

**PERCEIVED INCLUSION OF MANRRS (Minorities in Agriculture, Natural Resources,
and Related Sciences) ALUMNI IN AGRICULTURAL ORGANIZATIONS: THE
RELATIONSHIP BETWEEN INCLUSION, PSYCHOLOGICAL NEEDS, & INTRINSIC
MOTIVATION**

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Dissertation submitted to the faculty of the Virginia Polytechnic Institute and State University in
partial fulfillment of the requirement for the degree of

Doctor of Philosophy
In
Agricultural and Extension Education

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March 26, 2020
Blacksburg, Virginia

Keywords: MANRRS, Agriculture, Diversity, Inclusion, Motivation, Self-Determination Theory

Abstract (Public)

Professional agricultural organizations are focused on creating a more diverse and inclusive workforce due to changing demographics within the United States. MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences) is a co-educational national society that aims to introduce underrepresented minority students to the educational and professional opportunities available in agriculture, and to connect employers in the agricultural sector with highly qualified prospects for employment. With MANRRS being a source for recruitment of minority students into agricultural professions, this sequential explanatory mixed methods study will explore the relationship between basic psychological needs satisfaction (autonomy, competence, psychological relatedness) and motivation as they specifically relate to former MANRRS participants' (from 2013 to 2018) perceived feelings of inclusion in professional agricultural organizations. Deci and Ryan's Self-Determination theory was utilized to guide the development and organization of the research objectives for this study. The objectives of this study were to: 1) identify selected demographic characteristics based on MANRRS member and non-member status (e.g. gender, race/ethnicity, age, highest degree earned, current position in career, state of residence, years of involvement in MANRRS as an undergraduate student, frequency of interaction with other members of underrepresented minority groups within their current position, etc.); 2) determine levels of organizational inclusion based on MANRRS member and non-member status; 3) determine levels of intrinsic work motivation based on MANRRS member and non-member status; 4) determine levels of satisfaction in the areas of autonomy, relatedness, and competence based on MANRRS member and non-member status; 5) determine levels of self-efficacy based on MANRRS member & non-member status; and, 6) explain variance in levels of perceived inclusion by selected variables

(e.g. age, highest degree earned, and frequency of interaction with other members of underrepresented minority groups within their current position). Additionally, key findings indicated that MANRRS participants were lower in their satisfaction of the need for competence in the workplace when compared against non-MANRRS participants. This study is intended to help identify characteristics or factors that may contribute to improving feelings of inclusion when entering agricultural careers.

Abstract (Academic)

The goal of this sequential explanatory mixed methods research study was to advance the literature on organizational inclusivity for underrepresented minority groups working in professional agricultural careers. This study sought to understand the relationship between basic psychological needs (autonomy, competence and relatedness) and motivation amongst minorities that both did and did not participate in the co-educational national society MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences). Understanding this relationship, in turn, hoped to reveal what motivating factors work best to improve feelings of inclusivity within an organization. Deci and Ryan's Self-Determination theory was utilized to guide the development and organization of the research objectives for this study. The objectives of this study were to: 1) identify selected demographic characteristics based on MANRRS member and non-member status (e.g. gender, race/ethnicity, age, highest degree earned, current position in career, state of residence, years of involvement in MANRRS as an undergraduate student, frequency of interaction with other members of underrepresented minority groups within their current position, etc.); 2) determine levels of organizational inclusion based on MANRRS member and non-member status; 3) determine levels of intrinsic work motivation based on MANRRS member and non-member status; 4) determine levels of satisfaction in the areas of autonomy, relatedness, and competence based on MANRRS member and non-member status; 5) determine levels of self-efficacy based on MANRRS member & non-member status; and, 6) explain variance in levels of perceived inclusion by selected variables (e.g. age, highest degree earned, and frequency of interaction with other members of underrepresented minority groups within their current position). Additionally, key findings indicated that MANRRS participants

were lower in their satisfaction of the need for competence in the workplace when compared against non-MANRRS participants.

Acknowledgements

This work would not be complete without first acknowledging God, family, friends, and community members. I would like to thank Dr. Randy Grayson and the George Washington Carver Fellowship for funding my doctoral studies and continually providing words of wisdom and support. I am also thankful to my dissertation chair, Dr. Curtis Friedel, and committee members: Dr. Antoine J. Alston, Dr. Kim Niewolny and Dr. Karl Precoda. Thank you, for your patience and timeliness in responding, even when you may have felt exhausted from reading another draft of my dissertation. Your never-ending support and academic expertise amaze me; I could not have selected a better committee.

I am also grateful for the Agricultural, Leadership, and Community Education (ALCE) department. The faculty, staff, and my cohort within this department have been welcoming since the beginning of my doctoral studies and have made my experience at Virginia Tech a positive one.

Finally, I must give my deepest appreciation to my family who have supported me in everything that I do. Thank you to my parents, Drs. Fletcher and Renee Barber, who have consistently prayed and encouraged me, and have exemplified what it means to be loving and supportive parents. Your passion to serve has instilled in me the willingness to do the same. I am also deeply appreciative of my siblings, Adrienne, Michael, and Stephen for being willing to help in any way possible. In any family, being the youngest sibling has its pros and cons, but you all have always been there to spoil me, and have truly made me happy to call you my big sister and big brothers.

Dedication

This work is dedicated to everyone who has supported and encouraged me along the way, and especially to...

-my parents, *Drs. Fletcher and Renee Barber*, all that I am is because of your love and sacrifice. I can't express enough how thankful I am for the two of you.

-my late grandparents, *Fletcher and Bernice Barber* as well as *Charlie and Lottie Lawson*, all four of you had a background in agriculture, and have helped influence my love for agriculture. I hope I make you proud in all that I do.

-my late aunt, *Gwendolyn Lawson*, you committed your life to helping others and I'm so appreciative of our time together. Thank you for always having a generous and giving spirit. As grandma would say "You're some of the best"!!!

There are so many others I could name, and I appreciate you and thank you all for your prayers and support.

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Chapter 1

Introduction

My personal experience as both a MANRRS collegiate member and former employee at a major agricultural corporation provide the basis for my interest in understanding how professional agricultural organizations can create inclusive environments for underrepresented minority professionals. As a young woman entering the professional world for the first time, I relocated to the Midwest and was employed in a role where there was a lack of underrepresented minorities. I remember feeling isolated, unsure, and that I had no one I could relate to for support.

My direct supervisor attempted to serve as both supervisor and mentor, which proved difficult for me to address any issues that would reveal the uncertainties that I was experiencing in the position. I struggled to feel included within the organization and felt as an outsider. Hourly employees were sometime hesitant to help facilitate data collection that I needed for improving productivity. Some balked at the idea of a young African American female telling them how to perform their job when they might have been in the position for 20 plus years. My job was to use statistical data to improve productivity, their response to my request was an expletive expression because they felt I was intruding on their job, which they had been doing their way for years. It is reasonable to assume that the same feelings of doubt and insecurity I felt hold true for other minorities entering similar careers. By sharing insights from my own personal experience, my research intends to provide deeper understanding into the motivating factors that work best to improve feelings of inclusivity for underrepresented minority populations within professional agricultural organizations.

This study is organized into five chapters. The first chapter provides situational background and explains inclusion, the MANRRS (Minorities in Agriculture, Natural Resources, and Related Sciences) organization, and the need for diversity in agriculture. It further addresses the problem, significance, and purpose for the study. Also included within chapter one are assumptions, limitations, and definitions of terms. Chapter two, the literature review, describes the MANRRS organization while also providing a description of the Self-Determination Theory. Chapter three describes the methodology and begins by reviewing the purpose of the study then continues with outlining the framework used to structure the study's research objectives, methodology rationale, research design, participant sampling and recruitment, data collection, and data analysis. Chapter four provides the survey information received and the interpretation of the data that applies to the questions presented within the survey. Lastly, chapter five summarizes the study, gives basic conclusions drawn from the study, and provides recommendations for improving inclusivity within the agriculture sector. In addition, suggestions are offered for further research.

Background of Study

U.S. population trends suggest that racial and ethnic minority populations may no longer be a numerical minority by the year 2050 (U.S. Census Bureau, 2018). This demographic trend has wide-ranging implications, especially for representation within the American workforce. Expanding racial and ethnic diversity within the domestic labor pool remains a focus across all professional sectors as “the minority portion is projected to double (from 18% to 37%), and the Hispanic/Latino portion is projected to almost triple (from 6% to 17%)” from the years 1980 to 2020 (National Center for Public Policy and Higher Education, 2005, p.1).

Nevertheless, research suggests that generating teams who are diverse across the spectrum of personal and professional characteristics is not enough to achieve sustained performance improvements. According to Gallup (2018) “few organizations are effective at creating a culture that truly promotes, embraces and actively seeks each employee’s unique contributions” (p. 4). This realization has led many organizations to shift their focus away from a numerical emphasis on diversity towards creating a more inclusive work environment. A growing number of executives also cite inclusion as one of their organization’s most pressing challenges with the percentage of individuals expressing that sentiment increasing by 32% from 2014 to 2017 (Bourke, Garr, van Berkel, & Wong, 2017). Furthermore, the economic case for greater focus in this area centers on the notion that “organizations with diverse and inclusive team cultures actively create a competitive advantage for themselves by inviting and welcoming a myriad of backgrounds, experiences and viewpoints into their workforce” (Gallup, 2018, p. 4).

The imperative to create a diverse and inclusive professional workforce also extends to the agricultural sector, which comprises “establishments primarily engaged in growing crops, raising animals, and harvesting fish and other animals from a farm, ranch, or their natural habitats” (EPA, 2019, p. 1). Other related industries include: “food, beverages, and tobacco products; textiles, apparel, and leather products; food and beverage stores; and food service, eating and drinking places” (ERS, 2019, p.1). Agriculture, food, and related industries comprise a lucrative portion of the national economy accounting for \$1.053 trillion of U.S. gross domestic product (GDP), with the output of America’s farms contributing \$132.8 billion of this sum (ERS, 2019). “In 2017, 21.6 million full and part-time jobs were related to the agricultural and food sectors- 11.0 percent of total U.S. employment” (ERS, 2019, p.1). Despite the productivity gains within this sector, there are wide gaps in representation by underrepresented minority groups. As

an example of this disparity, ninety-five percent of agricultural farm workers in 2017 identified as White, with far fewer participation among individuals of “Hispanic (3.3%), Native American (1.7%), or Native Alaskan descent (1.7%); even fewer individuals that year identified as African American (1.3 percent), Asian (0.6 percent), Native Hawaiian/Pacific Islander (0.1 percent), and “more than one race” (0.8 percent)” (The Washington Post, 2019, p. 4). These gaps in representation are reflective of broader challenges related to creating diverse and inclusive environments within the agricultural industry, even in light of targeted human resource initiatives aimed at creating a diverse talent pool.

Addressing the above disparities within the various levels of the agriculture industry requires a series of approaches that begins with strengthening the pipeline of candidates majoring in disciplines that lead to careers within this area. At the collegiate level, student organizations like Future Farmers of America (FFA), Collegiate 4-H, and honorary societies such as Gamma Sigma Delta play a critical role by providing academic and social support, mentorship, and professional development training as students prepare to enter post-graduate professions. However, MANRRS (Minorities in Agriculture, Natural Resources, and Related Sciences) is currently the only organization that focuses solely on providing activities, programs, and networks to support the professional development of underrepresented minorities within agricultural careers (MANRRS, 2018). MANRRS also provides a streamlined platform for potential employers to identify well-qualified candidates looking for employment. The perceptions of MANRRS alumni related to their experience within professional spaces provides invaluable insight into strategies and practices that can be implemented to recruit and retain a more diverse talent base while also engendering more inclusive work environments. Within that investigation, an exploration of the social and emotional factors, specifically motivation towards

an individual's vocation, can be surfaced and elaborated to assist in crafting experiences that result in greater affinity and retention within organizations. The intention of this study is to gain knowledge on employee motivation in the workplace (e.g. through basic psychological needs satisfaction for autonomy, competence, and relatedness) that results in minority employees feeling more included within their respective career pathways.

Introduction of Inclusion

Although agricultural organizations are now focusing on creating a more diverse workforce, it is also necessary for these organizations to recognize that solely having diversity is not enough. According to Gallup (2018) "organizations will gain the benefits of a diverse workforce only when inclusive cultures also exist" (p. 6). Research suggests that the quality of interaction among group members influences team performance in more diverse teams (Stewart & Johnson, 2009; Swann, Kwan, Polzer, & Milton, 2003). Using Shore et al.'s (2011) definition, the feeling of being included when in a working group/organization is defined as, "the degree to which an employee perceives that he or she is an esteemed member of the work group through experiencing treatment that satisfies his or her needs for belongingness and uniqueness" (p. 1265). From this definition, inclusion is seen as the satisfaction of individual needs within a group. Second, inclusion consists of two-components: belongingness and uniqueness, and third it is the group that includes the individual, rather the individual who connects to the group. The decision to persist in an organization depends on the level of connection to the organization, both the mission and the people within it. An individual's decision to persist is grounded in the intrinsic and extrinsic motivation they derive from their work, which includes the three components within Deci and Ryan's (2002) Self-Determination Theory. The three components are as followed:

Autonomy- May be connected to uniqueness, as an individual must come to terms with who they are allowed to be within the work environment. Individuals have a desire to behave according to one's true self and need to determine if they are accepted in the workspace as being their true self (Deci & Ryan, 2000).

Psychological Relatedness- May be connected to belongingness, as individuals desire the feeling of connectedness with others (Deci & Ryan, 2000).

Competence – Concerns our achievements, knowledge, and skills and the desire to develop mastery over tasks that are considered important to someone (Deci & Ryan, 2000).

Deci and Ryan (2002) suggest when these three basic psychological needs are met it contributes positively to one's health and wellbeing. These three basic psychological needs were used to guide the development and organization of the research objectives for this study.

Introduction of MANRRS

Founded in 1986 at Michigan State University, Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS) is a co-educational national society whose goal is the promotion of inclusion, achievement, and advancement of minorities in the agricultural sciences and related fields (MANRRS, 2018). The minority populations served by MANRRS includes students who are traditionally categorized as African American, Hispanic & Latino American, Native/Indigenous American, Asian American, and Native Hawaiian/Pacific Islander. Four membership levels are available to participants in the MANRRS organization: Junior MANRRS (grades 7-12); encourages students within grades 7-12 to attend college and pursue agriculture, natural resources, and environmental science degrees. The Junior MANRRS

program provides students with access to more than 60 chapters at colleges and universities that provide agricultural and related sciences majors. Leadership and professional development skills are taught through activities such as: dressing for success, writing resumes, interviewing skills, learning proper dinner etiquette, networking opportunities, and completing college applications and essays (MANRRS, 2018). Undergraduate student member “(enrolled full time in an accredited educational institution and/or program that leads to the award of an associate or undergraduate degree); Graduate member (enrolled full time in an accredited educational institution and/or program that leads to the award of a post baccalaureate professional or graduate degree); Professional member (in an employment stage in his/her life and is not enrolled as a full-time student in any educational institution)” (MANRRS, 2018, p. 1).

The MANRRS organization is divided into six different geographic regions with collegiate chapters located within each region. The following list outlines the MANRRS collegiate chapters and their assigned region.

Region 1 (Northeast): Bowie State University, Delaware State University, Houghton College, The Pennsylvania State University, University of Delaware, University of the District of Columbia, University of Maryland College Park, University of Maryland Eastern Shore, West Virginia State University, and West Virginia University.

Region 2 (East Coast): Clemson University, Florida A&M University, Florida International University, Fort Valley State University, Miami-Dade College, North Carolina A&T State University, North Carolina State University, South Carolina State University, University of Florida, University of Georgia –Athens, Virginia Commonwealth University, and Virginia Polytechnic Institute and State University.

Region 3 (Southeast): Alabama A&M University, Alcorn State University, Auburn University, Kentucky State University, Mississippi State University, Tennessee State University, Tuskegee University, University of Arkansas at Fayetteville, University of Arkansas Pine Bluff, University of Kentucky, University of Tennessee-Martin, and University of Tennessee-Knoxville.

Region 4 (Southwest): Kansas State University, Langston University, Lincoln University of Missouri, Louisiana State University, Oklahoma State University, Prairie View A&M University, Sam Houston State University, Southern University and A&M College, Texas A&M University-College Station, Texas A&M University-Kingsville, Texas State University, University of Missouri-Columbia.

Region 5 (Midwest): Central State University, Iowa State University, Michigan State University, The Ohio State University, Illinois State University, Purdue University, University of Illinois at Urbana-Champaign, University of Minnesota, and University of Wisconsin-Madison.

Region 6 (West Coast): California Polytechnic State University-San Luis Obispo, Colorado State University, California State University-Chico, Oregon State University, University of Arizona, and University of California-Davis.

With the agricultural sciences being a field traditionally lacking in minority representation there seemed to be a need for an organization that supports minority students. Today MANRRS is a non-profit organization that serves as a springboard for entry into and advancement in agricultural careers by providing activities, programs, and networks to support professional development of minorities. Through participation in MANRRS, students can access various career opportunities because many government agencies, private companies, and educational

institutions utilize MANRRS to identify potential interns, full-time employees, or graduate students who have potential to excel in their organizations.

The Need for Diversity in Agriculture

Due to rapid demographic changes, broader ethnic and cultural representation is important at every level of the agricultural pipeline. At the company level, diverse perspectives aid in outreach and engagement of both domestic and global markets, resulting in products and services that are specifically tailored to populations of interest. Companies that invest in hiring and developing diverse talent pools gain a competitive advantage via the broad-based knowledge and expertise that these individuals bring to the organization. A person's identity, culture, and experience can help an organization interpret and negotiate the world around them (Woods, 2008). "Multiple perspectives and experiences expand a group's range of understanding and methods" (Woods, 2008, p.1). Scott E. Page, professor of complex systems, political science and economics at the University of Michigan states that, "diversity trumps ability" (as cited in Woods, 2008, p. 2). Page, also has

[...] applied mathematical modeling and case studies to prove that teams of strong, but diverse individuals outperform teams of the best individuals with similar perspectives and ways of approaching a problem. Solution-finding lies in the greater possibility created through the collective combination of diverse ideas and approaches (Wood, 2008, p. 2).

Diversity plays an important role in the advancement of organizations, being the reason a greater understanding is needed on how to improve feelings of inclusion when diverse populations enter into agricultural careers.

The Problem Statement

Although the agricultural field has acknowledged the need for ethnic diversity, underrepresented groups who have chosen to enter agricultural careers may still lack feelings of inclusion within their employed organization. “To create an energizing and motivating climate, members of an organization not only need to formally belong to a team but also need to feel included by their team members” (Shore et al., 2011, as cited in Bidee et al., 2017, p.326). “Teams showing high levels of team inclusion perform better, are more creative, and have members that are more satisfied” (De Cooman, Vantilborgh, Lub, & Bal, 2015, as cited in Bidee et al., 2017, p. 326). Yet, little is known to determine how this inclusive climate is best created among organizations within the agricultural industry.

Because of the important role MANRRS plays in preparing minority students for agricultural careers, understanding individual perceptions of inclusion when entering the industry provides important insights related to levels of intrinsic work motivation and “satisfaction of basic needs for autonomy, competence, and relatedness” (Bidee et al., 2017, p.325). As previously mentioned, “perceived inclusion generates pro-social group behaviors and positive psychological outcomes for employees such as job satisfaction, organization-based self-esteem, and organizational citizenship behavior” (Cottrill et al., 2014; Bortree and Waters, 2014; Jansen et al., 2014; Mor Barak, 2017). Consequences of diminished inclusion within an organization or “exclusion from decision making processes increases the urge to leave the organization” (Mor Barak, Levin, Nissly, & Lane, 2006, as cited in Biddie et al., 2017, p. 326), “whereas workplace inclusion improves overall job satisfaction” (Acquavita, Pittman, Gibbons, & Castellanos-Brown, 2009, as cited in Biddie et al., 2017, p. 326). More research is needed to better

understand how involvement in MANRRS at the collegiate level plays a part in preparing students to feel competent and included within the workplace.

Significance of the Study

Understanding relationships between basic psychological needs and motivation amongst minorities that participated in the MANRRS organization can help to reveal what motivating factors work best to improve feelings of inclusivity within an organization. On a micro level, defining this set of factors can assist organization members in exhibiting positive behaviors that result in feelings of connection and inclusion for minorities entering into agriculture careers. On a macro level, Chief Executive Officers (CEOs) and other senior leaders have a responsibility for establishing work cultures that support high retention levels for all employees. In order to support a work environment that engenders both high productivity and meaningful connection to the organization, it is critical for senior leaders to both understand and apply the knowledge of the aforementioned work factors.

There are also few existing tools for minority individuals to gauge how inclusive an organization may be in reality. Although the concept of inclusion has increased throughout the years, there still seems to be a lack of consensus on how to properly measure inclusion. Bidee et al. (2017) measured inclusion through validated scales such as Stamper and Masterson's (2002) perceived insider status scale, which consist of ten items. Bidee et al.'s (2017) research applies to MANRRS in that it provides initial parameters for developing the proposed inclusion instrument. As individuals from diverse backgrounds evaluate potential career opportunities within the agriculture industry, it is important for them to be able to identify the cultural factors within an organization that support high levels of inclusion. Equipped with the awareness of the work

factors outlined above, diverse individuals can make more informed decisions about where they choose to work within the agricultural sector.

Purpose of the Study

This study examined the relationship between basic psychological needs (autonomy, competence, and relatedness) and motivation as they specifically relate to the perceived feelings of inclusion of MANRRS alumni who currently work in agricultural careers in the United States. Personal characteristics were divided into demographic information about the respondent (i.e., gender, current job title, number of years worked in their current position (irrespective of rank/job title), location of current employment, race/ethnicity, years of involvement in MANRRS, and leadership positions held within MANRRS) and information about the respondents' perceived feelings of inclusion in their current workplace. The examination of demographic information and perceived feelings of inclusion was important to this study because it intends to identify characteristics or factors that influence feelings of inclusion, and may contribute to improving feelings of inclusion when entering agricultural careers. Outcomes of this study are intended to influence organizational decision-makers that develop policies and procedures and influence internal professional cultures.

The Self-Determination Theory (SDT) (Deci & Ryan, 2002) was used to guide the development and organization of the research objectives for this study. Specific objectives of this study were to:

- 1.** Identify selected demographic characteristics based on MANRRS member and non-member status (e.g. gender, race/ethnicity, age, highest degree earned, current position in career, state of residence, years of involvement in MANRRS as an undergraduate student,

frequency of interaction with other members of underrepresented minority groups within their current position, etc.);

2. Determine levels of organizational inclusion based on MANRRS member and non-member status;
3. Determine levels of intrinsic work motivation based on MANRRS member and non-member status;
4. Determine levels of satisfaction in the areas of autonomy, relatedness, and competence based on MANRRS member and non-member status;
5. Determine levels of self-efficacy based on MANRRS member & non-member status;
6. Explain variance in levels of perceived inclusion by selected variables.

Assumptions

1. The sample studied was representative of the total population of MANRRS alumni working in agricultural careers nationally.
2. Research participants in this study answered all of the questionnaires openly and honestly.

Limitations

There are several limitations that need to be taken into consideration. Quantitative cross-sectional surveys were used as one of the data collection methods within this study, therefore a cause and effect relationship cannot be established. A longitudinal and within subjects design has the capability to demonstrate a cause and effect relationship properly.

Second, this two-phase mixed methods study was based on participants' answers to items on the questionnaire, as well as follow-up interviews. Various statements are personal and may result in individuals responding in a socially desirable way to avoid any negative feelings. This may have resulted in unclear outcomes that do not represent the true score of the participant on a construct.

Lastly, the generalizability of study results is confined to MANRRS alumni and affiliates, regardless of study participation. However, findings may also be generalizable for individuals from underrepresented minority groups who faced similar experiences of struggling with feeling included within their professional context.

Definitions of Terms

The following definitions are provided to ensure clarity and consistency of use.

Agricultural Careers: Professional careers at food & agri-business companies (e.g. John Deere, Cargill, Tyson); agro-science companies (e.g. Syngenta, Bayer, BASF); federal, state, and local agricultural organizations (e.g. United States Department of Agriculture, United States Forest Service, Cooperative Extension Service).

Amotivation: When an individual has a "lack of intention and motivation" (Gagne & Deci, 2005, p. 334).

Autonomous Motivation: Doing something because one "finds it interesting", or purely out of enjoyment or fun (Gagne & Deci, 2005, p. 334).

Autonomy: “The desire to perform or work in a manner where one’s true sense of self can be displayed, which resembles the human need for uniqueness” (Deci & Ryan, 2000).

Basic Psychological Needs: “Humans universal and innate need for competence, autonomy, and psychological relatedness” (Deci & Ryan, 2015, p.486).

Belongingness: “The motivation to form and maintain strong and stable relationships with other people” (Jansen, Otten, Van Der Zee & Jans, 2014, p. 371)

Competence: “Concerns our achievements, knowledge, and skills and the desire to develop mastery over tasks that are considered important to someone” (Deci & Ryan, 2000).

Controlled Motivation: “Acting with a sense of pressure, a sense of having to engage in the actions” (Gagne & Deci, 2005, p. 334).

Diversity: “Mixing of different backgrounds and perspectives within a group” (as cited in Northouse, 2018, p.185)

Extrinsic motivation: “Task completion that is inspired by some reward or benefit” (Gagne & Deci, 2005).

Inclusion: “The degree to which an employee perceives that he or she is an esteemed member of the workgroup through experiencing a treatment that satisfies his or her needs for belongingness and uniqueness” (Shore et al., 2011, p. 1265).

Intrinsic Motivation: “The inherent interest in and enjoyment associated with performing a task” (Deci & Ryan, 2000; Gagne & Deci, 2005, as cited in Biddie et al., 2017, p. 325).

MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences): A non-profit organization that promotes academic and professional advancement by empowering minorities in agriculture, natural resources, and related sciences (MANRRS, 2018).

Psychological Relatedness: The desire to “feel connectedness with others” (Deci & Ryan, 2000, p. 73).

Self-Efficacy: “Judgments of how well one can execute courses of action required to deal with prospective situations” (Bandura, 1982, p.122).

True Self/True Sense of Self: Absolute and authentic identity.

Underrepresented Minorities (URM): An individual who identifies as a member of one or more of the following racial/ethnic groups: African, African American/Black, Hispanic/Latino, Asian, Native Hawaiian/Pacific Islander, Mixed Heritage, and American Indian/Alaskan Native.

Uniqueness: “The motivation to have a distinctive self-concept” (Jansen, Otten, Van Der Zee & Jans, 2014, p. 371).

Summary of Chapter One

The purpose of this research was to explore the relationship between basic psychological needs (autonomy, competence, and relatedness) and motivation as they specifically relate to the perceived feelings of inclusion of MANRRS alumni who currently work in professional agricultural careers in the United States. This chapter provided a description of the research, the MANRRS (Minorities in Agriculture, Natural Resources, and Related Sciences) organization,

and the need for diversity in agriculture. It further addresses the problem, significance, and purpose of the study. Assumptions, limitations, and operational definitions were also included.

Chapter 2

Literature Review

This section will examine the landscape of collegiate organizations that support students interested in agricultural careers, as well as the early precursors to what would ultimately become the National Society of Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS). A description of the theoretical underpinnings of the study, specifically Self-Determination Theory as informed by Optimal Distinctiveness Theory, is also outlined within this chapter. An examination of current perspectives on the concept of diversity within professional work settings is also discussed.

Landscape of Collegiate Agricultural Organizations

The most prominent national collegiate organizations that support students interested in agricultural careers are: Collegiate 4-H, Collegiate FFA (Future Farmers of America), and Collegiate Block & Bridle Club. A list of other existing organizations that support this population of students includes national honor societies (Gamma Sigma Delta Honor Society), fraternities and sororities (FarmHouse Fraternity & Sigma Alpha Sorority), and campus & profession-specific organizations, e.g. the National Agri-Marketing Association (NAMA).

Collegiate 4-H- began in 1916 on the campus of Oklahoma State University-Stillwater campus (okstate, 2019), with the purpose of service, leadership and professional development (nifa, 2017).

Collegiate 4-H membership is open to any college student, regardless of previous 4-H involvement (nifa, 2017). Membership within the organization provides the

opportunity to attend professional development conferences and career networking events, as well as the chance to facilitate experiences for youth. Additionally, “membership allows collegiate 4-H members to explore career and volunteer opportunities within Cooperative Extension and 4-H”, all while interacting with faculty and staff of the state’s Extension and 4-H programs (nifa, 2017, p. 1).

Collegiate FFA - FFA was established in 1928, (FFA, 2020) with membership providing “leadership, personal growth and career success training through agricultural education” (FFA, 2020, p. 1). Collegiate FFA membership is open to any college student regardless of prior FFA affiliation. FFA delegates voted to change the name from collegiate FFA to FFA Alumni and Supporters, to be more inclusive and avoid misrepresentation that only collegiate students who had previously participated in FFA could join. Joshua Rusk, 2018 executive director of National FFA Alumni and Supporters states “I think a huge advantage here is that there won’t be a barrier... It opens the eyes of individuals to see the inclusiveness and to know that anyone interested in supporting the organization can join” (FFA, p. 2). As of the 2017-2018 academic year, the National FFA Alumni & Supporters had 2,238 active chapters (FFA Annual Report, 2017).

Collegiate Block & Bridle Club- Block & Bridle Club was formed in 1919, with members from various colleges and universities throughout the United States who have an interest within the field of animal science. Block and Bridle was formed “to promote animal agriculture through development of a program of activities that will supplement students’ study of the animal sciences in colleges and

universities” (Block and bridle, 2011, p.1). Objectives within Block and Bridle are:

1. To promote a higher scholastic standard and a more complete understanding of Animal Science among student members.
2. To promote animal agriculture through development of a program of activities that will supplement students’ study of the animal sciences in colleges and universities.
3. To enhance professionalism of students who will one day be leaders in the animal agriculture industry.
4. To bring about a closer relationship among all students pursuing some phase of animal agriculture as a profession (Block and Bridle, 2011, p. 1).

There are at least 92 active Block and Bridle chapters within the United States (Block and bridle, 2011).

Unlike the aforementioned groups, MANRRS is the only national collegiate organization that caters specifically to underrepresented minority students interested in pursuing agricultural careers. The earliest organizational precursor to MANRRS was New Farmers of America (NFA), formed at Tuskegee Institute of Alabama in 1935, with the mission to “develop rural leadership, encourage thrift, scholarship, cooperation, and citizenship” (Alston, 2019). At its peak, the organization boasted over 50,000 members in more than 1000 chapters spread across 12 states (New farmers of America Records, 1929-1965). NFA and FFA merged in 1965, but due to the racial climate prevalent during that time period, the consensus from NFA members was that the identity of their original organization, including their name, emblem, awards, and customs, had been completely lost within the newly formed group (New farmers of America Records, 1929-1965).

Following this merger, few, if any, organizations were formed to fill the void for underrepresented minorities interested in agricultural careers. One such organization, known as MANRA (the Minority Agriculture and Natural Resources Association), was established in 1982 on the campus of Michigan State University with the goal to support minority students in agricultural programs at the university (MANRRS, 2019). MANRA inspired the creation of similar organizations on campuses across the country, beginning with MIA (Minorities in Agriculture) at the Pennsylvania State University in 1985. The following year, MANRA and MIA jointly sponsored “the First Annual Conference of Minority Students in Agriculture and Natural Resources” at MSU whose focus was “the problem of how to organize student disciplinary interest groups on university campuses” (MANRRS, 2019). In subsequent years, the number of attendees and participating institutions at the conference grew, leading to the eventual merger of both organizations into MANRRS in 1986.

Theoretical Framework: Self-Determination Theory

Edward Deci and Richard Ryan’s Self – Determination Theory (SDT) (Deci & Ryan, 2000) is a macro theory regarding human motivation of “personality, development, and social processes” (Deci & Ryan, 2015, p. 486). This theory may be applied to the realm of work motivation as it implies that employees’ performance and well-being are impacted by the type of motivation an individual has for their job activities.

Autonomous Motivation and Controlled Motivation

Autonomous motivation is characterized as performing an activity because one “finds it interesting”, or purely out of enjoyment or fun (Gagne & Deci, 2005, p. 334). By definition,

autonomously motivated activities are a product of intrinsic motivation. When discussing work activities within an organization, Deci, Olafsen, & Ryan (2017) purport the following:

When individuals understand the worth and purpose of their jobs, feel ownership and autonomy in carrying them out, and receive clear feedback and supports, they are likely to become more autonomously motivated and reliably perform better, learn better, and be better adjusted (p.20).

Conversely, controlled motivation is when an individual's motivation is controlled through contingent reward or power dynamics (Deci, Olafsen, & Ryan, 2017). Controlled motivation is extrinsically focused and can "narrow the range of employees' efforts, produce short-term gains on targeted outcomes, and have negative spillover effects on subsequent performance and work engagement" (Deci, Olafsen, & Ryan, 2017, p. 20).

Self-Determination Continuum

Ryan & Deci (2000) describe levels of individual self-determination as a continuum, described below in Figure 1.

The Self-Determination Continuum

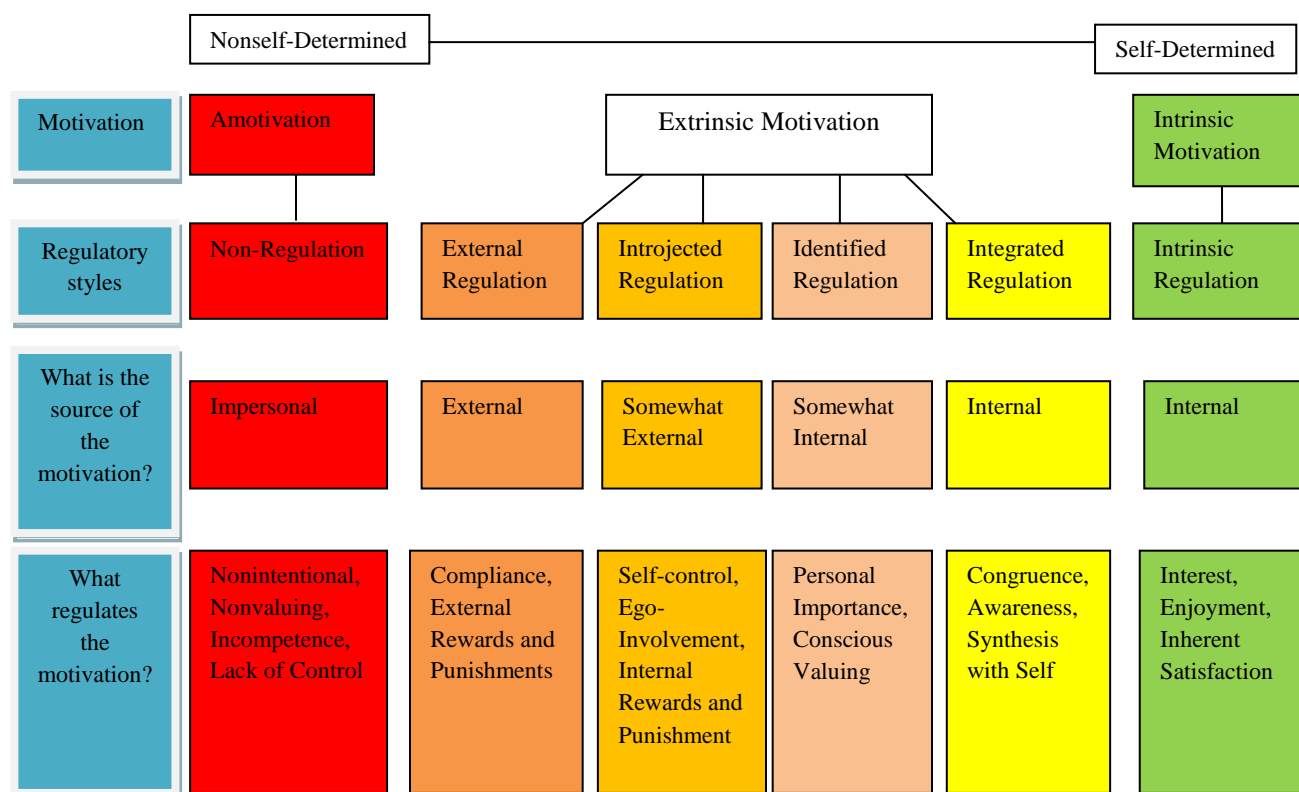


Figure 1. Adapted from Ryan & Deci's (2000) Self-Determination Continuum

The six motivation types included within the self-determination continuum are described below:

- Amotivation- when an individual has a lack of intention and motivation (Gagne & Deci, 2005). Suggests that an individual is not getting their needs met.
- External regulation – an individual is regulated through external rewards, compliance, and punishments.
- Introjected regulation- motivation is fairly external and determined by self-control, trying to protect ego, and internal rewards and punishment.
- Identified regulation- motivation seems to be fairly internal and depends on the individual's personal values.

- Integrated regulation- self awareness guides an individual's behavior.
- Intrinsic regulation- the individual is self-determined or self-motivated, driven by doing an activity they find interesting or enjoyable (Gagne & Deci, 2005).

Deci, Olafsen, & Ryan (2017) believe

[...]the general expectation from SDT is that more autonomous forms of motivation will predict greater persistence, performance quality, and well-being over time than will controlled forms, and that each of these forms of motivation will be systemically related to leadership styles, work conditions, and pay contingencies (p. 22).

Basic Psychological Needs

Under the umbrella of the self-determination theory is the mini theory of basic psychological needs (Deci & Ryan, 2000). Throughout this research basic psychological needs will be used interchangeably with SDT due to the fact that SDT is a macro theory. Psychological needs theory states that “humans have three universal, innate and psychological needs: competence, autonomy, and psychological relatedness” (Deci & Ryan, 2015, p.486). Figure 2 depicts the three basic psychological needs of the self-determination theory.

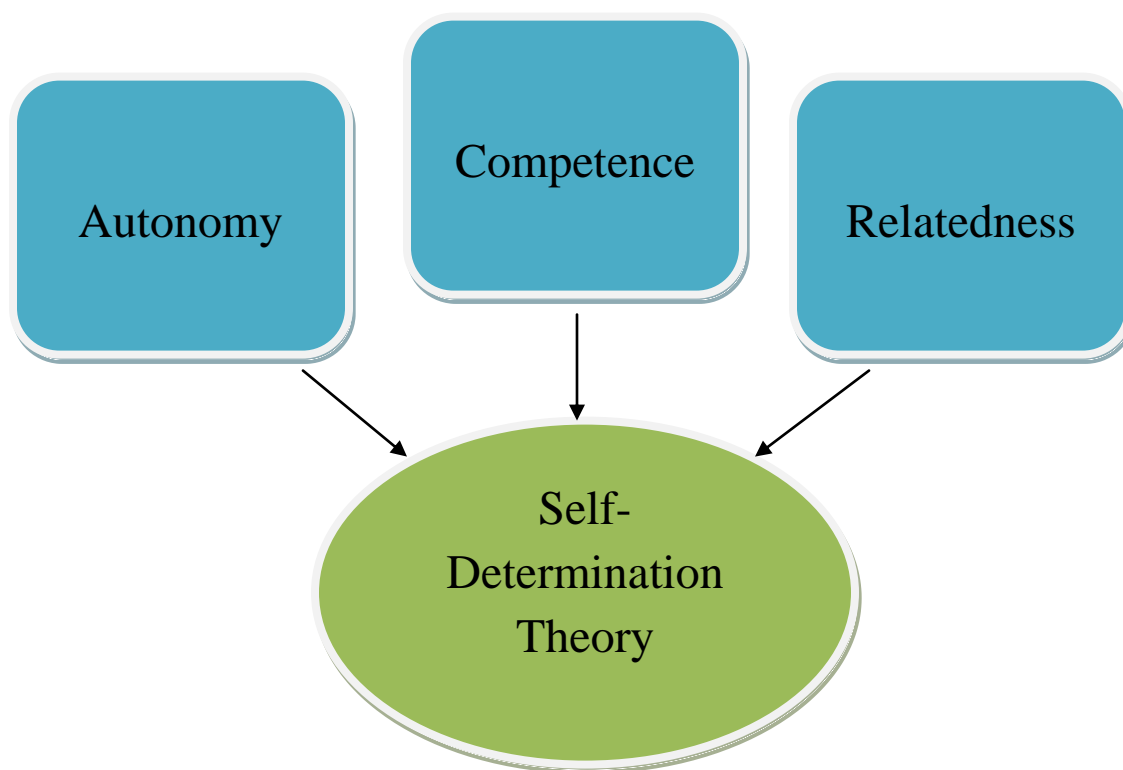


Figure 2. Three Basic Psychological Needs of the Self-Determination Theory

Competence – concerns our achievements, knowledge, and skills and the desire to develop mastery over tasks that are considered important to someone (Deci & Ryan, 2000).

Autonomy- the desire to perform or work in a manner where one’s true sense of self can be displayed, which resembles the human need for uniqueness (Deci & Ryan, 2000).

Psychological Relatedness- the desire to “feel connectedness with others” (Deci & Ryan, 2000, p. 73).

The utility of psychological need satisfaction will be explored for determining MANRRS participants’ perceptions of inclusion when entering agricultural careers. In line with self-determination theory, work climates that support autonomous motivation or allow for satisfaction

of these needs facilitates both stronger work engagement and psychological well-being (i.e., people are more productive and happier). As previously stated, intrinsic motivation is an example of autonomous motivation. Intrinsic motivation is defined “as the inherent interest in and enjoyment associated with performing a task” (Deci & Ryan, 2000; Gagne & Deci, 2005, as cited in Bidee et al., 2017, p. 325). Therefore “enjoyment and interest are positive experiences that increase people’s willingness to continue and persist in an activity”, which comes “from the satisfaction of people’s psychological needs” (Deci & Ryan, 2000; Reiss, 2004, as cited in Bidee et al., 2017, p. 325). Furthermore, the SDT is significant for this study due to the theory’s focus on an individual’s psychological needs.

Conceptual Framework

Though not previously used to explain the experiences of diverse groups, Edward Deci and Richard Ryan’s Self – Determination Theory (SDT) (Deci & Ryan, 2000) shows promise to explore the MANRRS organization and its effect on member’s perceptions of inclusion when entering agricultural careers. Shore et al.’s (2011) definition of inclusion refers to “the degree to which an employee perceives that he or she is an esteemed member of the work group through experiencing treatment that satisfies his or her needs for belongingness and uniqueness” (p. 1265). As an extension of that notion, Self-Determination Theory “is a motivational theory of personality, development, and social processes that examines how social contexts and individual differences facilitate different types of motivation, especially autonomous motivation and controlled motivation, and in turn predict learning, performance, experience, and psychological health” (Deci & Ryan, 2015, p. 486). SDT states that humans have “three universal, innate and psychological needs: competence, autonomy, and psychological relatedness” (Deci & Ryan, 2015, p.486).

Conceptual Model for Satisfaction of Basic Psychological Needs

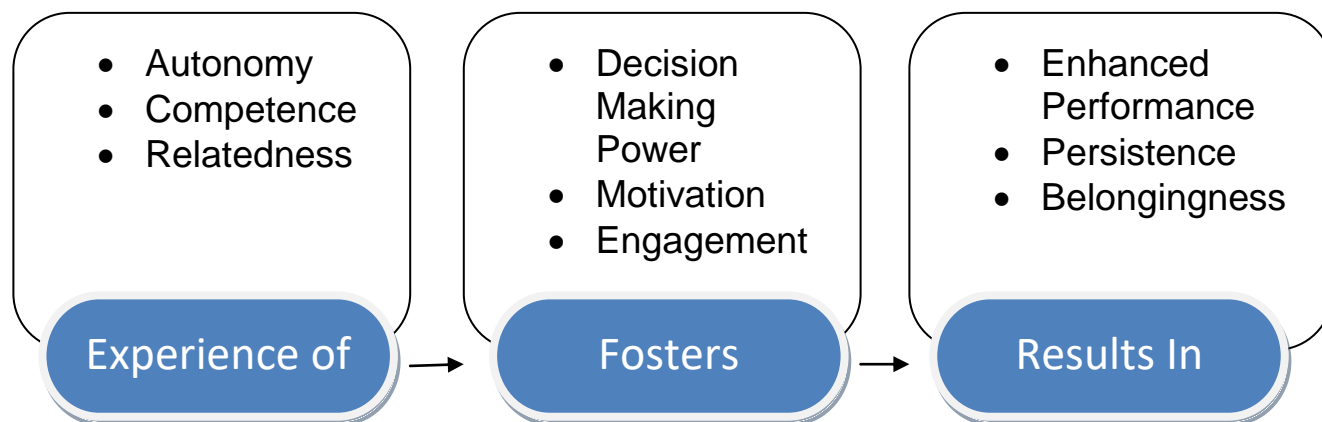


Figure 3. Conceptual model for Satisfaction of Basic Psychological Needs.

Figure 3 provides a conceptual framework for basic psychological needs. Within the model, these three basic psychological needs contribute to an individual having feelings of inclusion within their respective place of employment.

Within this conceptual model, the need for autonomy involves the desire to perform or work in a manner where one's true sense of self can be displayed, which resembles the human need for uniqueness (Deci & Ryan, 2000). The need for competence revolves around concerns for our achievements, knowledge, and skills and the desire to develop mastery over tasks that are considered important to someone (as cited in David, 2014). Lastly, the need for relatedness involves the desire to "feel connectedness with others" (Ryan & Deci, 2000, p.73), which can be seen as comparable to the need for belongingness. Deci and Ryan's (2002) theory of self-determination suggests humans will be motivated and display psychological well-being in organizations to the extent that they experience psychological need satisfaction within those organizations.

The distinction between autonomous motivation and controlled motivation are vital when discussing SDT. Intrinsic motivation is an example of autonomous motivation, characterized as performing a task or work that one finds interesting, enjoys or fun (Gagne & Deci, 2005). On the opposing end, “being controlled involves acting with a sense of pressure, a sense of having to engage in the actions” (Gagne & Deci, 2005, p. 334). Extrinsic motivation involves task completion that is inspired by some reward or benefit. SDT postulates that autonomous and controlled motivations differ and suggests that behaviors can be characterized in terms of the degree to which they are autonomous versus controlled (Gagne & Deci, 2005). For underrepresented minorities in the workplace, increased levels of amotivation may lead to lower levels of employee retention and satisfaction overall. Consequently, agricultural organizations that are thoughtful about creating environments where employees feel included, appreciated, and supported may have more success in recruiting and retaining underrepresented minorities.

The need for autonomy, competence, and relatedness serve as reoccurring sources of positive functioning and engagement in work organizations (Gagne & Deci, 2005). This study is framed within SDT in order to show the role of MANRRS participants’ need satisfaction in the relationship between team inclusion and enjoyment/ interest in tasks.

Workplace Diversity and Inclusion

The concept of inclusion has garnered increased attention over the past decade with more research centering on creating work environments where diverse individuals feel included (Bilimoria, Joy, & Liang, 2008; Roberson, 2006). However, to properly discuss inclusion, it is beneficial to first address diversity. Freedom from religious or political persecution is the reason why many groups of immigrants came to the United States; with this came groups that differed

in values, traditions, and religions. Addressing the needs of people who are marginalized in the United States is what the meaning of diversity came to be (Northouse, 2018). This included African Americans whose descendants originally were enslaved, as well as Native Americans who were already living in the country (Northouse, 2018). However, as the diversity of the country continues to shift, it is only natural that the workplace begins to shift as well.

Harvey (2015) suggests that the approach to diversity in the workplace has changed and evolved over three periods: the early years of diversity (1960s and 1970s), the era of valuing diversity (1980s and 1990s), and diversity management and inclusion in the 21st century (2000 to present) (as cited in Northouse, 2018, p.187).

The focus of diversity during the early years (1960s and 1970s) was on “righting the wrongs” experienced by individuals who were seemingly different because of their race or gender (Harvey, 2015 as cited in Northouse, 2018). Due to prejudice, certain demographic groups were not treated fairly, which resulted in the government forcing organizations to guarantee that all people were treated equally and no one was given unfair advantage over another person (Thomas & Ely, 1996 as cited in Northouse, 2018). The earliest mental model for diversity was a *melting pot*, “a metaphor for a blending of many into one, or a heterogeneous society becoming homogeneous” (Northouse, 2018, p. 188). An emphasis was placed on assimilation during this era which “focused on the process of making people from diverse cultures come together to create one American culture” (Northouse, 2018, p. 188).

The second era from Harvey’s (2015) changing perspectives of diversity was during the 1980s and 1990s, a time when emphasis was placed on accepting differences along dimensions beyond race and gender, such as sexual orientation, age, physical, and mental abilities, etc. (Thomas & Ely, 1996 as cited in Northouse, 2018). Within this era, organizations realized the

competitive advantages that accrue from a multicultural workforce, including “Reduced turnover, better creative thinking, enhanced problem solving, and improved decision making” (Northouse, 2018, p.189). The metaphor for this time period was more of a salad as opposed to a melting pot, mostly due to a salad having different ingredients, made by mixing different individuals or cultures and their unique characteristics into one. Harvey (2015) suggested that diversity during this period emphasized pluralism, which means “that people of all races, classes, religions, and backgrounds can coexist in one society without giving up their identities, customs, or traditions” (as cited in Northouse, 2018, p. 189).

The last period within Harvey’s (2015) approach to diversity in the workplace is during the year 2000 to present. Harvey (2015) points out that diversity is broader in scope and even harder to manage due to “a changing composition of workers, the need to acknowledge multiple social identities, and the challenge of trying to establish and maintain an inclusive organizational culture” (as cited in Northouse, 2018, p.189). Approaching diversity has changed over the last 50 years, with the new way being to acknowledge differences among people and value those differences by integrating them into the organization. Harvey (2015) suggests that “diversity today could be thought of as a smorgasbord that celebrates the unique qualities of a variety of different dishes” (as cited in Northouse, 2018, p. 189). From this perspective people’s unique qualities are accepted and enjoyed, requiring people to no longer have to downplay their own unique characteristics for the benefit of others (Northouse, 2018). “The current approach to diversity places the inclusion process at center stage as the pathway to addressing concerns about diversity” (Northouse, 2018, p. 190).

Perceived Inclusion

Literature on workplace inclusion has displayed some small differences in academic definitions of inclusion, though most suggest that the focus be on the individual within the group. Existing literature related to workplace inclusion has utilized two components from Brewer's Optimal Distinctiveness Theory (ODT) (1991), which are belongingness and uniqueness. As previously mentioned, within the "ODT (Brewer, 1991; Brewer & Roccas, 2001), people have the opposing fundamental needs for belongingness and uniqueness. The need to belong is the motivation to form and maintain strong and stable relationships with other people" (as cited in Jansen, Otten, Van Der Zee & Jans, 2014, p. 371). "In contrast, the need for uniqueness is the motivation to have a distinctive self-concept" (Jansen, Otten, Van Der Zee & Jans, 2014, p. 371). Optimal Distinctiveness Theory suggests "that these two needs are opposing if they are strived for at the same level" (Jansen, Otten, Van Der Zee & Jans, 2014, p. 371). In turn, ODT predicts that as people feel more related to others they also may feel less distinct and separate (Jansen, Otten, Van Der Zee & Jans, 2014). Contrary to Brewer's (1991) ODT, other scholars have reasoned and empirically shown that inclusion can occur with the simultaneous satisfaction of belongingness and uniqueness (as cited in Jansen, Otten, Van Der Zee & Jans, 2014). Diversity literature also supports the advantages of experiencing belongingness and uniqueness simultaneously, with some of the advantages being (as cited in Shore et al., 2011, p. 1265):

[...] minority members (who are unique) with developed networks (and thus a sense of belongingness) report a high level of career optimism (Friedman, Kane, & Cornfield, 1998). At the group level, diverse work groups that adopt an integration-and-learning perspective incorporate both uniqueness (through viewing diversity as a resource) and belongingness (through members feeling valued and respected; Ely & Thomas, 2001). Work groups that adopt an integration-and-learning perspective demonstrate high-quality analyses, are able to facilitate effective cross-organizational collaboration, and allow individuals within the group to enhance their skills (Ely & Thomas, 2001).

Furthermore, the mentioned advantages suggest there is value in considering both belongingness and uniqueness in studies of inclusion. The listed advantages also shows that the ODT is not the most appropriate theory for this research study as the ODT suggest that two needs are opposing if strived for at the same level.

Shore et al. (2011) suggests that perceived inclusion occurs when both the need for belongingness and uniqueness are harmoniously satisfied; which is based upon Brewer's (1991) Optimal Distinctiveness Theory (ODT). "Although the socially-based needs posited by ODT and SDT are similar", the proposed self-based needs are somewhat different (Sheldon & Bettencourt, 2002, p. 28). According to SDT, "the need for individuality takes the form of a drive for autonomy, by which people attempt to take possession of their selves and behavior" (Sheldon & Bettencourt, 2002, p. 28). Contrary to the SDT, "ODT suggests that the need for individuality takes the form of a drive for differentiation or uniqueness relative to others" (Sheldon & Bettencourt, 2002, p. 28). "Hodgins et al., (1996); Koestner & Lowier, (1996); & Ryan & Lynch, (1989), suggest that feelings of autonomy might more strongly predict well-being than feelings of uniqueness or personal distinctiveness" (Sheldon & Bettencourt, 2002, p. 28). Furthermore, this research study utilizes the SDT, as former research suggests that the SDT shows autonomy (or choiceful self-ownership) as more beneficial for psychological well-being than independence (or reactive self-assertion) from ODT (Sheldon & Bettencourt, 2002).

Review of Empirical Evidence

The existing literature on workplace inclusion suggests a lack of attention on the perceptions of inclusion amongst diverse populations when entering agricultural careers. Due to a projected influx of minority populations within the United States, the agricultural sector will

need more minorities to pursue careers in this field in order to truly reflect a diverse population. If more minorities are expected to work within the agricultural field, it is important for diverse populations to feel included and accepted by coworkers who do not share similar backgrounds. Feelings of inclusion allow employees to participate freely in all activities and results in higher levels of individual workplace performance and engagement. In order to create this kind of environment, organizations need to be trained on how to possess a culturally intelligent, responsive and inclusive mindset.

Previous research studies have been conducted on various dimensions of the effectiveness of the MANRRS organization, including perceptions of agriculture and natural resource careers among minority students who are members of MANRRS (Outley, 2008), and how MANRRS enhances students' leadership skills, and provides professional development opportunities (Dorsey, Ingram, & Radhakrishna, 2004). However, these studies also do not explore the nature of workplace inclusion for underrepresented minority populations as they transition out of college. Nonetheless, a list of internal strategies that could be used to increase cultural competency within agricultural agencies and organizations were a key finding within Outley's (2005) research, which include: "trying to make minorities feel comfortable, educate the employees about diversity, and establish support systems in the workplace or a mentoring program" (Outley, 2005, p. 149). This list was generated from 227 members within the MANRRS organization who participated in Outley's research study entitled *Perceptions of Agriculture and Natural Resource Careers Among Minority Students in a National Organization*. This information was significant to this study based on its ability to provide an additional source of information that expresses MANRRS participant's personal desire to feel included when entering agricultural careers.

As the professional agricultural sector diversifies, there are few existing tools for minority individuals to gauge how inclusive an organization may be in reality. Although the concept of inclusion has increased throughout the years, there still seems to be a lack of consensus on how to properly measure inclusion. Bidee et al. (2017) measured inclusion through validated scales such as Stamper and Masterson's (2002) perceived insider status scale, which consist of ten items. Bidee et al.'s (2017) research applies to MANRRS in the sense that it provides initial parameters for developing the proposed inclusion instrument being that there seems to be few if any instruments that measure workplace inclusion amongst the MANRRS population.

Negative perceptions of agriculture have also resulted in minority students being disproportionately underrepresented within educational pathways that lead to careers in agriculture. This can be attributed to negative historical connotations associated with the field, namely slavery for African-Americans, and the perception that agriculture consist of low wages, low status work, and limited political-economic influence (Raper, 1936; Banks, 1986; Thompson, 1986; Molnar, *et al.*, 1987; and Myers, 1988). According to Torres and Wildman (2001) meaningful experiences in agriculture increase the likelihood of students enrolling in agricultural courses. If students have an inaccurate perception of the field, this could possibly push a student away as opposed to attracting them. Cannon, Broyles, Seibel, and Anderson (2009) suggest if students have higher levels of knowledge and positive experiences regarding agriculture, they may be more interested in pursuing careers within the agricultural sector. If a career is not well-represented within minority populations, it is difficult to attract new talent from that background (Gloria, Castellanos, & Orozco, 2005). There is a paucity of research concerning inclusion of underrepresented minorities within professional agricultural careers.

Although the agricultural field has acknowledged the need for ethnic diversity, underrepresented groups who have chosen to enter agricultural careers may still lack feelings of inclusion within their employed organization. More research is needed to better understand how involvement in MANRRS at the collegiate level plays a part in preparing minority students to feel competent and included within the workplace.

Summary of Chapter 2

This chapter began with an overview of the historical precursors to the MANRRS collegiate organization, followed by a description of the Self-Determination Theory being employed within this research, focused specifically on the basic psychological needs of autonomy, competence, and relatedness. A discussion of the existing literature on workplace diversity and inclusion and employee perceptions of inclusion also round out this chapter.

Chapter 3

Research Design and Methodology

This chapter provides an overview of the methodology used for this study. The chapter was divided into several sections, and begins by reviewing the purpose of the study then continues with outlining the framework used to structure the study's research objectives, methodology rationale, research design, participant sampling and recruitment, data collection, and data analysis. The chapter then concludes with a summary of the chapter.

Purpose of the Study

This study examined the relationship between basic psychological needs (autonomy, competence, and relatedness) and motivation as they specifically relate to the perceived feelings of inclusion of MANRRS alumni who currently work in agricultural careers in the United States. Personal characteristics were divided into demographic information about the respondent (i.e., gender, current job title, number of years worked in their current position (irrespective of rank/job title), location of current employment, race/ethnicity, years of involvement in MANRRS, and leadership positions held within MANRRS) and information about the respondents' perceived feelings of inclusion in their current workplace. The examination of demographic information and perceived feelings of inclusion was important to this study because it intends to identify characteristics or factors that influence feelings of inclusion, and may contribute to improving feelings of inclusion when entering agricultural careers. Outcomes of this study are intended to influence organizational decision-makers who develop policies and procedures that influence internal professional cultures.

The Self-Determination Theory (SDT) (Deci & Ryan, 2002) was used to guide the development and organization of the research objectives for this study. Specific objectives of this study were to:

1. Identify selected demographic characteristics based on MANRRS member and non-member status (e.g. gender, race/ethnicity, age, highest degree earned, current position in career, state of residence, years of involvement in MANRRS as an undergraduate student, frequency of interaction with other members of underrepresented minority groups within their current position, etc.);
2. Determine levels of organizational inclusion based on MANRRS member and non-member status;
3. Determine levels of intrinsic work motivation based on MANRRS member and non-member status;
4. Determine levels of satisfaction in the areas of autonomy, relatedness, and competence based on MANRRS member and non-member status;
5. Determine levels of self-efficacy based on MANRRS member & non-member status;
6. Explain variance in levels of perceived inclusion by selected variables.

Self-Determination Theory (SDT) Framework

As previously stated in chapter 2, the self-determination theory (SDT) framework by Deci and Ryan (2002) guided the development and organization of the research objectives for this study. Within the SDT, basic psychological needs refer to “satisfaction of people’s need for

autonomy (i.e., feeling oneself as the initiator of one's own acts; Deci & Ryan, 2000), competence (i.e., feeling able to accomplish tasks; Deci & Ryan, 2000), and relatedness (i.e., feeling part of a social group or community; Deci & Ryan, 2000)" as cited in Bidee et al., 2017, p. 327. Deci & Ryan (1985) propose that when the three basic psychological needs are satisfied, a person will be more intrinsically motivated to pursue a task. The three psychological needs are assumed to be of importance for every individual, being the reason these three psychological needs are considered basic (Gagne & Deci, 2005). However, the extent to which these needs are satisfied varies because the environment is in constant change (Gagne & Deci, 2005; Vansteenkiste & Ryan, 2013). The degree of self-determination an individual feels can be conceptualized on a continuum that ranges from intrinsic motivation through extrinsic motivation and finally to amotivation (Chen & Aryee, 2007). Amotivation is when an individual has a lack of intention and motivation (Gagne & Deci, 2005). When behavior is extrinsically motivated, or externally regulated, it is usually due to the compliance toward some form of control or pressure within the context (Mullan & Markland, 1997). Introjected regulation is a slightly less external form of regulation that is reflected when there is a sense of guilt felt from not engaging in a specific behavior (Ryan & Deci, 2000). Identified regulation is behavior undertaken for the perceived value or usefulness it offers an individual. Integrated regulation arises when a person has fully integrated a motivation within oneself. An individual's behavior is influenced by integrated regulation when one undergoes self-examination and then internalizes and assimilates the reasons behind an action. Lastly, is intrinsic motivation, which is very similar to integrated regulation, except intrinsic regulation includes an element of inherent interest in the activity, beyond the importance or value placed on the behavior. Intrinsic motivation is the most self-determined or autonomous form of regulation (Deci & Ryan, 2000). The SDT is significant

for this study due to the theory's focus on an individual's psychological needs. The needs for autonomy, competence, and relatedness seem to serve as reoccurring sources for positive functioning and engagement in work organizations (Gagne & Deci, 2005). In order to show the role of MANRRS participants' need satisfaction in the relationship between team inclusion and enjoyment or interest in tasks, this study is framed within SDT.

Research Design and Methodology

Mixed-methods research combines quantitative and qualitative data analysis in a single study (Creswell, 1994). A two-phase mixed-methods approach utilizing a sequential explanatory strategy was employed to understand relationships between basic psychological needs and motivation among minorities that participated in the MANRRS collegiate organization.

According to Creswell (2003) sequential explanatory strategy is "characterized by the collection and analysis of quantitative data followed by the collection and analysis of qualitative data" (p. 215). This strategy suggests that the quantitative data is given top priority with the qualitative collection method being integrated during the analysis phase of the study (Creswell, 2003).

Within this study, the mixed-methods approach aided the exploration of what motivating factors work best to improve feelings of inclusivity within an organization by using a quantitative survey, followed by semi-structured interviews as its two main data sources. This method of inquiry was selected since it allows the researcher to apply both quantitative and qualitative methods. Quantitative methods were supported due to numerical analysis of data collected from the *Perceived Inclusion Survey*; whereas, qualitative methods were needed since "it allows the researcher to explore individuals or organizations through complex interventions, relationships, communities, or programs" (Yin, 2003, p. 13). In a mixed-methods study, it is important to converge sources of data, also known as triangulation, to ensure comprehensive results that

reveal participant understandings. Having various data sources ensures that the issue in question is explored “through a variety of lenses, which allows for multiple facets of the phenomenon to be revealed and understood” (Baxter & Jack, 2008, p.544).

The philosophical rationale that encourages the mixing of quantitative and qualitative models of research into a single study is known as pragmatism. According to Creswell (2007) individuals holding this worldview “focus on the outcomes of the research – the actions, situations, and consequences of inquiry rather than antecedent conditions” (p.22). In simpler terms, rather than focusing on methods, the researcher is concerned with the problem being studied and the questions being asked about the problem. The researcher is free to choose the methods, techniques, and procedures that are most suitable for addressing the needs and purpose of the research. The pragmatic philosophy underpinning this study allowed the researcher to choose the appropriate quantitative and qualitative methods to address each specific objective.

Defining the Population and Sample of the Study

The targeted population for this study was comprised of past MANRRS organization participants for the years of 2013-2018. A control group of non-MANRRS participants were also utilized within this study to compare the experiences of minority students who participated in the MANRRS organization between the years 2013-2018, against those who did not. MANRRS is a co-educational organization populated by all races, but more specifically ethnic minorities, or those who are traditionally categorized as African American, Hispanic & Latino American, Native/Indigenous American, Asian American, and Native Hawaiian/Pacific Islander. According to the MANRRS 2016-2017 annual report, the organization consists of 1, 415 active members; 71.01% African & African American/Black, 10.91% Caucasian, 10.35

Hispanic/Latino, 3.62% Asian/Pacific Islander, 2.93% Mixed Heritage, 1.12% American Indian/Alaskan Native, and 0.06% Other (MANRRS Annual Report, 2017).

Individuals considered as former MANRRS participants met the following requirements: (a) attended a U.S. land-grant institution (1862's- Predominantly White Institutions and 1890's- Historically Black Colleges and Universities), (b) enrolled as a full-time student at a college or university during their time within the MANRRS organization, (c) organizational dues were paid during their time within the MANRRS organization, (d) considered an active participant during their time within the MANRRS organization, (e) been involved in MANRRS for at least two consecutive years, (f) 18 years of age or older, (g) currently working within an agriculturally related career, and (h) identify as an underrepresented minority.

As previously stated a control group, or group of research participants who are not affiliated with the MANRRS organization were also used to compare the experiences of minority students who participated in the MANRRS organization, between 2013-2018 against those who did not. Members within this population met the following requirements: (a) identify as an underrepresented minority, (b) 18 years of age or older, (c) never been affiliated with the MANRRS organization, (d) attended a U.S. land-grant institution (1862's- Predominantly White Institutions and 1890's-Historically Black Colleges and Universities), (e) completed Phase 1 of the research study, (f) received a total of 17 or higher on the Perceived Insider Status Scale (PIS), and (g) currently working within an agriculturally related career.

Recruitment of Participants

Phase I. The researcher used purposeful sampling to recruit research participants. MANRRS chapter advisors were contacted via email and asked to provide a roster of active

members within the MANRRS organization who fit the aforementioned requirements during the required academic years (Appendix A). If a chapter advisor declined or did not respond, social media outlets such as LinkedIn and Facebook were utilized in order to recruit the research population for both former MANRRS participants and the control group. Social media recruiting techniques are considered useful in their capacity for generating snowball samples (Spence, Lachlan, & Rainear, 2016). The use of social media sites have been found to be a cost-effective approach for recruiting representative samples from large populations (Andrews, 2012; Fenner et al., 2012). Utilizing the snowball strategy, potential participants for both former MANRRS participants and the control group were targeted through the researcher's committee member networks, and social networking sites. Once a list of potential research participants was generated; included their first name, last name, and email address; the researcher sent a standard informative email to former MANRRS participants as well as the control group asking if they would be willing to participate in the research study (Appendices B and C). Two reminder emails were sent to both the former MANRRS participants and the control group.

Phase II. Recruitment of phase II of this study involved identifying 16 individuals who already participated in the online survey entitled *Perceived Inclusion Survey*, who have indicated higher levels of insider status in their respective organizations. Eight individuals who were considered former MANRRS participants were selected, with the other half of the individuals being from the control group. These 16 individuals showing higher levels of perceived insider status were emailed and asked to participate in an interview to further clarify their online responses to the *Perceived Inclusion Survey* (Appendix D). Individuals who showed higher levels of insider status received a total of 17 or higher on the Perceived Insider Status Scale

(PIS). Two reminder emails were sent to the 16 individuals indicating higher levels of insider status in their respective organizations.

Instrumentation

The Qualtrics web-based survey service was utilized to electronically administer the *Perceived Inclusion Survey*. The *Perceived Inclusion Survey* was divided into a five part questionnaire used to explore: *Section I: Demographic Information, Section II: Perceived Insider Status, Section III: Intrinsic Motivation, Section IV: Basic Psychological Needs at Work, and Section V: General Self-Efficacy*. The survey included informed consent, an opening statement explaining the purpose of the research, what would happen to research participant's data, and the confidential nature of the research participant's answers.

Cronbach's alpha was the statistical procedure used to measure the internal consistency of the individual items on the questionnaires. A reliability of 0.7 to 0.9 was recommended for this study, a reliability of 0.9 indicates that 90 percent of the variability in the observed score is true and 10 percent is due to error. The validity of the five questionnaires was established by face validity. According to Miller (1999) face validity indicates that an instrument "looks like" (according to the researcher's respondents) it is measuring what it is supposed to measure" (p.16). A panel of experts at North Carolina Agricultural & Technical State University and Virginia Polytechnic Institute and State University reviewed the survey instruments for face validity. This panel consisted of four university professors serving as the graduate committee of the researcher.

Demographic information. The demographic information questionnaire is a 17-item open-ended questionnaire. Questions are in the format given in Table 1.

Table 1

Example of Demographic Questionnaire

Instructions: Please write the information you feel is most appropriate for yourself for each item.

Q1. Gender

Q2. Age

Q3. College Major

Q4. Current Job Title

Q5. One to Two Sentences Describing Your Current Job Position.

Q6. Number of Years Held in Current Position

Q7. Reason You Applied for Your Current Position

Q8. State In Which You Currently Reside

Q9. Please Indicate Your Race/Ethnicity:

- African American/Black
- African
- Caucasian
- Hispanic/Latino
- Asian
- Hawaiian Native/Pacific Islander
- Mixed Heritage
- American Indian/Alaskan Native
- Other

Q10. Please Indicate Your Highest Degree Earned:

- Associates Degree
- Bachelor of Science or Arts
- Master of Science or Arts
- Doctorate
- Other Degree

Q11. University/College Attended

Q12. The Last Time You Were Promoted With Current Employer

Q13. Name of Current Employer

Q14. Were You a Member of the MANRRS Organization during Your Undergraduate Years

- Yes
- No

Q15. How Many Years Were You a Member of the MANRRS Organization as an Undergraduate Student

- Not a Member
- One Year
- Two Years
- Three Years
- Four Years

Q16. What Leadership Positions Did You Have While in MANRRS

Q17. How Often Do You Interact With Other Minorities within Your Current Position

The purpose of using an open-ended questionnaire for obtaining demographic characteristics was to allow participants the ability to supply their own answers. The researcher then recoded the data into a categorical variable using the following ethnic groups (African American/Black, African, Caucasian, Hispanic/Latino, Asian, Hawaiian Native/Pacific Islander, Mixed Heritage, American Indian/Alaskan Native, and Other) to assess for differences among ethnic groups. Age, highest degree earned, number of years you were a member of MANRRS, and how often you interact with other minorities were also recoded into categorical variables using the following age ranges (18-29, 30-39, 40-49, and 50 and older), the following degree ranges (Associates degree, Bachelor of Science or Arts, Master of Science or Arts, Doctorate, and other degree), number of years as a MANRRS member ranges (not a member, one year, two years, three years, and four years), and lastly the ranges of how often you interact with other minorities (less than once a week or not at all, once a week, twice a week, three times a week, and four times a week or more).

Perceived Insider Status Scale (PIS; Stamper & Masterson, 2002). The Perceived Insider Status Scale is a 10-item instrument used to assess “the extent to which an individual employee perceives him or herself as an insider within a particular organization” (Stamper & Masterson, 2002, p. 876). Stamper and Masterson’s (2002) Perceived Insider Status Scale was used in this study to determine MANRRS alumnus levels of inclusion in organization of employment. “Items within this instrument used a 5-point Likert scale, ranging from 1 = *strongly disagree*, to 5 = *strongly agree*” (p.876). Please see Appendix G for an example of the PIS instrument.

Scoring information. The process for scoring a PIS scale is specified in Stamper and Masterson (2002), and is described below as it would occur in each of the question domains for future versions of the instrument:

After reverse-scoring one item, scale scores are calculated by summing the individual item scores. The coefficient alpha of the scale with the remaining items is 0.88 (Stamper & Masterson, 2002).

Intrinsic Motivation Inventory (IMI; IMI, 2020). Intrinsic motivation was measured using the 45 items to make up the 7 subscales of the Intrinsic Motivation Inventory. “The instrument assesses participants interest/enjoyment, perceived competence, effort, value/usefulness, felt pressure and tension, and perceived choice while performing a given activity, with a 7-point Likert scale, ranging from 1 = *not at all true* to 7 = *very true*” (IMI, 2020, p. 1). Please see Appendix H for an example of the IMI instrument.

Scoring information. The process for scoring the IMI is described below:

To score this instrument, you must first score the items for which an (R) is shown after them. To do that, subtract the item response from 8, and use the resulting number as the item score. Then, calculate subscale scores by averaging across all of the items on that subscale. The subscale scores are then used in the analyses of relevant questions (IMI, 2020, p.1).

The scale was reliable with a cronbach alpha of .85 (IMI, 2020).

Basic Psychological Needs at Work Scale (BPNWS; Deci et. al., 2001). The 21-item Basic Psychological Needs at Work Scale was used to measure the satisfaction of basic psychological needs for autonomy, competence, and relatedness at work. It comprises three dimensions: autonomy need satisfaction, competence need satisfaction, and relatedness satisfaction. Items within this instrument used a 7-point Likert scale, ranging from 1 = *not at all true*, to 7 = *very true* (Deci et. al., 2001). Please see Appendix I for an example of the BPNWS instrument.

Scoring information. The process for scoring a BPNWS is described below:

Form three subscale scores by averaging item responses for each subscale after reverse scoring the items that were worded in the negative direction. Specifically, any item that has (R) after it in the code below should be reverse scored by subtracting the person's response from 8 (Evelein & Korthagen, 2014, p. 63).

The scale was reliable with a cronbach alpha coefficient for autonomy ($\alpha = .79$), competence ($\alpha = .73$) and relatedness ($\alpha = .84$) (Deci et. al., 2001, p. 934).

General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995). The 10-item General Self-Efficacy Scale is correlated to emotion, optimism and work satisfaction. "Negative coefficients were found for depression, stress, health complaints, burnout, and anxiety"

(Schwarzer & Jerusalem, 1995, p.35). “Items within this instrument used a 4-point Likert scale, ranging from 1 = *not at all true*, to 4 = *exactly true*” (Schwarzer & Jerusalem, 1995, p.35).

Scoring information. The process for scoring a GSE scale is specified in Schwarzer & Jerusalem (1995). The total score is calculated by finding the sum of all the items. Higher scores indicate more self-efficacy (Schwarzer & Jerusalem, 1995). Please see Appendix J for an example of the GSE instrument. The cronbach alpha for this scale was .76 to .90 (Schwarzer & Jerusalem, 1995).

Selection of Participants

Phase I. Individuals who were identified as potential participants were contacted via email about participating in the study; the email included a description of the research study as well as a description of the requested criteria. Participants met the criteria based on the following: (a) attended a U.S. land-grant institution (1862’s- Predominantly White Institutions and 1890’s-Historically Black Colleges and Universities), (b) enrolled as a full-time student at a college or university during their time within the MANRRS organization, (c) organizational dues were paid during their time within the MANRRS organization, (d) considered an active participant during their time within the MANRRS organization, (e) been involved in MANRRS for at least two consecutive years, (f) 18 years of age or older, (g) currently working within an agriculturally related career, and (h) identify as an underrepresented minority. For a period of four weeks the researcher received emails from individuals who had a willingness to participate and met the criteria. After the four week period individuals who expressed through email a willingness to participate received an email via Qualtrics. The email provided the following: basic information about the research study, the researchers contact information to ease the

participant, and a date of when the research survey would be released (Appendix E). On the release date of the research study research participants received an email via Qualtrics with a link to access the *Perceived Inclusion Survey*, this survey began with a consent form which allowed the participant to click “yes” or “no”. Participants who selected “no” on the consent form received a thank you notification and were released from any further responses (Appendix F). Participants who responded “yes” to the consent form were allowed to continue with the survey. As each participant responded, the researcher was able to see within the Qualtrics database whether or not the form was completed in its entirety. After each participant completed the survey the Qualtrics software would display a thank you notification on the screen thanking the research participant for completing the information.

Phase II. After the *Perceived Inclusion Survey* was completed 8 former MANRRS participants and 8 non-MANRRS participants who indicated higher levels of insider status in their respective organizations were contacted via email to participate in a telephone interview, and schedule a time for an interview. Two reminder emails were sent and verbal consent was asked at the beginning of the interview. Table 2 summarized relevant information about the participants; pseudonyms were developed so that participants would not be identifiable.

Table 2

Phase II Participant Pseudonyms and Demographic Information (n = 16)

Former MANRRS Participants			Non-MANRRS Participants		
Name	Gender	PIS Scale	Name	Gender	PIS Scale

		Total				Total
Oliver	M	21		Terrence	M	24
Jacob	M	22		Alyssa	F	24
Annette	F	22		Chloe	F	21
Jake	M	30		Tabitha	F	23
Evette	F	22		Candace	F	29
Kelly	F	26		Kimberly	F	22
Katrina	F	19		Nicholas	M	17
Kadijah	F	28		Kaleb	M	24

Note. PIS = Perceived Insider Status Scale. The PIS is rated for agreement on a 5-point Likert-type response scale. After reverse scoring one item, scale scores are calculated by summing the individual item scores. Higher scores are indicative of more perceived insider status within organization (30 being the highest score and 0 being the lowest score).

Phase I Data Collection Procedures

This study utilized data collected from two phases. Virginia Tech University's Institutional Review Board approved all data collection procedures and documents used within

this study (Appendix K). The researcher and her dissertation committee agreed to use purposeful sampling and social media outlets to recruit possible research participants. The social media recruiting technique was used in the interest of generating snowball samples (Spence, Lachlan, & Rainear, 2016), as well as its cost-effective approach for recruiting representative samples from large populations (Andrews, 2012; Fenner et al., 2012).

An email was sent to a generated list of potential research participants, entailing: a description of the research study, research criteria, and the release date of the research study. This email was designed as a recruitment material, and was allowed to be passed along to other individuals who might fit the criteria of the study, or possibly had a general interest in participating. Another email was sent to 427 individuals nationwide via Qualtrics with a link to the cross-sectional survey entitled *Perceived Inclusion Survey*, after the twelve-day response period of general interest was obtained. The Qualtrics web-based survey service was utilized to electronically administer the *Perceived Inclusion Survey* used within this study due to its cost effectiveness and its ability to reach mass audiences. The link began with a consent form, notifying research participants that their participation was completely voluntary and findings would remain anonymous. The form also noted that participation within the study posed limited risk, and participants would not be compensated in any way. Participants who selected “no” on the consent form received a thank you notification and were released from any further responses. Participants who responded “yes” to the consent form were directed to additional responses. In order to compare the experiences of minorities who participated in the MANRRS organization against those who did not data was collected from underrepresented minorities who were affiliated with MANRRS while in college between the years 2013 to 2018, and currently working in professional agricultural careers, as well as underrepresented minorities who were not

affiliated with MANRRS during their undergraduate studies, and now working in professional agricultural careers.

The *Perceived Inclusion Survey* was broken into a 5 part questionnaire exploring: *Section I: Demographic Information, Section II: Perceived Insider Status, Section III: Intrinsic Motivation, Section IV: Basic Psychological Needs at Work, and Section V: General Self-Efficacy*. The purpose of survey research was to generalize from a sample to a population so inferences can be made about some characteristic, attitude, or behavior of the population (Babbie, 1990). A questionnaire survey was the preferred type of data collection procedure for this study based on its ability to quickly generate data of different variables. Also, the researcher does not need to be present when the questionnaires are completed.

A follow-up email was sent one week after the initial release of the survey to thank participants for completing the survey, and to encourage those who had not completed, or responded to the survey to please do so. An additional follow-up email was sent two weeks after the initial release of the survey to remind participants to complete the research survey. The survey was accessible for a four week period. In this first phase of data collection 79 responses were received from the study group, which included both MANRRS and non-MANRRS affiliates, of which 65 included answers to every question within the survey.

Phase I Data Analysis Procedures

Psychometric procedures. The data collected was analyzed using the researcher's personal computer, which required a password for entry. Data was analyzed using the IBM Statistical Package for Social Science (SPSS). First, information was reported about the number of members of the sample who did and did not return the surveys.

Descriptive and inferential statistics. Frequency counts and percentages were used to report demographic variables of interest. An Analysis of Variance (ANOVA) and t-test for independent samples was calculated using SPSS. An ANOVA allows one to compare group means and shows interactions in a sample (Howell, 2011). The t-test for independent samples was also used to compare means of two groups independent of each other.

Phase II Data Collection Procedures

The second phase for the research study ended with semi-structured telephone interviews, conducted with 8 former MANRRS participants and 8 non-MANRRS participants who completed the online *Perceived Inclusion Survey*, and indicated high levels of insider status in their respective work organization. The purpose of Phase II was to get a richer understanding of research participant's online responses relating to the following areas: inclusion, basic psychological needs (autonomy, competence & relatedness), general self-efficacy, and intrinsic motivation. Once the researcher identified 16 participants (8 former MANRRS participants and 8 non-MANRRS participants) who indicated high levels of insider status in their respective work organization, an email was sent requesting participation in a telephone interview, which estimated to take no longer than 30 minutes to complete. Once the individual responded to the sent email indicating their willingness to participate, interview dates and times were scheduled in accordance with what was most convenient for the participant. A follow-up reminder was emailed one week after the initial recruitment email was sent. This email was delivered to thank participants for their willingness to participate, and to encourage those who had not responded to please do so. An additional follow-up email was sent two weeks after the initial email was released to remind participants to please participate in the 2nd and final phase of the research study. The semi-structured interviews were conducted over a four week period. All interviews

were audio-recorded. A verbal consent script (Appendix L) was read to the research participant before the semi-structured interview began; the consent script detailed the research study and requested permission to audio-record. All semi-structured interviews were transcribed verbatim, coded, and thematically analyzed. All 16 research participants were provided a copy of their transcribed interview and asked to review the content. Research participants were reviewing content to determine if qualitative findings were accurate, as well as inform the researcher of any necessary changes. According to Creswell (2013) this process is known as member checking. Final results were interpreted by the researcher and reviewed for validity and trustworthiness. A semi-structured interview guide (Table 3) was utilized during the interviewing process.

Table 3

Semi-structured Interview Guide

1. Introduce research project.
2. Read verbal consent script.
3. Receive verbal consent before audio-recording.
4. Gather descriptive data about participant (i.e. job title, brief description of position, tenure in position).
5. Ask developed questions.
 - a) Share a time within the workplace when you felt a sense of inclusion.
 - b) Share a time within the workplace when you felt you were not included.
 - c) How would you describe your ability to provide leadership/direction to a project?
 - d) How would you describe the culture of receiving/gaining access to support for your professional success?
 - e) How do you feel your contributions are valued at work, with your team, or otherwise?
 - f) Could you provide some examples of what motivates you to stay in your current position?
 - g) Could you provide some examples of what motivates you to seek promotion at your organization?

- h) [For non-MANRRS Alumnus] Were there any clubs or organizations during your time in college that helped you prepare for your professional success? If so, what did they do to help you?
- i) [For MANRRS Alumnus] How do you believe MANRRS has helped you with your professional success?

6. Thank them for participating in the interview.

Note. Prompting questions will be allowed to clarify and expand initial interviewee responses.

Semi-structured interviews. Questions for these semi-structured interviews were generated using Deci & Ryan's (2000) theory of self-determination as a guideline. Using the self-determination theory as a guide, the questions were written to identify elements and perceptions related to the three basic psychological needs characterized in Deci & Ryan's (2000) theory of self-determination (e.g. autonomy, relatedness, and competence). According to the theory, for an individual to function and develop in healthy or optimal ways, the need for competence, autonomy, and relatedness must be continually satisfied (Deci & Ryan, 2000). Additionally, the interview questions were written to explore perceived insider status, intrinsic motivation, and general self-efficacy. A panel of experts at North Carolina Agricultural & Technical State University and Virginia Polytechnic Institute and State University were used to review the semi-structured interview questions for face validity. This panel consisted of four university professors serving as the graduate committee of the researcher. Miller (1999) states that face validity indicates that an instrument "looks like" (according to the researcher's respondents) it is measuring what it is supposed to measure" (p.16).

Phase II Data Analysis Procedure

Within Phase II of the research study, all 16 semi-structured interviews were audio recorded, transcribed, coded, and analyzed for themes. The 16 interviews consisted of 8 former MANRRS participants and 8 non-MANRRS participants. Verbatim transcriptions of audio recordings were made using Microsoft Office Word. Transcriptions focused on capturing the interviewer and interviewee's whole statements. The researcher utilized Moustakas' (1994) procedural steps for analyzing transcripts. Moustakas' (1994) procedural steps are as followed:

1. Conduct a preliminary grouping of the participants' experiences.
2. Reduce and eliminate to reveal most significant statements.
3. Cluster the statements into emergent themes.
4. Confirm the themes against the transcripts and delete any that are not explicitly or contextually represented in the transcripts.
5. Create textual written descriptions of the experience with verbatim supports from the transcripts.
6. Create structural written descriptions of how the experience occurred.
7. Create a written description of the composite experience, textural and structural, for each participant in connection to the emergent themes.

As previously stated, the transcribed interviews were returned to the research participant to review and inform the researcher for any necessary changes to the content. Final results were interpreted by the researcher for validity and trustworthiness.

Researcher Stance

Ontology and epistemology. The researcher aligns with a relativistic ontology. Selecting a relativistic ontology helped provide a framework for understanding the ways that MANRRS participants interpreted and made meaning of the world. The relativistic ontology is “the view that reality is subjective and differs from person to person” (Guba & Lincoln, 1994, p.110). This ontology emphasizes that the researcher is interested in understanding how participants make meaning of a situation or phenomenon. Crotty (1998) states that “historical and cross-cultural comparisons should make us very aware that, at different times and in different places, there have been and are very divergent interpretations of the same phenomena” (p.64). Additionally, Crotty (1998) notes that “we need to recognize that different people may well inhabit quite different worlds. Their different worlds constitute for them diverse ways of knowing, distinguishable sets of meanings, separate realities” (p.64). The researcher also aligns with constructivism as an epistemology acknowledging that different people construct meaning in different ways, even when experiencing the same event (Crotty, 1998). As previously stated, my research inquiry is based on the interpretations of participants within the MANRRS organization, with particular emphasis on how they perceived inclusion when entering professional agricultural careers. The study’s participants constructed reality based on their individual and shared experiences. How they interacted with and made decisions based on the actions and reactions of their world is complex. Membership within the MANRRS organization is exclusive to individuals from historically marginalized racial and ethnic groups. The diverse pool of MANRRS participants shows that different people allow for different ways of viewing the world, which establishes a need for a constructivist epistemology.

Demographic positioning. It is imperative for researchers to consider their own biases, limitations, and views throughout data collection, analysis, interpretation, and the reporting phases of the process. For this study, in the interest of full disclosure and of guarding against unethical or unintentional influences on my interpretation of the data exploring the relationship between basic psychological needs satisfaction (autonomy, competence, psychological relatedness) and motivation as they specifically relate to former MANRRS participants' (from 2013 to 2018) perceived feelings of inclusion. The following discussion outlines my personal experiences germane to this study.

As an African American female that has been involved in agriculture and the MANRRS organization in both my academic and professional career for several years, I acknowledge my own biases. As a former MANRRS participant, I received an internship with a top agricultural company by attending a career fair at a MANRRS national conference. This internship led to a full-time position directly after completing my Bachelor's degree. My experience as a former employee within this company is filled with instances where I did not always feel included. I was 21 years old at the time and the only salaried female African American employee at this particular location. Taking on a new position compromised my ability to be near family members, friends, and mentors, as I had to move to the Midwest where I knew no one except the employees I worked with on a daily basis. Productivity goals were a high priority within the company; therefore, senior employees often did not have time to mentor new employees. Several times I desired someone to provide guidance and reassurance that I was on the right track. Since, I did not have a mentor within the organization this led me to seek advice from my direct supervisor who was attempting to serve as both supervisor and mentor. The role as supervisor/mentor was not an ideal situation for me to feel comfortable because it was difficult

for me to ask questions of my supervisor that I would normally ask a mentor. I was a new employee and wanted to make a good impression and did not want to ask my supervisor questions that might give the impression that I was not sure of what I was doing. My supervisor had many years of experience, and an expert in his level of skill, which could be intimidating to someone who was new in the field. I was not able to draw upon any previous experience that would help me in connecting with my supervisor to ease my apprehensions. We did not relate in age, gender, experience or ethnicity, which led me to limit any questions that might appear unintelligent. In previous experiences where I have felt comfortable speaking with friends and colleagues I have been able to ask questions or voice opinions without hesitancy, but in this position I found myself becoming quieter and closed off to other employees. Most of the employees appeared to have similar commonalities; they were within the same age group, married with children, and from the Midwest. In contrast, I was unmarried, without children, younger, and new to the Midwest, which left me feeling isolated, disconnected, and longing for each workday to quickly end. I experienced feelings of uncertainty, loneliness, and stress for a period of two years before I finally decided to leave the company. My experience of not always feeling included within an organization has given me keen insight into the data available. In an attempt to remain neutral and reduce any potential bias during the data collection and analysis process, I have incorporated three strategies recommended by Merriam (2002) to remain ethical and trustworthy: (1) triangulation- using multiple sources of data or data collection methods to confirm emerging findings; (2) member checks- taking data and interpretations back to the people from whom the data were derived, and verified its plausibility; and (3) peer review- discussing the process of the study and the congruency of emerging findings with data and the tentative interpretations with colleagues.

Summary

This chapter discussed the rationale behind the use of a sequential explanatory mixed methods approach to aid the researcher in better understanding the relationship between basic psychological needs (autonomy, competence, and relatedness) and motivation, as they specifically relate to the perceived feelings of inclusion of MANRRS alumni who currently work in professional agricultural careers. This chapter then continued with outlining the framework used to structure the study's research objectives, research design, participant sampling and recruitment, data collection, and data analysis.

Chapter 4

Results

The purpose of this study was to examine the relationship between basic psychological needs (autonomy, competence, and relatedness) and motivation as they specifically relate to the perceived feelings of inclusion of MANRRS alumni who currently work in agricultural careers in the United States. Personal characteristics were divided into demographic information about the respondent (i.e., gender, current job title, number of years worked in their current position (irrespective of rank/job title), location of current employment, race/ethnicity, years of involvement in MANRRS, and leadership positions held within MANRRS) and information about the respondents' perceived feelings of inclusion in their current workplace. The examination of demographic information and perceived feelings of inclusion was important to this study because it intends to identify characteristics or factors that influence feelings of inclusion, and may contribute to improving feelings of inclusion when entering agricultural careers. Outcomes of this study are intended to influence organizational decision-makers that develop policies and procedures and influence internal professional cultures. This chapter includes the results of the data collection methods used to answer the five research objectives and a discussion of the five emergent themes.

The Self-Determination Theory (SDT) (Deci & Ryan, 2002) was used to guide the development and organization of the research objectives for this study. Specific objectives of this study were to:

- 1.** Identify selected demographic characteristics based on MANRRS member and non-member status (e.g. gender, race/ethnicity, age, highest degree earned, current position in

career, state of residence, years of involvement in MANRRS as an undergraduate student, frequency of interaction with other members of underrepresented minority groups within their current position, etc.);

2. Determine levels of organizational inclusion based on MANRRS member and non-member status;
3. Determine levels of intrinsic work motivation based on MANRRS member and non-member status;
4. Determine levels of satisfaction in the areas of autonomy, relatedness, and competence based on MANRRS member and non-member status;
5. Determine levels of self-efficacy based on MANRRS member & non-member status;
6. Explain variance in levels of perceived inclusion by selected variables.

This study utilized data collected from two phases. The first phase utilized a quantitative approach to collect data while the second phase utilized a qualitative approach for data collection. According to Creswell (2003) employing both a quantitative and qualitative model of research is defined as mixed methods research.

Phase I Results

The *Perceived Inclusion Survey* was divided into a five part questionnaire used to explore: *Section I: Demographic Information, Section II: Perceived Insider Status, Section III: Intrinsic Motivation, Section IV: Basic Psychological Needs at Work, and Section V: General Self-Efficacy*. The Qualtrics web-based survey service was utilized to electronically administer

the *Perceived Inclusion Survey*. This chapter will first provide insights into the findings of the various groups that participated in the Perceived Inclusion Survey, followed by semi-structured interview findings from 16 specific research participants.

Summary of Findings for Objective 1

Objective one sought to describe demographic characteristics based on MANRRS member and non-member status. Participants responded to 17 open-ended items based on factors such as gender, race/ethnicity, current position in career, number of years held in current position, location of current employment, years of involvement in MANRRS, leadership positions held within MANRRS, etc. The demographic questionnaire was located in the first section of the *Perceived Inclusion Survey*.

Of the respondents, (n = 26) were male and (n = 51) were female; one participant chose not to answer the question regarding gender. A total of 43 respondents were members of the MANRRS organization during their undergraduate studies and 29 were not affiliated with MANRRS. Six participants did not answer the question regarding their affiliation with MANRRS. Regarding the number of years you were a member of the MANRRS organization as an undergraduate student (34.6%, n = 27) were not members, (9.0%, n = 7) were members for one year, (15.4%, n = 12) were members for two years, (14.1%, n = 11) were members for three years, (20.5%, n = 16) were members for four years, and (6.4%, n = 5) decided not to respond to the item of how many years were you a member of the MANRRS organization as an undergraduate student. Another demographic variable considered was race/ethnicity African American/Black (67.9%, n = 53), African (1.3%, n = 1), Caucasian (3.8%, n = 3), Hispanic/Latino (16.7%, n = 13), Asian (3.8%, n = 3), Hawaiian Native/Pacific Islander (1.3%, n

= 1), Mixed Heritage (1.3%, n = 1), American Indian/Alaskan Native (2.6%, n = 2), and Other (n = 0). There were 41 participants (52.6%) who reported their age between 18 to 29 years old, 24 participants (30.8%) were between the age of 30 to 39, 6 participants (7.7%) were between the age of 40 to 49, and 5 participants (6.4%) were 50 years in age or above. The majority of participants had their Bachelor of Science or Arts (47.4%, n = 37), 4 participants (5.1%) responded as having their Associates degree, 21 participants (26.9%) responded having a Master of Science or Arts, 9 (11.5%) reported having a Doctorate and 5 (6.4%) had other degrees. Two participants did not answer the item regarding highest degree earned.

A total of 38 different universities/colleges attended by the participants were identified. The five universities/colleges attended with the largest number of research participants were: North Carolina Agricultural & Technical State University (n = 11), Oregon State University (n = 8), University of Maryland at College Park (n = 8), The Pennsylvania State University (n = 4), and Prairie View A&M University (n = 4). In order to secure the confidentiality of research participants' employers will not be listed, however participants were working in careers affiliated in professional careers at food & agri-business companies; agro-science companies; federal, state, and local agricultural organizations. It was found that 4 participants worked within food & agri-business companies, 5 participants within agro-science companies, and 7 participants worked within federal, state, and local agricultural organizations. When discussing how often participants interacted with other minorities within their current position, a total of (12.8%, n = 10) were less than once a week or not at all, (19.2%, n = 15) once a week, (5.1%, n = 4) twice a week, (7.7%, n = 6) three times a week, (46.2%, n = 36) four times a week or more, and (9.0, n = 7) decided not to answer the item of how often they interact with other minorities within their current position. It was also found that (n = 40) of participants were never promoted, (n = 8)

participants were promoted less than a year ago, (n = 11) were promoted 1 to 1.5 years ago, (n = 14) were promoted two years ago or more, and five individuals did not respond to the question regarding the last time they were promoted within their position. Job titles ranged from soil conservationist to agricultural research chemist, and product development scientist; just to name a few. An example of a listed job description was “My responsibilities include, but are not limited to: Making plan maps for farmers and landowners, promoting great conservation practices through our EQIP & CSP Programs, and make conservation folders for all producers” (Jacob). A description of the reason why participants applied for their current position was also an item that was asked; Kadijah stated “This position provided more growth opportunity than my previous position, in addition to providing a more defined work-life balance”. When discussing participant’s state of residency (n = 7) were located in North Carolina, (n = 3) in California, (n = 2) in South Carolina, (n = 1) in Pennsylvania, (n = 1) in Washington, D.C., (n = 1) in New Jersey, and (n = 1) in Louisiana.

Summary of Findings for Objective 2

The second objective for this research study was to determine levels of organizational inclusion based on MANRRS member and non-member status. Data was collected by means of survey questionnaires that measured MANRRS affiliates perceived insider status. The instrument used was the Perceived Insider Status Scale (PIS) developed by Stamper and Masterson (2002). The PIS required participants to respond to a 10-item instrument used to assess “the extent to which an individual employee perceives him or herself as an insider within a particular organization” (Stamper & Masterson, 2002, p. 876). Items within this instrument used a “5-point Likert scale, ranging from 1 = *strongly disagree*, to 5 = *strongly agree*” (Stamper & Masterson, 2002, p. 884). Perceived Insider Status served as the dependent variable, while MANRRS

affiliate status was the independent variable for this research objective. Both univariate (e.g. mean and standard deviation) and bivariate statistics (e.g. t-test) were used to analyze the data collected.

Descriptive statistics (See Table 4) show that 41 individuals were in the MANRRS collegiate organization and had an average Perceived Insider Status score of 2.8463, whereas 28 individuals were not within the MANRRS collegiate organization and had an average Perceived Insider Status score of 2.8929. For data interpretation purposes the researcher developed a range for the PIS to help the reader interpret the respondent's scores. PIS range: 1 – 1.49 = strongly disagree, 1.5 – 2.49 = disagree, 2.5 – 3.49 = neutral, 3.5 – 4.49 = agree, and 4.5 – 5 = strongly agree.

Table 4

Descriptive Statistics of Perceived Insider Status Scale (PIS) (n = 69)

Construct	MANRRS Affiliate Status	N	Mean	SD	Min	Max
Perceived Insider Status.	Yes	41	2.8463	.35644	2.30	4.20
	No	28	2.8929	.33214	2.30	3.90

Note. The extent to which employees perceive themselves to be insiders within their organization was measured by the PIS with 10 items. Scale: 1= *strongly disagree*, 2= *disagree*, 3= *neutral*, 4= *agree*, 5= *strongly agree*. Coded: lower score equals lower perception of being an insider within their organization, higher score equals greater perception of being an insider within their organization.

An independent samples t-test was conducted to compare Perceived Insider Status in MANRRS and non-MANRRS participants. There was not a significant difference in the scores

for MANRRS participants ($M = 2.8463$, $.35644$) and non-MANRRS participants ($M = 2.8929$, $SD = .33214$) conditions; $t(67) = -.547$, $p = .586$.

Table 4.1

Independent Samples Test of Perceived Insider Status Scale (PIS) (n=69)

PIS	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Equal Variance Assumed	.004	.949	-.547	67	.586	-.04652
Equal Variance Not Assumed			-.554	60.790	.581	-.04652

Note. 95% Confidence Interval

Summary of Findings for Objective 3

The third research objective for this study was to determine levels of intrinsic work motivation based on MANRRS member and non-member status. Data was collected by means of survey questionnaires that measured MANRRS affiliates intrinsic motivation. The instrument used was the Intrinsic Motivation Inventory (IMI), which required participants to respond to 45-items to make up the 7 subscales of the Intrinsic Motivation Inventory. The instrument was deconstructed into 7 subscales to assess participants interest/enjoyment, perceived competence, effort, value/usefulness, felt pressure/tension, and perceived choice while performing a given activity. Although the overall questionnaire is called the Intrinsic Motivation Inventory, the interest/enjoyment subscale is the only subscale that assesses intrinsic motivation. Intrinsic motivation refers to the internally motivating factors that encourage participants to continue

working within their organization. “A 7-point Likert scale, ranging from 1 = *not at all true* to 7 = *very true*” (IMI, 2020, p.1) was used for this inventory. The IMI served as the dependent variable, while MANRRS affiliate status was the independent variable for this research objective. Both univariate (e.g. mean and standard deviation) and bivariate statistics (e.g. t-test) were used to analyze the data collected.

Descriptive statistics (See Table 4.2) show that 40 individuals were in the MANRRS collegiate organization and had an average IMI score of 4.5405, whereas 28 individuals were not within the MANRRS collegiate organization and had an average IMI score of 5.1071. For data interpretation purposes the researcher developed a range for the IMI to help the reader interpret the respondent’s scores. IMI range: 1 – 1.99 = not at all true, 2.0 – 2.99 = true to an extent, 3.0 – 3.99 = somewhat true, 4.0 – 4.99 = somewhat true, 5.0 – 5.99 = true, and 6.0 – 7.0 = very true.

Table 4.2

Descriptive Statistics of Intrinsic Motivation Inventory (IMI)

Constructs	MANRRS Status	N	Mean	SD	Min	Max
Interest/Enjoyment	Yes	40	4.5405	1.30261	1.43	7.00
	No	28	5.1071	1.17393	2.14	6.57
Perceived Competence	Yes	40	5.4208	1.03980	3.50	7.00
	No	28	5.6131	.88198	4.00	7.00
Effort/Importance	Yes	40	5.6538	1.32556	1.80	7.00
	No	28	5.8071	1.05055	3.60	7.00
Pressure/Tension	Yes	40	3.0750	1.58515	1.00	6.60

	No	28	3.0143	1.19248	1.00	6.00
Perceived Choice	Yes	40	4.5205	1.92426	1.00	7.00
	No	28	4.7500	1.44207	1.43	7.00
Value/Usefulness	Yes	40	5.1839	1.37651	1.29	7.00
	No	28	5.3520	1.34994	2.57	7.00
Relatedness	Yes	39	4.8718	1.14582	2.75	6.63
	No	26	5.0337	1.05271	3.25	6.63

Note. Although the overall questionnaire is called the Intrinsic Motivation Inventory, the interest/enjoyment subscale is the only subscale that assesses intrinsic motivation. Experiences related to: interest/enjoyment, perceived competence, effort/importance, pressure/tension, perceived choice, value/usefulness, and relatedness was measured by the IMI with 45 items. 7- point Likert scale, ranging from: 1= *not at all true*, 4= *somewhat true*, 7= *very true*. Coded: lower score equals lower perception of targeted activity, higher score equals greater perception of targeted activity.

An independent samples t-test was conducted to compare Intrinsic Motivation in MANRRS and non-MANRRS participants. There was not a significant difference in the scores for MANRRS participants ($M = 4.5405$, $SD = 1.30261$) and non-MANRRS participants ($M = 5.1071$, $SD = 1.17393$) conditions; $t(66) = -1.837$, $p = .071$.

Although there is not a significant difference in the IMI scores between MANRRS and non-MANRRS participants it is worth noting that the Levene's test for equality of variance shows $p < .05$ in the concept pressure/tension and perceived choice (see Table 4.3). The pressure/tension concept measures whether a person felt more or less pressure and tension toward a targeted activity at work. Within the IMI pressure/tension is theorized to be a negative

predictor of intrinsic motivation. The perceived choice construct measures a person's ability to make a decision on certain task or activities within their respective organization. Within the IMI perceived choice is theorized to be a positive predictor of both self-report and behavioral measures of intrinsic motivation. The mean for pressure/tension is significantly different ($p = .029$) than non-MANRRS members. Also, the mean for perceived choice is significantly different ($p = .039$) than non-MANRRS participants (see Table 4.3). This means that MANRRS participants had more pressure/tension related to a targeted activity at their respective place of work. Non-MANRRS participants had more perceived choice related to a targeted activity at their respective place of work.

Table 4.3

Independent Samples Test of Intrinsic Motivation Inventory (IMI)

Constructs		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Interest/ Enjoyment	Equal Variances Assumed	.257	.614	-1.837	66	.071	-.56667
	Equal Variances Not Assumed			-1.872	61.811	.066	-.56667

Perceived Competence	Equal Variances Assumed	1.852	.178	-.798	66	.428	-.19226
	Equal Variances Not Assumed			-.821	63.489	.415	-.19226
Effort/ Importance	Equal Variances Assumed	1.964	.166	-.510	66	.612	-.15339
	Equal Variances Not Assumed			-.531	64.906	.597	-.15399
Pressure/ Tension	Equal Variances Assumed	4.957	.029	.171	66	.864	.06071
	Equal Variances Not Assumed			.180	65.609	.858	.06071
Perceived Choice	Equal Variances Assumed	4.417	.039	-.534	66	.595	-.22946

	Equal Variances Not Assumed			-.562	65.647	.576	-.22946
Value/ Usefulness	Equal Variances Assumed	.140	.710	-.500	66	.619	-.16811
	Equal Variances Not Assumed			-.501	58.977	.618	-.16811
Relatedness	Equal Variances Assumed	.287	.594	-.576	63	.567	-.16186
	Equal Variances Not Assumed			-.586	56.782	.560	-.16186

Summary of Findings for Objective 4

The fourth section within the *Perceived Inclusion Survey* was the Basic Psychological Needs at Work Scale (BPNWS), which required participants to respond to 21-items used to measure the satisfaction of basic psychological needs for autonomy, competence, and relatedness at work. It comprises three dimensions: autonomy need satisfaction, competence need

satisfaction, and relatedness satisfaction. Items within this instrument used a 7-point Likert scale, ranging from 1 = *not at all true*, to 7 = *very true*. See Appendix I for a summary of the basic psychological needs at work scale regarding participating MANRRS and non-MANRRS members. The BPNWS served as the dependent variable, while MANRRS affiliate status was the independent variable for this research objective. Both univariate (e.g. mean and standard deviation) and bivariate statistics (e.g. t-test) were used to analyze the data collected. For data interpretation purposes the researcher developed a range for the BPNWS to help the reader interpret the respondent's scores. BPNWS range: 1 – 1.99 = not at all true, 2.0 – 2.99 = true to an extent, 3.0 – 3.99 = somewhat true, 4.0 – 4.99 = somewhat true, 5.0 – 5.99 = true, and 6.0 – 7.0 = very true.

Table 4.4

Descriptive Statistics of Basic Psychological Needs at Work Scale (BPNWS)

Constructs	MANRRS Status	N	Mean	SD	Min	Max
Autonomy	Yes	42	4.8265	.94526	2.71	6.57
	No	28	4.9592	.79193	3.43	6.57
Competence	Yes	42	5.6111	1.09672	2.33	7.00
	No	28	6.1190	.89908	3.67	7.00
Relatedness	Yes	41	4.6829	1.09532	2.67	7.00
	No	28	4.7976	1.08994	2.67	7.00

Note. Need satisfaction at work was measured by the BPNWS with 21 items. 7-point Likert scale, ranging from 1= *not at all true*, 4=*somewhat true*, to 7= *very true*. Coded: lower score equals low need satisfaction in targeted construct, higher score equals greater need satisfaction in

targeted construct. Form three subscale scores by averaging item responses for each subscale after reverse scoring the items that were worded in the negative direction.

An independent samples t-test was conducted to compare Basic Psychological Needs at Work in MANRRS and non-MANRRS participants. The Basic Psychological Needs at Work scale comprised three dimensions: autonomy need satisfaction, competence need satisfaction, and relatedness satisfaction. Out of the three dimensions, groups did not vary except within the competence need satisfaction dimension (See table 4.5).

There was a significant difference in the scores for competence need satisfaction of MANRRS participants ($M = 5.611$, $SD = 1.09672$) and non-MANRRS participants ($M = 6.1190$, $SD = .89908$) conditions; $t(68) = -2.035$, $p = .046$. This means that non-MANRRS participants had a greater competence need satisfaction than that of MANRRS participants.

Table 4.5

Independent Samples Test of BPNWS

Construct		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Autonomy	Equal Variances Assumed	1.078	.303	-.613	68	.542	-.13265
	Equal Variances Not Assumed			-.635	64.393	.528	-.13265

Competence	Equal Variances Assumed	1.206	.276	-2.035	68	.046	-.50794
	Equal Variances Not Assumed			-2.118	65.009	.038	-.50794
Relatedness	Equal Variances Assumed	.000	.992	-.428	67	.670	-.11469
	Equal Variances Not Assumed			-.428	58.351	.670	-.11469

Note. 95% Confidence Interval

Summary of Findings for Objective 5

The fifth and final section within the *Perceived Inclusion Survey* was the General Self-Efficacy Scale, which required participants to respond to 10-items correlated to emotion, optimism and work satisfaction. “Negative coefficients were found for depression, stress, health complaints, burnout, and anxiety” (Schwarzer & Jerusalem, 1995, p.35). Items within this instrument used a 4-point Likert scale, ranging from 1 = *not at all true*, to 4 = *exactly true*. The GSE served as the dependent variable, while MANRRS affiliate status was the independent

variable for this research objective. Both univariate (e.g. mean and standard deviation) and bivariate statistics (e.g. t-test) were used to analyze the data collected.

Descriptive statistics (See Table 4.6) show that X individuals were in the MANRRS collegiate organization and had an average GSE score of 3.3605, whereas X individuals were not within the MANRRS collegiate organization and had an average GSE score of 3.3448. For data interpretation purposes the researcher developed a range for the GSE to help the reader interpret the respondent's scores. GSE range: 1 – 1.49 = not at all true, 1.5 – 2.49 = hardly true, 2.5 – 3.49 = moderately true, and 3.5 – 4.00 = exactly true.

Table 4.6

Descriptive Statistics of General Self-Efficacy Scale (GSE) (n = 72)

Construct	MANRRS Affiliate Status	Mean	SD	Min	Max
General	Yes	3.3605	.28547	2.80	4.00
Self-Efficacy	No	3.3448	.35915	2.70	4.00

Note. General self-efficacy was measured by the GSE with 10 items. 4 point Likert scale: 1= *Not at all true*, 2= *Hardly true*, 3= *Moderately true*, 4= *Exactly true*. Coded: lower score equals lower perception of self-efficacy, higher score equals greater perception of self-efficacy.

An independent samples t-test was conducted to compare General Self-Efficacy in MANRRS and non-MANRRS participants. There was not a significant difference in the scores for MANRRS participants (M = 3.3605, SD = .28547) and non-MANRRS participants (M = 3.3448, SD = .35915) conditions; $t(70) = .205$, $p = .838$.

Table 4.7

Independent Samples Test of General Self-Efficacy Scale (GSE) (n=72)

GSE	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Equal Variance Assumed	2.646	.108	.205	70	.838	.01564
Equal Variance Not Assumed			.196	50.796	.845	.01564

Note. 95% Confidence Interval

Summary of Findings for Objective 6

The sixth and final objective for this research study was to explain variance in levels of Perceived Inclusion by selected variables (e.g. age, highest degree earned, and how often one interacts with minorities within current position). Data was collected by means of survey questionnaires that measured MANRRS affiliates perceived insider status. The instrument used was the Perceived Insider Status Scale (PIS) developed by Stamper and Masterson (2002). The PIS required participants to respond to a 10-item instrument used to assess “the extent to which an individual employee perceives him or herself as an insider within a particular organization” (Stamper & Masterson, 2002, p. 876). Items within this instrument used a 5-point Likert scale, ranging from 1 = *strongly disagree*, to 5 = *strongly agree*. Perceived Insider Status served as the dependent variable. The independent variables, both MANRRS and non-MANRRS participants’ age (18-29, 30-39, 40-49, 50 and above); highest degree earned (Associates Degree, Bachelor of Science or Arts, Master of Science or Arts, Doctorate, and Other Degree); and how often one interacts with minorities within current position (Less than once a week or not at all, Once a

week, Twice a week, Three times a week, and Four times a week or more). Bivariate statistics (e.g. ANOVA) were used to analyze the data collected.

Since the alpha values for the groups (age, highest degree earned, and how often one interacts with minorities within current position) are all above 0.05 level of significance, the assumption of homogeneity of variance was met (Table 4.8).

Table 4.8

ANOVA of PIS by Selected Variables

Variables		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	10.648	14	.761	.930	.534
	Within Groups	42.517	52	.818		
	Total	53.164	66			
Highest Degree	Between Groups	16.084	14	1.149	1.207	.298

Earned

	Within Groups	50.431	53	.952		
	Total	66.515	67			
How Often one Interacts with Minorities within Current Position	Between Groups	45.122	14	3.223	1.343	.216
	Within Groups	124.789	52	2.400		
	Total	169.910	66			

Note. 95% Confidence Interval

Phase II Results

Phase II presented an analysis of the results of 16 semi-structured interviews of individuals who identify as members of underrepresented minority groups currently working in professional agricultural careers. These interviews were designed to supplement the quantitative analysis and provide a richer understanding of research participant's online responses within Phase I relating to the following areas: inclusion, basic psychological needs (autonomy, competence & relatedness), general self-efficacy, and intrinsic motivation. A brief description of the questionnaires used within Phase I were also provided within Phase II to help offer context for the reader. Demographic information about the 16 research study participants were gathered before the semi-structured interviews due to research participants completing the demographic questionnaire within the *Perceived Inclusion Survey* in Phase I of the research study. Although participants completed 17 demographic responses within Phase I, only nine demographic indicators are listed within Phase II in order to secure confidentiality. The nine demographic variables included: gender, race/ethnicity, age, research participant's perceived inclusion score, highest degree earned, MANRRS affiliate status during their undergraduate studies, state of residence, years of involvement in MANRRS as an undergraduate student, and frequency of interaction with other members of underrepresented minority groups within their current position. All 16 research participants were working in careers affiliated in either food & agribusiness companies, agro science companies, United States Department of Agriculture, United States Forest Service, and the Cooperative Extension Service. Sample demographic information is presented in Table 4.9.

Table 4.9

Participant Demographics for Phase II (N= 16)

Name	Gender	Race/ Ethnicity	Age	Perceived Inclusion Score	Highest Degree Earned	MANRRS Affiliate Status (Yes/No)	State of Residence	Years of Involvement in MANRRS during Undergradua te Student	Interaction With Other URM Colleagues
Oliver	M	Hispanic/ Latino	30	21	Master of Science or Arts	MANRRS	California	4 years	Four times a week or more
Jacob	M	African American/ Black	22	22	Bachelor of Science or Arts	MANRRS	South Carolina	4 years	Four times a week or more
Annette	F	African American/ Black	25	22	Master of Science or Arts	MANRRS	California	4 years	Four times a week or more
Jake	M	African American/ Black	22	30	Bachelor of Science or Arts	MANRRS	North Carolina	4 years	Four times a week or more
Evette	F	African American/ Black	31	22	Bachelor of Science or Arts	MANRRS	California	4 years	Once a week
Kelly	F	African American/ Black	22	26	Bachelor of Science or Arts	MANRRS	Louisiana	2 years	Four times a week or more
Katrina	F	African American/ Black	31	19	Doctorate	MANRRS	New Jersey	2 years	Three times a week
Kadijah	F	Hispanic/ Latino	29	28	Bachelor of Science or Arts	MANRRS	Washington, D.C.	4 years	Three times a week
Terrence	M	African American/ Black	33	24	Bachelor of Science or Arts	Non- MANRRS	North Carolina	Not a Member	Three times a week

(continued)

Alyssa	F	African American/ Black	30	24	Doctorate	Non-MANRRS	North Carolina	Not a Member	Less than once a week or not at all
Chloe	F	African American/ Black	25	21	Master of Science or Arts	Non-MANRRS	Pennsylvania	Not a Member	Four times a week or more
Tabitha	F	African American/ Black	44	23	Bachelor of Science or Arts	Non-MANRRS	North Carolina	Not a Member	Four times a week or more
Candace	F	African American/ Black	37	29	Bachelor of Science or Arts	Non-MANRRS	South Carolina	Not a Member	Three times a week
Kimberly	F	African American/ Black	37	22	Doctorate	Non-MANRRS	North Carolina	Not a Member	Once a week
Nicholas	M	African American/ Black	32	17	Master of Science or Arts	Non-MANRRS	North Carolina	Not a Member	Four times a week or more
Kaleb	M	African American/ Black	30	24	Doctorate	Non-MANRRS	North Carolina	Not a Member	Three times a week

Note. Pseudonyms were used for each research participant.

Five themes emerged from the interview data and showed that participants may seek these particular variables within their organization: (1) A Desire for Individual Potential to be Valued; (2) Valued Being Connected to a Network of Mentors; (3) Based their Motivation on Financial Reward, Having Positive Community Impact, and Becoming a Subject Matter Expert; (4) Self-Motivation Contributes to Competence; and (5) Valued Reassurance and Acknowledgement.

Research Objective 1: Identify Selected Demographic Characteristics Based on MANRRS and non-MANRRS Status.

Research Objective 1 sought to determine research participants' personal information regarding: gender, race/ethnicity, age, perceived inclusion score, highest degree earned, MANRRS affiliate status during their undergraduate studies, state of residence, years of involvement in MANRRS as an undergraduate student, and frequency of interaction with other members of underrepresented minority groups within their current position. Demographic information was collected in Phase I through a 17-item demographic questionnaire within the *Perceived Inclusion Survey*. Only 9 of the 17 items are listed within this phase of the research study in order to protect confidentiality. In addition to the demographic questionnaire, participants also participated in a semi-structured interview to describe their experiences as a member of an underrepresented minority group working in a professional agricultural context. Results were developed into one theme: (T1) A Desire for Individual Potential to be Valued.

(T1) A Desire for Individual Potential to be Valued

Despite their demographic differences, participants described similar feelings of being underutilized when they began working within their respective organization. These feelings were often brought on by their manager or direct supervisor not seeing what the individual truly had to offer in terms of their professional capability. Managerial evaluation of research participants' skill levels manifested as allocation of work that did not match what their experience or expertise would warrant. For example, Alyssa stated:

I guess I wish that maybe when I joined the organization I had a manager that was able to see my full potential. I don't think he was able to see how big of a deal I am. ...I think

that he really underestimated my abilities coming into the organization. Again, because I think I was hired as just a pair of hands.

Similarly, Jake described not being provided work that was commensurate with the job title.

I guess when I first started I just felt like there was not enough responsibility. I felt like I was getting paid...well I am getting paid a decent amount of money and I just felt like the workload wasn't adding up to the price I was getting paid. I felt like I was under working for the amount I was getting paid, which a lot of people would not have complained about that but me personally, I complained because y'all are paying me a good amount of money, now give me the amount of responsibility to add up to this coin and make me feel included.

Oliver also shared a similar experience of his full potential not being identified by his direct manager. He stated:

Recently we went out to have lunch with a supplier and I was sitting next to two other managers that are not on my team. We are in the same department, but they are just not on my team...both of them recognized my background and both were questioning why they are having you do this type of work when you have the type of background that you have. ...they see potential in what I can do and for both of these managers outside looking in, and they are wanting me to do more as well.

The inferences from these quotes are that participants felt undervalued by management despite their entering credentials and were not sufficiently challenged by their current scope of work.

This information expresses the concept that minorities may often gain a sense of value of how well they are performing through work assignments that are commensurate to their education and work achievements. Historically, minorities have faced challenges to gain access to, and acquire an education; therefore, many have viewed an educational degree as a choice reward that could lead to gainful employment, self worth, and prestige among colleagues, and family. When participants felt they were ignored by managers, and supervisors, they often perceived it as an unspoken statement that they are unable to perform work assignments, which further affected their sense of competence and connectedness to their professional organization. In addition, how organizational leaders assign work, provide leadership opportunities, and allot rewards and promotions, may be viewed as bias by minorities when they are not given commensurate

opportunities. This may also affect their trust in the organization, which may add to the stigma of self doubt, mistrust, and inferiority that they were hired not for their expertise, but as a minority quota.

Research Objective 2: Determine Levels of Organizational Inclusion Based on MANRRS Member and Non-Member Status.

The Perceived Insider Status Scale is a 10-item questionnaire used to determine whether employees perceive themselves as insiders or outsiders within their organization (Stamper & Masterson, 2002). Items within this instrument used a 5-point Likert scale, ranging from 1 = *strongly disagree*, to 5 = *strongly agree*. Scale scores are calculated by summing the individual item scores which results in a perceived inclusion score. Higher scores are indicative of more perceived insider status within organization with lower scores indicating the opposite (the highest possible score being 30). Regardless of MANRRS affiliate status, participants felt there was value in being connected to a network of mentors. Results were developed into a theme: (T2) Valued Being Connected to a Network of Mentors.

(T2) Valued Being Connected to a Network of Mentors

Mentorship was viewed as an important factor for participants; these mentors were often utilized when the participant was new to the organization and needed guidance or direction on best practices within the workplace. Jacob stated:

...he kind of took me under his wing really because he knew I was new. I really didn't have much to go off of because I had just graduated. He is kind of my mentor really because he kind of teaches me everything. He teaches me everything important that I need to know or the things I am doing because he has this knowledge. I am thankful he is willing to share that knowledge to me so I can be the best employee to my capability and yeah I am just grateful for that.

Jacob also expressed that his experience to navigate within his new position had been easy based on having a mentor.

I really think my ability to gain access to further my career has really been kind of easy. I email my mentors probably every 2 weeks to a month. So every time we do something they are always giving me good feedback on things I should be doing in the office and kind of like my down periods, and what I should be doing as far as getting certifications or attending meetings and what I should be doing at this stage of my career right now to set me up for a higher position later on. But it has been relatively easy. I enjoy my mentors that I have.

Most of the participants perceived their mentor as someone who was committed to sharing their expertise on career and personal development, though they also advocated for mentees when opportunities for promotion become available. Terrence stated:

...I was denied a promotion...I went to some of the other people who look like me in my organization and was like can you tell me how to navigate through this and everybody kind of turned their back...I have people I can talk to about what's going on, but I don't have anyone that I feel would really advocate for me, if that makes sense...after my regular mentor had retired, I kind of felt alone.

Mentor relationships existed across organizational boundaries and it was common for participants to list a former college professor or MANRRS chapter advisor as one's mentor. Participants also maintained multiple mentor relationships, utilizing them strategically for specific purposes. For example, Alyssa stated:

...the four mentors that I have, I think the initial meeting was just for me to get more information about their role and then once I figured out wow this person has really exceeded in this area they can provide value where I am lacking. Then I have kind of taken that mentorship from there. ... These individuals I call my mentors I utilize them differently for different things. The avenue in which I utilize them is for luncheons or vary...how do I say this, very straightforward objectives when we need it. ... I have someone to help me with interviewing; I have someone that helps me with overall development...where do I see my career going? I built these skills, what can come next in my career. I've got someone that helps me with the communication part...how do I tell my manager I am bored; how do I tell my manager that I am interested in this opportunity where I have to be nominated to attend, so how can I sell this opportunity to my manager".

Research participants also found it beneficial when their mentor shared both professional interest and demographic characteristics. Chloe mentioned:

... I have only had one meeting so far but I think the meeting went really well in terms of the matching process as far as trying to match people who have similar interests was really beneficial. The person that I am matched with...we have a lot in common as far as our interest professionally. So I think it will be a great benefit and that person has already gone through one stage of promotion that is how they match people up.

On the latter point, Evette offered the following opinion on shared demographic characteristics

So we are set up with mentors but we are not really set up with mentors that look like me, so I had like a male mentor, which he was a good mentor but sometimes I wasn't comfortable with asking him things. Within the last 2 years there has been a more conscious effort providing female mentors and just like having more female focused events so you don't feel like you are the only one that has this problem because you might not in your day-to-day job work with a lot of females. So I think it has been more strategic bringing a lot of women together so that way you understand that you are not the only one who faces these challenges and gives you resources to help you work through these problems.

Mentorship is a critical factor for professional success more broadly, though it is especially important for people who are underrepresented within organizations or may lack the social capital to navigate new and unfamiliar environments. In the examples offered by study participants, key mentor relationships were an invaluable source of information, guidance, and support that aided in an individual's sense of inclusion within the organization.

New employees valued having a mentor to help them navigate a new position, which often made the difference of feeling confident and connected to the organization, thus having a mentor that one has access to, and can openly communicate and identify with similar interests was vital to the relationship to help promote knowledge. Multiple forms of mentorship were also beneficial, having more than one mentor allows for one to utilize mentorship strategically in

areas they felt needed growth. On the other spectrum, some participants without a mentor felt detached and isolated from the organization.

Research Objective 3: Determine Levels of Intrinsic Work Motivation Based on MANRRS Member and Non-Member Status.

The Intrinsic Motivation Inventory is a 45-item questionnaire deconstructed into 7 subscales to assess participants' interest/enjoyment, perceived competence, effort, value/usefulness, felt pressure/tension, and perceived choice while performing a given activity. Although the questionnaire is called the Intrinsic Motivation Inventory, the interest/enjoyment subscale is the only subscale that assesses intrinsic motivation. Intrinsic motivation refers to the internally motivating factors that encourage participants to continue working within their organization. A 7-point Likert scale, ranging from 1 = *not at all true* to 7 = *very true* (IMI, 2020) was used for this inventory. Results were developed into a theme: (T3) Based their Motivation on Financial Reward, Having Positive Community Impact, and Becoming a Subject Matter Expert.

(T3) Based their Motivation on Financial Reward, Having Positive Community Impact, and Becoming a Subject Matter Expert

Intrinsic motivation was directed toward two primary objectives for study participants: remaining within their current role and seeking promotion within the organization. Most participants based their motivations for continuing work within their organization on three factors: financial reward, having positive community impact, and becoming a subject matter expert. Though financial reward is typically understood as an extrinsic motivator, it stood out as

a common source of motivation for most participants, hence its inclusion among the other intrinsic factors.

For example, Oliver stated: “I think one big one is the pay is really good here”.

Terrence also shared an example of financial reward being a big part of what motivated him, as well as the position within his organization positively impacting the community, he mentions:

My check. Truthfully what motivates me is I am a numbers guy and I actually get to see the number of families we actually affect. We do housing and it is multi-family housing, but we get to see the families it affects. I grew up in rural America and all the counties around me are considered impoverished counties, so it is considered poverty counties. So most counties we help are basically places where I grew up. So even though I don't personally go out there and give people money or build anything, the work I do actually goes to helping people in communities where I grew up and need it. That is truthfully one of my biggest motivating factors.

Two specific comments from study participants reflect the relationship between community impact and its influence on intrinsic work motivation. Jacob stated:

...so every time I get out of the office to actually go see my producers and see their farms to see what projects they have going on is what I actually value because I know what we are putting into practice is actually working for them and when it is not working for them we can always talk that out to see what we can do better to mediate if something goes wrong. But it is always the people”.

Annette offered the following:

... I received my degree in agriculture and I am helping the agriculture communities and that is really a passion of mine. ...I think this career is rewarding because I am serving the community and I am also putting my degree to some type of use.

The two examples below illustrate how some participants display intrinsic motivation for wanting to become subject matter experts within their given field. Kaleb stated:

For me it is just continuing to grow as a person and being more rounded as a scientist. There are certain things I want to be known for and there are certain skills I want to learn. I figure in my role when you have a scientific background, if I excel in this company, I will get a bigger promotion and I will have a greater future or a better financial future for myself. So definitely, I think the financial incentives as well as the opportunity to better myself and learn more, I think in my role being that I have a scientific background, you never stop learning.

Kimberly also mentioned: My motivation is continuing to learn and try to become that expert in the field.

In the examples offered by study participants, key motivating factors for remaining within organizations were: financial reward, having positive community impact, and becoming a subject matter expert. Although financial reward is not considered an intrinsic motivator, it is worth mentioning due to the frequent references by participants. It can easily be understood that financial obligations are a common factor in life, which may result in motivating participants need for compensation. Those who identified with social and economic inequities, particularly within their communities were motivated by their positive contribution in rectifying inequities. They received fulfillment from their work when they could see a positive difference within their communities. Some participants wanted to excel or become subject matter experts in their work, and were motivated because they believed this would result in more money and career advancement.

Research Objective 4: Determine Levels of Satisfaction in the Areas of Autonomy, Relatedness, and Competence Based on MANRRS Member and Non-Member Status.

The Basic Psychological Needs at Work Scale is a 21-item questionnaire used to measure the satisfaction of basic psychological needs for autonomy, competence, and relatedness at work. It comprises three dimensions: autonomy need satisfaction, competence need satisfaction, and relatedness satisfaction. Items within this instrument used a 7-point Likert scale, ranging from 1 = *not at all true*, to 7 = *very true*. Higher scores equal greater need satisfaction in targeted constructs.

Regardless of MANRRS affiliate status, a recurring sentiment was that personal initiative was necessary to support one's own career development process. The competence variable was the only area where MANRRS and non-MANRRS affiliates differed with those in MANRRS scoring lower in competence than those not in MANRRS. To describe the two group's levels of satisfaction of need of autonomy, relatedness, and competence results were developed into one theme: (T4) Self-Motivation Contributes to Competence.

(T4) Self-Motivation Contributes to Competence

Individuals who wanted to gain more competence within their organization expressed a need to self-initiate their career development. Although individuals commonly expressed how self-motivation helped within their career development, examples on how to improve basic psychological needs such as autonomy and relatedness was not surfaced during the interviews. Kaleb stated:

I think it is based on the individual. It's really up to you to ask questions of your line manager regarding career progression. It's up to you to look for opportunities.

Katrina also provided an example of being self-motivated when she stated:

“to gain leadership skills, I really have to do it on my own, so take the initiative, be more action-oriented, and find my own opportunities”. Katrina also mentioned:

One thing I can do is go to my director who is a level above my manager to get feedback and talk about what I can do to get to where I am trying to be. I just continue to push my manager to give the project that I want and I look for opportunities that I can just grab on my own.

Another participant who has similar feelings is Kimberly who stated:

I want to be proactive; I obviously have to take the initiative, because you are always in charge of your own development. If you are seen as wanting to take initiative and proactive in your development, attending classes and trainings, I think they are supportive of that.

One of the primary takeaways from these interviews is in order to achieve an optimal level of competence it is important to be self-motivated. Increased feelings of competence may contribute to a person performing better within their position and may ultimately lead to more job security.

Research Objective 5: Determine Levels of Self-Efficacy Based on MANRRS Member & Non-Member Status.

The General Self-Efficacy Scale is a 10 item questionnaire used to measure self-efficacy. Items within this questionnaire used a 4-point Likert scale: 1= *Not at all true*, 2= *Hardly true*, 3= *Moderately true*, 4= *Exactly true*. Lower scores equal lower perception of self-efficacy, higher score equals greater perception of self-efficacy. Total score ranges between 10 and 40. Results were developed into a theme: (T5) Valued Reassurance and Acknowledgement.

(T5) Valued Reassurance and Acknowledgement

As both MANRRS and non-MANRRS affiliates entered their new careers, positive reassurance and acknowledgement from management helped develop personal feelings of self-efficacy. As new employees, they wanted to know they were valued and performing the task correctly since they may not share the same amount and type of expertise as most individuals who have been within the organization for several years.

For example, Kelly expressed how she needs reassurance since she is new to the job, she stated:

...just being a recent graduate, I feel like a lot of the time I am not totally sure of my decisions, so I will take the lead but it is often with a lot of looking over my shoulder confirming that what I am doing is okay. So I know that I will be able to do it with full confidence at some point, but I don't think I am there yet. I still have a lot of questions and I am more so worried about making sure things are done right. And I am not totally trusting of myself to just straight up take the lead.

Jacob also expressed receiving reassurance when he mentioned:

...So every 3 months we will kind of have a sit down and I will go through the work I have done for the past 3 months, and she will review that and give me a rating on my performance. Making sure I am keeping up with what I am supposed to be doing and making sure I'm doing the work that needs to be done.

The implication from these comments is that positive feedback and reassurance from supervisors is particularly important for new employees. Combined with their status as new employees, underrepresented minorities in professional settings may lack in-group colleagues to help guide them through the early phase of their employment. This fact makes it all the more important for supervisors and mentors to provide positive reassurance and guidance during this time.

Management plays an important role in building employee self-efficacy; their words, actions, and efforts likely carry significance due to their position as a leader within the organization. Providing reassurance and feedback is especially important for new employees, as they are often trying to make a good first impression, as well as learn the information needed for the new role. Receiving little to no feedback or reassurance may result in self-doubt, or a lack in confidence. It is likely that if a new employee receives reassurance or feedback early on they can accept criticism positively, not over-stress about results, and be open to new challenges.

Summary

Chapter four presented an analysis of the results of a five part questionnaire survey assessing *Section I: Demographic Information, Section II: Perceived Insider Status, Section III: Intrinsic Motivation, Section IV: Basic Psychological Needs at Work, and Section V: General Self-Efficacy*; and 16 semi-structured interviews. An analysis of instrument results and interview transcripts yielded five themes utilized to address the research objectives within this particular study. Participants within this study shared that they may seek these particular variables within their organization: (1) A Desire for Individual Potential to be Valued; (2) Valued Being Connected to a Network of Mentors; (3) Based their Motivation on Financial Reward, Having Positive Community Impact, and Becoming a Subject Matter Expert; (4) Self-Motivation Contributes to Competence; and (5) Valued Reassurance and Acknowledgement. Within chapter five are recommendations associated with each theme described.

Chapter 5

Conclusion

As previously mentioned, this sequential explanatory mixed methods study was designed to aid the exploration of what motivating factors work best to improve feelings of inclusivity for MANRRS and non-MANRRS participants working within a professional agricultural organization. This final chapter will begin by reviewing the problem statement, theoretical framework, the research purpose/ objectives, significance of the study, assumptions / limitations, and research study methodology. The chapter then concludes with implications for practice, recommendations for practitioners and future research.

Problem Statement

Although the agricultural field has acknowledged the need for ethnic diversity, underrepresented groups who have chosen to enter agricultural careers may still lack feelings of inclusion within their employed organization. “To create an energizing and motivating climate, members of an organization not only need to formally belong to a team but also need to feel included by their team members” (Shore et al., 2011). “Teams showing high levels of team inclusion perform better, are more creative, and have members that are more satisfied” (De Cooman, Vantilborgh, Lub, & Bal, 2015). Yet, little is known to determine how this inclusive climate is best created among organizations within the agricultural industry.

Because of the important role MANRRS plays in preparing minority students for agricultural careers, understanding individual perceptions of inclusion when entering the industry provides important insights related to levels of intrinsic work motivation and satisfaction of basic needs for autonomy, competence, and relatedness. As previously mentioned, perceived inclusion

generates pro-social group behaviors and positive psychological outcomes for employees such as job satisfaction, organization-based self-esteem, and organizational citizenship behavior (Cottrill et al., 2014; Bortree and Waters, 2014; Jansen et al., 2014; Mor Barak, 2017). Consequences of diminished inclusion within an organization or “exclusion from decision making processes increases the urge to leave the organization” (Mor Barak, Levin, Nissly, & Lane, 2006), “whereas workplace inclusion improves overall job satisfaction” (Acquavita, Pittman, Gibbons, & Castellanos-Brown, 2009). More research is needed to better understand how involvement in MANRRS at the collegiate level plays a part in preparing students to feel competent and included within the workplace.

Theoretical Framework

Self-Determination Theory “is a motivational theory of personality, development, and social processes that examines how social contexts and individual differences facilitate different types of motivation, especially autonomous motivation and controlled motivation, and in turn predict learning, performance, experience, and psychological health” (Deci & Ryan, 2015, p. 486). SDT states that humans have three universal, innate and psychological needs: competence, autonomy, and psychological relatedness (Deci & Ryan, 2015, p.486).

Deci & Ryan (2000) define the need for competence as concerns for our achievements, knowledge, and skills and the desire to develop mastery over tasks that are considered important to someone (as cited in David, 2014). The need for “relatedness involves the desire to feel connected to others” (Deci & Ryan, 2000), which can be seen as comparable to the need for belongingness. The need for autonomy involves the desire to perform or work in a manner where one’s true sense of self can be displayed, which resembles the human need for uniqueness (Deci

& Ryan, 2000). Deci and Ryan's (2002) theory of self-determination suggests humans will be motivated and display psychological well-being in organizations to the extent that they experience psychological need satisfaction within those organizations. The distinction between autonomous motivation and controlled motivation are vital when discussing SDT. Intrinsic motivation is an example of autonomous motivation, being characterized as doing something because they find it interesting, or purely out of enjoyment or fun (Gagne & Deci, 2005). On the opposing end, "being controlled involves acting with a sense of pressure, a sense of having to engage in the actions" (Gagne & Deci, 2005, p. 334). Extrinsic motivation involves task completion that is inspired by some reward or benefit. SDT postulates that autonomous and controlled motivations differ and suggests that behaviors can be characterized in terms of the degree to which they are autonomous versus controlled (Gagne & Deci, 2005). The degree of self-determination an individual feels falls on a continuum that ranges from intrinsic motivation through extrinsic motivation and finally to amotivation (Chen & Aryee, 2007). Amotivation is when an individual has a lack of intention and motivation (Gagne & Deci, 2005). For underrepresented minorities in the workplace, increased levels of amotivation may lead to lower levels of employee retention and satisfaction overall. Consequently, agricultural organizations that are thoughtful about creating environments where employees feel included, appreciated, and supported may have more success in recruiting and retaining underrepresented minorities.

The utility of psychological need satisfaction will be explored for determining MANRRS participants' perceptions of inclusion when entering agricultural careers. In line with self-determination theory, work climates that support autonomous motivation or allow for satisfaction of these needs facilitates both stronger work engagement and psychological well-being (i.e., people are more productive and happier). As previously stated, intrinsic motivation is an

example of autonomous motivation. Intrinsic motivation is defined “as the inherent interest in and enjoyment associated with performing a task” (Deci & Ryan, 2000; Gagne & Deci, 2005). Therefore “enjoyment and interest are positive experiences that increase people’s willingness to continue and persist in an activity”, which comes “from the satisfaction of people’s psychological needs” (Deci & Ryan, 2000; Reiss, 2004). Furthermore, the SDT is significant for this study due to the theory’s focus on an individual’s psychological needs. The needs for autonomy, competence, and relatedness seem to serve as reoccurring sources for positive functioning and engagement in work organizations (Gagne & Deci, 2005). In order to show the role of MANRRS participants’ need satisfaction in the relationship between team inclusion and enjoyment or interest in tasks, this study is framed within SDT.

Purpose and Research Objectives

This study examined the relationship between basic psychological needs (autonomy, competence, and relatedness) and motivation as they specifically relate to the perceived feelings of inclusion of MANRRS alumni who currently work in agricultural careers in the United States. Personal characteristics were divided into demographic information about the respondent (i.e., gender, current job title, number of years worked in their current position (irrespective of rank/job title), location of current employment, race/ethnicity, years of involvement in MANRRS, and leadership positions held within MANRRS) and information about the respondents’ perceived feelings of inclusion in their current workplace. The examination of demographic information and perceived feelings of inclusion was important to this study because it intends to identify characteristics or factors that influence feelings of inclusion, and may contribute to improving feelings of inclusion when entering agricultural careers. Outcomes of

this study are intended to influence organizational decision-makers that develop policies and procedures and influence internal professional cultures.

The Self-Determination Theory (SDT) (Deci & Ryan, 2002) was used to guide the development and organization of the research objectives for this study. Specific objectives of this study were to:

- 1.** Identify selected demographic characteristics based on MANRRS member and non-member status (e.g. gender, race/ethnicity, age, highest degree earned, current position in career, state of residence, years of involvement in MANRRS as an undergraduate student, frequency of interaction with other members of underrepresented minority groups within their current position, etc.);
- 2.** Determine levels of organizational inclusion based on MANRRS member and non-member status;
- 3.** Determine levels of intrinsic work motivation based on MANRRS member and non-member status;
- 4.** Determine levels of satisfaction in the areas of autonomy, relatedness, and competence based on MANRRS member and non-member status;
- 5.** Determine levels of self-efficacy based on MANRRS member & non-member status;
- 6.** Explain variance in levels of perceived inclusion by selected variables.

Significance of the Study

Understanding relationships between basic psychological needs and motivation amongst minorities that participated in the MANRRS organization can help to reveal what motivating factors work best to improve feelings of inclusivity within an organization. On a micro level, defining this set of factors can assist organization members in exhibiting positive behaviors that result in feelings of connection and inclusion for minorities entering into agriculture careers. On a macro level, Chief Executive Officers (CEOs) and other senior leaders have a responsibility for establishing work cultures that support high retention levels for all employees. In order to support a work environment that engenders both high productivity and meaningful connection to the organization, it is critical for senior leaders to both understand and apply the knowledge of the aforementioned work factors.

There are also few existing tools for minority individuals to gauge how inclusive an organization may be in reality. Although the concept of inclusion has increased throughout the years, there still seems to be a lack of consensus on how to properly measure inclusion. Bidee et al. (2017) measured inclusion through validated scales such as Stamper and Masterson's (2002) perceived insider status scale, which consist of six items. Bidee et al.'s (2017) research applies to MANRRS in that it provides initial parameters for developing the proposed inclusion instrument. As individuals from diverse backgrounds evaluate potential career opportunities within the agriculture industry, it is important for them to be able to identify the cultural factors within an organization that support high levels of inclusion. Equipped with the awareness of the work factors outlined above, diverse individuals can make more informed decisions about where they choose to work within the agricultural sector.

Assumptions

1. The sample studied was representative of the total population of MANRRS alumni working in agricultural careers nationally.
2. Research participants in this study answered all of the questionnaires openly and honestly.

Limitations

There are several limitations that should be taken into account when interpreting the results of this study. Quantitative cross-sectional surveys were used as one of the data collection methods within this study; therefore a cause and effect relationship cannot be established. A longitudinal and within subjects design has the capability to demonstrate a cause and effect relationship properly.

Second, this two-phase mixed methods study was based on participants' answers to items on the questionnaire, as well as follow-up interviews. Various statements are personal and may result in individuals responding in a socially desirable way to avoid any negative feelings. This may have resulted in unclear outcomes that do not represent the true score of the participant on a construct.

Lastly, the generalizability of study results is confined to MANRRS alumni and affiliates, regardless of study participation. However, findings may also be generalizable for individuals from underrepresented minority groups who faced similar experiences of struggling with feeling included within their professional context.

Methodology

As described in chapter 3, this was a sequential explanatory mixed methods study, which aided the exploration of what motivating factors work best to improve feelings of inclusivity for MANRRS and non-MANRRS participants working within a professional agricultural organization. The targeted population for this study was comprised of past MANRRS organization participants between the years of 2013-2018, now working within professional agricultural careers. A control group of non-MANRRS participants working within professional agricultural careers were also utilized within this study, to compare the experiences of underrepresented minority groups who participated in the MANRRS organization between the years 2013-2018, against those who did not. MANRRS (Minorities in Agricultural, Natural Resources and Related Sciences) is a co-educational organization populated by all races, but more specifically ethnic minorities, or those who are traditionally categorized as African American, Hispanic & Latino American, Native/Indigenous American, Asian American, and Native Hawaiian/Pacific Islander. According to the MANRRS 2016-2017 annual report, the organization consists of 1,415 active members; 71.01% African & African American/Black, 10.91% Caucasian, 10.35 Hispanic/Latino, 3.62% Asian/Pacific Islander, 2.93% Mixed Heritage, 1.12% American Indian/Alaskan Native, and 0.06% Other (MANRRS Annual Report, 2017).

In Phase I of the research study, a five part questionnaire survey was administered to MANRRS and non-MANRRS participants assessing: *Section I: Demographic Information*, *Section II: Perceived Insider Status*, *Section III: Intrinsic Motivation*, *Section IV: Basic Psychological Needs at Work*, and *Section V: General Self-Efficacy*.

Section I: Demographic Information - A 17-item questionnaire sought to determine research participants' personal information regarding: gender, race/ethnicity, age, highest degree earned, university/college attended, college major, MANRRS affiliate status during their undergraduate studies, years of involvement in MANRRS as an undergraduate student, what leadership positions you held while in MANRRS, job title, job description, name of current employer, state of residence, number of years worked in current position, reason you applied for current position, last promotion with current employer, and frequency of interaction with other members of underrepresented minority groups within their current position.

Section II: Perceived Insider Status - The Perceived Insider Status Scale is a 10-item questionnaire used to determine whether employees perceive themselves as insiders or outsiders within their organization (Stamper & Masterson, 2002). Items within this instrument used a 5 point Likert scale, ranging from 1 = *strongly disagree*, to 5 = *strongly agree*. Higher scores are indicative of more perceived insider status within organization with lower scores indicating the opposite (the highest possible score being 30).

Section III: Intrinsic Motivation - The Intrinsic Motivation Inventory is a 45-item questionnaire deconstructed into 7 subscales to assess participants' interest/enjoyment, perceived competence, effort, value/usefulness, felt pressure/tension, and perceived choice while performing a given activity. Although the questionnaire is called the Intrinsic Motivation Inventory, the interest/enjoyment subscale is the only subscale that assesses intrinsic motivation. A 7 point Likert scale, ranging from 1 = *not at all true* to 7 = *very true* (IMI, 2020) was used for this inventory. Lower score equals lower perception of targeted activity, whereas higher score equals greater perception of targeted activity.

Section IV: Basic Psychological Needs at Work - The Basic Psychological Needs at Work Scale is a 21-item questionnaire used to measure the satisfaction of basic psychological needs for autonomy, competence, and relatedness at work. It comprises three dimensions: autonomy need satisfaction, competence need satisfaction, and relatedness satisfaction. Items within this instrument used a 7 point Likert scale, ranging from 1 = *not at all true*, to 7 = *very true*. Higher scores equal greater need satisfaction in targeted constructs.

Section V: General Self-Efficacy - The General Self-Efficacy Scale is a 10 item questionnaire used to measure self-efficacy. Items within this questionnaire used a 4-point Likert scale: 1= *Not at all true*, 2= *Hardly true*, 3= *Moderately true*, 4= *Exactly true*. Lower scores equal lower perception of self-efficacy, higher score equals greater perception of self-efficacy. Total score ranges between 10 and 40. Lower score equals lower perception of self-efficacy, higher score equals greater perception of self-efficacy.

In Phase II, a total of 16 semi-structured interviews were conducted with 8 MANRRS and 8 non-MANRRS participants who indicated high levels of perceived insider status in their respective work organization. All interviews were via telephone.

Discussion

The goal of this research study was to advance the literature on organizational inclusivity for underrepresented minority groups in agricultural careers. Specifically, this study sought to understand the relationship between basic psychological needs within SDT (Deci & Ryan, 2002) and motivation amongst minorities that both did and did not participate in the MANRRS organization. Understanding this relationship, in turn, hoped to reveal what motivating factors work best to improve feelings of inclusivity within an organization.

MANRRS and non-MANRRS participants were compared across several demographic and survey criteria to understand any differences in the relationship between basic psychological needs and level of intrinsic motivation. There were no significant differences between the two groups except in the theoretical construct of competence. Specifically, the individuals who were involved in MANRRS during their time in college scored significantly lower in their satisfaction of the need for competence in the workplace than those not involved in MANRRS. When examining the pressure/tension concept within the Intrinsic Motivation Inventory, MANRRS members were found to be higher than non-MANRRS participants ($p = .029$). Additionally, MANRRS members were found to be lower ($p = .039$) in the perceived choice concept within the Intrinsic Motivation Inventory. These findings were significant because of their potential for explaining why MANRRS-affiliated individuals were found to have decreased feelings of workplace competence relative to non-MANRRS affiliates. However, additional research is needed to justify the previous claim.

Although the intent for this research study was to show differences between MANRRS former members and non-members, the only difference between the two groups were within competence. This difference does not signify that participation within the MANRRS organization does not solely relate to helping minorities succeed in their respective careers. Inclusion issues seem to be more complex than what is being discussed in the MANRRS organization to prepare minorities for career success and leadership. MANRRS has been known to address training in interviewing skills, public speaking, and resume building. This research highlighted certain challenges that some MANRRS participants have experienced, such as feelings of isolation, feelings of not being valued for their experience and work potential by supervisors, and some participants unable to obtain a mentor to help them adjust in their position.

MANRRS must provide training that supports participants so they are prepared in obtaining a job, and leadership skills, which helps them to navigate challenging work situations. It is important that participants become aware of the psychological stressors they may face before they are employed. Participants must know how to tactfully address issues that may occur with supervisors or other employees, and how to seek mentors to help them advance in the organization, when one has not been assigned. Ultimately, if MANRRS participants are able to apply these skills one might infer that their chances for success and leadership within an organization will be improved. It is important for MANRRS participants to obtain leadership positions within companies which may lead to changes in organizational structure in hiring practices and policies. The results of this study have implications for professional agricultural organizations that seek to improve feelings of inclusivity amongst underrepresented minority groups within an organization.

One factor that was not investigated in this research was age, but may be a viable factor worth investigating in future studies. Age may be an indirect measure of work experience, and generation in the workplace which may have implications of how an individual perceives race, particularly among older underrepresented minorities. Older individuals within agricultural organizations compared to younger participants have likely experienced more episodes of cultural and societal norms of racism and inequity in the workplace, which has likely influenced their view of race in the workplace.

Five themes emerged from the interview data and showed that participants may seek these particular variables within their organization: (1) A Desire for Individual Potential to be Valued; (2) Valued Being Connected to a Network of Mentors; (3) Based their Motivation on Financial Reward, Having Positive Community Impact, and Becoming a Subject Matter Expert;

(4) Self-Motivation Contributes to Competence; and (5) Valued Reassurance and Acknowledgement. Qualitative findings for each theme, along with the practical implications for each of those findings, are listed below.

Research Objective 1: Identify Selected Demographic Characteristics Based on MANRRS and non-MANRRS Status.

Theme 1: A Desire for Individual Potential to be Valued

Implications for Practice

Despite demographic differences, participants described similar feelings of being underutilized when they began working within their respective organization. These feelings were often brought on by their manager or direct supervisor not seeing what the individual truly had to offer in terms of their professional capability. Based on the described feelings, the generated theme for this research objective demonstrates that underrepresented minorities had a desire for individual potential to be valued. The implication for theme one is that their accomplishments are ignored by managers and supervisors it can be perceived as an unspoken statement that they are unable to perform work assignments, and that their knowledge and expertise are not valued. The resulting impact of this realization is the diminishment of their sense of competence and connectedness to their professional organization. In addition, how organizational leaders assign work, provide leadership opportunities, and allot rewards and promotions, may be viewed by minorities as biased when they are not given commensurate opportunities. This may also affect their trust in the organization, which may add to the stigma of self doubt, mistrust, and inferiority that they were hired not for their expertise, but as a minority quota.

The research finding is consistent with controlled motivation within the SDT, specifically when an individual's motivation is controlled through contingent reward or power dynamics (Deci, Olafsen, & Ryan, 2017). Within the research, participants had a desire to feel valued whether through rewards and promotions, or allotted leadership opportunities provided by management. Some may interpret extrinsic motivation as a negative concept; however Deci, Olafsen, & Ryan (2017) state "that extrinsic rewards can have different functional significances that lead to enhancements, diminishments, or no effects on intrinsic motivation" (p. 21).

Recommendations

Organizations should develop programs that acknowledge employee's accomplishments. Incentive programs should help to motivate employees and boost employee retention. Examples for incentives are: monetary incentives, awards (e.g. certificates or plaques), or name recognition within emails, team meetings, and office publications. These incentives may help for the individual to feel valued within their respective organization. When underrepresented minorities feel their identities are valued within the organization it helps contribute to employee engagement and possibly greater retention.

Research Objective 2: Determine Levels of Organizational Inclusion Based on MANRRS Member and Non-Member Status.

Theme 2: Valued Being Connected to a Network of Mentors

Implications for Practice

When comparing organizational inclusion in MANRRS and non-MANRRS participants there were not a significant difference in scores. However, the generated theme for this research

objective demonstrates that underrepresented minorities valued being connected to a network of mentors, and defined mentorship in similar ways. Within this study mentors taught, guided, and counseled to help eliminate challenges associated with entering a new professional organization. Mentors that shared the same professional interest or demographic characteristics contributed in helping underrepresented minority groups navigate new and unfamiliar environments. Research participants also shared that mentorship helped them feel more confident, as well as more included in a new line of work, until they were able to navigate on their own. Underrepresented minority groups view mentors uniquely, as they are also considered an advocate for the mentee. Mentors often advocated for mentees when opportunities for promotion become available.

Mentors may be the bridge to help a new employee make the transition from novice to expert. Knowing that you have a mentor may offset uncertainty or self-doubt. It may also help offset new employees from leaving positions because of feeling alone without anyone to turn to, which in return saves time and money for professional organizations long-term. High turnover can be quite costly for organizations as they incur costs to recruit and train new hires, as well as decrease productivity. Multiple forms of mentorship were also beneficial, having more than one mentor allowed for one to utilize mentorship strategically in areas they felt needed growth.

Qualitative findings showed that participants who utilized mentorship seemed to demonstrate components within the conceptual framework. These components suggest that if you possess autonomy, competence, and relatedness you will foster decision making power, motivation, and engagement, which results in enhanced performance, persistence, and belongingness.

Recommendations

Organizations should have a formalized mentoring program set up in phases to help new hires transition into their position. The researcher developed how the three phases should be set up:

- Phase 1- The new hire learns about the organizational structure.
- Phase 2- The mentor helps the mentee learn the expectations of the position and how it is best facilitated. Meanwhile, the mentor remains as a resource to the trainee.
- Phase 3- The mentee needs to be prepared to share goals they want to accomplish, a vision for their career path within the organization, and the mentor helps them accomplish these goals. This phase also helps the mentor gain insight into the plan that the mentee has of where they see themselves within the organization.

In the initial stage trainees meet bi-weekly, this timeframe may lessen as they develop within their new position, yet keeping an open door policy as needed. Managers or organizational leaders should work to better understand the mentee's organizational goals so they can pair the mentor and mentee appropriately, that is someone they feel comfortable voicing their concerns with; whether it is concerns regarding their work position, a cultural issue, or a social issue that impacts their work. It is important to pair mentees with someone they can speak openly with, as well as someone that shares their professional interest; this helps to provide a customized approach to mentoring. These mentoring programs may also be more effective if they have a resource book or pamphlet where mentees can refer to as a resource guide. Lastly, mentors need to be trained on how to appropriately mentor individuals from underrepresented minority groups, meaning a systemized program of training so mentors understand what mentoring is and what

they are providing. A systematic training should include cultural awareness and sensitivity. To encourage leaders to become mentors, the organization should support these individuals by providing added bonuses such as paid time off, company recognition, and financial incentives.

Research Objective 3: Determine Levels of Intrinsic Work Motivation Based on MANRRS Member and Non-Member Status.

Theme 3: Based their Motivation on Financial Reward, Having Positive Community Impact, and Becoming a Subject Matter Expert

Implications for Practice

When comparing levels of intrinsic motivation in MANRRS and non-MANRRS participants there was not a significant difference in the scores. The generated theme for this research objective demonstrates that underrepresented minorities based their motivation on financial reward, having positive community impact, and becoming a subject matter expert. This study can serve as a reference to organizations that hire marginalized groups. It is important for organizations to be familiar with what intrinsically motivates marginalized groups if they are to hire and retain more underrepresented minorities. Participants shared that they are intrinsically motivated by having positive community impact, and becoming a subject matter expert. Although financial reward is considered an extrinsic motivator marginalized groups also considered it a major motivator, this may be based on a person's financial obligations. Marginalized groups also received fulfillment from their work when they could see a positive difference within their communities. Some participants wanted to excel or become subject matter experts in their work, and were motivated because they believed this would result in more money and career advancement.

The research finding is consistent with autonomous and controlled motivation within the SDT, specifically participants' demonstrated controlled motivation when they expressed their paychecks as being an incentive for staying within their respective organization. Autonomous motivation which is a product of intrinsic motivation was demonstrated through the participants wanting to become subject matter experts and impact their community positively.

Recommendations

Managers must take the time to understand the factors that intrinsically motivate individuals within underrepresented minority groups. Although there was commonality in what intrinsically motivated individuals within this diverse group each person within an organization has their own unique needs and must be treated as an individual. In order to understand a person's unique needs or intrinsic motivators a manager must take the time to get to know their employees, this can be done by: actively listening to the employee, conducting one-on-ones, or asking genuine questions.

Research Objective 4: Determine Levels of Satisfaction in the Areas of Autonomy, Relatedness, and Competence Based on MANRRS Member and Non-Member Status.

Theme 4: Self-Motivation Contributes to Competence

Implications for Practice

When comparing levels of satisfaction in the areas of autonomy, relatedness, and competence in MANRRS and non-MANRRS participants there was not a significant difference in the scores except in the competence variable. The competence variable was the only area where MANRRS and non-MANRRS affiliates differed with those in MANRRS scoring lower in

competence than those not in MANRRS. The generated theme for this research objective demonstrates that underrepresented minorities believed that self-motivation contributes to competence. Regardless of MANRRS affiliate status, a recurring sentiment was that personal initiative was necessary to support one's own career development process. The self-motivated are more prone to becoming competent because they do not wait for someone to tell them what they should do. Instead they have decided what course they want to take in their career; therefore they seek out mentors, trainings, conferences, and strategies to advance themselves and their career. The implication is that organizations have a responsibility to have in place resources that new employees can utilize to learn and advance in an organization; it should not be a secret as to how one develops themselves within an organization or what one has to do to advance, learn and understand what is needed.

The research finding is consistent with the Self-Determination theory. This theory postulates that the type of motivation one has for their job activities will affect their work performance and psychological well being. Within the research MANRRS participants had less competence, this may be due to MANRRS participants having greater pressure/tension regarding job activities or task. MANRRS participants also had less perceived choice regarding their job activities or task. Conversely, non-MANRRS participants displayed greater competence; this may be due to their ability to have more perceived choice regarding activities and less pressure/tension when involving task and activities.

Recommendations

Organizations should develop a resource guide on ways to develop within the organization. Having an available resource guide will provide employees with pertinent

information on how to progress within the organization. Topics should highlight available trainings within the organization, top conferences to attend, developmental strategies, and a list of job descriptions within the organization. Resource guides should also provide a section designated for new hires, this section should discuss what to do in the first 100 days of being a new hire.

Research Objective 5: Determine Levels of Self-Efficacy Based on MANRRS Member & Non-Member Status.

Theme 5: Valued Reassurance and Acknowledgement

Implications for Practice

When comparing general self-efficacy in MANRRS and non-MANRRS participants there were not a significant difference in scores. However, the generated theme for this research objective demonstrates that underrepresented minorities valued the need for reassurance and acknowledgement. Professional organizations should have in place among managers, supervisors, mentors, or those in leadership positions systematic and formalized feedback for employees, but especially new employees. This feedback and acknowledgement may help to assure employees where they are doing a good job and where they may need more development. The challenges of being a new employee may be fearful and overwhelming; with the nature of new employees generally wanting to be correct in their work and wanting to do a good job. It is the responsibility of organizational leaders to provide feedback and give reassurance. New employees may be stymied and unproductive if working within an environment of uncertainty and fear; providing appropriate feedback in a timely manner may produce an environment free of

these elements. The implication is that receiving reassurance and feedback may build the individuals confidence and result in increased general self-efficacy.

The research finding is consistent with the SDT where autonomously motivated activities are a product of intrinsic motivation. When discussing work activities within an organization, Deci, Olafsen, & Ryan (2017) purport the following:

When individuals understand the worth and purpose of their jobs, feel ownership and autonomy in carrying them out, and receive clear feedback and supports, they are likely to become more autonomously motivated and reliably perform better, learn better, and be better adjusted (p.20).

Qualitative findings showed that participants valued receiving reassurance and acknowledgement as it contributed to an employee knowing where they were doing a good job and where they may need more development.

Recommendations

Employers should be required to provide timely feedback and reassurance to employees however; new hires should receive feedback more frequently than senior employees. Managers or supervisors are encouraged to share stories of their personal achievements or failures to help motivate the individual. The manager or supervisor may also suggest the employee provide their personal feelings/attitude toward how they are completing assignments. Managers should also assign appropriate job demands. Understanding an employee's skills and assigning tasks that are most suitable for the individual may help to reduce failure or underachievement. This in return may generate confidence in the individual's skills as well as increase self-efficacy.

Recommendations for Future Research

While workplace inclusion issues for underrepresented minority groups within the professional agricultural sector were the focus of this research study, challenges with organizational inclusion are not limited to these groups. Across a variety of professional domains, a number of other groups face stigma and marginalization based on gender, sexual orientation and gender expression, religious and cultural identity, or other identity-based characteristics. Exploration into the experiences of these different groups across the professional spectrum may provide additional insight into challenges with organizational inclusion. Comparing relationships between perceived inclusion against other theories that represent motivation, e.g. Optimal Distinctiveness Theory, may also provide deeper understanding in this area. From a research design perspective, the use of a quantitative cross-sectional survey as a data collection method prevented causal relationships of research findings from being drawn. Utilizing a longitudinal and within-subjects design within future research presents the potential to demonstrate cause and effect relationships properly. Finally, future research should pay closer attention to deconstructing unconscious biases or misconceptions as a potential influence on perceived inclusion, as well as identifying employee relationships with supervisors as a potential influence on perceived inclusion.

Summary

Overall, this study served to provide information to fill a gap in literature about organizational inclusion for underrepresented minority groups working within professional agricultural careers. The sample populations for this study were MANRRS and non-MANRRS participants between the years 2013-2018. Both the quantitative and qualitative data within this

study showed that there was no difference between MANRRS and non-MANRRS alumni except satisfaction of the need for competence; however, the MANRRS organization is beneficial to underrepresented minorities in agricultural organizations. Although, MANRRS introduces participants to career readiness skills no one college-level organization can resolve the complex issues related to inclusivity within a professional agricultural organization. Institutional policies must be addressed and underrepresented minorities must be involved in leadership positions to help resolve institutional policies that limit the number of minorities in leadership.

Chapter one began with an introduction to the situational background, an overview of inclusion, the MANRRS (Minorities in Agriculture, Natural Resources, and Related Sciences) organization, and the need for diversity in agriculture. It further addressed the problem, significance, and purpose for the study. Chapter two discussed the MANRRS organization while also providing a description of the Self-Determination Theory. Chapter three reviewed the methodology used within this research study while chapter four provided an analysis and interpretation of the data. Chapter five provided conclusions drawn from the study, recommendations for improving inclusivity within the agriculture sector, and providing suggestions for further research.

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SAGE Publications.

Appendices

Appendix A: Email to MANRRS Chapter Advisors

Subject Line: Request for MANRRS Information for Doctoral Research

Dear <<Name>>,

My name is Jeanette Danielle Barber and I am a doctoral candidate in the Department of Agricultural, Leadership, & Community Education at Virginia Tech University and MANRRS member. I am conducting research for my doctoral dissertation which focuses on comparing the experiences of minority students who participated in the MANRRS organization between 2013-2018 and those who did not, to understand self-perceptions in the following areas:

- Inclusion
- Basic Psychological Needs (Autonomy, Competence, Relatedness)
- General Self Efficacy
- Intrinsic Motivation, and
- A few demographic items regarding your current employment position/status

In order to complete the dissertation, I am asking chapter advisors of the MANRRS organization to please provide a list of members of the MANRRS organization between the years 2013 to 2018.

I would only need the following from you to proceed (preferably in an MS Excel file):

- Participants first and last name
- Email Address

Thanks in advance for your time and consideration in this matter. If you have any questions about this research, please don't hesitate to contact me. It is approved by IRB at Virginia Tech, and I am happy to share more information on the procedures of the study. We plan to collect data this summer.

Sincerely,

Jeanette Danielle Barber, Ph.D. Candidate
Co-Principal Investigator
Email: dbjeane@vt.edu Phone: (919) 265-3122

Curtis Friedel, Ph.D., Associate Professor
Principal Investigator
Email: cfriedel@vt.edu Phone: 540-231-8177

Appendix B: Recruitment Email to Former MANRRS Participants

Email Header – Dissertation Study Recruitment

Sent to former MANRRS Participants

Perceived Inclusion of MANRRS Alumni in Agricultural Organizations: The Relationship between Inclusion, Psychological Needs, & Intrinsic Motivation

Dear <<name>>,

My name is Jeanette Danielle Barber and I am a doctoral candidate in the Department of Agricultural, Leadership, & Community Education at Virginia Tech University. I am conducting research for my doctoral dissertation and would like to invite you to participate in a research study entitled, “*Perceived Inclusion of MANRRS Alumni in Agricultural Organizations: The Relationship between Inclusion, Psychological Needs, & Intrinsic Motivation.*”

In order to complete the dissertation, I need former members of the MANRRS organization between the years 2013 to 2018 to participate. The current study involves the completing of one survey that focuses on the following areas:

- Inclusion
- Basic Psychological Needs (Autonomy, Competence & Relatedness)
- General Self-Efficacy
- Intrinsic Motivation, and
- A few demographic items regarding your current employment position/status

Your responses will be completely anonymous and the entire survey is estimated to take 25 minutes to complete. Although you will not be compensated, your participation in the study will be greatly appreciated.

If you know of any colleagues that might also be willing to participate, please feel free to forward the link to them.

Thanks in advance.

Sincerely,

Jeanette Danielle Barber, Ph.D. Candidate
Co-Principal Investigator
Email: dbjeane@vt.edu Phone: 919-265-3122

Curtis Friedel, Ph.D., Associate Professor
Principal Investigator

Email: cfriedel@vt.edu Phone: 540-231-8177

Appendix C: Recruitment Email to Non-MANRRS Participants

Email Header – Dissertation Study Recruitment

Sent to Control Group

Perceived Inclusion of MANRRS Alumni in Agricultural Organizations: The Relationship between Inclusion, Psychological Needs, & Intrinsic Motivation

Dear <<name>>,

My name is Jeanette Danielle Barber and I am a doctoral candidate in the Department of Agricultural, Leadership, & Community Education at Virginia Tech University. I am conducting research for my doctoral dissertation and would like to invite you to participate in a research study entitled, “*Perceived Inclusion of MANRRS Alumni in Agricultural Organizations: The Relationship between Inclusion, Psychological Needs, & Intrinsic Motivation.*”

In order to complete the dissertation, I need minorities who are not affiliated with MANRRS and currently work in agricultural careers; in order to compare the experiences of minorities who participated in the MANRRS organization against those who did not. The current study involves the completing of one survey that focuses on the following areas:

- Inclusion
- Basic Psychological Needs (Autonomy, Competence & Relatedness)
- General Self-Efficacy
- Intrinsic Motivation, and
- A few demographic items regarding your current employment position/status

Your responses will be completely anonymous and the entire survey is estimated to take 25 minutes to complete. Although you will not be compensated, your participation in the study will be greatly appreciated.

If you know of any colleagues that might also be willing to participate, please feel free to forward the link to them.

Thanks in advance.

Sincerely,

Jeanette Danielle Barber, Ph.D. Candidate
Co-Principal Investigator
Email: dbjeane@vt.edu Phone: 919-265-3122

Curtis Friedel, Ph.D., Associate Professor

Principal Investigator

Email: cfriedel@vt.edu Phone: 540-231-8177

Appendix D: Interview Recruitment Email to MANRRS & Non-MANRRS Participants

Email Subject Line – Interview Recruitment for Dissertation Study

Hi <<name>>,

My name is Jeanette Danielle Barber and I am a doctoral candidate in the Department of Agricultural, Leadership, & Community Education at Virginia Tech University. You had recently completed an online survey for my dissertation and I would like to follow up with additional questions. This is a second phase of my study, entitled, “*Perceived Inclusion of MANRRS Alumni in Agricultural Organizations: The Relationship between Inclusion, Psychological Needs, & Intrinsic Motivation*” and would like you to participate.

To complete phase two, 13 former MANRRS participants and 13 non-MANRRS participants who have completed the online “perceived inclusion survey” and indicated high levels of insider status in their respective work organization will be interviewed. The purpose of this interview is to get a richer understanding of your online responses relating to the following areas:

- Inclusion
- Basic Psychological Needs (Autonomy, Competence & Relatedness)
- General Self-Efficacy, and
- Intrinsic Motivation

Telephone interviews will be completely confidential and are estimated to take 30 minutes to complete. Although you will not be compensated, your participation in the study will be greatly appreciated.

Thanks in advance.

For more information please contact:

Jeanette Danielle Barber, Ph.D. Candidate
Co-Principal Investigator
Email: dbjeane@vt.edu Phone: 919-265-3122

Curtis Friedel, Ph.D., Associate Professor
Principal Investigator
Email: cfriedel@vt.edu Phone: 540-231-8177

This study is approved by Virginia Tech IRB #: 19-050.

Appendix E: Interest in Research Participation

Email Subject Line – Interest in Research Participation

Dear <<name>>,

My name is Danielle Barber and I am a doctoral candidate in the Department of Agricultural, Leadership, & Community Education at Virginia Tech University. I would like to invite you to participate in my IRB-approved research study titled *Perceived Inclusion of MANRRS Alumni in Agricultural Organizations: The Relationship between Inclusion, Psychological Needs, & Intrinsic Motivation*.

My research focuses on understanding relationships between basic psychological needs and motivation amongst underrepresented minorities who participated in the collegiate organization known as MANRRS (Minorities in Agriculture, Related Sciences, & Natural Resources) between the years 2013-2018, to understand what motivating factors work best to improve feelings of inclusivity when working in an agricultural career.

In order to complete the dissertation, I need research study participants from underrepresented backgrounds (African & African American/Black, Hispanic/Latino, Asian, Native Hawaiian/Pacific Islander, Mixed Heritage, and American Indian/Alaskan Native) who were affiliated with MANRRS while in college between the years 2013 to 2018, and currently work in professional agricultural careers (e.g. Careers at Food & Agribusiness Companies, Agro Science Companies, United States Department of Agriculture, United States Forest Service, Cooperative Extension Service, etc.). Underrepresented minorities who were not affiliated with MANRRS during their undergraduate studies and now work in agricultural careers are also needed, in order to compare the experiences of minorities who participated in the MANRRS organization against those who did not. The current study involves the completing of one survey that focuses on the following areas:

- Inclusion
- Basic Psychological Needs (Autonomy, Competence & Relatedness)
- General Self-Efficacy
- Intrinsic Motivation, and
- A few demographic items regarding your current employment position/status

Your responses will be completely anonymous and the entire survey is estimated to take 25 minutes to complete. Although you will not be compensated, your participation in the study will be greatly appreciated.

If you agree to participate, a Qualtrics link will be provided via email. **Please email me at dbjeane@vt.edu for a link to the survey.** If you know of any colleagues that might also be willing to participate, please feel free to forward this email to them. **The link to the survey will be sent via email to all participants September 24th.**

Sincerely,

Jeanette Danielle Barber, Ph.D. Candidate
Co-Principal Investigator
Email: dbjeane@vt.edu Phone: 919-265-3122

Curtis Friedel, Ph.D., Associate Professor
Principal Investigator
Email: cfriedel@vt.edu Phone: 540-231-8177

Appendix F: Research Participant Consent Form

Research Participant Consent Form

The first screen of the survey will include the following text:

Informed Consent

Perceived Inclusion of MANRRS Alumni in Agricultural Organizations: The Relationship between Inclusion, Psychological Needs, & Intrinsic Motivation

Please take time to review this information carefully. This is a research study. Your participation in this study is completely voluntary and the findings are anonymous. You are free to withdraw from the study at any time without penalty. Subjects may also choose not to answer any particular question. If you consent to completing the survey, any identifiers to you will be removed from the data and not be shared. No compensation will be offered for participating in this study.

This online survey is estimated to take 25 minutes to complete.

Survey questions will revolve around your thoughts on inclusion, motivation, self-efficacy and psychological needs, as well as selected demographic information. This study poses limited risk to participants, and the findings hope to understand what characteristics or factors might contribute to improving feelings of inclusion when entering careers in agriculture. This study is being led by Dr. Curtis Friedel, Associate Professor in the Department of Agricultural, Leadership, & Community Education at Virginia Tech, along with the assistance of a current Ph.D. Candidate at Virginia Tech. Results will be used for a dissertation and publication.

Please let us know if you have any questions and thank you for considering this request,

Jeanette Danielle Barber, Ph.D. Candidate
Co-Principal Investigator
Email: dbjeane@vt.edu Phone: 919-265-3122

Curtis Friedel, Ph.D., Associate Professor
Principle Investigator
Email: cfriedel@vt.edu Phone: 540-231-8177

This research has been reviewed and approved by the Virginia Tech Institutional Review Board (IRB). You may talk to them at 540-231-3732 or irb@vt.edu if:

- You have questions about your rights as a research subject.
- Your questions, concerns, or complaints are not being answered by the research team.

- You cannot reach the research team.
- You want to talk to someone besides the research team to provide feedback about this research.

Please reference IRB #19-050 when discussing this research with the IRB office.

If you consent to being included in the study, please indicate this by clicking the appropriate button below.

Yes, I consent.

No, I do not consent.

Appendix G: Example of Perceived Insider Status Scale (PIS Scale)

Example of Perceived Insider Status Scale (PIS Scale)

Instructions: “Please use the following scale in responding to the item:

1=*strongly disagree*, 2=*disagree*, 3=*neutral*, 4=*agree*, 5=*strongly agree*”

1. “I feel very much a part of my work organization”.
 2. “My work organization makes me believe that I am included in it”.
 3. “I feel like I am an ‘outsider’ at this organization”. (R)
 4. “I think of myself as being ‘in the middle of things’ in my workplace”.
 5. “This organization makes me feel as if I matter here”.
 6. “I don’t feel included in this organization”. (R)
 7. “When I think of this organization, I think of myself as being on the periphery”. (R)
 8. “I feel I am an ‘insider’ in my work organization”.
 9. “My work organization makes me frequently feel left out”. (R)
 10. “I view myself as being on the fringes in this organization”.
-

Note. A demarcation of (R) indicates the item was reversed-coded.

Questionnaire from:

Stamper, C. L., & Masterson, S. S. (2002). Insider or outsider? How employee perceptions of insider status affect their work behavior. *Journal of Organizational Behavior*, 23, 875-894.

doi:10.1002/job.175

Appendix H: Example of Intrinsic Motivation Inventory (IMI)

Example of Intrinsic Motivation Inventory (IMI)

Instructions: “For each of the following statements, please indicate how true it is for you, using the following scale:

1	2	3	4	5	6	7
<i>not at all true</i>		<i>somewhat true</i>				<i>very true</i> ”

Interest/Enjoyment

1. “I enjoyed doing this activity very much”
2. “This activity was fun to do”.
3. “I thought this was a boring activity”. (R)
4. “This activity did not hold my attention at all”. (R)
5. “I would describe this activity as very interesting”.
6. “I thought this activity was quite enjoyable”.
7. “While I was doing this activity, I was thinking about how much I enjoyed it”.

Perceived Competence

1. “I think I am pretty good at this activity”
2. “I think I did pretty well at this activity, compared to other students”.
3. “After working at this activity for awhile, I felt pretty competent”.
4. “I am satisfied with my performance at this task”.
5. “I was pretty skilled at this activity”.
6. “This was an activity that I couldn’t do very well”. (R)

Effort/Importance

1. “I put a lot of effort into this”.
2. “I didn’t try very hard to do well at this activity”. (R)
3. “I tried very hard on this activity”.
4. “It was important to me to do well at this task”.
5. “I didn’t put much energy into this”. (R)

Pressure/Tension

1. “I did not feel nervous at all while doing this”. (R)
2. “I felt very tense while doing this activity”.
3. “I was very relaxed in doing these”. (R)
4. “I was anxious while working on this task”.
5. “I felt pressured while doing these”.

Perceived Choice

1. "I believe I had some choice about doing this activity".
2. "I felt like it was not my own choice to do this task". (R)
3. "I didn't really have a choice about doing this task". (R)
4. "I felt like I had to do this". (R)
5. "I did this activity because I had no choice". (R)
6. "I did this activity because I wanted to".
7. "I did this activity because I had to". (R)

Value/Usefulness

1. "I believe this activity could be of some value to me".
2. "I think that doing this activity is useful for" _____
3. "I think this is important to do because it can" _____
4. "I would be willing to do this again because it has some value to me".
5. "I think doing this activity could help me to" _____
6. "I believe doing this activity could be beneficial to me".
7. "I think this is an important activity".

Relatedness

1. "I felt really distant to this person". (R)
2. "I really doubt that this person and I would ever be friends". (R)
3. "I felt like I could really trust this person".
4. "I'd like a chance to interact with this person more often".
5. "I'd really prefer not to interact with this person in the future". (R)
6. "I don't feel like I could really trust this person". (R)
7. "It is likely that this person and I could become friends if we interacted a lot".
8. "I feel close to this person".

Note. A demarcation of (R) indicates the item was reverse-coded.

Interest/Enjoyment: 1, 6, 20(R), 31(R), 2, 26, 17

Perceived Competence: 36, 27, 3, 32, 18, 4(R)

Effort/Importance: 19, 5(R), 16, 23, 7(R)

Pressure/Tension: 10(R), 30, 14(R), 35, 44

Perceived Choice: 37, 8(R), 39(R), 22(R), 34(R), 11, 24(R)

Value/Usefulness: 45, 15, 43, 28, 42, 9, 41

Relatedness: 13(R), 25(R), 33, 12, 38(R), 21(R), 40, 29

Questionnaire from:

Intrinsic Motivation Inventory (IMI). (2020). Center for Self-Determination Theory. Retrieved February 4, 2019, from <https://selfdeterminationtheory.org/intrinsic-motivation-inventory/>

Appendix I: Example of Basic Psychological Need Satisfaction at Work Scale (BPNWS)

Example of Basic Psychological Need Satisfaction at Work Scale (BPNWS)

Instructions: "Please use the following scale in responding to the items:

1	2	3	4	5	6	7
<i>not at all true</i>			<i>somewhat true</i>			<i>very true</i>

1. "I feel like I can make a lot of inputs to deciding how my job gets done".
2. "I really like the people I work with".
3. "I do not feel very competent when I am at work".
4. "People at work tell me I am good at what I do".
5. "I feel pressured at work".
6. "I get along with people at work".
7. "I pretty much keep to myself when I am at work".
8. "I am free to express my ideas and opinions on the job".
9. "I consider the people I work with to be my friends".
10. "I have been able to learn interesting new skills on my job".
11. "When I am at work, I have to do what I am told".
12. "Most days I feel a sense of accomplishment from working".
13. "My feelings are taken into consideration at work".
14. "On my job I do not get much of a chance to show how capable I am".

15. “People at work care about me”.
16. “There are not many people at work that I am close to”.
17. “I feel like I can pretty much be myself at work”.
18. “The people I work with do not seem to like me much”.
19. “When I am working I often do not feel very capable”.
20. “There is not much opportunity for me to decide for myself how to go about my work”.
21. “People at work are pretty friendly towards me”.

Note. A demarcation of (R) indicates the item was reverse-coded.

Questionnaire from:

Deci, E. L., Ryan, R. M., Gagne, M., Leone, D. R., Usunov, J. & Kornazheva, B. P. (2001). Need Satisfaction, motivation, and well-being in the work organizations of a former Eastern Bloc country: A cross-cultural study of self-determination. *Personality and social psychology bulletin*, 27, 930-942.

Appendix J: Example of General Self-Efficacy Scale (GSE Scale)

Example of General Self-Efficacy Scale (GSE Scale)

Instructions: "Please use the following scale in responding to the item:

1=not at all true, 2=hardly true, 3=moderately true, 4=exactly true"

1. "I can always manage to solve difficult problems if I try hard enough".
 2. "If someone opposes me, I can find the means and ways to get what I want".
 3. "It is easy for me to stick to my aims and accomplish my goals".
 4. "I am confident that I could deal efficiently with unexpected events".
 5. "Thanks to my resourcefulness, I know how to handle unforeseen situations".
 6. "I can solve most problems if I invest the necessary effort".
 7. "I can remain calm when facing difficulties because I can rely on my coping abilities".
 8. "When I am confronted with a problem, I can usually find several solutions".
 9. "If I am in trouble, I can usually think of a solution".
 10. "I can usually handle whatever comes my way".
-

Note. A demarcation of (R) indicates the item was reverse-coded.

Questionnaire from:

Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston, Measures in health psychology: A user's portfolio. Causal and control beliefs (pp. 35-37). Windsor, UK: NFER-NELSON.

Appendix K: IRB Approval Letter



Division of Scholarly Integrity and
 Research Compliance
 Institutional Review Board
 North End Center, Suite 4120 (MC 0497)
 300 Turner Street NW
 Blacksburg, Virginia 24061
 540/231-3732
 irb@vt.edu
<http://www.research.vt.edu/sirc/hrpp>

MEMORANDUM

DATE: April 23, 2019
TO: Curtis R Friedel, Danielle Barber
FROM: Virginia Tech Institutional Review Board (FWA00000572, expires January 29, 2021)
PROTOCOL TITLE: PERCEIVED INCLUSION OF MANRRS ALUMNI IN AGRICULTURAL ORGANIZATIONS: THE RELATIONSHIP BETWEEN INCLUSION, PSYCHOLOGICAL NEEDS, & INTRINSIC MOTIVATION
IRB NUMBER: 19-050

Effective April 23, 2019, the Virginia Tech Human Research Protection Program (HRPP) and Institutional Review Board (IRB) determined that this protocol meets the criteria for exemption from IRB review under 45 CFR 46.104(d) category(ies) 2(i),2(ii).

Ongoing IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities impact the exempt determination, please submit a new request to the IRB for a determination.

This exempt determination does not apply to any collaborating institution(s). The Virginia Tech HRPP and IRB cannot provide an exemption that overrides the jurisdiction of a local IRB or other institutional mechanism for determining exemptions.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

<https://secure.research.vt.edu/external/irb/responsibilities.htm>

(Please review responsibilities before beginning your research.)

PROTOCOL INFORMATION:

Determined As: **Exempt, under 45 CFR 46.104(d) category(ies) 2(i),2(ii)**
 Protocol Determination Date: **April 23, 2019**

ASSOCIATED FUNDING:

The table on the following page indicates whether grant proposals are related to this protocol, and which of the listed proposals, if any, have been compared to this protocol, if required.

Invent the Future

Date*	OSP Number	Sponsor	Grant Comparison Conducted?

* Date this proposal number was compared, assessed as not requiring comparison, or comparison information was revised.

If this protocol is to cover any other grant proposals, please contact the HRPP office (irb@vt.edu) immediately.

Appendix L: Verbal Consent Script

Verbal Consent Script

I am Danielle Barber, from Virginia Tech University within the Agricultural, Leadership, and Community Education department; working on my dissertation. I am conducting a research study on understanding relationships between basic psychological needs and motivation amongst underrepresented minorities who participated in the collegiate organization known as MANRRS (Minorities in Agriculture, Natural Resources, & Related Sciences). The research will help me understand what motivating factors work best to improve feelings of inclusivity when working in an agricultural career.

Today you will be participating in a phone interview, which is estimated to take 30 minutes to complete. Your participation is voluntary. If you do not wish to participate, you may stop at any time. Responses will be completely anonymous; your name will not appear anywhere in the final write up; and I will assign you a pseudonym in order to maintain confidentiality. There are minimal risks associated with this research study. Taking part in this phone interview requires all activity to be audio recorded. All audio recordings will be transcribed and false names will be used for your name and for the names of any other people who you mention. Any other information in the audio recording that could potentially identify you or anyone you mention will also be altered during the transcription process.

If you would like a copy of this letter for your records, please let me know and I will give you a copy via email. If you have any questions regarding the research, please let me know, or contact Dr. Curtis Friedel, principal investigator at cfriedel@vt.edu, or 540-231-8177. If you have any questions regarding any other aspect of the study, please contact the HRPP office at irb@vt.edu.

Do you have any questions?

After reading the consent form and the conditions associated with this study, do you hereby acknowledge the above and give voluntary consent? If yes, please respond by saying “yes, I give my consent”. If no, please respond by saying “no, you do not receive my consent”.