilitating of the motivator factors leads to greater satisfaction.

To further evaluate retention in higher education faculty, Gappa et al.’s (2007) Essential Elements of Faculty Work was also considered. This paradigm was built off historic motivation theory, and proposed a more contemporary model, relevant in the current higher education environment. Gappa et al. stated that there are five essential elements for job satisfaction revolving around faculty/administrator respect. Gappa et al. felt equity in academic appointments, academic freedom, flexibility, professional growth, and collegiality are required and center around mutual respects for faculty job satisfaction. The elements of flexibility,
employment equity, and collegiality in this theory seem to align with Herzberg’s hygiene items, contradicting Herzberg’s theory that hygiene factors do not contribute to job satisfaction.

Lastly, personal circumstances were considered as a component of this study’s theoretical framework. Several authors have identified that demographic and personal circumstances may have an impact on job satisfaction and retention. Age, level of education, years in academia, previous faculty development and gender have all been shown to impact satisfaction and retention (Jamieson et al., 2015; Lee et al., 2017; Rosser 2004; Tourangeau, Wong, Saari, & Patterson, 2015). Neither Herzberg (2008), nor Gappa et al. (2007) theories directly acknowledged these individual variables, as their focus was centered on the environment. As such, both individual and environmental circumstances were included in the theoretical framework for this research study.

To explore if the results of this research align with exiting theory, each of the incentives and disincentives in the Incentives and Disincentives for Employment survey (IDES) were coded for alignment as a Herzberg’s (2008) motivator, Herzberg hygiene factor, the Gappa et al. (2007) Essential Elements, and/or personal circumstances. The number of coded responses, and percentage of category codes compared to the total number of responses was recorded. Personal circumstances were defined as factors important to a specific individual due to their unique life perspective. The IDES qualitative responses were also coded for theoretical alignment, counted and then analyzed as a percent of qualitative coded recorded.

Results of this analysis reveal that responses provided by the health science faculty in this research study sample do not fully align with any one theory. Herzberg’s hygiene factors and Gappa et al. Essential Element play the greatest role, while personal factors are less often reported. Each of these items is further discussed.
**Herzberg’s Motivation-Hygiene theory.** The result of this research study conflicts Herzberg’s theory. Herzberg felt that external hygiene factors were associated with job dissatisfaction and that addressing hygiene factors does not lead to a satisfied or retained employee. Analysis of results in this research study yielded hygiene factors accounting for 59% of quantitative and 72% of qualitative incentives. Herzberg believed intrinsic motivators were associated with job satisfaction and only these would facilitate faculty work and retention. In this research sample motivators accounted for only 29% and 18% of quantitative and qualitative responses respectively. This is important to consider, as many of Herzberg’s hygiene factor are external environmental factors that can be modified. Flexibility in the workplace, reasonable workloads, collegiality and supportive leader may be all addressed through modification of workplace practices.

As expected, disincentive analysis results aligned with Herzberg’s hygiene factors. Sixty-three and 83% of quantitative and qualitative responses were classified as hygiene factors. This high proportion was expected, as Herzberg felt hygiene factors aligned with workplace dissatisfiers. Herzberg did not feel that salary increases by themselves improve workplace performance or improve retention, however in this population inadequate salary was a leading disincentive for leaving. Perhaps this factor has a larger impact in the current research sample as these health science faculty are in very high demand, they can easily leave their position for another school, or return to higher paying clinical practice.

**Essential Elements of Faculty Work.** Gappa et al. (2007) stated equity in academic appointments, academic freedom, flexibility, professional growth, and collegiality revolve around a central tenet of respect and that all are required for faculty job satisfaction. The content of this study’s health science faculty responses generally align with the Essential Elements,
however, several factors deemed important by this population are not represented. The Essential Elements are represented by 59% and 48% quantitative and qualitative incentive responses respectively and 64% and 33% quantitative and qualitative disincentive responses respectively. Collegiality, flexibility and respect are strongly represented in the current health science faculty responses, however professional growth, academic freedom and equity in academic appointment responses are limited. Lastly, unmanageable workload and a supportive leader, two important factors noted by this health science faculty sample, are not discretely accounted for in the Essential Elements.

Potential explanation as to why this research study sample does not fully align with higher education paradigm may be found in this sample’s demographic differences from a general higher education faculty. Perhaps the demands placed on the high percentage of faculty who teach on 12 months contracts, the relative inexperience of these health science faculty, and demands of external accredited programs were not as prevalent in the general higher education faculty experiences from which the Essential Elements are based.

**Personal circumstances.** In this study’s theoretical framework personal circumstances were thought to play a role in what factors are important for health science faculty retention. Personal circumstances as analyzed in this research study accounted for only 6-16% of incentive and disincentives responses. This is significant, as often when people leave it is brushed off as a better offer, family needs, or personal convenience (O’Meara et al., 2014), when in fact, personal circumstance seems to play a small role for incentivizing or disincentivizing this population of health science faculty to stay or leave.

While this study’s findings do not highlight personal circumstances as reason for staying or leaving, part if this may be due to study design. Personal circumstance for the sake of analysis
was limited to family circumstances, health issues, work location, opportunity for clinical practice, personal economic status and external economic conditions. While personal circumstances are reported at low frequencies it does not dismiss the individual needs of faculty. Key factors like workplace flexibility, appropriate workloads, collegiality and supportive leadership all require the individual needs of faculty be acknowledged.

**Implications**

Faculty vacancies are an issue across most high demand health science education programs (AACN 2019a; AOTA, 2018; CAPTE, 2019; PAEA, 2018a). These faculty vacancies are in part limiting the ability of higher education to increase enrollment and meet healthcare workforce demands (AACN 2019b; Lee, Miller, Kippenbrock Rosen & Emory, 2017). Thus, an understanding of factors related to health science faculty and retention are of importance for institutions of higher education. To understand these needs, this research study sought to understand what workplace factors influence health science faculty retention at small and mid-sized private Midwestern institutions of higher education (IHE). The need for this information is great, in that no previous research was located specific to this faculty demographic. The findings from this research study are clear, workplace environmental conditions and demands are important factors associated with retention in this health science faculty demographic.

While this research study’s faculty did value the work itself, autonomy, and professional growth that occurs in a faculty position, it was the extrinsic environmental conditions that were most frequently checked and qualitatively reported as most important for retention. As health science faculty often have other faculty opportunities and the ability to return to clinical practice, focusing on addressing and improving these modifiable workplace factors may promote future health science faculty satisfaction and retention. Manageable workloads, flexibility in the
workplace, fostering collegiality, and being a supportive leader are all items deemed important by this health science faculty grouping, all of which can be influenced by the IHE leader. Senior administration, deans, department chairs, and program directors all have some level of authority to manage teaching assignments, workload distribution, and productivity expectations. Institutional leader who take time to understand individual faculty needs and demands will be better equipped to use, promote, and support the inherent flexibility of academic appointments. It is through this understanding of faculty needs they can develop into the supportive leader desired by this faculty. As leaders model supportive and respectful interactions, they also can set the tone interdepartmental and cross university collegiality. While mutual collegiality requires the efforts of all faculty, modeling this behavior and setting appropriate boundaries for healthy debate is recommended. As salary equity is emerging as an issue for this faculty group, regular benchmarking to peer and clinical position is suggested. This research study has highlighted findings that one cannot depend on intrinsic motivators alone to foster faculty satisfaction and that environmental conditions must be considered to retain health science faculty.

**Recommendations for Action**

In order to create and foster environments that support faculty retention, it is important to not only understand what is important for faculty, but also why. Ryan et al. (2012) noted different needs between faculty groups and recommended institutional leaders pursue differential strategies based on those needs. The unique attributes of the health science faculty who responded to this survey include less academic experiences than the general higher education population, the majority of the sample was female, nearly half of the sample were primary caregivers, half of the sample worked on 12 month contract, and all faculty were part of externally accredited programs. Given these unique attributes and importance of manageable
workloads, flexibility, desire for collegiality, and need for a supportive director, specific recommendations for these areas are suggested.

**Manageable Workload**

Manageable workloads were a top incentive and disincentive for this population of health science faculty, five recommendations for this area are suggested. The first recommendation is for institutional leaders to assess faculty needs and workloads on a regular basis. Institutional leaders in this context are any individuals who have direct faculty oversight. First level institutional leaders could range from program directors and department chairs to college or school deans dependent on university structure. The form of faculty workload assessment could range from informal check-ins, to more formal one-on-one meetings or unit wide assessments. First year or more inexperienced faculty may need formal monthly check-ins, while more experienced faculty may only require a once per semester check in. If faculty are reporting unmanageable workloads, it is then important for leader to discern if it is an individual or more systemic problem across the work unit. If workload problems are systemic across programs, the leader may need to determine if the teaching, scholarship and service expectations are realistic for their setting. Many accredited educational programs publish faculty data and workload responsibilities in annual reports, these reports can be used for benchmarking. If workload issues seem limited to a single or small group of faculty, then individual causes and specific strategies for managing the required workload must be developed.

Next, institutional leaders may want to consider limited teaching, scholarship, or service loads for faculty in their first year of academic appointment, as workload for new course development may be significant for inexperienced faculty. Third, senior leadership, human resource departments and program level leaders should consider a means for faculty working on
twelve-month contracts to take breaks or vacations during the semester, as opposed to just when classes are not in session. Faculty working on twelve-month contracts may lack the ability for summer vacations, limiting their family or down time, which other traditional nine-month faculty enjoy. Fourth, program leaders who assign teaching loads should consider flexible teaching loads throughout an academic year. Inherently, some courses, scholarship or service workload requirements may be higher or lower during an academic year. Allowing faculty to play a role in adjusting teaching responsibilities up or down across semesters, while still meeting the minimum academic year teaching load, may allow them to balance workload demands. Lastly, deans, vice presidents, and provosts should consider teaching load reductions for program leaders that have substantial external accreditation events. In accredited programs five- or ten-year reaccreditation processes require significant work, thus they should consider shifting teaching loads to more service contributions during these times. Leaders may also recruit program faculty to help with these activities. This shared workload then decreases individual efforts required, creates program buy in from all faculty, and allows faculty with program or curricular administration interests to gain valuable experience.

Flexibility

The ability to have flexibility in the workplace, and conversely, the lack of flexibility, were noted to be important incentives and disincentive for continued employment. Three recommendations for flexibility are provided. First, understanding and appreciating individual faculty needs are important. First line leaders who have regular contact and oversight of faculty are in the best position to realize unique personal circumstances, preferences, and perspectives. As dual income families have become the norm (PRC, 2015) and approximately half of this faculty sample were primary caregiver on 12-month contracts, understanding their needs is the
first step in facilitating work-life balance. Second, much faculty work can be completed independently, at various times throughout the week. Create a flexible work environment that allows faculty to take advantage of these characteristics. Outline clear expectation about what times faculty are required to be on campus and accessible, versus what can completed on the faculty’s own schedule. When faculty attendance and participation in program or department meetings is required, strive to schedule times that work for all. If this cannot occur, perhaps having call in or video conference options for faculty who cannot meet face to face. Lastly, as noted in manageable workloads, leaders who schedule teaching loads should allow faculty to voice a preference in the academic teaching schedules, with the ability to flex teaching based on program and departmental needs. While all faculty preferences may not be possible, the leader should be clear and transparent as to the process that was used to assign teaching assignments. Leaders may also involve programs and departments as whole in the course assignment and scheduling process. Discussing the difficulty of scheduling openly and honestly may help faculty understand the many variables that occur with the scheduling processes and provides them the opportunity to provide suggestions and solutions. Collegial planning and support within programs may support the flexibility many faculty desire.

Supportive Direct Supervisor

Having a supportive direct supervisor was frequently reported as important in this sample of health science faculty. Therefore, it is recommended that departmental or program leaders understand and work to fulfil this desire for support, as well as seeking their own professional development as needed. While a discussion of comprehensive leadership principles is beyond the scope this research study, the individualized consideration component of transformational leadership principles (Marion & Gonzalez, 2014) appears important for this demographic of
heath science faculty. In transformational leadership theory, individualized consideration is one of four important principles for effective leadership. In this theory, individualized consideration refers to person-to-person two-way communication, identifying an individual’s specific needs, providing development opportunities and empowering the employee. Therefore, leading with individualized consideration would help the health science administrator understand workload concerns, desires for flexibility, faculty developmental needs, and facilitating the collegial atmosphere desired by these health science faculty. The supportive direct supervisor also has the responsibility to inform and communicate needs to those in more senior leadership positions. Each program may have unique needs and challenges that influence their ability to meet curricular objectives. Comprehensive clinical education curriculums, student supervision in clinical practice, psychomotor lab instruction, and accreditation standards are examples of items that may make a program unique and influence its faculty. The program leader must inform senior leadership of unique program circumstances and provide options and solutions that support both programs and institutional needs.

**Collegiality**

Collegiality and supportive colleagues were noted as important for this group of health science faculty. It was also noted as a one of the Essential Elements of Faculty Work described by Gappa et al. (2007). Generally, the principles for facilitating collegiality recommended by Gappa et al. are relevant for this population. First and foremost, collegiality requires collective responsibility. It is recommended that individual faculty, as well as their leaders, take responsibility for their actions and those of other. Program leaders can certainly promote collegiality in their interactions as suggested in the workload, flexibility and support director sections, however it is also the responsibility of the faculty engage in and promote collegial
discourse. The expression of differing views, philosophies and perspectives should be encouraged, while faculty may not to agree on everything, the thoughts, needs and opinions of others should be respected. Second, setting ground rules for professional communication in departmental activities, establishing governance structures that empower faculty, and the development collegial trust is suggested. Departmental or university committees serve as a means to empower faculty to make recommendations and decision on matters that involve them and the curriculums they deliver. As a committee member, faculty have the responsibility and function to not only advance their needs, but also those of their colleagues. Through diligent work and service as a representative for peers needs, collegial trust may be enhanced. Lastly, providing opportunities for faculty to assemble in formal and informal gatherings, to discuss both professional and social interests is recommended. These collegial interactions may allow faculty to collaborate on scholarship, interdisciplinary courses, or activities where there is shared expertise. It also offers faculty the ability to learn from peers they would not regularly interact with in their typical work functions.

**Salary**

The importance of salary is an emerging concern in this health science faculty population. Regular assessment of faculty compensation is recommended. Many accredited health science academic professional organizations publish data related to salary (AACN, 2019a; AOTA, 2015; CAPTE 2019a; PAEA, 2018a). Benchmarking faculty pay to institutions of similar size, scope, and geographic area may provide context related to academic pay scales. It was noted by some faculty that salaries are below clinical practice salaries, however in some disciplines, academic pay may equal or exceed clinical practice salaries (AOTA, 2015; CAPTE 2019a; PAEA, 2018a). Benchmarking salaries between academia and clinical environments may provide IHE
administrators an opportunity to see how their pay scales align. When evaluating salary, it is also important to assess comprehensive compensation and work environment characteristics. Retirement packages, university benefits like continuing education, spouse and dependent tuition remission, flexibility of academic work, time away from work (between semesters) and the ability to be away during holidays, are all items that needed to be compared with full time clinical practice salaries. Following these benchmarking activities administrators and faculty will be more informed of actual salary conditions and the potential need to align salary with market conditions. In situations where academic salaries lag far behind clinical practice environments or peer institutions, program director, chairs, and deans should share information with university leaders, human resource offices, or those with budgeting authority. As institutional budget constraints may limit immediate resources for improving salary equity, senior leaders may be able to develop multiyear plans with intent of providing salary equity.

**Recommendations for Further Study**

The intent of this research study was to provide a focused, descriptive, and exploratory assessment of factors that could or would influence health science faculty to remain in or leave an academic appointment. This model, as well as its ability to be generalizable, are in itself a limitation. Thus, future studies that reproduce this model of assessment with other faculty populations and conducting a study with health science faculty members who actually left an academic position are recommended. Lastly, in depth exploration of the most important incentives and disincentives for employment may provide more definitive recommendation for long term faculty retention.

A key tenet of the conceptual framework of this research study was in order to assess job satisfaction and retention, faculty should be assessed specific to their discipline and setting
context (Ryan et al., 2012; Xu, 2008). This design limits the generalizability of these findings to health science faculty at public, larger research universities, or health science faculty outside of the Midwestern United States. This study could easily be reproduced with different health science faculty populations, assessing if the size, scope and location of the university employment truly make a difference related to incentives and disincentives for employment. The current research study sampled a group of four academic disciplines common to small and mid-sized IHE. To add more specificity, the study could be repeated, limiting the sample to just one discipline or comparing responses between health science disciplines. This would allow the researcher to determine if needs differ between specific health science discipline faculty.

The design of this survey research study was descriptive and exploratory in nature, with intent of describing factors that “could” or “would” influence a health science faculty to remain in or leave an academic appointment. While these factors are important to consider, correlation and causality cannot be determined. This research study allowed the researcher to identify the frequency of which incentives and disincentives are reported, however, it did not allow the researcher to make a definitive assessment of factors caused a faculty to leave. Thus, a research study that sampled health science faculty who actually left an academic position would provide more definitive answers as to what causes faculty to leave.

Lastly, important incentives and disincentives for health science faculty retention have been identified in the current research study, however, further exploration of these factors is warranted. Manageable workloads were identified as important in this faculty demographic. Future exploratory or qualitative research that identifies what exactly would make a workload manageable is suggested. Likewise, identifying the most important aspects of flexibility in the workplace or collegiality would guide higher education leaders in crafting policies and
facilitating environment that support faculty needs. Furthermore, the symbiotic leader-health science faculty relationship requires study. Identifying what faculty need from their leaders and reciprocally, what skills, development, and resources leaders require, would be helpful if high functioning, stable academic programs are desired.

**Conclusion**

Significant growth in the health science employment sector has led to increased demand and enrollment in health science educational programs. As many schools look for ways to maintain or increase their health science offerings, demand for qualified health science faculty outpaces the supply (AACN, 2019a; Lee, 2017; PAEA, 2018a). As academic administrators hope to retain qualified health science faculty and expand educational programs, they are challenged by plentiful jobs in academia and a faculty’s ability to return to clinical practice, where salaries often exceed those in academia (PAEA 2018a; Reed, 2006; Romig et al., 2011). It is for these reasons an understanding of factors related to health science faculty retention is important.

To explore health science faculty needs, this research study expanded on established job satisfaction theory (Herzberg, 2008; Gappa et al., 2007) and explored it in a focused health science faculty context. The population sampled in this research study was limited to health science faculty at small and mid-sized Midwestern universities, as previous research noted the importance of studying satisfaction from a discipline specific perspective, with the size and scope of the institution considered (Ryan et al., 2018; Xu 2008). Thus, the purpose and primary research question for this research study was to identify personal and workplace factors that contribute to health science faculty retention at small and mid-sized private Midwestern institutions of higher education. To fully explore this research question, it was broken into two research subquestions, asking what workplace factors entice health science faculty members to
remain employed in a current or future academic setting and what workplace factors cause health science faculty members at to consider leaving a current or future academic setting. To answer the research questions an exploratory and descriptive survey methodology was employed, assessing health faculty incentives and disincentives for employment.

The overall results of this study highlight the importance of modifiable workplace factors for retention. Manageable workloads, flexibility, collegiality, and a supportive direct supervisor were noted as important items for retaining this group of health science faculty. Salary dissatisfaction is also an emerging concern for some in this demographic. While two existing satisfaction theories were used as a theoretical framework for this research, neither fully explains this study’s results. It is thought that the uniqueness of this faculty demographic helps explain its needs. This faculty’s relative inexperience in academia, high percentage of faculty serving as primary caregivers and on 12 months contracts, as well as the discipline specific demands of accredited programs, may all contribute to workplace needs.

Based on these findings, several recommendations emerged. First, regular assessments of workload are suggested, specifically noting the individual needs of inexperienced faculty, those who may be caregivers and program specific item that influence workload. Second, capitalize on the inherent flexibility of faculty work, acknowledging the specific needs of each faculty member. Third, program directors and higher education leader should be aware the need for a supportive environment. This may include a supportive leader, as well as faculty and leader development activities. Fourth, strive to develop a collegial environment where all member of a community take responsibility for their own and other actions. Lastly, regular benchmarking of salaries to peer institutions and clinical practice is suggested, while also promoting the autonomy, flexibility and inherent benefits in the academic setting. It is hoped through these
research study findings and recommendations, higher education leaders will be more informed to create strategies that support faculty needs and foster environments that retain health science faculty.
REFERENCES


http://www.arc-pa.org/accreditation/standards-of-accreditation/


http://www.aacnnursing.org/News-Information/Publications/Annual-Reports


http://www.aacnnursing.org/News-Information/Publications/Annual-Reports

American Association of Colleges of Nursing. (2019a). *Special survey on vacant faculty nursing position for academic year 2018-19.* Retrieved from

https://www.aacnnursing.org/News-Information/Fact-Sheets/Nursing-Faculty-Shortage


https://www.aacnnursing.org/News-Information/Fact-Sheets/Nursing-Shortage


Beavers, G. S. (2010). *The predictive value of selected extrinsic and intrinsic indicators of overall job satisfaction in diagnostic radiological technology, radiation therapy, and


Doi:10.1016/j.nedt.2011.01.009


Physician Assistant Education Association (2018a). *By the Numbers: Program Report 33: Data from the 2017 Program Survey*.


APPENDIX A

Incentives and Disincentives for Employment Survey

Demographics

1. Age:

2. Gender:

3. Race:

4. Do you have children under the age of 18 or are you a primary caregiver for an individual/s

5. Discipline Academic Appointment (choose one):
   - Nursing
   - Occupational Therapy
   - Physical Therapy
   - Physician Assistant

6. Which of the following best describes your academic appointment:
   - Tenured
   - Tenure Track
   - Non-Tenure, Clinical or Instructional Faculty

7. How many months per year is your academic appointment:
   - 9, 10, 11, 12

8. Do you hold an academic Terminal degree (e.g. PhD., EdD., etc): Yes  No
   - If yes, what is your degree:
   - If no, are you pursuing an academic terminal degree: Yes  No

9. Do you hold a professional degree (e.g. DNP, DPT, OTD, MSPAS, etc.): Yes  No
   - If yes, what is your degree:
If no, are you pursuing a professional terminal degree: Yes  No

10. Years of Clinical Practice Prior to Full Time Academic Employment:

11. Years you have been Professionally Credentialed or Licensed in Your Primary Field of Practice/Teaching:

12. Years in Full Time Faculty Appointment/s:

**Incentives for Employment**

Which of the following factors or circumstances does or would entice you to remain employed in your current college/university? Please check items that apply

1. Academic freedom and autonomy

2. Adequate resources

3. Additional vacation time

4. Choice regarding employment status (Full time/part time)

5. Clear employment policies (promotion, tenure, evaluations...)

6. Collective agreement arrangements

7. Convenience of college/university location

8. Employment benefits

9. External economic conditions

10. Family circumstances

11. Faculty mentoring/coaching opportunities

12. Flexible work hours

13. Health issues
14. Higher salary
15. Manageable class sizes
16. Opportunity for advancement
17. Opportunity for leadership development
18. Opportunity for clinical practice
19. Opportunity to teach
20. Opportunity to work from home
21. Opportunity to conduct/be involved with research
22. Paid education leave for school or conferences
23. Personal economic status
24. A phased in retirement plan
25. Reasonable workload
26. Respectful atmosphere
27. Student mentoring/coaching opportunities
28. Supportive direct supervisor (director, chair, dean)
29. Supportive senior leadership (dean, provost, chancellor, president, etc.)
30. Supportive colleagues
31. Supportive organization
32. Ties to the community
33. Work/life balance

**Free Response**

What are the most important factors that could or would contribute to you staying in your academic faculty position?
**Disincentives for Employment**

Which of the following makes or would make you think about leaving your current college/university employment?

1. Bullying, belittling and other types of uncivility in your workplace
2. Collective agreement
3. External economic conditions
4. Emotional physical exhaustion
5. Family circumstances
6. Faculty mentoring/coaching responsibilities
7. Health issues
8. Inadequate leadership from direct supervisor
9. Inadequate institutional leadership
10. Inadequate resources
11. Inadequate salary
12. Inadequate opportunity for advancement
13. Inadequate continuing education/professional growth opportunities
14. Inconvenient location of college/university
15. Inadequate opportunity to conduct/ be involved in research
16. Inadequate paid education leave for school or conferences
17. Inadequate opportunity for leadership roles
18. Inadequate opportunity to have a clinical practice
19. Inadequate work group cohesion
20. Inadequate opportunity to teach
21. Mandatory requirements
22. Micromanagement
23. Opportunity outside of college/university
24. Personal economic status
25. Phased in retirement plan
26. Poor work environment
27. Student mentoring/coaching opportunities
28. Teaching assignment for which you are underprepared
29. Unclear employment policies (tenure, promotion, evaluation…)
30. Unmanageable class sizes
31. Unmanageable workload
32. Unsupportive colleagues
33. Unsupportive direct supervisor (director, chair or dean)
34. Unsupportive senior leadership (dean, provost, chancellor, president etc.)
35. Unsupportive organization
36. Work/life balance

Free Response

What are the most important factors that would cause you to consider leaving your academic faculty position?
APPENDIX B

Permission to Use Incentive and Disincentive List

Thomas Pahnke

From: Ann Tourangeau <ann.tourangeau@utoronto.ca>
Sent: Friday, July 26, 2019 2:34 PM
To: Thomas Pahnke
Cc: Ann Tourangeau
Subject: RE: 2014 Generation Specific Incentives Paper

Hi Tom,

Your dissertation research sounds very interesting. Although I cannot advise you to use most of my survey as most (not all) items are components of validated instruments for which I do not own copyright and therefore, cannot give you permission to use.

However, the list of incentives and disincentives is original work from my team and you are most welcome to use those items. The items were developed directly from the results of focus groups that we conducted.

I wish you much success in your project.

All the best,

Ann Tourangeau

Ann Tourangeau RN PhD
Professor and Associate Dean Academic
Lawrence S. Bloomberg Faculty of Nursing
University of Toronto
130-155 College Street
Toronto, Ontario, Canada M5T 1P8
416.978.6919

TOURANGEAU OUTCOMES RESEARCH

---

From: Thomas Pahnke [mailto:tpahnke@carrollu.edu]
Sent: July 26 19 1:55 PM
To: Ann Tourangeau <ann.tourangeau@utoronto.ca>
Subject: 2014 Generation Specific Incentives Paper

Dear Dr. Tourangeau,

Please let me introduce myself. My name is Tom Pahnke, I am currently serving as Dean of the College of Health Sciences at Carroll University in the US and a doctoral student at the University of New England. As an academic administrator and an inquiring doctoral student, I am interested in what workplace factors lead to health science faculty job satisfaction and retention. While the field of nursing and medical education has published in this area, other allied health disciplines lag behind. Specifically, little is known or published in allied health disciplines (physiotherapy, occupational therapy...) or from a small university perspective.
Your 2014 paper "Generation-specific incentives and disincentives for nurse faculty to remain employed" caught my attention as I have been reviewing the literature on this topic. I appreciated your exploratory method of actually asking faculty about their preferred work characteristics and what encourages them to remain or leave their academic position. While previous methods have really focused on how satisfied they are in their current jobs, I am interested in what they would value in their ideal faculty position.

To that end I am writing with the hope that you would be willing to share your survey or allow me to use the list of incentives or disincentives noted in your paper. While other validated tools exist, I specifically appreciate your perspectives as a scholarly nurse educator. Your incentives/disincentives list is more specific and relevant to my population of interest than many of the other tools I have researched. Should you be willing to share I would certainly reference and cite your methods and work. Please let me know if you have any questions related to my request or research. I would be happy to discuss.

Sincerely,

Tom

Tom Pahnke MS, PT, ATC
Dean, College of Health Science

College of Health Science House, Rm 201
Office: 262-591-3126
Fax: 262-524-7690
tophanke@carrollu.edu

CARROLL UNIVERSITY

1001 N. East Avenue | Waukesha, WI 53186