

An Assessment of the Relationship Between Workplace Inclusion and Employee
Engagement Among State of Michigan Employees

A Dissertation submitted to
the Graduate School
Valdosta State University

in partial fulfillment of the requirements
for the degree of

DOCTOR OF PUBLIC ADMINISTRATION

in Public Administration

in the Department of Political Science
of the College of Humanities & Social Sciences

March 2023

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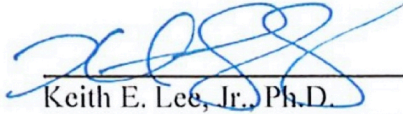
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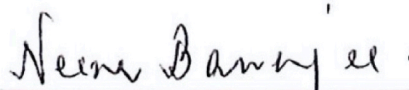


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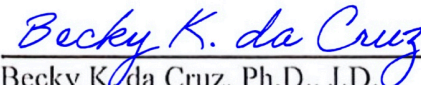


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Abstract

Workplace inclusion and employee engagement are important issues for all organizations. Employers invest significant resources to improve the work environment, yet a considerable number of employees feel excluded or isolated, and the vast majority are disengaged with their work (Gallup, 2022; Hagel et al., 2017; Twaronite, 2019). Studies continue to demonstrate positive individual and organizational outcomes associated with inclusive workplaces and a fully engaged workforce (Harter et al., 2006; Lavigna, 2013; Macey et al., 2009; Pleasant, 2017; U.S. Merit Systems Protection Board, 2008; Vohra et al. 2015). Still, the extent to which workplace inclusion serves as an antecedent of employee engagement is unclear. Based on the analysis of secondary data from six employee engagement surveys conducted among State of Michigan (SOM) employees between 2012 and 2020, this research sought to ascertain whether a positive relationship exists between workplace inclusion and employee engagement. The results indicated a weak relationship (positive and negative) between the two variables with varying levels of statistical significance. These findings failed to provide support that increasing sentiments on the inclusivity of the work environment will lead to higher individual or collective rates of employee engagement. Nevertheless, this research added context to the extant literature on workplace inclusion and employee engagement while offering practical analysis and recommendations concerning public sector efforts to enhance the employee experience and foster an inclusive environment where all employees can thrive.

Keywords: workplace inclusion, employee engagement, employee survey, public sector, Michigan

Table of Contents

Chapter I Introduction.....	1
Importance of the Topic.....	5
Contribution	8
Problem Statement and Research Questions.....	9
Chapter II Review of Literature.....	12
Workplace Inclusion	12
Employee Engagement	16
Prior Research on the Topic.....	21
Theoretical Basis for the Research	22
Literature Review Summary	26
Chapter III Methodology	27
Study Site Background	28
Data.....	29
Survey Population and Participation Rates.....	32
Dependent Variable	36
Independent Variable	37
Analytic Strategy	38
Limitations	40
Contributions to Knowledge.....	41
IRB Exemption, Data Access, and Storage	41
Methodology Summary	42
Chapter IV Results.....	43

Survey Results and Descriptive Statistics.....	43
Dependent Variable: Employee Engagement.....	43
Independent Variable: Workplace Inclusion	52
Correlation Analysis: Survey Questions.....	60
Cronbach’s alpha	62
Principal Components Analysis.....	63
Correlation Analyses: Factor Scores.....	66
Hypothesis 1.....	66
Hypothesis 2.....	67
Results Summary	69
Chapter V Discussion	71
Data Analysis.....	72
Research Question and Hypotheses	72
Interpretation of the Findings.....	73
Theoretical Implications	74
Methodological Implications	76
Longitudinal Findings and Practical Implications	79
Assumptions and Limitations of the Study.....	87
Assumptions.....	87
Limitations	88
Recommendations.....	90
Recommendations for Public Sector Practitioners	91
Recommendations for Future Academic Research.....	92

Key Takeaways.....	95
Conclusion	97
Afterword.....	99
References.....	100
Appendix A: State of Michigan Freedom of Information Act (FOIA) Responses.....	122
Appendix B: Engagement and Inclusion Questions and Abbreviations.....	126
Appendix C: VSU Institutional Review Board Exemption Report	128
Appendix D: Correlation Matrices for Engagement and Inclusion Survey	
Questions.....	130
Appendix E: Spearman’s Rank-Order Correlation of Factor Scores by State	
Agency	137

List of Tables

Table 1 <i>An Overview of the Research</i>	11
Table 2 <i>SOM Employee Engagement Survey Details 2012-2020</i>	30
Table 3 <i>SOM Employee Engagement Survey Participation Rates 2012-2020</i>	34
Table 4 <i>Survey Responses – Engagement Question #1</i>	46
Table 5 <i>Survey Responses – Engagement Question #2</i>	47
Table 6 <i>Survey Responses – Engagement Question #3</i>	48
Table 7 <i>Survey Responses – Engagement Question #4</i>	49
Table 8 <i>Survey Responses – Engagement Question #5</i>	50
Table 9 <i>Survey Responses – Engagement Question #6</i>	51
Table 10 <i>Survey Responses – Inclusion Question #1</i>	55
Table 11 <i>Survey Responses – Inclusion Question #2</i>	56
Table 12 <i>Survey Responses – Inclusion Question #3</i>	57
Table 13 <i>Survey Responses – Inclusion Question #4</i>	58
Table 14 <i>Survey Responses – Inclusion Question #5</i>	59
Table 15 <i>Spearman's Rank-Order Correlation of Survey Questions (Statewide)</i>	
<i>2012-2020</i>	61
Table 16 <i>Cronbach's alpha Coefficients</i>	62
Table 17 <i>2012 SOM Survey: Rotated Component Matrix for PCA with Varimax</i>	
<i>Rotation</i>	64
Table 18 <i>2013 SOM Survey: Rotated Component Matrix for PCA with Varimax</i>	
<i>Rotation</i>	64
Table 19 <i>2015 SOM Survey: Rotated Component Matrix for PCA with Varimax</i>	

<i>Rotation</i>	65
Table 20 <i>2017 SOM Survey: Rotated Component Matrix for PCA with Varimax</i>	
<i>Rotation</i>	65
Table 21 <i>2018 SOM Survey: Rotated Component Matrix for PCA with Varimax</i>	
<i>Rotation</i>	66
Table 22 <i>2020 SOM Survey: Rotated Component Matrix for PCA with Varimax</i>	
<i>Rotation</i>	66
Table 23 <i>Spearman's Rank-Order Correlation of Factor Scores (Statewide)</i>	
2012-2020	67
Table 24 <i>Spearman's Rank-Order Correlation of Factor Scores (Selected Agencies)</i>	
2012-2020	69
Table 25 <i>2018 SOM Survey: Change in Favorable Responses for Selected</i>	
<i>Questions</i>	80
Table 26 <i>Engagement and Inclusion Questions and Abbreviations</i>	127
Table 27 <i>2012 SOM Survey: Spearman's Rank-Order Correlation of Survey</i>	
<i>Questions (Statewide)</i>	131
Table 28 <i>2013 SOM Survey: Spearman's Rank-Order Correlation of Survey</i>	
<i>Questions (Statewide)</i>	132
Table 29 <i>2015 SOM Survey: Spearman's Rank-Order Correlation of Survey</i>	
<i>Questions (Statewide)</i>	133
Table 30 <i>2017 SOM Survey: Spearman's Rank-Order Correlation of Survey</i>	
<i>Questions (Statewide)</i>	134
Table 31 <i>2018 SOM Survey: Spearman's Rank-Order Correlation of Survey</i>	

<i>Questions (Statewide)</i>	135
Table 32 2020 SOM Survey: <i>Spearman's Rank-Order Correlation of Survey</i>	
<i>Questions (Statewide)</i>	136
Table 33 2012 SOM Survey: <i>Spearman's Rank-Order Correlation of Factor</i>	
<i>Scores by Agency</i>	138
Table 34 2013 SOM Survey: <i>Spearman's Rank-Order Correlation of Factor</i>	
<i>Scores by Agency</i>	139
Table 35 2015 SOM Survey: <i>Spearman's Rank-Order Correlation of Factor</i>	
<i>Scores by Agency</i>	140
Table 36 2017 SOM Survey: <i>Spearman's Rank-Order Correlation of Factor</i>	
<i>Scores by Agency</i>	141
Table 37 2018 SOM Survey: <i>Spearman's Rank-Order Correlation of Factor</i>	
<i>Scores by Agency</i>	142
Table 38 2020 SOM Survey: <i>Spearman's Rank-Order Correlation of Factor</i>	
<i>Scores by Agency</i>	143

List of Figures

Figure 1 <i>Trend Analysis: Percentage of Favorable Responses to Engagement</i>	
<i>Question</i>	45
Figure 2 <i>Relative Frequency Distribution – Engagement Question #1</i>	46
Figure 3 <i>Relative Frequency Distribution – Engagement Question #2</i>	47
Figure 4 <i>Relative Frequency Distribution – Engagement Question #3</i>	48
Figure 5 <i>Relative Frequency Distribution – Engagement Question #4</i>	49
Figure 6 <i>Relative Frequency Distribution – Engagement Question #5</i>	50
Figure 7 <i>Relative Frequency Distribution – Engagement Question #6</i>	51
Figure 8 <i>Trend Analysis: Percentage of Favorable Responses to Inclusion</i>	
<i>Questions</i>	53
Figure 9 <i>Relative Frequency Distribution – Inclusion Question #1</i>	55
Figure 10 <i>Relative Frequency Distribution – Inclusion Question #2</i>	56
Figure 11 <i>Relative Frequency Distribution – Inclusion Question #3</i>	57
Figure 12 <i>Relative Frequency Distribution – Inclusion Question #4</i>	58
Figure 13 <i>Relative Frequency Distribution – Inclusion Question #5</i>	59

Acknowledgements

The completion of this dissertation and my doctoral degree is the culmination of an extraordinary educational journey and the fulfilment of a lifelong dream that has been nurtured by so many individuals in my life. I humbly acknowledge that I did not get here on my own; rather, I have been truly blessed with family, friends, teachers, colleagues, mentors, and countless others who have generously supported me. I cannot thank everyone in this space, but please know that you are cherished and forever in my heart.

I want to express my sincere appreciation to the members of my dissertation committee – Dr. Keith Lee (my committee chair), Dr. James LaPlant, and Dr. Neena Banerjee. You have provided invaluable contributions which have enriched this project and enhanced my abilities as a researcher. Thank you for your patience and for your guidance throughout this process. Likewise, I am appreciative for Dr. Kathleen Lowney, who served as my editor and helped smooth out the rough edges of my manuscript.

I also want to acknowledge a few of my classmates from the 2017 DPA cohort. Dr. Jessica Velasco, Dr. Justin Ward, and Dr. Gary Gordon all preceded me in completing the DPA program but have been part of my support network since our very first residency weekend in Valdosta, GA. I am grateful for your advice and counsel throughout the dissertation process, and I am fortunate to count you as close friends. I also want to thank soon-to-be Dr. Aaron Blair, my good friend from “north of the border.” You have been a true partner in this journey, and I will never forget our regular Zoom calls which were a source of commiseration and reassurance. I also relished the discussions about our respective Detroit and Toronto-based sports teams. This was always a welcome distraction and stress reliever from the ongoing writing and editing.

In addition, this project would not have come to fruition without the initial support of my former colleagues within the Michigan Department of Technology, Management, and Budget. Jeff Bankowski, John Fitzpatrick, James Willems, and Michael Zingsheim provided tremendous insight and data analysis which contributed to my prior research on Michigan’s employee engagement program. Your work sparked my own research interests and helped me to develop a dissertation topic that was professionally relevant and personally meaningful.

Most of all, my doctoral journey would not have been possible without the unconditional love and support of my family. To my parents, Adell and Claudria Flourry and my late father Michael Brown, thank you for instilling in me a love of learning and for the countless sacrifices which enabled me to pursue and achieve this goal. To my parents-in-love, Henry and Shirley Tindal, thank you for your constant prayers and encouragement. To my son Owen, thank you for the little kindnesses that always lifted my spirits and thank you for understanding when my studies prevented us from doing some of the fun activities that we enjoy together. I pray that my accomplishment will inspire your own educational growth and pursuit of knowledge. You are already our little scholar and I know that God has so much more in store. And to my best friend and loving wife, Dr. Margaret A. Brown, thank you doesn’t seem adequate to express the fullness of my gratitude. You were my motivation for embracing doctoral study, and you have held my hand and walked by my side each step of the way. Your love has made all the difference; keeping me focused on the tasks at hand and always pointing me toward my true north. I love you and thank God for you. Here's to our next great adventure!

Dedication

I dedicate this work to the memory of my family members who have exchanged time for eternity. I am privileged to stand upon their shoulders. I also dedicate this work to my wife, Margaret, and my son Owen. You both mean the world to me, and I couldn't have done this without you. Most of all, this work is dedicated to the greater glory of God.

Ad Majorem Dei Gloriam

Chapter I

Introduction

An organization is positioned for success when its employees have a positive connection with their employer, experience a sense of belonging within their workplace, and find meaningfulness and fulfillment in their job. Inclusive workplaces are associated with greater organizational performance, innovation, and collaboration (Pleasant, 2017; Vohra et al. 2015). Similarly, organizations with higher levels of employee engagement realize positive outcomes, including enhanced productivity, service delivery, retention, and customer satisfaction (Harter et al., 2006; Lavigna, 2013; Macey et al., 2009; U.S. Merit Systems Protection Board, 2008). Workplace inclusion and employee engagement are topics that have grown in significance within organizational leadership and management; however, achieving an inclusive and engaged workforce is no easy task.

Researchers at Cigna (2018) found that more than 40% of individuals felt physically and emotionally isolated at work (Twaronite, 2019), and the Gallup Organization (2022) found that 11% of employees (globally) reported not being treated with respect at work. According to the Center for Talent Innovation, 63% of Latino individuals did not feel welcome and included in the workplace (Jain-Link et al., 2020). These individuals also felt they could not share ideas and would not be respected and valued by colleagues. Similarly, 46% of African American women felt their ideas were not recognized or acknowledged and reported feeling invisible in the workplace (Jain-

Link et al., 2020). Feelings of exclusion at work tend to be higher among women and minorities, but the sentiments are not exclusive to these demographics. An employee's sense of inclusion and belonging can be impacted by their generation, sexual orientation, nationality, parental status, political alignment, and job classification (Kennedy & Jain-Link, 2020; Smith & Yoshino, 2013; Twaronite, 2019). A lack of workplace inclusion is problematic for any organization. Not only does the employer fail to realize the benefits in organizational performance that can result from an inclusive environment, but individuals who are isolated or ostracized may engage in sabotaging behaviors (Carr et al., 2019). Most striking, social isolation (whether perceived or actual) and feeling excluded or ignored can have a detrimental impact on the physical and mental health of the individual (Clair et al., 2021; O'Reilly et al., 2015).

Moreover, the vast majority of employees are apathetic about their work or detached from their workplace. The latest research from Gallup (2022) indicated that only 21% of employees globally are engaged or connected with their work. Global employee engagement has gradually increased over the past decade (up from 12% in 2009), but the current rate of engagement reflects a 1% decline from 2019. In the U.S., 32% of employees are engaged with their work, and though this number has moderately increased (up from 28% in 2009), the current rate reflects a 4% decline from 2020 (Harter, 2023). These figures paint a dismal picture of the global and domestic workforce even as organizations invest significant resources to measure and improve employee engagement. Deloitte estimated that U.S. businesses spent over \$1 billion on employee engagement and more than \$100 billion on training and development activities to improve engagement (Hagel et al., 2017). These are sizable figures, but by contrast,

Hagel et al. (2017) estimated that disengagement (as measured by a lack of innovation, productivity, and organizational change) costs \$8.1 trillion in the global economy.

Among public sector organizations, levels of inclusion and engagement are typically lower than the private sector (CPS HR Institute for Public Sector Employee Engagement [CPSHR-IPSEE], 2017). According to a 2016 survey by CPS HR Consulting's Institute for Public Sector Employee Engagement, approximately 38% of government employees were considered to be "fully engaged" compared to 44% in the private sector. Within the public sector, the percentage of fully engaged employees ranged from 29% in state government, to 34% in the federal government, and 44% in local government (CPSHR-IPSEE, 2017). When employees considered to be "somewhat engaged" were included in the total, government had an overall engagement score of 78% compared to 79% in the private sector (CPSHR-IPSEE, 2017). It is worth noting that the public sector had lower rates on other indicators of engagement and inclusion such as feeling valued (67% government; 72% private sector), feeling that employee opinions matter (69% government; 72% private sector), and feeling that new ideas are supported (64% government; 70% private sector) (CPSHR-IPSEE, 2017). State government scores for these indicators were generally lower than the overall government average. The only area where the public sector out-performed the private sector was in feeling that the organization supported a diverse workplace (80% government; 76% private sector) (CPSHR-IPSEE, 2017).

Another measure of public sector employee engagement can be found in the Partnership for Public Service's annual *Best Places to Work in the Federal Government* survey. The 2021 rankings found that the U.S. federal government lagged behind the

private sector on measures of employee engagement (Partnership for Public Service, 2022). Based on employee satisfaction with their job and organization as measured in the 2021 Federal Employee Viewpoint Survey (FEVS), the federal government had an engagement score of 64.5 points out of 100, compared to the private sector, which had an engagement score of 79.1 points out of 100 (Partnership for Public Service, 2022). The 2021 FEVS also indicated that the federal government had lower levels of agreement on employee satisfaction with involvement in decision-making, communication from leadership, and receiving recognition from their employer (United States Office of Personnel Management, 2021).

Considering that workplace inclusion and employee engagement produce similar benefits for organizations, it is rational to assume that the two variables are complementary or even reciprocal in nature. Yet, the extent to which these variables relate warrants further research (Downey et al., 2014; Ohemeng & McGrandle, 2021; Settles, 2016). Much of the literature on these topics focuses on private sector organizations and the business case for cultivating an environment of inclusion and engagement, but it is arguable that such a workplace is even more critical in the public sector. The complexities and challenges of public service require a workforce that reflects and welcomes different perspectives and experiences. Likewise, when public sector organizations achieve the benefits of an engaged workforce, there are societal benefits as well (i.e., public services, programs, and policies are developed and implemented more efficiently and effectively). Lastly, while there have been studies that examine public sector employee engagement within the U.S. federal government, there are few comparable studies at the state level. Such research could be very insightful and

instructive, given that states are often considered the laboratories of democracy and provide more direct services to citizens than the federal government.

This line of inquiry served as the foundation for this research study, which assessed whether a positive relationship exists between workplace inclusion and employee engagement. This question was explored within the context of the public sector workforce by examining the relationship between the two variables among State of Michigan (SOM) employees. The study expanded the current literature on antecedents of employee engagement and provided additional perspective about fostering an inclusive workplace within Michigan state government and public sector organizations more broadly.

Importance of the Topic

Workplace inclusion and employee engagement are important to various fields of study such as psychology, business, management, and public administration. These topics are regularly covered in scholarly journals and practitioner-focused publications alike. In a more practical sense, organizations are not only investing resources to improve employee engagement but also to improve diversity, equity, and inclusion (DEI) within their workplaces (Green, 2021; Hagel et al., 2017; Hewlett, 2007; Minor, 2021). Existing literature documents that employee engagement is associated with positive outcomes for the organization, and the public sector recognizes that quality service delivery is intertwined with the engagement or disengagement of its workforce (Brown, 2019, 2021; Harter, 2018; Sorenson, 2013). Similarly, inclusive workplaces stimulate innovation, promote teamwork, engender a willingness to go above and beyond what is required, and allow employees to embrace individual uniqueness while simultaneously feeling a sense

of belonging (Prime & Salib, 2014). Within the public sector, employee engagement has been associated with higher rates of goal achievement and employee retention as well as fewer discrimination complaints (Lavigna, 2013; U.S. Merit Systems Protection Board, 2008). In fact, the public-sector service value chain model links employee engagement to citizen/customer satisfaction, which ultimately produces trust and confidence in public sector organizations (Lavigna, 2013; Heintzman & Marson, 2005).

By contrast, an organization that has disengaged employees is likely to suffer from lower productivity, lower morale, and higher rates of employee turnover (Lavigna, 2013). This is further complicated by the reality that public perception of government employees is low, and these individuals are already subjected to scrutiny and criticism by politicians and citizens alike (Lavigna, 2013). Added to these challenges is an overall lack of interest in pursuing public service careers and the difficulties of attracting and retaining talent in the public sector (Lavigna, 2013; Partnership for Public Service & National Association of Colleges and Employers, 2012). Public sector leaders are beginning to acknowledge that their organizations face a competitive disadvantage without a workforce strategy that incorporates diversity and inclusion (Taylor, n.d.). Consequently, public sector organizations cannot afford to ignore the benefits that can be achieved from an inclusive and engaged workforce.

The SOM provided a beneficial case to further study this topic. The state government began focusing on employee engagement in 2011. Michigan had been severely impacted by the Great Recession, and the economic downturn yielded austerity measures (e.g., early-out retirement, furloughs, reduced training and development opportunities) that impacted the overall state workforce (Leadership for a Networked

World, 2018). The administration of former Republican Governor Rick Snyder (2011-2019) prioritized employee engagement as a means to promote continuous improvement, collaboration, and innovation, with the overall goal of improving customer service (Baker, 2018; Brown, 2019, 2021; Leadership for a Networked World, 2018). As a result, the state began conducting employee engagement surveys in 2012, and found that only 40% of state employees were both highly engaged and likely to continue working for the state (SOM, 2012a). Michigan's engagement index was below the benchmark for comparable private-sector services organizations, and while 88% of employees indicated a desire to continue working for the SOM, a majority of these respondents were considered have lower levels of engagement which created an environment that was less innovative and accepting of change (SOM, 2012a). Subsequent surveys were conducted in 2013, 2015, 2017, 2018, and 2020. The most recent survey indicated that 58% of employees were highly engaged and likely to continue working for the state, and Michigan's engagement scores are now above the benchmark for private-sector services organizations and public sector organizations (SOM, 2020a).

Workplace inclusion has always been a component of the SOM employee engagement surveys. The first survey included several questions focused on employee perceptions of diversity and inclusion, and each subsequent survey included similar questions (SOM, 2012a; 2013; 2015; 2017; 2018; 2020a). The most recent iteration of the employee survey, facilitated under the administration of Democratic Governor Gretchen Whitmer (2019-present), included a noticeable focus on cultivating an equitable and inclusive work environment (SOM, 2020a). Similarly, Gov. Whitmer has signaled her administration's focus on DEI through several executive actions. Executive directive

2019-09 enhanced non-discrimination and equal opportunity protections in state government employment and required all departments and agencies to designate an equity and inclusion officer (State of Michigan, Executive Office of the Governor [EOG], 2019a, 2019b). In addition, executive directive 2020-09 declared racism a public health crisis and required all state employees to complete implicit bias training on a biennial basis (EOG, 2020a, 2020b). Considering the historical emphasis on employee engagement and the more recent focus on equity and inclusion, the SOM has demonstrated that these issues are important not only for the state workforce but also governmental organizations at all levels.

Contribution

Whereas prior research has examined the relationship between workplace inclusion and employee engagement within the settings of the federal government and the healthcare sector, this research focused on state government employees. This is an important population to study because state governments employ considerable numbers of individuals who have a tremendous impact on the daily lives of citizens. Although the federal government is a large institution with a vast scope of influence, state governments are sizable organizations that have significant policy and regulatory responsibilities over a myriad of issues impacting quality of life. Furthermore, state governments provide numerous direct services to constituents (e.g., education, transportation, healthcare, law enforcement, and environmental protection) (Smith & Greenblatt, 2020). Additionally, opinion polls consistently show that the public tends to have greater trust in state and local government than in the federal government (Smith & Greenblatt, 2020). Higher public trust in state government means that these public sector employees operate in a

different political context and workplace environment. Researching state government provided a different perspective than prior studies and contributed to the growing body of work related to Michigan's employee engagement initiative.

Another differentiation is that while prior studies have taken a cross-sectional approach in examining a singular point in time, this research study took a retrospective longitudinal approach by utilizing panel datasets to assess the nature of the relationship between workplace inclusion and employee engagement over time. This was accomplished using SOM employee survey data from 2012-2020. A longitudinal study on this topic provided further insight into whether the relationship was sustained amidst fluctuations in the overall survey population and individual attitudinal changes. Similarly, analyzing repeated measures reduced the likelihood of variability in the expected outcomes and identified organization-wide and inter-agency trends or patterns.

Lastly, this research study added to the existing literature on workplace inclusion and employee engagement while advancing the dialogue on social exchange theory and social capital theory. This has practical implications not only for managing a large governmental organization, but also for understanding how the workplace environment can affect the reciprocal relationship between employers and employees.

Problem Statement and Research Questions

It is widely understood that workplace inclusion and employee engagement are associated with positive outcomes at the individual and organizational level.

Nevertheless, current research reveals that many employees do not feel respected by their colleagues, management, or the organization as a whole. Likewise, employee engagement levels remain very low globally, domestically, and more specifically, within the public

sector. As organizations invest significant resources to measure and increase engagement and improve outcomes, it is advantageous to consider whether an inclusive workplace can foster greater employee engagement. Previous studies indicated that there is a positive relationship between these variables, but the research exploring this question is limited (Downey et al., 2014; Settles, 2016). This research study sought to address a gap in the literature by examining the relationship between these variables within a specific state government across multiple points in time. Contributions to the literature and the growing body of work related to Michigan's employee engagement initiative have already been articulated. A final contribution of this work were the practical implications for public sector entities seeking to drive organizational performance by enhancing the employee experience and working to foster an inclusive environment where each employee can thrive.

The research question that guided this inquiry was as follows:

To what extent does an individual's perception of workplace inclusion affect their level of employee engagement?

To answer this question, the following hypotheses were offered:

Hypothesis 1: There is a positive relationship between employee perception of workplace inclusion and an employee's level of engagement.

Hypothesis 2: State agencies that exhibit higher employee perception of workplace inclusion will also exhibit higher rates of employee engagement.

Table 1

An Overview of the Research

Research Overview	
Problem Statement	It is widely understood that workplace inclusion and employee engagement are associated with positive outcomes at the individual and organizational level. Nevertheless, current research reveals that a considerable number of employees do not feel respected by their colleagues, management, or the organization as a whole. Likewise, employee engagement levels remain very low globally, domestically, and more specifically within the public sector. As organizations invest significant resources to measure and increase engagement and improve outcomes, it is advantageous to consider whether an inclusive workplace can foster greater engagement among employees.
Research Question and Hypotheses	<p>Research Question: To what extent does an individual's perception of workplace inclusion affect their level of employee engagement?</p> <p>H1: There is a positive relationship between employee perception of workplace inclusion and an employee's level of engagement.</p> <p>H2: State agencies that exhibit higher employee perception of workplace inclusion will also exhibit higher rates of employee engagement.</p>
Theoretical Basis for the Research	Social exchange theory and social capital theory were examined to assess the relationship between inclusion and engagement within an organizational context.
Methodology	Utilizing secondary data from six employee engagement surveys conducted among State of Michigan (SOM) employees between 2012 and 2020, a quantitative analysis was performed to explore the relationship between an employee's perception of workplace inclusion and their level of engagement. The relationship was assessed across the entire organization and among various state departments and agencies.
Unit of Analysis	The data represented employees from various state departments and agencies and the analysis examined the SOM both as a single employer (focusing on individual employees as the unit of analysis) and secondarily as a collection of organizational subunits (focusing on state departments and agencies as the unit of analysis).
Contributions	This research contributed to the discipline of public administration by expanding knowledge regarding the factors that influence workplace inclusion and employee engagement. The study addressed a gap in the literature by placing the research question within the context of a state government organization and assessing the nature of the relationship between these variables over the course of time. The research also built upon the growing body of work related to the SOM employee engagement initiative and provided additional insight regarding why engagement rates increased. Finally, the research offered practical analysis concerning public sector efforts to enhance the employee experience.

Chapter II

Review of Literature

Workplace Inclusion

Workplace inclusion is a broad term that encompasses several components. Generally speaking, an inclusive work environment is one where all persons feel respected and valued as individuals and can fully participate in and contribute to the organization. Such a work environment involves feeling accepted and supported, having access to information and resources, and also having a meaningful role in critical work and organizational decision-making (Cho & Mor Barak, 2008; Daya & April, 2014; Roberson, 2006; Romansky et al., 2021; Vohra et al. 2015). Workplace inclusion allows the individual to internalize a sense of belonging and being a part of an organization (Downey et al., 2014; Shore et al., 2010). Inclusion recognizes the uniqueness of the individual (Matz-Costa et al., 2012; Sabharwal, 2014; Settles, 2016), which is why it is closely associated with diversity. It is critical to acknowledge that diversity and inclusion are two distinct concepts, but diversity is also a part of inclusion (Downey et al., 2014; Romansky et al., 2021). In fact, Downey et al. (2014) argued that inclusion is the actualization of the organization's diversity statement.

In sociological terms, the idea of inclusion or a sense of belonging is related to social capital. Social capital refers to the concept that positive social networks, relationships, and connections foster individual, organizational, or societal benefits. As

Putnam (2000) articulated in his famous work *Bowling Alone: The Collapse and Revival of American Community*, connection with others makes all the difference. Social capital can be expressed through bonding within groups and bridging across groups (Putnam, 2000). Bonding is inward-looking and based on homogeneity among individuals (Putnam, 2000). Thus, bonding capital can build solidarity among a specific group of individuals (Smith & Yoshino, 2013). Conversely, bridging is outward-looking and based on bringing together diverse groups of individuals (Putnam, 2000). As such, bridging capital is more about building relationships across different groups (Smith & Yoshino, 2013). Both bonding and bridging are needed to realize fully the benefits of social capital, yet many diversity and inclusion initiatives are more focused on the former than the latter (Putnam, 2000; Smith & Yoshino, 2013). Social capital is relevant to workplace inclusion because social connections are an essential component of the work environment, and these relationships are strongly aligned with job satisfaction (Hodson, 1997; Hurlbert, 1991; Putnam, 2000). When an organization has high social capital, employees demonstrate heightened commitment and morale and realize a stronger sense of community. On the other hand, when an organization has low social capital, employees may experience greater anxiety, isolation, and a more competitive environment rather than a collaborative one (Putnam, 2000).

Though workplace inclusion strives to allow employees to be their authentic selves at work, organizational culture and established societal norms can cause employees to engage in the practice of covering. This term, created by Erving Goffman (1963), refers to the practice of hiding one or more individual characteristics due to the social stigmatization attached to those characteristics. Yoshino (2006) advanced this

concept by arguing that workplace standards related to appearance, affiliation, advocacy, and association contradict the ideal of an inclusive workplace where employees can express their true selves. According to research by Smith and Yoshino (2013), 61% of individuals reported that they cover one or more characteristics at work in order to fit in with the predominant culture or social standard. This figure increases significantly when reported by gender, race, or sexual orientation. Smith and Yoshino (2013) found that 66% of women, 79% of African Americans, and 83% of LGBTQ individuals reported covering a personal attribute or aspect of their identity. While it is unsurprising that minorities often feel pressured to curtail their identity within social environments, Smith and Yoshino (2013) also identified that individuals who are part of the majority culture engage in covering. According to their research, 45% of heterosexual white men reported covering an aspect of their identity while at work (Smith & Yoshino, 2013).

The idea that individuals cannot fully express themselves at work undermines the promotion of workplace inclusion. Though 98% of the respondents in the Smith and Yoshino (2013) study indicated that their workplace had articulated inclusion as an organizational value, only 78% felt that this value was actually implemented. Approximately 75% of the respondents felt that suppressing some personal attribute was necessary to advance within the organization (Smith & Yoshino, 2013). For example, minority respondents felt they would be negatively perceived for associating with others of their own race. When individuals engage in covering, their sense of self is diminished, and this can affect how they perceive opportunity and lessen their overall commitment to the organization (Smith & Yoshino, 2013).

Workplace inclusion contributes to positive individual and organizational outcomes. Matz-Costa et al. (2012) found that inclusive workplaces fostered greater job performance and satisfaction, increased work engagement, and heightened organizational commitment. Employee perceptions of inclusion have been shown to predict their level of commitment and job performance (Cho & Mor Barak, 2008; Mor Barak, et al., 2001; Mor Barak & Levin, 2002). Inclusion allows all individuals to contribute at their highest potential which helps achieve organizational goals (Pless & Maak, 2004). Diversity and inclusion initiatives also foster innovation and collaboration and improved responsiveness to customer needs (Vohra et al., 2015).

Measuring workplace inclusion is quite nuanced in that it involves quantifying whether employees feel included or perceive their employer to be inclusive. Workplace inclusion can be indirectly measured by ascertaining individual sentiments about related elements (Romansky et al., 2021). For example, Pelled et al. (1999) identified decision-making, access to information, and job security as elements of workplace inclusion. Kennedy and Jain-Link (2020; 2021) identified four key elements of belonging at work. This includes feeling seen (i.e., recognized, rewarded, and respected), feeling connected (i.e., having positive interactions with colleagues), feeling supported (i.e., having tools and resources to be successful at work and in life), and feeling pride (i.e., alignment with one's employer particularly concerning its mission, vision, and values) (Kennedy, 2021; Kennedy & Jain-Link 2020, 2021). Romansky et al. (2021) identified seven elements that encompass inclusion: fair treatment, integrating differences, decision-making, psychological safety, trust, belonging, and diversity. Downey et al. (2014) and Roberson (2006) incorporated multiple elements and questions into their surveys to measure

employee perceptions of workplace inclusion. While there were similar themes across these studies, there is no universality regarding a singular approach to measuring this variable. That being said, there is methodological consensus that direct employee feedback is needed in order to determine whether an organization is inclusive. This is primarily because organizational norms and practices may be experienced differently by each employee. Thus, direct employee feedback serves to bridge the gap between organizational intent and employee perception (Downey et al., 2014).

Employee Engagement

Kahn (1990) is often credited with developing the concept of employee engagement. His research identified the elements of meaningfulness, safety, and availability as the psychological conditions of work which contribute toward personal engagement. Engagement was defined as having a physical, cognitive, or emotional connection to one's work, whereas disengagement was described as a withdrawal or detaching of a person from their work. Kahn (1990) further noted that engagement was predominantly a function of psychology. One is likely to be more engaged with their work when they feel that they are able to express their preferred self in a safe and meaningful way at work. As a result, positive engagement with one's work is associated with individual role performance and with achieving positive outcomes at the organizational level (Bakker et al., 2008; Kahn, 1992; Saks, 2006). Conversely, Kahn's (1990) research recognized that engagement is a complex psychological phenomenon and a variety of factors can impact whether a person has a connection to their work.

Other authors have noted that employee engagement entails psychological and managerial elements. Schaufeli et al. (2002) contrasted engagement with burnout,

arguing that an engaged employee exhibited a persistent cognitive state of fulfillment, inspiration, and energy. In this manner, positive feelings about connection to work can cause an individual to be somewhat absorbed or consumed by their work (Schaufeli et al., 2002). Macey et al. (2009) argued that employee engagement fostered both positive psychic and behavioral energy. The former represents energy experienced by the employee and the latter represents energy that is observable in the employee (Macey et al., 2009). Managerial factors (e.g., job design, leadership, and communication) can contribute to employee engagement (Bailey et al., 2017; Hameduddin & Fernandez, 2019). Gallup is a leading researcher in the field, having documented that employees and organizations can realize positive outcomes when the employees are supported with professional development opportunities, the right equipment, meaningful feedback, and work incentives or recognition (Hameduddin & Fernandez, 2019; Harter et al., 2002). These are basic workplace needs and can create a sense of belonging, thus signaling to employees that the organization cares about their growth and ability to contribute fully (Gallup, 2022). When employees are supported in these ways they may have greater enthusiasm about their work and be more invested in their job and place of employment (Harter et al., 2020). This supports the notion that engagement reflects an individual passion for one's work that can yield greater commitment to the organization and heightened contributions toward achieving organizational goals (Carter & Baghurst, 2014).

The literature establishes that there are common elements to employee engagement and common outcomes of employee engagement, but as Lavigna (2013) noted, there is not a universal definition of the term. For example, a government report

from the United Kingdom identified more than fifty definitions encompassing numerous concepts (Lavigna, 2013). Shuck et al. (2017) examined the literature on employee engagement and noted several subdimensions, including work engagement, job engagement, organizational engagement, social intellectual engagement, cognitive engagement, emotional engagement, and behavioral engagement. Instead of constructing a singular definition, authors have sought to identify key components. Given the broad agreement that employee engagement encompasses an emotional connection between the employee, their work, and their employer, Lavigna (2013) focused on job satisfaction, organizational satisfaction, and organizational commitment as the three primary components of employee engagement.

It is worth noting that this emotional connection could have a different level of significance within the public sector. Research on public service motivation (PSM) indicates that public sector employees tend to be attracted to the ideals of helping others and making a difference in society (Lavigna, 2013; Paarlberg & Lavigna, 2010). Self-interest and organizational interests are secondary to serving the public interest, which drives individual actions and behaviors (Vandenabeele, 2007). Motivational differences for working in the public sector versus the private sector mean that public sector employees may be more emotionally connected to the ideal of public service or even personally aligned with the mission of the organization. Public sector employees with high levels of PSM, therefore, are likely to be more engaged. However, they are just as likely to have higher expectations for workplace inclusion, including decision-making, contributing toward the organizational mission, and personal growth and development (Crewson, 1997; Lavigna, 2013).

Despite various perspectives on defining employee engagement, its value within the workplace is evident. Research continues to reveal that an engaged workforce can increase profitability and return on investment (Bakker et al., 2008; Gallup, 2022; Macey et al., 2009; Xanthopoulou, 2009). Highly engaged employees are more adaptable to change, more proactive and driven in their work, and more focused on individual development and organizational goals (Macey et al., 2009). Other research indicates that organizations with a high degree of employee engagement realize greater productivity, higher customer satisfaction, loyalty, safety, and lower rates of employee turnover (Harter, et al., 2006; Lavigna, 2013).

Researchers have identified similar benefits within the public sector. The United Kingdom Civil Service found that agencies with higher levels of employee engagement demonstrated higher levels of performance, while provincial governments in Canada (British Columbia and Ontario) realized higher rates of customer satisfaction as a result of heightened employee engagement (Clarke & MacLeod, 2009; Heintzman & Marson, 2005; Kernaghan, 2011; Lavigna, 2013). The United States Merit Systems Protection Board (2008) found that in addition to positive outcomes on organizational goals and employee retention, employee engagement contributed to a decrease in workplace discrimination complaints and a decrease in the use of sick time or overall time lost by the organization. These results are consistent with findings by James et al. (2011) that due to the physiological aspects of employee engagement, highly engaged employees realize health benefits such as reduced stress and sick days. Based on a qualitative study of state government employees, Vanderbilt (2019) suggested that engaged employees are more apt to contribute positively toward organizational goals and that employee contributions

are related to how that employee perceives their individual value to the organization. Lastly, a 2016 study by CPS HR Consulting's Institute for Public Sector Employee Engagement found a positive relationship between employee engagement and employee perception of organizational performance (CPSHR-IPSEE, 2017). The study also found a positive relationship between employee engagement and employee perceptions of their well-being, life satisfaction, and overall happiness (CPSHR-IPSEE, 2017).

Employee engagement can be indirectly measured through various elements, including employee turnover, performance reviews, human resources complaints, exit interviews, customer satisfaction, and missed work hours. However, employee surveys are the most direct and effective tool for systematically and empirically measuring employee engagement (Lavigna, 2013). Employee surveys represent the first step that an organization can take toward improving engagement, as the survey process should include analyzing and reporting results, taking appropriate follow-up action on the survey results, and monitoring organizational progress by conducting subsequent engagement surveys (Lavigna, 2013). Additionally, to produce a valid measurement of engagement, employee surveys should incorporate internally and externally focused questions. Internally focused questions assess the degree to which an employee is aligned with the organization (i.e., is the employee satisfied with organizational leadership and management?; is the employee motivated to achieve organizational goals?; and is the employee conscious of how their job helps the organization fulfill its mission?) (Lavigna, 2013). On the other hand, externally focused questions assess the degree to which an employee is attached to the organization (i.e., does the employee feel pride in the organization?; does the employee intend to stay with the organization?; and would the

employee recommend the organization to others?) (Lavigna, 2013). Taken altogether, these types of questions can effectively assess the extent to which an employee is engaged at work.

Prior Research on the Topic

Current literature speaks broadly to the importance of workplace inclusion and employee engagement, but there is not a substantial amount of research that directly explores linkages between these variables. One of the most relevant studies was conducted by Settles (2016) who examined the relationship between employee engagement and various components of inclusion as defined by the New Inclusion Quotient (New IQ), a tool developed by the United States Office of Personnel Management (OPM) to measure the inclusivity of a work environment. The New IQ was based on five factors that the OPM believed to contribute to workplace inclusion: fairness, openness, cooperativeness, supportiveness, and empowerment (Settles, 2016). Using data from the 2015 Federal Employee Viewpoint Survey (FEVS), the study found that the five factors of the New IQ do contribute to an inclusive work environment and that these factors have a positive relationship with employee engagement (Settles, 2016). The research further indicated that the perception of the five inclusion factors varied among minority and non-minority individuals (Settles, 2016). In noting the limitations of the study, Settles (2016) acknowledged that the 2015 FEVS survey data represented a single point in time and recommended that future study on this relationship should be expanded beyond the federal workforce to incorporate research at the state and local government level.

Another research study of note was conducted by Downey et al. (2014), who examined the relationship between workplace inclusion and employee engagement among health sector employees. The authors conducted a diversity climate assessment of more than 4,500 members of a healthcare organization and found that diversity and inclusion practices had a positive but indirect association with employee engagement. The relationship between diversity and engagement was mediated by a trust climate, and the relationship between diversity and trust climate was mediated by inclusion (Downey et al., 2014). This relationship was observed among all employees regardless of race. As a result of these findings, the authors argued that diversity and inclusion practices could produce a more trusting environment and increase employee engagement.

These results are enlightening but somewhat limited in scope. Generally speaking, the impact of workplace inclusion has not been studied as thoroughly as other management topics. Furthermore, the broader implications for public sector organizations necessitate expanding the research to incorporate state and local government (Settles, 2016). As such, there is a gap in the literature as to whether workplace inclusion is an antecedent or driver of employee engagement.

Theoretical Basis for the Research

The two theories that served as the foundation for this research were social exchange theory and social capital theory. Social exchange theory (SET) is often used to explain relationships between parties based on cost-benefit analysis (Ahmed et al., 2011; Ekeh, 1974). This theory was pioneered by Blau (1964), who argued that reciprocity occurs when there is some form of value exchange between parties. When parties are in an interdependent and reciprocal relationship, the continued interactions lead to mutual

commitments and obligations (Cropanzano & Mitchell, 2005; Saks, 2006). The relationship is sustained and enhanced as long as the parties respect the rules of exchange and repay each other in kind (Cropanzano & Mitchell, 2005; Saks, 2006).

SET can apply to a variety of relationships, including the relationship between an employer and an employee (Ahmed et al., 2011; Shore & Strauss, 2006). The nature of work encompasses constant social exchanges, which can produce positive or negative outcomes (Thomas and Gupta, 2021). These exchanges establish mutual responsibilities and benefit the organization and the individual. Positive acts by the employer produce positive acts by employees (Ko and Hur, 2013; Thomas and Gupta, 2021). A basic example would be that an employee receives economic resources for the labor they provide to an organization. As long as labor is received, payment will be rendered, and vice versa. This relationship similarly applies to the concept of employee engagement. The degree to which an employee is willing to invest themselves in their work may be reciprocated based on the resources, benefits, and support provided by the organization (Saks, 2006).

This theory helps explain the complexities of workplace behavior (Cropanzano & Mitchell, 2005; Thomas & Gupta, 2021), including why employees become engaged or disengaged at work. Organizations that adequately meet the needs of their employees (financial, professional, social) are likely to have greater employee engagement as those individuals may feel an obligation to demonstrate a physical, cognitive, or emotional connection to their work (Saks, 2006). Alternatively, disengagement could be a sign that an employee feels the rules of exchange are not being respected.

Organizational support theory (OST) is a variation of SET that explains the reciprocal relationship between employer and employee through the perspectives of perceived organizational support and perceived supervisor support (Ahmed et al., 2011; Ward, 2021). According to Eisenberger et al. (1986), an employee perceives organizational support when the organization values their contribution and cares about their well-being as an individual. OST is based on the concepts of exchange relationship and value reciprocity, which are critical components of SET, but this theory also focuses on relationships with the agents of an organization (leadership, management/supervisors, and coworkers) (Ahmed et al., 2011; Eisenberger et al., 1986). Another component of OST is the organization's demonstrated concern for employee performance and well-being as the basis for the employee's perception of organizational support (Ahmed et al., 2011; Muse & Stamper, 2007). OST is a helpful theory for understanding the relationship dynamics between employers and employees (particularly between supervisors and teams). However, it is primarily focused on what influences employee perception of organizational and supervisory support. SET offers a much broader view of this relationship; it is more appropriate for this proposed study which assessed the employee's overall perception of the organization as it relates to workplace inclusion and employee engagement.

Social capital theory (SCT) is another theory that helps illuminate the relationship between inclusion and engagement. This theory posits that social networks (which foster reciprocity and trustworthiness among families, neighbors, co-workers, and throughout society) have intrinsic value that yield productivity and other tangible benefits for both the individual and the entire group (Putnam, 2000). This idea originated with Hanifan

(1916), who described social capital as that which contributes to the well-being of the individual and the quality of life within the community. The community is successful due to the cooperation of many individuals, and the individual benefits from the social connections formed within the community (Hanifan, 1916; Putnam 2000). Hanifan's original conceptualization has been amplified by various definitions of social capital (Adler & Kwon, 2002). However, in the context of work, SCT provides a way to understand the learning behavior of individuals and teams. When a workplace facilitates positive social networks or relationships, that can lead to greater trust, which cultivates cooperation, productivity, team action, and job satisfaction (Caïs et al., 2021; Darmasetiawan, 2013; Fukuyama 1995).

When members of the organization facilitate positive social networks through sharing resources and information and providing mutual assistance or guidance to complete projects or tasks, social capital is developed (Darmasetiawan, 2013). These networks can enhance individual employees' potential and teams' success (Darmasetiawan, 2013). In addition, social capital can have a positive effect on career mobility within the organization (Seibert et al., 2001). Thus, SCT explains how and why a positive workplace environment can lead to productive outcomes at the individual and organizational levels.

SET and SCT are complementary theories, and this study made meaningful contributions to both. This research advanced SET by examining whether workplace inclusion is an antecedent of employee engagement and thus a component of the rules of exchange or the reciprocal relationship between employers and employees. Moreover, this research advanced SCT by exploring how inclusion and engagement can build social

capital and develop trust, cooperation, and commitment among employees. Lastly, the study supported the idea that individual social exchanges contribute toward organizational social capital.

Literature Review Summary

The literature review validates that a highly engaged workforce can make an organization successful. Employee engagement encompasses a variety of physical, cognitive, and emotional elements, but nonetheless indicates that an employee has a connection to and is invested in their work. These elements translate into high levels of individual and organizational performance. Workplace inclusion is equally associated with positive organizational outcomes as employees are respected, supported, able to fully contribute, and empowered to be their authentic selves without fear of stigmatization. Previous studies have shown a positive relationship between workforce inclusion and employee engagement, but the research is limited. These variables are complementary and produce similar organizational outcomes. As such, it is beneficial to examine the extent to which workplace inclusion may impact employee engagement. In doing so, this research advanced the collective understanding of social exchange and social capital theories while also providing practical implications for public sector organizations seeking to improve organizational culture and the overall experience of their employees.

Chapter III

Methodology

This research study's purpose was to assess whether a positive relationship exists between workplace inclusion and employee engagement. The extant literature indicated that while inclusion and engagement produce similar or complementary organizational outcomes, additional research is needed to determine the extent to which these variables relate to each other. Accordingly, the research question that guided this inquiry was as follows:

To what extent does an individual's perception of workplace inclusion affect their level of employee engagement?

To answer this question, the following hypotheses were posited:

Hypothesis 1: There is a positive relationship between employee perception of workplace inclusion and an employee's level of engagement.

Hypothesis 2: State agencies that exhibit higher employee perception of workplace inclusion will also exhibit higher rates of employee engagement.

The first hypothesis considered the State of Michigan (SOM) as a single employer and focused on individual employees as the unit of analysis. Performing statistical analysis on the entire population of state employees who participated in the surveys afforded the greatest opportunity to examine individual sentiments on engagement and inclusion without limiting the results to a particular function within state government

(e.g., law enforcement, public health, transportation, education, environmental protection, etc.). By contrast, the second hypothesis acknowledged that the SOM is comprised of various governmental subunits and focused on state agencies as the unit of analysis. In this manner, performing statistical analysis from the standpoint of state agencies helped determine whether the relationship between inclusion and engagement differed among organizational subunits when compared to the organization as a whole.

This chapter details the methodology used to conduct the study, including an overview of the research site, survey instrument, survey population, and participation rates. The chapter also presents the survey questions comprising the independent and dependent variables, the statistical analyses utilized, and a preliminary assessment of dataset limitations and anticipated contributions.

Study Site Background

The SOM was chosen as the site for this research study as it has been nationally recognized for its efforts to measure and improve employee engagement among the state workforce. For nearly a decade, the state has regularly conducted employee surveys as part of an effort to promote continuous improvement, collaboration, innovation, and ultimately improve organizational performance as well as citizen and customer service (Brown, 2018, 2019, 2021; Leadership for a Networked World, 2018). The surveys were started by former Republican Governor Rick Snyder (2011-2019) and have continued under the current administration of Democratic Governor Gretchen Whitmer (2019-present). The first employee survey was conducted in 2012 and captured a baseline of measurement for state employee engagement. Subsequent surveys have been conducted in 2013, 2015, 2017, 2018, and 2020. Over this period, the percentage of SOM

employees who were both highly engaged and likely to continue working for the state went from 40% in 2012 to 58% in 2020 (SOM, 2020a). Michigan's engagement scores have also risen to a level above the benchmark for private-sector services and public sector organizations (SOM, 2020a).

Though the goals of the surveys have remained fairly consistent over the years, the most recent iteration of the survey included a notable focus on cultivating an equitable and inclusive work environment (SOM, 2020a). As a result of these efforts, Michigan was recognized during the 2018 North American Employee Engagement Conference (Leadership for a Networked World, 2018). That same year, Leadership for a Networked World and the National Association of State Chief Administrators published a case study about Michigan's employee engagement initiative (Brown, 2019; Leadership for a Networked World, 2018). While the body of work related to Michigan's experience remains somewhat small, the state was featured during a National Governor's Association learning lab on the use of data in policymaking (National Governor's Association, 2016; The Pew Charitable Trusts, 2018). State officials have been invited participants at conferences hosted by *Governing Magazine* and the American Society for Public Administration. Lastly, this author has written unpublished papers pertaining to Michigan's employee engagement surveys which served as the basis for this larger research study (Brown, 2018, 2019, 2021).

Data

This research utilized secondary data from six SOM employee engagement surveys conducted between 2012 and 2020. The surveys were web-based and self-administered but facilitated by Guidehouse (formerly PricewaterhouseCoopers (PwC)

public sector). The surveys included questions on various topics, including diversity, equity, and inclusion; communications; department leadership; the employee's immediate supervisor; the employee's workgroup/colleagues; the employee's job; and overall perceptions of employee engagement as it relates to working for the SOM. Summary details about each survey (dates active, distribution size, and completion rate) are included in Table 2. The questionnaires contained a selection of core questions, supplemental questions focusing on positive work elements and barriers to productivity, and several open-ended questions. The core questions were based on a five-point Likert scale of agreement or disagreement and were coded as follows: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree (Brown, 2019; SOM, 2012a, 2013, 2015, 2017, 2018, 2020a).

Table 2

SOM Employee Engagement Survey Details 2012-2020

Survey Year	Dates Active	Distributed Surveys	Completed Surveys	Completion Rate	Participating Agencies
2012	Mar 19 - Apr 2, 2012 Apr 23 - May 14, 2012	47,139	27,410	58%	19
2013	Sept 9 - 27, 2013	46,822	31,608	68%	18
2015	Mar 9 - 30, 2015	44,762	31,833	71%	18
2017	Feb 6 - 28, 2017	45,504	34,385	76%	21
2018	Sept 10 - Oct 3, 2018	44,878	33,109	74%	21
2020	Mar 2 - 23, 2020	46,941	27,334	58%	20

Note. Contents show dates and participation rates for engagement surveys

completed between 2012-2020 (SOM, 2012a; 2013; 2015; 2017; 2018; 2020a).

The datasets for this study were obtained from the Michigan Department of Technology, Management, and Budget through a Freedom of Information Act (MCL 15.231 et seq.) request (see Appendix A). The data represented employees from various

state departments and agencies. The analysis examined the SOM as a single employer (hypothesis 1 focused on individual employees as the unit of analysis) and secondarily as a collection of organizational subunits (hypothesis 2 focused on departments and agencies as the unit of analysis). This approach confirmed whether the relationship between individual perceptions of workplace inclusion and individual levels of employee engagement is manifested throughout an organizational subunit; or, conversely, whether an organizational subunit can have a low level of workplace inclusion while still maintaining a high level of employee engagement (and vice versa).

While aggregate demographic information for all survey respondents was available, demographic responses for individual participants was not available (i.e., age, gender identity, race, education, employment group classification, and tenure with the organization). This information was requested; however, the request was denied based on the contractual obligation of the survey vendor to maintain the anonymity of all participants (S. Arend-Ritter, personal communication, March 22, 2021). Additionally, as the nine-year timeframe of the survey data spans two gubernatorial administrations, this research study conducted a retrospective longitudinal analysis. This study assessed the relationship between the dependent and independent variables across multiple points in time to explore how employee perceptions and attitudes might have changed. The SOM did conduct a seventh employee engagement survey in October 2022, but the results of that survey were not publicly available when this research study was completed. Given that the employee engagement surveys were established in 2012, similar data is unavailable prior to that year.

Survey Population and Participation Rates

Dataset responses included various state agencies ranging from a low of 18 agencies in 2013 and 2015 to a high of 21 agencies in 2017 and 2018. Several agencies were reorganized during the time period in which the surveys were conducted. For example, the Department of Insurance and Financial Services was established in 2013 (Mich. Exec. Order No. 2013-1, 2013). In 2015, the Department of Community Health and the Department of Human Services were combined to create the Department of Health and Human Services (Mich. Exec. Order No. 2015-4, 2015). In 2014, the Michigan Economic Development Corporation, the Michigan State Housing Development Authority, and the Workforce Development Agency were combined to create the Department of Talent and Economic Development, which was subsequently reorganized in 2019 as the Department of Labor and Economic Opportunity (Mich. Exec. Order No. 2014-12, 2014; Mich. Exec. Order No. 2019-13, 2019). Similarly, in 2019, the Department of Environmental Quality was reorganized as the Department of Environment, Great Lakes, and Energy (Mich. Exec. Order No. 2019-6, 2019).

Even though participating agencies remained fairly constant throughout the entire period during which the employee engagement surveys were conducted, there were a few notable inconsistencies in the datasets. For example, the Department of State only participated in the 2020 survey. Also, the 2012 and 2013 surveys included “other” as a response option for the question asking respondents to identify in which agency they worked. All of those responses were combined and coded as “no agency indicated.” Lastly, even though employees in the governor’s office participated each year that the survey was conducted, those responses were excluded from the obtained dataset as they

are not subject to FOIA requests (S. Arend-Ritter, personal communication, February 17, 2022).

Statewide survey completion rates ranged from a low of 58% in 2012 and 2020 to a high of 76% in 2017. The 2012 survey was distributed to 47,079 employees and the dataset included 27,351 survey submissions, indicating a response rate of 58%. The 2013 survey was distributed to 46,748 employees and the dataset included 31,535 survey submissions, indicating a response rate of 67%. The 2015 survey was distributed to 44,692 employees and the dataset included 31,763 survey submissions, indicating a response rate of 71%. The 2017 survey was distributed to 45,429 employees and the dataset included 34,310 survey submissions, indicating a response rate of 76%. The 2018 survey was distributed to 44,821 employees and the dataset included 33,053 survey submissions, indicating a response rate of 74%. The 2020 survey was distributed to 46,859 employees and the dataset included 27,317 survey submissions, indicating a response rate of 58%. Individual agency survey completion rates varied each year the survey was conducted but ranged from a low of 26% (Military and Veterans Affairs in 2020) to a high of 98% (Agriculture and Rural Development in 2017). Statewide and agency-level participation rates for all survey years are outlined in Table 3.

Table 3

SOM Employee Engagement Survey Participation Rates 2012-2020

State Agency	Abbrev.	Range		Mean
		Low	High	
Agriculture and Rural Development	MDARD	81% (2012)	98% (2017)	92%
Civil Rights	MDCR	33% (2020)	90% (2015)	70%
Civil Service Commission	CSC	68% (2012)	88% (2018)	79%
Corrections	MDOC	45% (2020)	72% (2017)	59%
Department of State ^a	MDOS	-	55% (2020)	55%
Education	MDE	59% (2020)	86% (2013)	79%
Environment, Great Lakes, and Energy ^b	EGLE	-	78% (2020)	78%
<i>Environmental Quality^c</i>	<i>DEQ</i>	78% (2017)	83% (2015)	81%
Gaming Control Board	MGCB	70% (2020)	94% (2015 & 2017)	86%
Health and Human Services ^d	DHHS	52% (2020)	69% (2018)	63%
<i>Community Health^e</i>	<i>DCH</i>	47% (2012)	61% (2013)	55%
<i>Human Services^f</i>	<i>DHS</i>	55% (2012)	59% (2013)	57%
Insurance and Financial Services ^g	DIFS	61% (2020)	94% (2015)	82%
Labor and Economic Opportunity ^h	LEO	-	64% (2020)	64%
<i>Talent and Economic Developmentⁱ</i>	<i>TED</i>	78% (2017)	83% (2018)	80%
<i>Michigan Economic Development Corporation^j</i>	<i>MEDC</i>	87% (2012)	94% (2015)	91%
<i>Michigan State Housing Development Authority^k</i>	<i>MSHDA</i>	56% (2012)	97% (2013)	80%
<i>Workforce Development Agency^l</i>	<i>WDA</i>	53% (2012)	85% (2015)	73%
Licensing and Regulatory Affairs	LARA	63% (2012)	85% (2017)	75%
Lottery	MSL	63% (2020)	87% (2018)	76%
Military and Veterans Affairs	DMVA	26% (2020)	71% (2018)	53%
Natural Resources	DNR	69% (2012)	86% (2015 & 2017)	81%
State Police	MSP	68% (2012)	95% (2015)	85%
Technology, Management, and Budget	DTMB	65% (2020)	91% (2017)	78%
Transportation	MDOT	60% (2012)	80% (2017)	72%
Treasury	TREAS	74% (2015)	91% (2018)	82%
<i>Other (no agency indicated)^m</i>	<i>Other</i>	-	-	-
Statewide Total		58% (2012 & 2020)	76% (2017)	67%

Note. Contents show statewide and agency-level range and mean participation rates for all years that the survey was conducted.

^aThe Department of State only participated in the 2020 survey.

^bThe Department of Environment, Great Lakes, and Energy was established in 2019 and participated in the 2020 survey.

^cThe Department of Environmental Quality existed as a standalone agency until 2019 and participated in the surveys conducted from 2012 to 2018.

^dThe Department of Health and Human Services was established in 2015 and participated in the surveys conducted from 2017 to 2020.

^eThe Department of Community Health existed as a standalone agency until 2015 and participated in the surveys conducted from 2012 to 2015.

^fThe Department of Human Services existed as a standalone agency until 2015 and participated in the surveys conducted from 2012 to 2015.

^gThe Department of Insurance and Financial Services was established in 2013 and participated in the surveys conducted from 2013 to 2020.

^hThe Department of Labor and Economic Opportunity was established in 2019 and participated in the 2020 survey.

ⁱThe Department of Talent and Economic Development was established in 2014 and participated in the surveys conducted from 2017 to 2018.

^jThe Michigan Economic Development Corporation existed as a standalone agency until 2014 and participated in the surveys conducted from 2012 to 2015.

^kThe Michigan State Housing Development Authority existed as a standalone agency until 2014 and participated in the surveys conducted from 2012 to 2015.

^lThe Workforce Development Agency existed as a standalone agency until 2014 and participated in the surveys conducted from 2012 to 2015.

^mThe 2012 and 2013 surveys included “Other (no agency indicated)” as a response option.

Dependent Variable

The research question placed employee engagement as the dependent variable. Six specific employee engagement questions were used to explore the creation of a factor score for employee engagement. The specific survey questions used were as follows:

- I would recommend the State of Michigan to friends and family as a great place to work (engagement question #1; E1).
- I intend to stay with the State of Michigan for at least another 12 months (engagement question #2; E2).
- My colleagues go beyond what is expected for the success of the State of Michigan (engagement question #3; E3).
- I am proud to work for the State of Michigan (engagement question #4; E4).
- My colleagues are passionate about providing exceptional customer service (engagement question #5; E5).
- I understand how my job contributes to the mission of the State of Michigan (engagement question #6; E6).

Altogether, the questions underlined various aspects of employee engagement and offered a depiction of how the employee felt about the organization. These questions were included in each of the six surveys and served as the basis for how the SOM quantified employee engagement across all state agencies (Brown, 2019, 2021; SOM, 2012a, 2013, 2015, 2017, 2018, 2020a). The questions aligned with current literature and were consistent with the types of questions that produce a valid measure of employee engagement (i.e., pride in the organization, intention to remain with the organization, recommendation of the organization to others, and understanding of job/mission

alignment) (Brown, 2019; Lavigna, 2013). Appendix B includes the full and abbreviated text for each survey question in addition to the question labels that are referenced throughout this study.

Independent Variable

The research question identified employee perception of workplace inclusion as the independent variable. Based on the core questions included in each survey from 2012-2020, the following questions were used to explore the creation of a factor score for workplace inclusion:

- Sufficient effort is made to get the opinions of people who work here (inclusion question #1; I1).
- The State of Michigan has an inclusive work environment where individual differences are respected (inclusion question #2; I2).
- I provide my opinions without fear of retaliation or retribution (inclusion question #3; I3).
- My work group has a climate in which diverse perspectives are encouraged and valued (inclusion question #4; I4).
- Employees at the State of Michigan are able to contribute to their fullest potential [without regard to such characteristics as religion, race, color, national origin, age, sex, sexual orientation, height, weight, marital status, partisan considerations, or a disability or genetic information that is unrelated to the person's ability to perform the duties of a particular job or position] (inclusion question #5; I5).

These questions were relevant because they measured employee perceptions on elements of workplace inclusion, such as one's ability to contribute fully, whether diverse

opinions and perspectives are welcome, and whether the organization respects diversity and individual differences. Appendix B includes the full and abbreviated text for each survey question in addition to the question labels that are referenced throughout this study.

Analytic Strategy

A quantitative analysis was performed to determine whether a relationship exists between the dependent and independent variables. As previously mentioned, the core questions of the survey (including those questions used for the dependent and independent variables) were based on a five-point Likert scale of agreement or disagreement and were coded as follows: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree (Brown, 2019; SOM, 2012a, 2013, 2015, 2017, 2018, 2020a). Participant responses, frequency distributions, and trend analyses were generated for the relevant survey questions.

A Cronbach's alpha test was performed to assess the internal reliability and consistency of the questions measuring the dependent and independent variables (Lund Research Ltd., 2015a). This test was also used to help determine whether any of the proposed questions for the dependent and independent variables needed to be omitted from further analysis.

A principal components analysis (PCA) was performed to assess whether the inclusion and engagement-related questions could be grouped into two components. Factor scores were generated based on these groupings and represented a singular inclusion index and engagement index for each respondent. The resulting indices indicated the number of standard deviations above or below the mean for each respondent

across the component group of questions. PCAs were initially performed for the 11 identified questions that measured sentiments on inclusion and engagement from all six SOM employee engagement surveys. Preliminary results indicated that while all five inclusion-related questions could be grouped into one component, the six engagement-related questions were more appropriately grouped into two components. Upon further review of the engagement-related questions, two items were omitted as they measured employee sentiments about their colleagues' work ethic and passion for their job (questions E3 and E5). Subsequent PCAs indicated that the remaining four engagement-related questions were appropriately grouped into one component as they more directly measured employee sentiments about their job and working for the SOM.

The extent and significance of the relationship between workplace inclusion and employee engagement along with its generalizability for the population were assessed using correlation analyses (Pyrczak, 2014). First, a bivariate correlation was run to assess the relationship between the individual engagement and inclusion questions on a statewide basis. Secondly, a Spearman's rank-order correlation was run to assess the relationship between the factor scores for inclusion and engagement (Lund Research Ltd., 2018b). The hypotheses were initially tested using a Pearson's product-moment correlation to assess the relationship between the factor scores for inclusion and engagement. Preliminary analysis revealed that the relationship was not linear, and that the data did not satisfy the assumption of bivariate normality (Lund Research Ltd., 2018a). Thus, a Spearman's rank-order correlation was performed for each year that the survey was conducted, and a comparison of the results indicated whether the null hypotheses should be accepted or rejected. Likewise, a linear regression analysis was

initially proposed to test the second hypothesis and determine the extent of the variation between variables, the strength of the relationship, and whether a valid prediction of the dependent variable could be made (Lund Research Ltd., 2015b). However, preliminary analysis revealed that the relationship was nonlinear and did not satisfy the assumptions required to perform a linear regression (Lund Research Ltd., 2015b).

Limitations

There were a few limitations to the dataset based on how the engagement surveys were conducted and the availability of specific data points from survey respondents. One significant limitation was the absence of participant-level demographic responses on elements such as age, gender identity, race, education, employment group classification, and tenure with the organization. This information would have been useful for further analysis. For example, as it pertains to race, Settles (2016) found that perception of workplace inclusion differed between minority and non-minority groups. This finding supports arguments by Ibarra (1995) and Linnehan et al. (2006) that race is associated with employee experiences in the workplace such as isolation, job satisfaction, turnover, communication, and interpersonal relationships.

The use of secondary data was another methodological limitation. Conducting research with primary data would have allowed this author to design targeted survey questions that better aligned with the literature review and research question and captured the nuances of the independent and dependent variables. The use of primary data would have afforded opportunities to conduct cognitive and field pretests to account for the validity and reliability of survey questions as well as possible bias or sampling errors with the Guidehouse and SOM survey methodology (Brown, 2019, 2021). Nevertheless,

the availability of secondary data covering six state employee surveys outweighed the potential costs that came with utilizing primary data.

Contributions to Knowledge

Based on the current literature on workplace inclusion and employee engagement, it was anticipated that this study would support existing research on the relationship between these variables. If the aforementioned hypotheses were supported, the conclusions of this research would further elucidate the significance of the relationship between inclusive workplace practices and the overall engagement of employees. The research would also confirm whether fostering a culture of inclusion in the workplace can help improve employee engagement thereby improving outcomes and organizational performance. Irrespective of the findings, this study presented recommendations concerning inclusion and engagement efforts within public sector organizations and identified areas where additional research is warranted.

IRB Exemption, Data Access, and Storage

This study was approved through the Valdosta State University Institutional Research Board (IRB). The research was determined to be exempt from IRB oversight under 45 CFR 46.101(b) of the federal regulations category 4 (see Appendix C). The results of the SOM employee engagement surveys and the associated datasets provided to the state were considered public records and were obtained by this author from the Michigan Department of Technology, Management, and Budget through a Freedom of Information Act (MCL 15.231 et seq.) request (see Appendix A). The request was originally granted in part on March 22, 2021, and a subsequent request was granted in full on February 17, 2022. The datasets were stored on a password-protected computer

and encrypted to prevent misuse. Additionally, any printed information was stored in a locked file cabinet in this author's home residence. All data and datasets were securely stored for three years as recommended by VSU's IRB.

Methodology Summary

This chapter explained the quantitative approach of the study in reviewing and analyzing data obtained through six SOM employee engagement surveys conducted between 2012 and 2020. The chapter explained how the inclusion and engagement variables were constructed and measured. The chapter also listed the limitations of the research approach, including the absence of participant-level demographic responses and the use of secondary data compared to primary data. Lastly, the chapter outlined the anticipated contributions to knowledge, the study's IRB exemption, and the procedures taken to obtain and store the datasets.

Chapter IV

Results

This quantitative research study examined, proposed, and tested a hypothesized relationship between the variables of workplace inclusion (independent variable) and employee engagement (dependent variable) among State of Michigan (SOM) employees. Statistical analysis was conducted using the Statistical Package for the Social Sciences (SPSS) and following the methodology outlined in the preceding chapter. This chapter provides an overview of the survey results, including summary statistics for each question comprising the independent and dependent variables, an assessment of internal reliability and consistency, results of the principal components analysis, and results of the correlation analyses used to test both hypotheses.

Survey Results and Descriptive Statistics

Dependent Variable: Employee Engagement

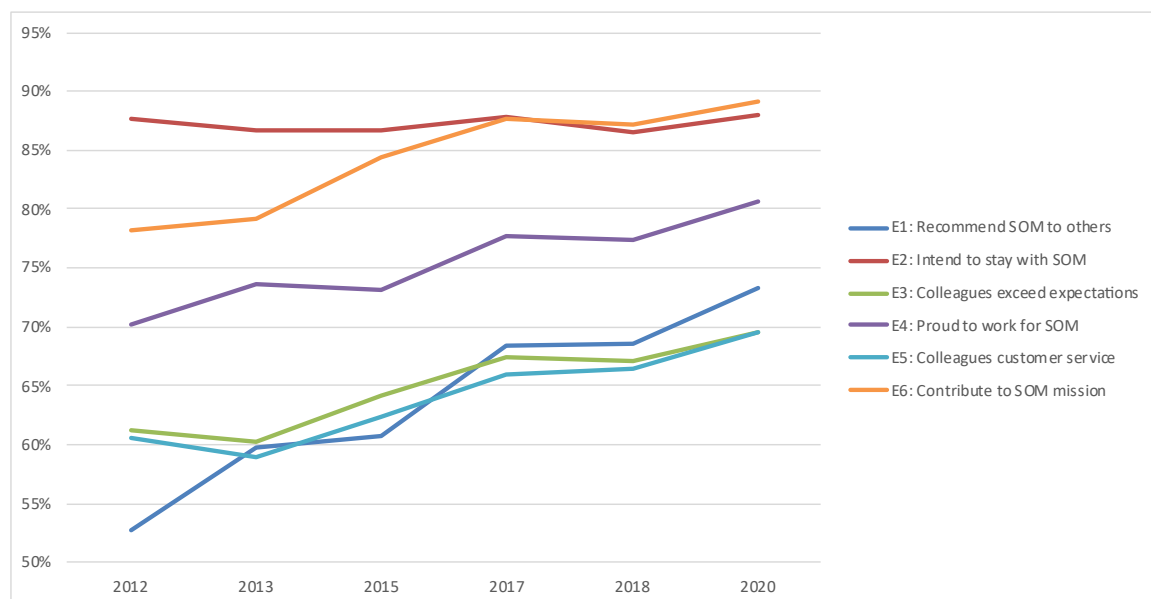
As indicated in the previous chapter, employee engagement was the dependent variable for this study. This variable incorporated six employee engagement questions that were included in each survey from 2012-2020. The questions were as follows:

- I would recommend the State of Michigan to friends and family as a great place to work (engagement question #1; E1).
- I intend to stay with the State of Michigan for at least another 12 months (engagement question #2; E2).

- My colleagues go beyond what is expected for the success of the State of Michigan (engagement question #3; E3).
- I am proud to work for the State of Michigan (engagement question #4; E4).
- My colleagues are passionate about providing exceptional customer service (engagement question #5; E5).
- I understand how my job contributes to the mission of the State of Michigan (engagement question #6; E6).

Responses to the engagement questions indicated an overall net increase in favorability over the course of the six surveys, with the most change reflected in the 2017 and 2020 surveys, respectively. By contrast, the 2018 survey had the least amount of fluctuation, with several engagement questions reflecting slight decreases in the percentage of respondents who agreed or strongly agreed with the statements. Regarding specific questions, the greatest fluctuation was in the responses to E1 (recommend SOM to others), which had a 20.6% net increase in the number of respondents who agreed or strongly agreed with the statement. The responses to E2 (intend to stay with SOM) were very consistent and only reflected a 0.4% net increase in the number of respondents who agreed or strongly agreed. The other engagement questions (E3, E4, E5, E6) reflected a net increase that ranged from 8.4% to 10.9%. Notably, the responses to E6 (contribute to SOM mission) received the highest favorability of all questions/survey years in 2020, with 89.1% of the respondents agreeing or strongly agreeing with the statement. Figure 1 depicts a trend analysis of the favorable responses to each engagement question.

Figure 1

Trend Analysis: Percentage of Favorable Responses to Engagement Question

Note. Lines represent the percentage of respondents who agreed or strongly agreed with the identified engagement questions based on the year the survey was conducted.

The following tables display the percentage of employees identifying with the responses on the five-point Likert scale of agreement or disagreement for each engagement question. From 2012-2020 there were notable fluctuations revealed in the data. The largest change was among the number of respondents who strongly agreed with E6 (contribution to SOM mission), which increased by 22.7% (see Table 9). The number of respondents who strongly agreed with E1 (recommend SOM to others) increased by 14.5% (see Table 4). Two additional engagement questions (E4 and E5) exhibited double-digit increases among the respondents who strongly agreed (see Tables 7 and 8). The other engagement questions (E2 and E3) exhibited net growth in the number of respondents who strongly agreed, but the increase was less than ten percent. In addition to the tables outlining these summary statistics, a chart depicting the relative frequency

distribution for each question is also provided.

Table 4

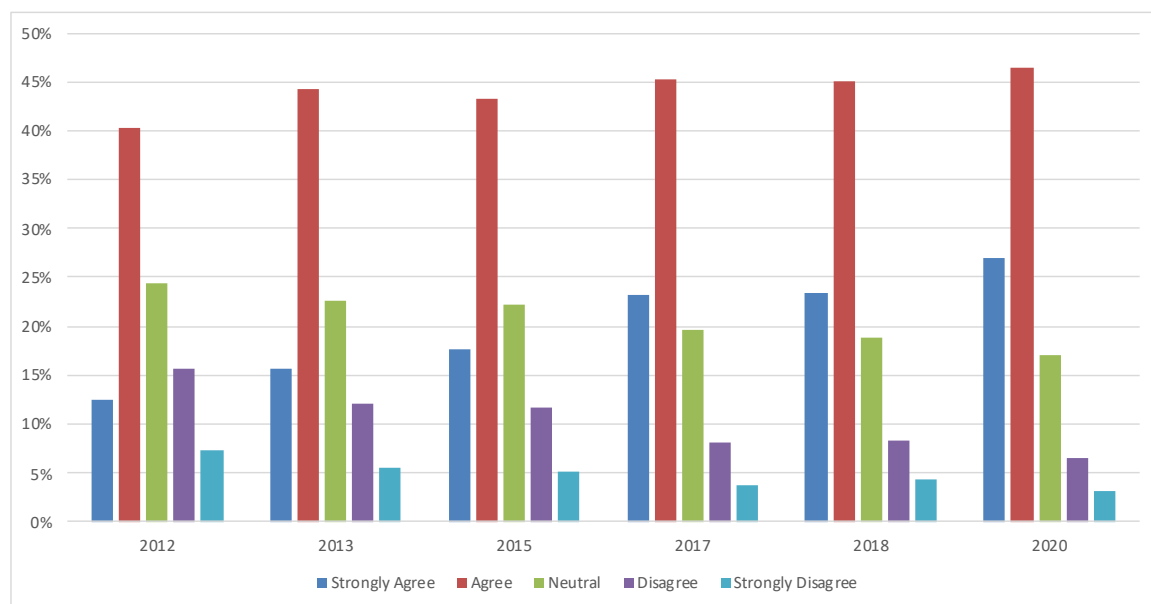
Survey Responses – Engagement Question #1

		Survey Year					
		2012	2013	2015	2017	2018	2020
E1: I would recommend the State of Michigan to friends and family as a great place to work.	Strongly Agree	12.4%	15.6%	17.6%	23.2%	23.5%	26.9%
	Agree	40.3%	44.2%	43.2%	45.2%	45.1%	46.4%
	Neutral	24.3%	22.6%	22.3%	19.6%	18.8%	17.1%
	Disagree	15.6%	12.0%	11.6%	8.2%	8.3%	6.5%
	Strongly Disagree	7.3%	5.5%	5.2%	3.7%	4.3%	3.1%
N		27,327	31,502	31,733	34,308	33,052	27,315

Note. Each cell represents survey responses for engagement question #1 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 2

Relative Frequency Distribution – Engagement Question #1



Note. Bars represent relative frequencies of the responses for engagement question #1 among the study population based on the year the survey was conducted.

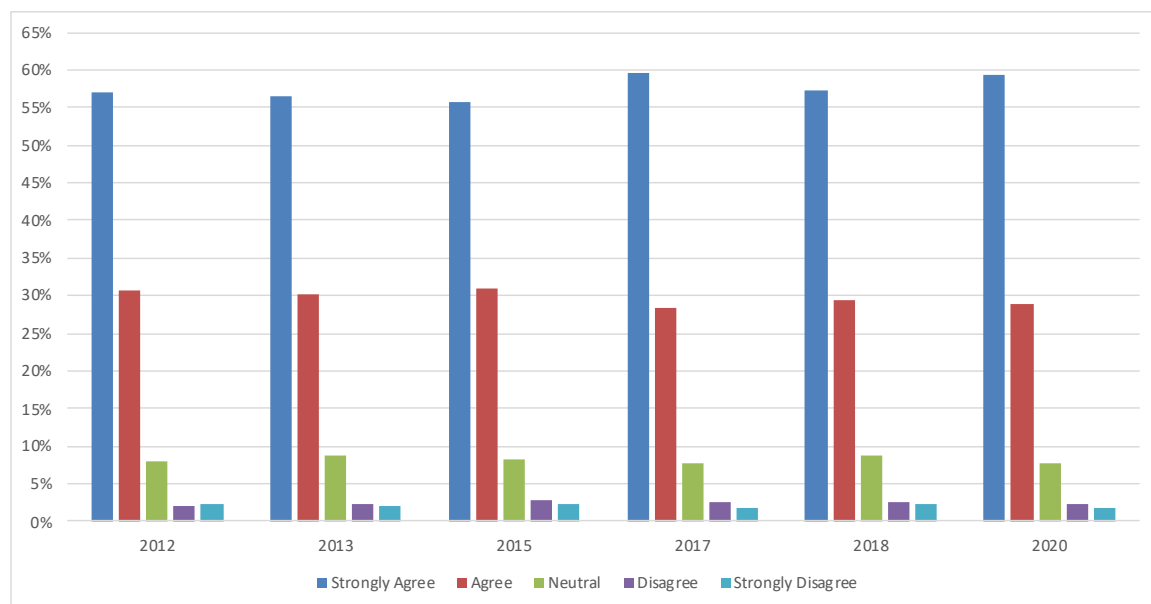
Table 5

Survey Responses – Engagement Question #2

		Survey Year					
		2012	2013	2015	2017	2018	2020
E2: I intend to stay with the State of Michigan for at least another 12 months.	Strongly Agree	57.0%	56.5%	55.7%	59.6%	57.2%	59.2%
	Agree	30.6%	30.2%	30.9%	28.3%	29.3%	28.8%
	Neutral	8.1%	8.8%	8.2%	7.6%	8.7%	7.8%
	Disagree	2.0%	2.2%	2.7%	2.6%	2.6%	2.4%
	Strongly Disagree	2.2%	2.1%	2.3%	1.9%	2.2%	1.8%
N		27,314	31,481	31,696	34,308	33,052	27,316

Note. Each cell represents survey responses for engagement question #2 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 3

Relative Frequency Distribution – Engagement Question #2

Note. Bars represent relative frequencies of the responses for engagement question #2 among the study population based on the year the survey was conducted.

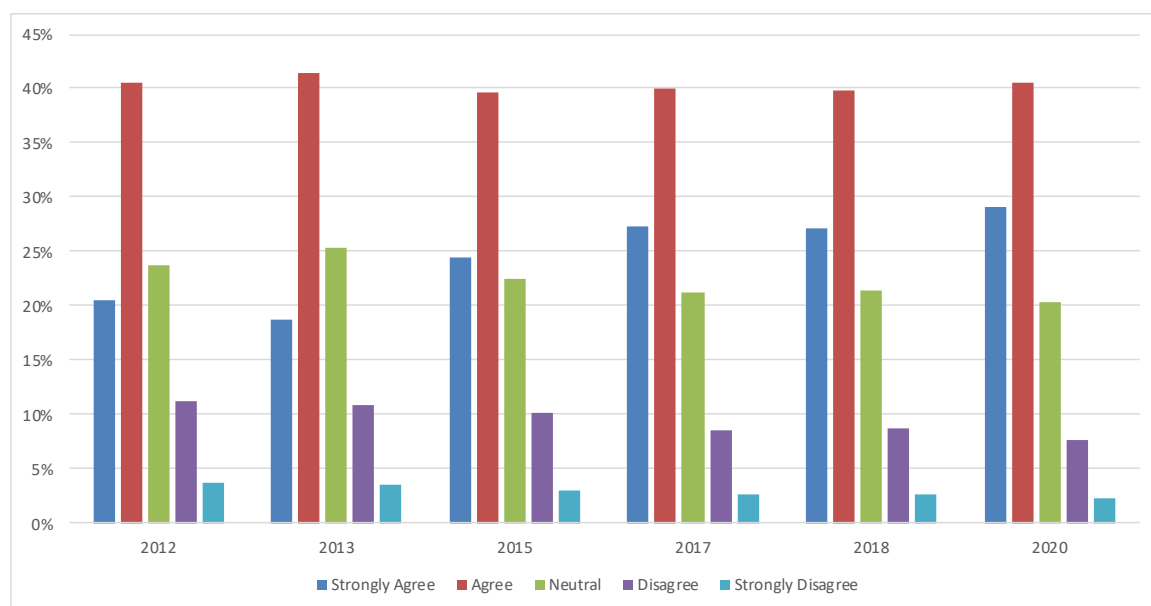
Table 6

Survey Responses – Engagement Question #3

		Survey Year					
		2012	2013	2015	2017	2018	2020
E3: My colleagues go beyond what is expected for the success of the State of Michigan.	Strongly Agree	20.6%	18.8%	24.4%	27.4%	27.2%	29.1%
	Agree	40.6%	41.4%	39.7%	40.0%	39.9%	40.5%
	Neutral	23.7%	25.3%	22.5%	21.3%	21.4%	20.3%
	Disagree	11.3%	10.8%	10.2%	8.6%	8.8%	7.7%
	Strongly Disagree	3.7%	3.5%	3.1%	2.7%	2.7%	2.4%
N		27,314	31,479	31,721	34,308	33,052	27,313

Note. Each cell represents survey responses for engagement question #3 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 4

Relative Frequency Distribution – Engagement Question #3

Note. Bars represent relative frequencies of the responses for engagement question #3 among the study population based on the year the survey was conducted.

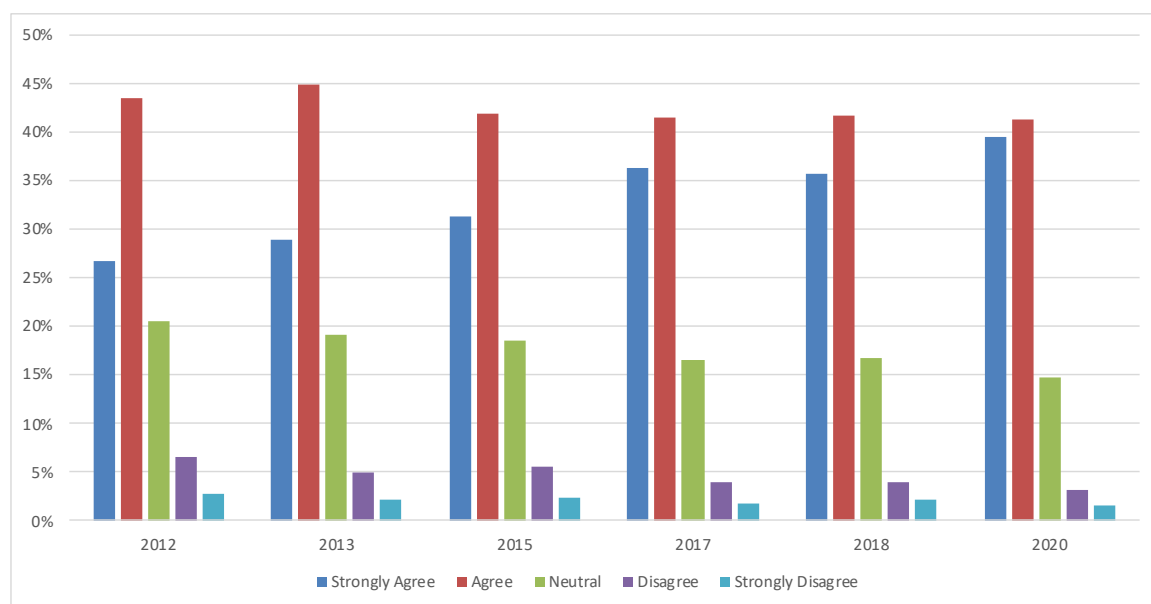
Table 7

Survey Responses – Engagement Question #4

		Survey Year					
		2012	2013	2015	2017	2018	2020
E4: I am proud to work for the State of Michigan.	Strongly Agree	26.8%	28.8%	31.3%	36.3%	35.7%	39.4%
	Agree	43.4%	44.9%	41.8%	41.4%	41.6%	41.2%
	Neutral	20.5%	19.1%	18.6%	16.6%	16.7%	14.7%
	Disagree	6.5%	4.9%	5.6%	4.0%	3.9%	3.2%
	Strongly Disagree	2.7%	2.1%	2.4%	1.7%	2.1%	1.5%
N		27,319	31,500	31,658	34,308	33,052	27,315

Note. Each cell represents survey responses for engagement question #4 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 5

Relative Frequency Distribution – Engagement Question #4

Note. Bars represent relative frequencies of the responses for engagement question #4 among the study population based on the year the survey was conducted.

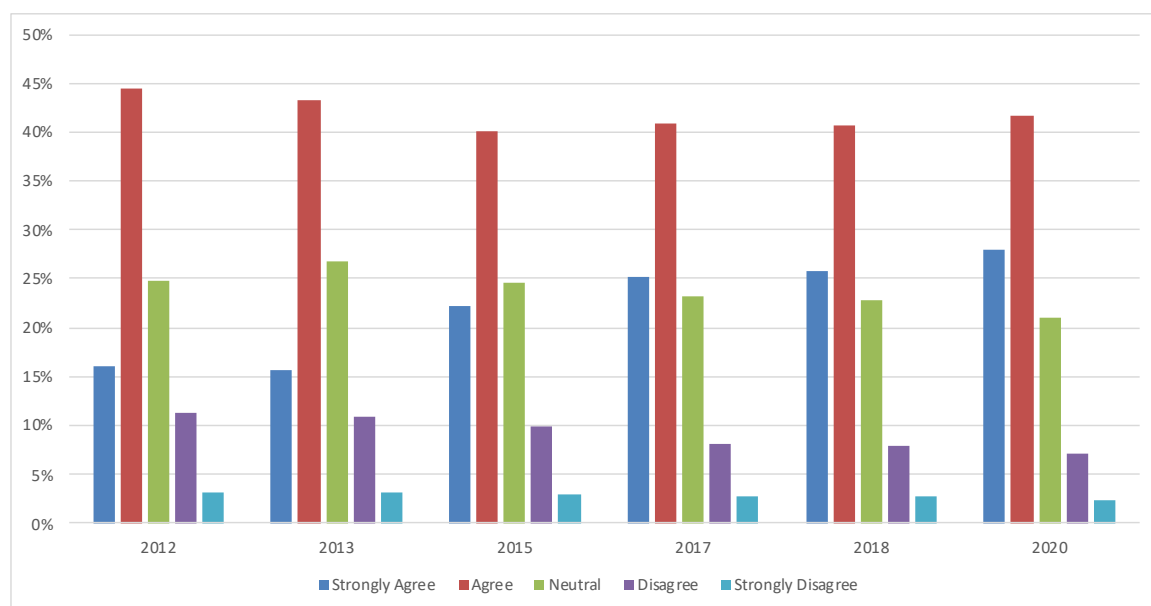
Table 8

Survey Responses – Engagement Question #5

		Survey Year					
		2012	2013	2015	2017	2018	2020
E5: My colleagues are passionate about providing exceptional customer service.	Strongly Agree	16.1%	15.7%	22.2%	25.2%	25.7%	27.9%
	Agree	44.5%	43.2%	40.1%	40.8%	40.7%	41.6%
	Neutral	24.8%	26.8%	24.6%	23.2%	22.9%	21.0%
	Disagree	11.3%	11.0%	10.0%	8.1%	8.0%	7.2%
	Strongly Disagree	3.2%	3.2%	2.9%	2.7%	2.7%	2.3%
	N	27,320	31,493	31,695	34,307	33,052	27,315

Note. Each cell represents survey responses for engagement question #5 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 6

Relative Frequency Distribution – Engagement Question #5

Note. Bars represent relative frequencies of the responses for engagement question #5 among the study population based on the year the survey was conducted.

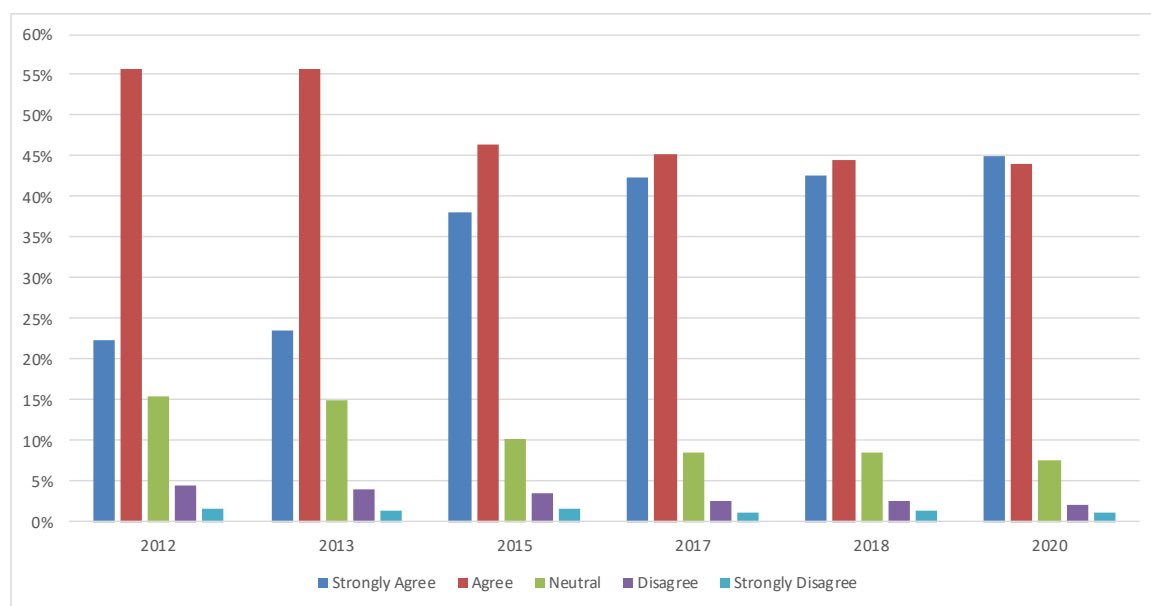
Table 9

Survey Responses – Engagement Question #6

		Survey Year					
		2012	2013	2015	2017	2018	2020
E6: I understand how my job contributes to the mission of the State of Michigan.	Strongly Agree	22.4%	23.5%	38.0%	42.4%	42.6%	45.1%
	Agree	55.8%	55.7%	46.4%	45.2%	44.6%	44.0%
	Neutral	15.4%	15.0%	10.2%	8.6%	8.6%	7.7%
	Disagree	4.6%	4.1%	3.6%	2.6%	2.7%	2.1%
	Strongly Disagree	1.7%	1.4%	1.7%	1.2%	1.5%	1.1%
N		27,318	31,471	31,725	34,307	33,052	27,315

Note. Each cell represents survey responses for engagement question #6 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 7

Relative Frequency Distribution – Engagement Question #6

Note. Bars represent relative frequencies of the responses for engagement question #6 among the study population based on the year the survey was conducted.

Independent Variable: Workplace Inclusion

As indicated in the previous chapter, workplace inclusion was the independent variable for this study. This variable incorporated five workplace inclusion questions that were included in each survey from 2012-2020. The questions were as follows:

- Sufficient effort is made to get the opinions of people who work here (inclusion question #1; I1).
- The State of Michigan has an inclusive work environment where individual differences are respected (inclusion question #2; I2).
- I provide my opinions without fear of retaliation or retribution (inclusion question #3; I3).
- My work group has a climate in which diverse perspectives are encouraged and valued (inclusion question #4; I4).
- Employees at the State of Michigan are able to contribute to their fullest potential [without regard to such characteristics as religion, race, color, national origin, age, sex, sexual orientation, height, weight, marital status, partisan considerations, or a disability or genetic information that is unrelated to the person's ability to perform the duties of a particular job or position] (inclusion question #5; I5).

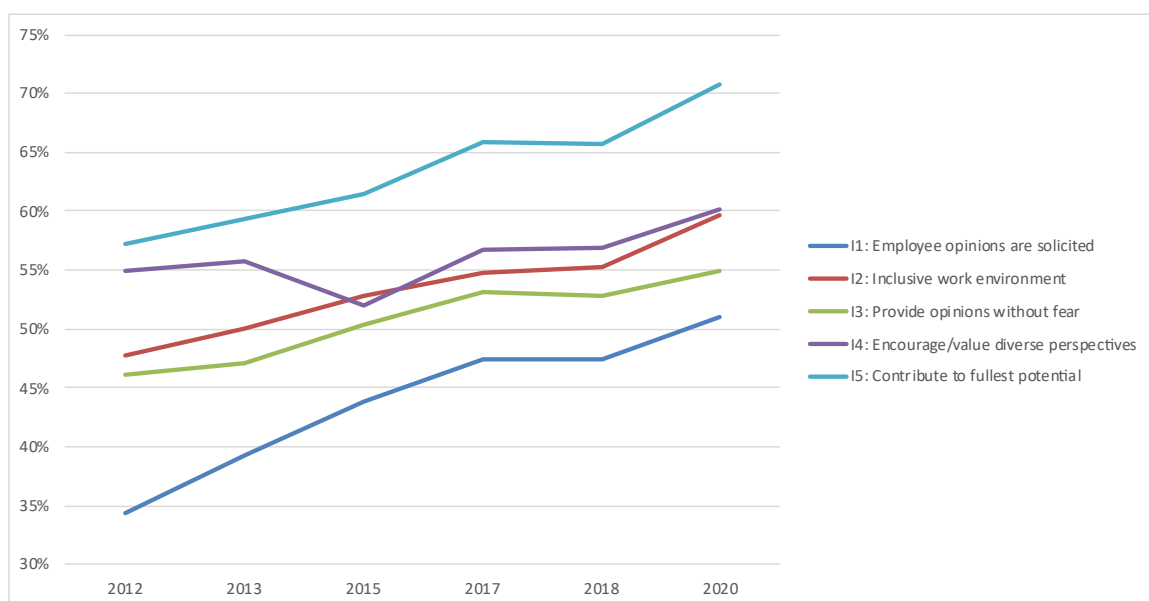
Responses to the inclusion questions indicated an overall net increase in favorability over the course of the six surveys; however, the rates of agreement for these statements were generally lower than those for the engagement questions. The greatest increases were reflected in the 2020 and 2017 surveys, respectively. The 2018 survey had the least amount of fluctuation, with two inclusion questions reflecting slight decreases in the percentage of respondents who agreed or strongly agreed with the statements. As it

pertains to specific questions, the greatest fluctuation was in response to I1 (employee opinions are solicited) which had a 16.7% net increase in the number of respondents who agreed or strongly agreed with the statement. The question with the least amount of fluctuation in responses was I4 (encourage/value diverse perspectives) which reflected a 5.3% net increase in the number of responses who agreed or strongly agreed with the statement. In addition, I4 realized the largest decrease in favorability from one survey to another (-3.8% in 2015). The other inclusion questions (I2, I3, I5) reflected a net increase that ranged from 8.9% to 13.6%. Notably, the responses to I5 (contribute to fullest potential) consistently received the highest favorability of all inclusion questions. Fifty-seven percent of the respondents agreed or strongly agreed with the statement in the 2012 survey, and that rate increased to 70.8% in the 2020 survey (a net increase of 13.6%).

Figure 8 depicts a trend analysis of the favorable responses to each engagement question.

Figure 8

Trend Analysis: Percentage of Favorable Responses to Inclusion Questions



Note. Lines represent the percentage of respondents who agreed or strongly agreed with

the identified inclusion questions based on the year the survey was conducted.

The following tables display the percentage of employees identifying with the responses on the five-point Likert scale of agreement or disagreement for each inclusion question. From 2012-2020 there were notable fluctuations revealed in the data, although the overall magnitude of the changes was less dramatic than the changes reflected in the engagement questions. The largest change was among the number of respondents who agreed with I1 (employee opinions are solicited), which increased by 11.7% (see Table 10). The number of respondents who strongly agreed with I5 (contribute to fullest potential) increased by 10.4% (see Table 14). The number of respondents who strongly agreed with I3 (provide opinions without fear) and I4 (encourage/value diverse perspectives) increased by 7.8% and 7.6% respectively (see Tables 12 and 13). Lastly, I2 (inclusive work environment) reflected the smallest change in the number of respondents who strongly agreed, increasing by only 6.5% (see Table 11). In addition to the tables outlining these summary statistics, a chart depicting the relative frequency distribution for each inclusion question is also provided.

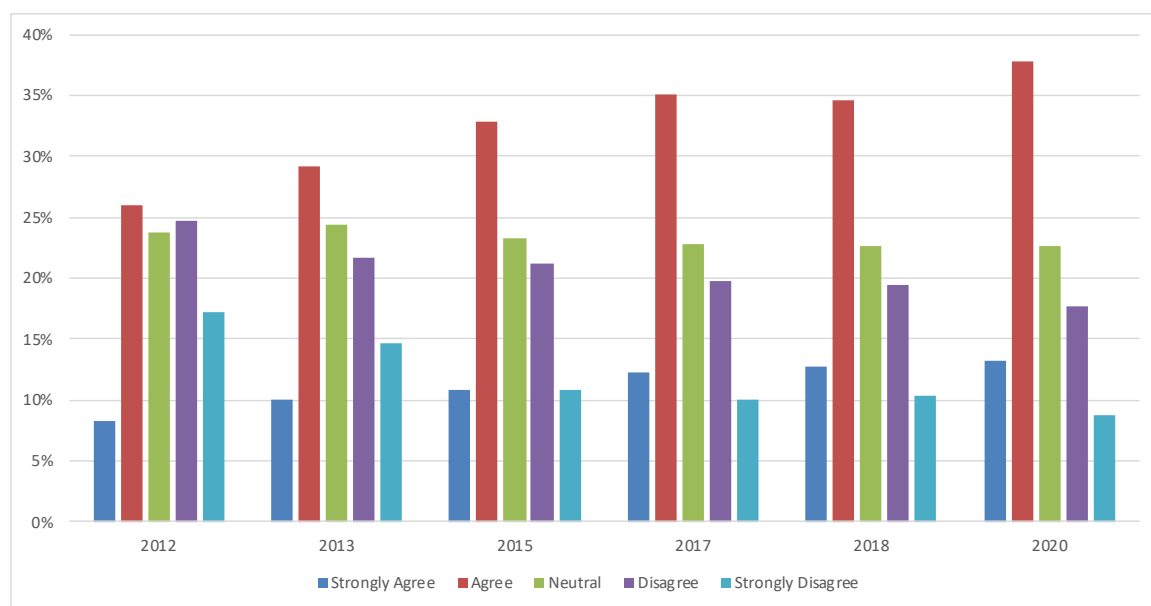
Table 10

Survey Responses – Inclusion Question #1

		Survey Year					
		2012	2013	2015	2017	2018	2020
I1: Sufficient effort is made to get the opinions of people who work here.	Strongly Agree	8.3%	10.1%	10.9%	12.3%	12.8%	13.3%
	Agree	26.0%	29.2%	32.9%	35.1%	34.6%	37.7%
	Neutral	23.7%	24.3%	23.3%	22.8%	22.7%	22.6%
	Disagree	24.7%	21.6%	21.2%	19.8%	19.5%	17.7%
	Strongly Disagree	17.2%	14.6%	10.9%	10.0%	10.4%	8.7%
N		27,312	31,475	31,511	34,310	33,052	27,312

Note. Each cell represents survey responses for inclusion question #1 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 9

Relative Frequency Distribution – Inclusion Question #1

Note. Bars represent relative frequencies of the responses for inclusion question #1 among the study population based on the year the survey was conducted.

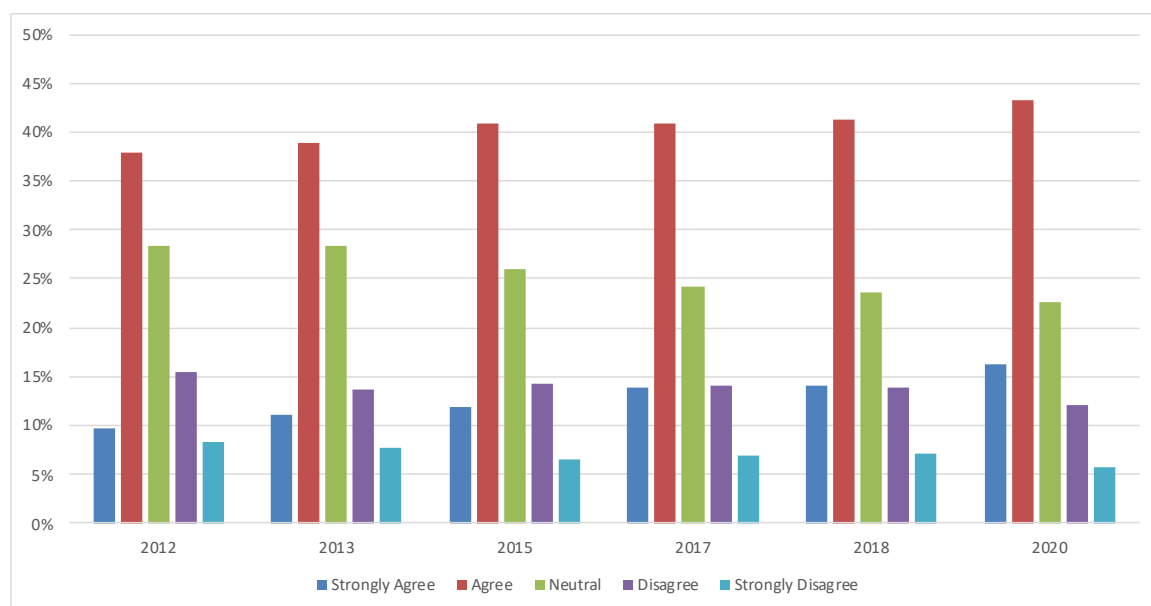
Table 11

Survey Responses – Inclusion Question #2

		Survey Year					
		2012	2013	2015	2017	2018	2020
I2: The State of Michigan has an inclusive work environment where individual differences are respected.	Strongly Agree	9.8%	11.2%	11.9%	13.8%	14.0%	16.3%
	Agree	37.9%	38.8%	40.9%	40.9%	41.3%	43.3%
	Neutral	28.3%	28.3%	26.0%	24.2%	23.6%	22.6%
	Disagree	15.5%	13.7%	14.2%	14.1%	13.9%	12.0%
	Strongly Disagree	8.3%	7.8%	6.6%	7.0%	7.2%	5.8%
N		27,305	31,483	31,674	34,309	33,052	27,313

Note. Each cell represents survey responses for inclusion question #2 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 10

Relative Frequency Distribution – Inclusion Question #2

Note. Bars represent relative frequencies of the responses for inclusion question #2 among the study population based on the year the survey was conducted.

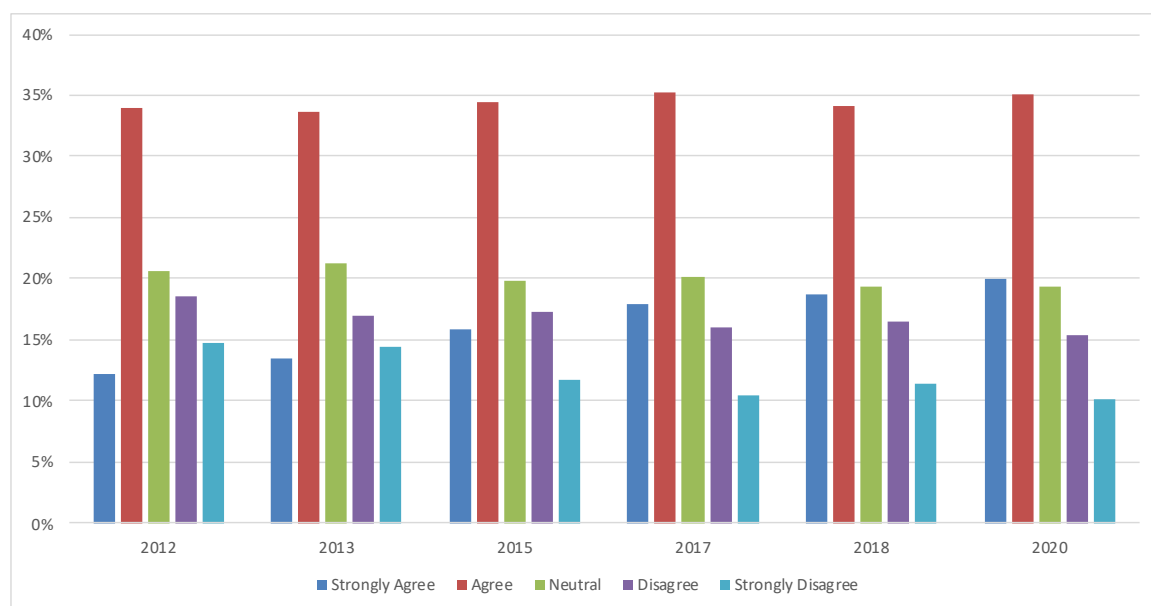
Table 12

Survey Responses – Inclusion Question #3

		Survey Year					
		2012	2013	2015	2017	2018	2020
I3: I provide my opinions without fear of retaliation or retribution.	Strongly Agree	12.2%	13.5%	15.9%	17.9%	18.7%	20.0%
	Agree	33.9%	33.6%	34.5%	35.3%	34.1%	35.0%
	Neutral	20.6%	21.3%	19.9%	20.1%	19.3%	19.4%
	Disagree	18.5%	17.0%	17.3%	16.1%	16.5%	15.4%
	Strongly Disagree	14.7%	14.4%	11.8%	10.5%	11.4%	10.2%
N		27,317	31,462	31,577	34,310	33,051	27,314

Note. Each cell represents survey responses for inclusion question #3 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 11

Relative Frequency Distribution – Inclusion Question #3

Note. Bars represent relative frequencies of the responses for inclusion question #3 among the study population based on the year the survey was conducted.

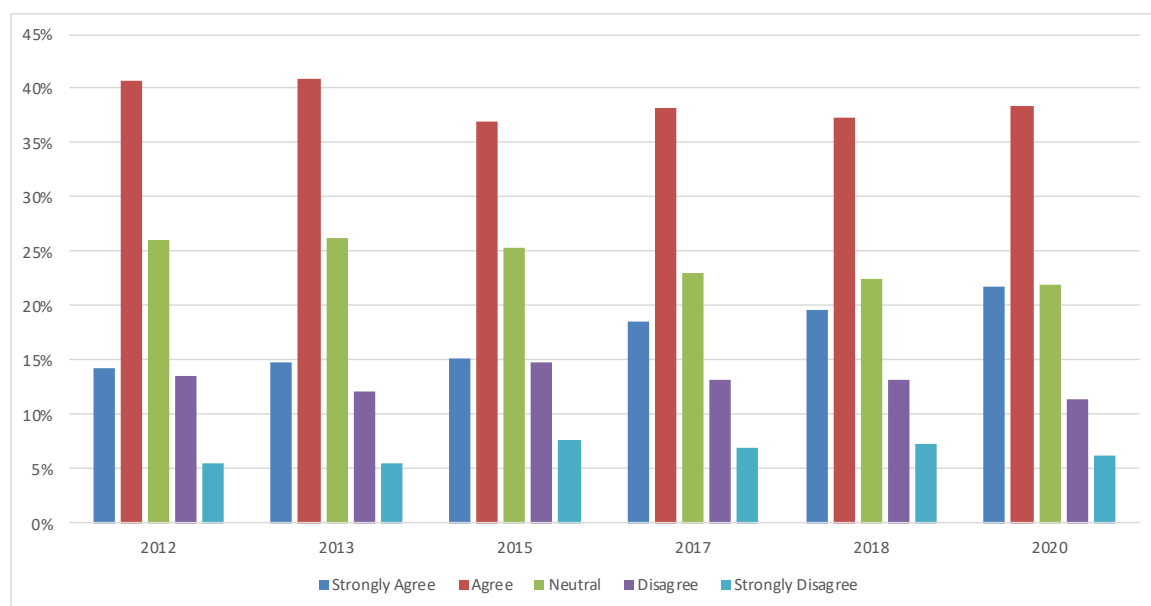
Table 13

Survey Responses – Inclusion Question #4

		Survey Year					
		2012	2013	2015	2017	2018	2020
I4: My work group has a climate in which diverse perspectives are encouraged and valued.	Strongly Agree	14.2%	14.9%	15.1%	18.5%	19.6%	21.8%
	Agree	40.7%	40.9%	36.9%	38.3%	37.3%	38.4%
	Neutral	26.0%	26.3%	25.4%	23.0%	22.5%	22.0%
	Disagree	13.5%	12.2%	14.8%	13.2%	13.2%	11.5%
	Strongly Disagree	5.5%	5.5%	7.6%	7.0%	7.4%	6.3%
N		27,309	31,456	31,699	34,310	33,052	27,316

Note. Each cell represents survey responses for inclusion question #4 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 12

Relative Frequency Distribution – Inclusion Question #4

Note. Bars represent relative frequencies of the responses for inclusion question #4 among the study population based on the year the survey was conducted.

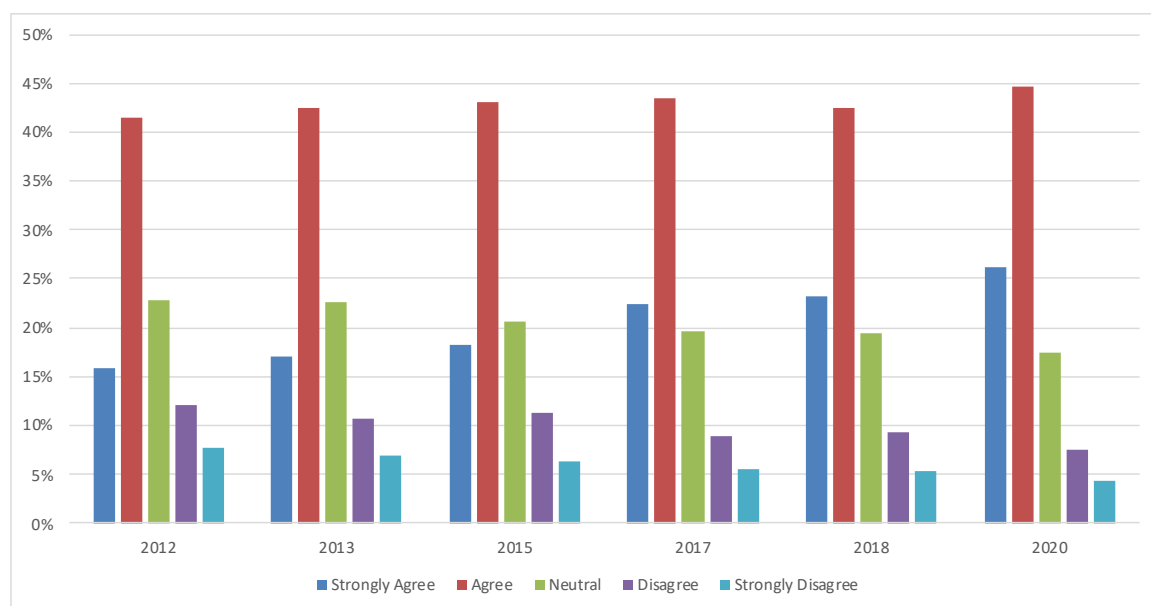
Table 14

Survey Responses – Inclusion Question #5

		Survey Year					
		2012	2013	2015	2017	2018	2020
I5: Employees at the State of Michigan are able to contribute to their fullest potential ...	Strongly Agree	15.8%	17.0%	18.3%	22.4%	23.2%	26.2%
	Agree	41.4%	42.4%	43.1%	43.5%	42.5%	44.6%
	Neutral	22.8%	22.6%	20.7%	19.6%	19.5%	17.4%
	Disagree	12.1%	10.8%	11.3%	9.0%	9.4%	7.5%
	Strongly Disagree	7.7%	7.0%	6.4%	5.5%	5.4%	4.3%
N		27,303	31,468	31,725	34,309	33,052	27,314

Note. Each cell represents survey responses for inclusion question #5 among the study population based on the year the survey was conducted. Percentages may not equal 100% due to rounding and missing cases.

Figure 13

Relative Frequency Distribution – Inclusion Question #5

Note. Bars represent relative frequencies of the responses for inclusion question #5 among the study population based on the year the survey was conducted.

Correlation Analysis: Survey Questions

A Spearman's rank-order correlation was run to assess the relationship between the individual engagement and inclusion questions on a statewide basis. Preliminary analysis demonstrated a non-monotonic relationship as evaluated by visual inspection of a scatterplot. Spearman's correlation revealed a moderate to weak relationship that was also statistically significant. Across all surveys the correlations ranged from $r_s = .232$ to $r_s = .555$, and the p-value was $p < .001$. The strongest relationship ($r_s = .555$, $p = .000$) was exhibited in the 2018 survey between E1 (recommend SOM to others) and I2 (inclusive work environment). These two questions also exhibited moderate relationships in each of the other years the survey was conducted, with the lowest correlation coefficient ($r_s = .522$, $p = .000$) observed in the 2012 survey. A similar relationship was exhibited between E1 (recommend SOM to others) and I1 (employee opinions are solicited). A moderate relationship was observed between these two questions in each of the years the survey was conducted, and the correlations ranged from $r_s = .505$ to $r_s = .544$ with a consistent p-value of $p = .000$. It should be further noted that E1 exhibited a moderate relationship with one or more of the inclusion questions in each of the years the survey was conducted.

Aside from the correlations observed with E1, three other engagement questions exhibited a moderate relationship with an inclusion question, but these correlations were limited to one survey year. In the 2013 survey, E3 (colleagues exceed expectations) and E5 (colleagues customer service) exhibited a moderate relationship with I4 (encourage/value diverse perspectives). Moreover, in the 2018 survey, E4 (proud to work for SOM) exhibited a moderate relationship with I2 (inclusive work environment). Table

15 includes statewide correlation coefficients reflecting the strongest relationships between individual engagement and inclusion questions. Correlation matrices for all engagement and inclusion question for each survey are included in Appendix D.

Table 15

Spearman's Rank-Order Correlation of Survey Questions (Statewide) 2012-2020

Survey Year	Correlation Engagement Question	Inclusion Question	Correlation Coefficient	N
2012	E1: Recommend SOM to others	I1: Employee opinions are solicited	0.506	27,308
2012	E1: Recommend SOM to others	I2: Inclusive work environment	0.522	27,300
2013	E1: Recommend SOM to others	I1: Employee opinions are solicited	0.505	31,466
2013	E1: Recommend SOM to others	I2: Inclusive work environment	0.531	31,476
2013	E3: Colleagues exceed expectations	I4: Encourage/value diverse perspectives	0.518	31,430
2015	E5: Colleagues customer service	I4: Encourage/value diverse perspectives	0.528	31,448
2015	E1: Recommend SOM to others	I1: Employee opinions are solicited	0.523	31,505
2015	E1: Recommend SOM to others	I2: Inclusive work environment	0.529	31,669
2015	E1: Recommend SOM to others	I3: Provide opinions without fear	0.501	31,571
2015	E1: Recommend SOM to others	I5: Contribute to fullest potential	0.510	31,718
2017	E1: Recommend SOM to others	I1: Employee opinions are solicited	0.528	34,308
2017	E1: Recommend SOM to others	I2: Inclusive work environment	0.543	34,307
2017	E1: Recommend SOM to others	I5: Contribute to fullest potential	0.510	34,307
2018	E1: Recommend SOM to others	I1: Employee opinions are solicited	0.544	33,052
2018	E1: Recommend SOM to others	I2: Inclusive work environment	0.555	33,052
2018	E1: Recommend SOM to others	I3: Provide opinions without fear	0.501	33,051
2018	E1: Recommend SOM to others	I4: Encourage/value diverse perspectives	0.501	33,052
2018	E1: Recommend SOM to others	I5: Contribute to fullest potential	0.509	33,052
2018	E4: Proud to work for SOM	I2: Inclusive work environment	0.504	33,052
2020	E1: Recommend SOM to others	I1: Employee opinions are solicited	0.532	27,312
2020	E1: Recommend SOM to others	I2: Inclusive work environment	0.543	27,312

Note. Contents show correlation coefficients reflecting the relationship between the individual engagement and inclusion questions on a statewide basis. All correlation coefficients were statistically significant (2-tailed significance test) with a p-value of $p = .000$. Only those correlations with coefficients greater than 0.500 are displayed. Results are included for each year the survey was conducted.

Cronbach's alpha

A Cronbach's alpha test was performed to assess the internal reliability and consistency of the questions measuring the dependent and independent variables (Lund Research Ltd., 2015a). This test was used to determine whether any proposed questions for the dependent and independent variables needed to be omitted from further analysis. The inclusion scale (IV) consisted of five questions, and the engagement scale (DV) consisted of six questions. Initial results indicated that both the inclusion and engagement questions revealed high internal consistency; however, subsequent statistical analysis refined the engagement scale by reducing the total number of questions. Accordingly, the Cronbach's alpha test was performed on a new engagement scale which consisted of four questions. The results of this secondary test also revealed high internal consistency of the engagement scale. For each year the survey was conducted, the Cronbach's alpha coefficients were greater than or equal to 0.859 for inclusion and greater than or equal to 0.750 for engagement (see Table 16). Coefficients of 0.7 or greater indicate adequate reliability (DeVellis, 2003; Kline, 2005).

Table 16

Cronbach's alpha Coefficients

Survey Year	Inclusion Scale (IV)	Engagement Scale (DV)
2012	0.859	0.750
2013	0.875	0.777
2015	0.896	0.795
2017	0.898	0.796
2018	0.900	0.809
2020	0.898	0.811

Note. Contents show Cronbach's alpha coefficients for the inclusion and engagement factors based on the year the survey was conducted.

Principal Components Analysis

For each survey conducted from 2012-2020, a principal components analysis (PCA) was performed based on 9 questions that measured sentiments on inclusion and engagement. The appropriateness of the PCA was determined by assessing linearity between all variables and sampling adequacy. The correlation matrix indicated that all variables had at least one correlation coefficient greater than 0.3. The overall Kaiser-Meyer-Olkin (KMO) measure ranged from 0.905 to 0.917, with individual KMO measures all greater than 0.8. The classification of individual KMO measures ranged from 'meritorious' ($0.8 \leq \text{KMO} < 0.9$) to 'marvelous' ($\text{KMO} \geq 0.9$), according to Kaiser (1974). Bartlett's test of sphericity was statistically significant ($p < .001$), indicating that the data was factorizable and suitable for a PCA.

In all instances, the PCA revealed two components with eigenvalues greater than one. The percentage of the total variance explained by the two components ranged from 62.1% to 68.9%. Component one exhibited strong loadings of inclusion items and explained between 50.8% and 57.0% of the total variance. Component two exhibited strong loadings of engagement items and explained between 11.2% and 12.1% of the total variance. Scree plots for each survey year were less conclusive, indicating that only one component should be retained (Cattell, 1966); however, a two-component solution satisfied the interpretability criterion. Based on all four criteria (eigenvalue; total variance accounted for; scree plot, and interpretability) two components were retained. Interpretability was further supported by a Varimax orthogonal rotation which exhibited 'simple structure' (Thurstone, 1947). The interpretation of the data aligned with key

sentiments that the survey was designed to measure. Tables 17-22 present component loadings and communalities of the rotated solution.

Table 17

2012 SOM Survey: Rotated Component Matrix for PCA with Varimax Rotation

Survey Questions	Rotated Component Coefficients		Communalities
	Component 1 (IV)	Component 2 (DV)	
I2: Inclusive work environment	0.789		0.700
I3: Provide opinions without fear	0.785		0.636
I4: Encourage/value diverse perspectives	0.769		0.635
I1: Employee opinions are solicited	0.764		0.631
I5: Contribute to fullest potential	0.694	0.324	0.586
E2: Intend to stay with SOM		0.781	0.609
E4: Proud to work for SOM	0.375	0.749	0.701
E1: Recommend SOM to others	0.495	0.617	0.626
E6: Contribute to SOM mission	0.328	0.597	0.464

Note. Major loadings for each item are bolded.

Table 18

2013 SOM Survey: Rotated Component Matrix for PCA with Varimax Rotation

Survey Questions	Rotated Component Coefficients		Communalities
	Component 1 (IV)	Component 2 (DV)	
I2: Inclusive work environment	0.805		0.724
I4: Encourage/value diverse perspectives	0.791		0.678
I3: Provide opinions without fear	0.782		0.645
I1: Employee opinions are solicited	0.768		0.646
I5: Contribute to fullest potential	0.731		0.623
E2: Intend to stay with SOM		0.807	0.653
E4: Proud to work for SOM	0.379	0.759	0.72
E1: Recommend SOM to others	0.483	0.649	0.654
E6: Contribute to SOM mission	0.406	0.572	0.492

Note. Major loadings for each item are bolded.

Table 19

2015 SOM Survey: Rotated Component Matrix for PCA with Varimax Rotation

Survey Questions	Rotated Component Coefficients		Communalities
	Component 1 (IV)	Component 2 (DV)	
I4: Encourage/value diverse perspectives	0.837		0.750
I2: Inclusive work environment	0.807		0.727
I3: Provide opinions without fear	0.803		0.690
I1: Employee opinions are solicited	0.793		0.695
I5: Contribute to fullest potential	0.755		0.654
E2: Intend to stay with SOM		0.782	0.614
E4: Proud to work for SOM	0.404	0.755	0.733
E6: Contribute to SOM mission	0.314	0.674	0.553
E1: Recommend SOM to others	0.481	0.670	0.680

Note. Major loadings for each item are bolded.

Table 20

2017 SOM Survey: Rotated Component Matrix for PCA with Varimax Rotation

Survey Questions	Rotated Component Coefficients		Communalities
	Component 1 (IV)	Component 2 (DV)	
I4: Encourage/value diverse perspectives	0.836		0.749
I2: Inclusive work environment	0.822		0.757
I3: Provide opinions without fear	0.811		0.699
I1: Employee opinions are solicited	0.779		0.686
I5: Contribute to fullest potential	0.753	0.301	0.658
E2: Intend to stay with SOM		0.777	0.607
E4: Proud to work for SOM	0.380	0.769	0.736
E1: Recommend SOM to others	0.467	0.680	0.681
E6: Contribute to SOM mission	0.305	0.672	0.544

Note. Major loadings for each item are bolded.

Table 21

2018 SOM Survey: Rotated Component Matrix for PCA with Varimax Rotation

Survey Questions	Rotated Component Coefficients		Communalities
	Component 1 (IV)	Component 2 (DV)	
I4: Encourage/value diverse perspectives	0.840		0.754
I2: Inclusive work environment	0.822		0.763
I3: Provide opinions without fear	0.814		0.708
I1: Employee opinions are solicited	0.777		0.692
I5: Contribute to fullest potential	0.755		0.658
E4: Proud to work for SOM	0.386	0.775	0.750
E2: Intend to stay with SOM		0.775	0.605
E1: Recommend SOM to others	0.468	0.694	0.700
E6: Contribute to SOM mission	0.311	0.690	0.573

Note. Major loadings for each item are bolded.

Table 22

2020 SOM Survey: Rotated Component Matrix for PCA with Varimax Rotation

Survey Questions	Rotated Component Coefficients		Communalities
	Component 1 (IV)	Component 2 (DV)	
I4: Encourage/value diverse perspectives	0.837		0.754
I2: Inclusive work environment	0.825		0.765
I3: Provide opinions without fear	0.811		0.707
I1: Employee opinions are solicited	0.770	0.303	0.684
I5: Contribute to fullest potential	0.753		0.647
E4: Proud to work for SOM	0.361	0.788	0.752
E2: Intend to stay with SOM		0.768	0.597
E1: Recommend SOM to others	0.449	0.712	0.708
E6: Contribute to SOM mission		0.694	0.568

Note. Major loadings for each item are bolded.

Correlation Analyses: Factor Scores

Hypothesis 1

The first hypothesis posited that there is a positive relationship between employee perception of workplace inclusion (independent variable) and an employee's level of engagement (dependent variable). This hypothesis considered the SOM as a single employer and focused on individual employees as the unit of analysis. Using the factor scores generated by the PCA, a Spearman's rank-order correlation was run to assess the

relationship between the dependent and independent variables on a statewide basis. Preliminary analysis demonstrated a monotonic relationship as evaluated by visual inspection of a scatterplot. Spearman's correlation revealed a weak or negligible association between the dependent and independent variables with varying levels of statistical significance. For each year the survey was conducted, the correlation coefficients were less than or equal to $r_s = .028$, and the p-value ranged from $p < .001$ (2012 survey) to $p < .967$ (2020 survey). Table 23 includes statewide correlation coefficients and significance levels reflecting the relationship between the dependent and independent variables.

Table 23

Spearman's Rank-Order Correlation of Factor Scores (Statewide) 2012-2020

Survey Year	Correlation Coefficient	Sig. (2-tailed)	N
2012	.028	.001	27,218
2013	.021	.001	31,325
2015	.010	.072	31,195
2017	.002	.664	34,305
2018	.005	.354	33,051
2020	.000	.967	27,309

Note. Contents show statewide correlation coefficients and levels of significance reflecting the relationship between the factor scores representing the dependent and independent variables. Results are included for each year the survey was conducted.

Hypothesis 2

The second hypothesis posited that state agencies exhibiting a higher employee perception of workplace inclusion (independent variable) would also exhibit higher rates of employee engagement (dependent variable). This hypothesis recognized the SOM as a collection of governmental subunits and focused on departments and agencies as the unit

of analysis. Using the factor scores generated by the PCA, a Spearman's rank-order correlation was run to assess the relationship between the dependent and independent variables at the department-level. Preliminary analysis demonstrated a monotonic relationship as evaluated by visual inspection of a scatterplot. Spearman's correlation generally revealed a weak or negligible relationship between the dependent and independent variables with varying levels of statistical significance. It is also worth mentioning that Spearman's correlation exhibited both positive and negative directional relationships. Across all surveys, the correlation coefficients ranged from $r_s = -.223$ to $r_s = .361$, and the p-value ranged from $p < .001$ to $p = .990$. Table 24 includes selected state agencies that exhibited statistically significant correlation coefficients greater than ± 0.100 . Appendix E includes correlation coefficients and significance levels reflecting the relationship between the dependent and independent variables (for each state agency and year the survey was conducted).

Table 24

Spearman's Rank-Order Correlation of Factor Scores (Selected Agencies) 2012-2020

Survey Year	State Agency	Correlation Coefficient	Sig. (2-tailed)	N
2012	Gaming Control Board	0.203	0.028	116
2013	Civil Service Commission	0.151	0.008	307
2013	Gaming Control Board	0.361	<0.001	99
2013	Michigan Economic Development Corporation	-0.113	0.050	304
2015	Agriculture and Rural Development	-0.123	0.018	373
2015	Education	-0.109	0.021	448
2015	Human Services	-0.102	<0.001	6,017
2015	Michigan Economic Development Corporation	-0.203	<0.001	306
2015	Michigan State Housing Development Authority	-0.139	0.019	281
2015	Lottery	-0.219	0.005	163
2017	Civil Rights	0.274	0.020	72
2017	Gaming Control Board	-0.169	0.050	135
2018	Civil Service Commission	-0.119	0.020	385
2018	Environmental Quality	-0.120	<0.001	927
2018	Talent and Economic Development	-0.115	<0.001	1,103
2018	Lottery	-0.223	0.003	175
2018	Natural Resources	-0.109	<0.001	1,374
2020	Civil Service Commission	-0.105	0.036	395
2020	Environment, Great Lakes, and Energy	-0.104	0.001	937

Note. Contents show correlation coefficients and levels of significance reflecting the relationship between the factor scores representing the dependent and independent variables. Only those state agencies which exhibited statistically significant correlation coefficients greater than ± 0.100 are displayed. Results are included for each year the survey was conducted.

Results Summary

This chapter presented the results of the statistical analyses performed on secondary data from six employee engagement surveys conducted among SOM employees between 2012 and 2020. A trend analysis and summary statistics were provided for 11 survey questions measuring employee sentiments on inclusion and engagement. Initial findings revealed that while all questions exhibited an overall net

increase in favorability from 2012-2020, the rates of agreement for the engagement questions were generally higher than the rates of agreement for the inclusion questions. A Cronbach's alpha test was performed and indicated high internal consistency and reliability of the questions measuring the dependent and independent variables. PCAs were subsequently performed and revealed that the questions could be grouped into two components, accounting for greater than 60% of the total variance within the data. Four engagement-related questions were used to generate a factor score representing the dependent variable, and five inclusion-related questions were used to generate a factor score representing the independent variable. Correlation analyses were used to test both hypotheses and establish the extent of the relationship between the dependent and independent variables at the statewide and department-levels. Key findings revealed a weak positive and negative relationship with varying levels of statistical significance. The implications of these findings will be discussed in the following chapter.

Chapter V

Discussion

The goal of this study was to assess whether employee engagement is affected by employee perception of workplace inclusion. This question was explored within the context of State of Michigan (SOM) employees, and a positive association between the variables was hypothesized both statewide and among individual state agencies. Chapter one provided an overview of the research project, including background on the topic and its importance, the research question and hypotheses, and the anticipated contribution of the study. Chapter two surveyed existing research on workplace inclusion and employee engagement, including studies on the relationship between these two variables. The research question was also placed within the theoretical foundation of social exchange theory (SET) and social capital theory (SCT). Chapter three outlined the process used to conduct the research study, including the hypotheses that were tested, data sources, the independent and dependent variables, and quantitative methods that were performed. Chapter four presented trend analysis, frequency tables, and response summaries for survey questions associated with the independent and dependent variables, as well as the results of the statistical analyses. This final chapter expounds upon the findings and results and discusses their implications on the research question and hypotheses. The limitations of the research are revisited, and recommendations for future research are offered. The chapter concludes with a practical application of the study results.

Data Analysis

This study analyzed secondary data from six SOM employee engagement surveys conducted between 2012 and 2020. Participation rates for all surveys were greater than or equal to 58% and all surveys included at least 27,000 valid responses. Descriptive statistics were generated for various survey questions measuring employee sentiments related to inclusion and engagement. The results indicated an overall net increase in favorability from 2012-2020; however, the agreement rates for the engagement questions were generally higher than the agreement rates for the inclusion questions. Additional statistical tests indicated high internal consistency and reliability of the questions measuring the dependent and independent variables. Factor scores were generated to determine whether there was a correlation between the two variables, and the survey responses were grouped into a single component representing engagement (dependent variable) and a single component representing inclusion (independent variable). The hypotheses were subsequently tested using a correlation analysis.

Research Question and Hypotheses

The research question posed for this study was: “To what extent does an individual’s perception of workplace inclusion affect their level of employee engagement?” Two hypotheses were offered to answer this question. The first hypothesis posited that there is a positive relationship between employee perception of workplace inclusion and an employee’s level of engagement. This hypothesis considered the SOM as a single employer and focused on individual employees as the unit of analysis. The statistical analysis used to test this hypothesis revealed a negligible association between the dependent and independent variables with varying levels of statistical significance.

Based on the relative lack of correlation and statistical insignificance demonstrated in these findings, the hypothesis was not supported. Consequently, this study does not conclude that employee perception of workplace inclusion has a statistically significant impact on employee engagement.

The second hypothesis posited that state agencies exhibiting higher employee perception of workplace inclusion will also exhibit higher rates of employee engagement. This hypothesis recognized the SOM as a collection of governmental subunits and focused on departments and agencies as the unit of analysis. The statistical analysis used to test this hypothesis revealed a weak or negligible relationship between the dependent and independent variables with varying levels of statistical significance. The analysis also revealed both positive and negative directional relationships. Based on the relative lack of correlation and statistical insignificance demonstrated in these findings, the hypothesis was not supported. Consequently, this study does not conclude that state agencies exhibiting higher employee perception of workplace inclusion can be statistically predicted to exhibit higher rates of employee engagement.

Interpretation of the Findings

Based on the current literature on workplace inclusion and employee engagement, it was anticipated that this study would support existing research on the relationship between these variables. Hypothesis 1 (positive relationship between employee perception of workplace inclusion and level of engagement) was expected to be supported as a result of research by Settles (2016) and Downey et al. (2014), which found positive relationships between these variables. Similarly, hypothesis 2 (state agencies exhibiting higher employee perception of workplace inclusion will exhibit higher

engagement rates) was expected to be supported. Instead, the results of this study exhibited a negligible relationship between the independent and dependent variables indicating that workplace inclusion does not likely have a direct or statistically significant effect on employee engagement. The implications of these findings are subsequently explored from a theoretical, methodological, and practical perspective.

Theoretical Implications

While these findings appear to contradict research that demonstrated a positive relationship between workplace inclusion and employee engagement (Downey et al., 2014; Settles 2016), the current literature entails nuances to the relationship which are unaccounted for within the scope of this study. Settles (2016) examined specific components of workplace inclusion (fairness, openness, cooperativeness, supportiveness, and empowerment) and how they individually related to sentiments on employee engagement. Even though each inclusion component was found to have a positive relationship with engagement, Settles (2016) also found that race was a contributing factor and that the overall perception of workplace inclusion differed between minority and non-minority groups. By comparison, this study sought to establish a comprehensive measure of inclusion based on a factor analysis of broad inclusion-related survey questions as identified by Guidehouse and the SOM. Moreover, due to the absence of participant-level demographic responses within the datasets, this study did not explore whether perceptions of inclusion differed based on the race of the respondent. As such, this study does not refute the findings of Settles but rather demonstrates that inclusion is a multi-faceted construct that should be examined from a micro-perspective as opposed to a macro-perspective.

The findings of Downey et al. (2014) revealed other nuances in the relationship between inclusion and engagement. Based on their survey of health sector employees, the authors established that diversity and inclusion practices had a positive but indirect association with employee engagement. The relationship between diversity and engagement was mediated by a trust climate, and the relationship between diversity and trust climate was mediated by inclusion (Downey et al., 2014). Their findings supported that diversity and inclusion practices were indeed unique constructs, but also demonstrated that both contribute toward a trusting climate that allows the organization to realize higher employee engagement (Downey et al., 2014). On the contrary, this study sought to establish a direct relationship between inclusion and engagement without accounting for mediating factors. Moreover, whereas Downey et al. (2014) examined engagement through the lens of diversity and inclusion practices, this study solely focused on inclusion. Accordingly, this study does not refute the work of Downey et al. (2014) but instead demonstrates that engagement may have numerous antecedents to which inclusion could be a contributor.

In addition to prior research exploring the relationship between workplace inclusion and employee engagement, this study sought to advance discussions on SET and SCT. With regard to the former, this study sought to contribute to SET by examining whether workplace inclusion is an antecedent of employee engagement and, thus a component of the rules of exchange or the reciprocal relationship between employers and employees. The findings of this study do not demonstrate that inclusion is a direct antecedent of engagement; however, existing literature does indicate that specific components of inclusion may contribute to engagement (Cropanzano & Mitchell, 2005;

Downey et al., 2014; Saks, 2006; Settles, 2016; Thomas & Gupta, 2021). For example, Settles (2016) demonstrated that the individual components of fairness, openness, cooperativeness, supportiveness, and empowerment had a positive relationship with engagement. Still, the extent to which workplace inclusion constitutes part of the reciprocal relationship between employers and employees is a matter for future research.

This study sought to advance the SCT theory by exploring how inclusion and engagement can build social capital and develop trust, cooperation, and commitment among employees – supporting the idea that individual social exchanges contribute toward organizational social capital. The findings of this study do not demonstrate a direct linkage between these elements; nevertheless, existing literature does lend credence to the argument (Caïs et al., 2021; Darmasetiawan, 2013; Downey et al., 2014; Fukuyama 1995; Seibert et al., 2001). For example, Downey et al. (2014) demonstrated that diversity and inclusion practices yield a trusting environment that can enhance engagement. This trusting environment is akin to social capital, but similar to the previous theoretical construct, the nuances of this relationship model are also a matter for future research.

Methodological Implications

The results of this study demonstrate that workplace inclusion and employee engagement are multi-faceted constructs which can make it challenging to quantify and measure employee sentiments on these topics. While there is methodological consensus that direct employee feedback is critical to measuring these variables, there is no universal approach to measuring how an employee feels about inclusion or engagement (Lavigna, 2013; Shore et al., 2010). The literature on workplace inclusion indicates that

measuring this variable can incorporate themes such as recognition, social connection, organizational pride, fairness, trust climate, decision-making, access to information, psychological safety, and diversity, to name a few (Downey et al., 2014; Kennedy, 2021; Kennedy and Jain-Link, 2020, 2021; Pelled et al., 1999; Roberson, 2006; Romansky et al., 2021). Similarly, the literature on employee engagement indicates that measuring this variable can incorporate themes such as work design, leadership, communication, job satisfaction, organizational satisfaction, and organizational commitment (Bailey et al., 2017; Hameduddin & Fernandez, 2019; Lavigna, 2013). Even though it is appealing for researchers and organizations to focus on broader constructs like inclusion and engagement, focusing on the various subcomponents of these variables may produce more conclusive results, as in the case of Settles (2016).

It is equally important to recognize that inclusion and engagement may indeed be interpreted differently and have varying levels of personal significance to each employee. As suggested in the preceding paragraph, one employee may consider their workplace to be inclusive only if they perceive that everyone is treated fairly; another employee may consider inclusivity to be related to organizational decision-making and communication. Furthermore, the degree to which an employee is engaged in their work can be impacted by factors such as employee compensation, professional development/advancement opportunities, managerial oversight, and even the mission of the organization. This likely means that how an employee feels about inclusion may not translate into feeling more engaged with their work. Thus, organizations will need a specific strategy for measuring and improving each variable to realize the positive outcomes that can be achieved through an inclusive and engaged workforce.

There are nuances in the results of this study that can inform methodological approaches for future research. First of all, the results of the Spearman's rank-order correlation of individual engagement and inclusion questions indicated higher levels of association than the correlation of the factor scores for these variables. Correlations of the individual engagement and inclusion questions ranged from $r_s = .232$ to $r_s = .555$, with a p-value of $p < .001$. Correlations of the factor scores for engagement and inclusion ranged from $r_s = -.223$ to $r_s = .361$, and the p-value ranged from $p < .001$ to $p = .990$.

The differences in the strength and direction of the correlations could be a result of utilizing a principal components analysis (PCA). Despite the similar themes of the survey questions, each question may be more useful as individual variables rather than a composite variable comprised of multiple questions. Even though the 11 identified questions were appropriately grouped into two components (one for inclusion and one for engagement), only 62.1% to 68.9% of the total variance in the responses to the original 11 questions was explained. Approximately 30% of the total variance is unaccounted for by these two components alone; however, the goal of the PCA was to explain the greatest amount of variance with the fewest number of variables (Lund Research Ltd., 2015c). Two components were ultimately used based on the amount of total variance accounted for, in addition to the eigenvalue-one criterion, the interpretability criterion, and the scree plot test (Lund Research Ltd., 2015c).

Another nuance of these results is that in some instances, the Spearman's rank-order correlation of the factor scores for inclusion and engagement produced very small correlation coefficients with high levels of statistical significance (see Tables 23 and 24). The reason for such a finding could be that this study used a large sample size (Hole, n.d.;

LaMorte, 2021). The smallest sample size was 27,334 (2020), and the largest sample size was 34,385 (2017). The statistical significance also indicates that the weak correlations are not likely to have occurred by chance and there are probably other variables influencing the survey responses on employee engagement (Hole, n.d.; LaMorte, 2021).

Longitudinal Findings and Practical Implications

This study proposed a longitudinal approach to the research question to assess the relationship between workplace inclusion and employee engagement over time. An additional goal was to explore how employee perceptions and attitudes on these topics might have changed throughout the nine-year timeframe during which the SOM employee engagement surveys were conducted. While this study failed to provide compelling support that increasing sentiments on the inclusivity of the work environment will lead to higher individual or collective rates of employee engagement, the survey results indicated that overall employee sentiments on inclusion and engagement increased from 2012-2020.

There was, however, a notable departure from the overall positive trends exhibited over the course of the six surveys. The 2018 survey consistently revealed negligible change in favorability and some questions showed slight decreases in favorability. For example, E2 (intend to stay with SOM) exhibited a 1.4% decrease in favorability, with the number of neutral responses increasing 1.1%, and the number of unfavorable responses increasing 0.3%. Even though E1 (recommend SOM to others) exhibited a 0.2% increase in favorability, the number of neutral responses decreased 0.8%, and the number of unfavorable responses increased 0.7%. The inclusion questions saw similar fluctuations in the 2018 survey. For example, I3 (provide opinions without

fear) reflected a 0.4% decrease in favorability, a 0.8% decrease in neutrality, and a 1.3% increase in the number of unfavorable responses. Another interesting fluctuation was that I2 (inclusive work environment) reflected a 0.6% increase in favorability with an equivalent percentage decrease in neutrality. By contrast, question I4 (encourage/value diverse perspectives) showed a 0.5% decrease in neutrality, with a 0.4% increase in the number of unfavorable responses (see Table 25).

Table 25

2018 SOM Survey: Change in Favorable Responses for Selected Questions

		Survey Year		
		2017	2018	% Change
E1: Recommend SOM to others	Favorable	68.4%	68.6%	0.2%
	Neutral	19.6%	18.8%	-0.8%
	Unfavorable	11.9%	12.6%	0.7%
E2: Intend to stay with SOM	Favorable	87.9%	86.5%	-1.4%
	Neutral	7.6%	8.7%	1.1%
	Unfavorable	4.5%	4.8%	0.3%
I2: Inclusive work environment	Favorable	54.7%	55.3%	0.6%
	Neutral	24.2%	23.6%	-0.6%
	Unfavorable	21.1%	21.1%	0.0%
I3: Provide opinions without fear	Favorable	53.2%	52.8%	-0.4%
	Neutral	20.1%	19.3%	-0.8%
	Unfavorable	26.6%	27.9%	1.3%
I4: Encourage/value diverse perspectives	Favorable	56.8%	56.9%	0.1%
	Neutral	23.0%	22.5%	-0.5%
	Unfavorable	20.2%	20.6%	0.4%

Note. Contents show survey questions exhibiting a $\pm 0.5\%$ or greater change in favorable responses from 2017 to 2018. Those respondents who answered “strongly agree” or “agree” are categorized as favorable, and those respondents who answered “disagree” or “strongly disagree” are categorized as unfavorable.

When compared to the positive trends in the other surveys, the shifts in 2018 raise questions about why this survey yielded different results. One consideration is the

political environment during the time period of the survey. This particular survey was conducted between September and October of 2018, which was right before the Michigan gubernatorial election and the U.S. midterm elections. It is possible that political attitudes could have impacted how employees felt about working for the SOM. For example, given that Gov. Rick Snyder was term-limited in 2018, it is not surprising that there would be a decrease in the number of employees indicating their intent to stay with the SOM for another twelve months. Also, changes in executive branch leadership during the waning years of the Snyder Administration may have impacted employee sentiments about recommending the SOM to others, providing opinions without fear, or whether the SOM encouraged or valued diverse perspectives.

Likewise, political divisiveness and rhetoric at the federal level could have impacted morale throughout the public sector. The Partnership for Public Service found that employee engagement within the U.S. federal government declined 0.6% in 2018 and 0.5% in 2019 (Partnership for Public Service, 2018; 2019). This is consistent with the SOM results indicating that employee engagement declined by one percent in 2018 (SOM, 2018). Whether the federal or state political climate directly impacted engagement is beyond the scope of this study; but Beck and Shen (2018) argued that significant historical and political events could have a spillover effect that impacts employee sentiments in the workplace.

Lastly, the timing of the survey compared to other years may have contributed to the change in employee sentiments. While four of the six surveys were conducted between February and March, the 2013 and 2018 surveys were conducted during late summer / early fall. The time of year when the survey was conducted, or perhaps even the

time of day when respondents participated, could have impacted results, but this argument is purely speculative and additional research and data would be needed to yield a meaningful conclusion.

Aside from the 2018 survey results and possible explanations for the shift in employee sentiments, there are various factors which may have contributed to the broader changes in employee perceptions and attitudes from 2012-2020. Regarding workplace inclusion, demographic changes to the state workforce should be considered as a contributing factor. From 2012-2020 the proportion of women state employees grew from 52% to 54%, and the proportion of non-white state employees ticked up from 24% to 25% (SOM 2012a; 2020a). During the same period of time, the proportion of state employees in the 25-34 age range grew by 3%, and the proportion of state employees in the 55 and over age range grew by 2% (SOM 2012a; 2020a). All other age ranges reflected a slight decrease (SOM 2012a; 2020a). Also, the proportion of state employees with less than 10 years of state service grew from 46% to 52% (SOM 2012a; 2020a). Depending on the agency where the respondent worked, demographic changes among staff and management/leadership may have been even more dynamic which could have impacted sentiments on whether the SOM values diversity or maintains an inclusive work environment. Beyond perceptions of diversity and inclusivity, several DEI questions focused on whether employees felt their opinions were welcome. Individual agencies may have implemented policies and procedures from 2012-2020, which could have impacted employee perspectives on this aspect of the work environment. The extent to which policy and procedural changes may have impacted sentiments on inclusion and engagement is a topic for further study.

Concerning employee engagement, several possible contributing factors could have impacted survey responses. One consideration is whether other aspects of the work environment had an impact on employee engagement. This study specifically focused on the relationship between inclusion and engagement, but the SOM surveys included questions about state agency communications, leadership, the employee's immediate supervisor, the employee's workgroup/colleagues, and the employee's job. From 2012-2020 the agreement rates for all the questions in these categories either remained constant or reflected an overall net increase (SOM, 2020a). The only question that reflected a net decrease was related to the employee's job. The number of respondents who strongly agreed or agreed with the question "I am generally able to balance my job and personal/family life" decreased from 79% in 2012 to 78% in 2020 (SOM, 2020a).

Considering that questions about other aspects of the SOM work environment reflected overall net increases in favorability from 2012-2020, these components may have had a greater impact on employee engagement when compared to the singular component of workplace inclusion. Prior research has demonstrated that communication, leadership, and job design contribute to employee engagement (Bailey et al., 2017; Hameduddin & Fernandez, 2019). Furthermore, after each survey was conducted, state agencies were tasked with developing action plans to address concerns within the work environment (Brown, 2019; 2021). If a state agency took meaningful action to address identified concerns, this could have contributed toward improved employee engagement scores in future surveys (Brown, 2019; 2021; Lavigna, 2013). This could also explain why the agreement rates for the engagement questions were generally higher than those for the inclusion questions. State agencies may have been more focused on other aspects

of the work environment rather than specifically prioritizing DEI. Nevertheless, it was outside the scope of this study to weigh and compare other aspects of the SOM work environment and how they relate to employee engagement, but this is a compelling topic for future research.

Another consideration is the impact of compensation adjustments on individual and collective employee engagement. Between 2012 and 2020, state employee compensation increased every year, with the largest increases occurring in 2012 (5%), 2019 (4%), and 2017 (3%) (M. Holben, personal communication, February 16, 2023). Correspondingly, reports from the Civil Service Commission indicate that the average annual salary of state employees grew from \$54,475 in fiscal year 2012, to \$63,772 in fiscal year 2020 (SOM 2012b; 2020b). Though it is difficult, and outside the scope of this study, to account for the various compensation adjustments that employees may have received (e.g., cost of living adjustments, merit pay increases, and adjustments to insurance premiums) and their impact on sentiments about employee engagement, it should be considered that certain types of compensation adjustments may have had a positive effect. Employee salary is not strongly associated with engagement (Blacksmith & Harter, 2011; Chamorro-Premuzic 2013; Judge et al., 2010); however, Ogbonnaya et al. (2017) found that performance-related compensation adjustments were positively associated with elements of employee engagement, including organizational commitment and job satisfaction.

A third consideration is whether the economy could have impacted employee engagement scores for the state. According to Cahill et al. (2015), the state of the macroeconomy economy (as measured through the unemployment rate, the housing

index, and the Dow Jones Industrial Average) has a statistically significant impact on employee engagement, job satisfaction, and satisfaction with work-life balance. More specifically, employee engagement was positively associated with a strong economy (Cahill et al., 2015). While the Cahill et al. study (2015) explored the impact of the national economy on employee engagement, Michigan's economic indicators are worth mentioning as a potential antecedent of employee engagement. During the decade in which the employee engagement surveys were conducted, Michigan's unemployment rate improved from 13.8% in 2010 to 4% in 2019 (Mack, 2019). During this same time period, Michigan's median household income increased by 25%, median home values increased by 67%, and Michigan's poverty rate decreased by 2.7% (Mack, 2019). Notably, the number of Michiganders without health insurance decreased from 1.1 million in 2013 to an estimated 534,000 in 2018, and the number of residents with at least a bachelor's degree increased by 25% from 2010-2018 (Mack, 2019). Even though these economic indicators did not reflect a full recovery from the great recession, they still reflected an improving economy which may have contributed to improved employee engagement.

A final consideration is to what extent the sociopolitical environment of the state could have impacted employee engagement. While it was outside the scope of this study to account for the plethora of events from 2012-2020 that could have impacted employee sentiments about the SOM, it is worth highlighting a few for context. On the political front, between 2012 and 2020, Michigan held two gubernatorial elections. In 2014 former Governor Rick Snyder was reelected to a second term in office, and in 2018 current Governor Gretchen Whitmer was elected to her first term in office (New York Times,

2014; 2018). On the policy front, though Michigan has historically been a state with strong labor unions, in 2013 the government enacted Freedom to Work laws which allowed employees to opt-out of participation in a labor union while still receiving the rights and benefits of their applicable bargaining unit (SOM, n.d.). That same year the City of Detroit filed for Chapter 9 bankruptcy, representing the largest municipal bankruptcy filing in U.S. history (Gilson et al., 2015). Additionally, in 2014 and 2015 the state confronted the Flint Water Crisis, which included criminal charges for several state government officials (Chavez et al., 2017). This study does not attempt to correlate any of these events with fluctuations in SOM employee engagement rates. Nevertheless, it is worth noting that these events could have impacted engagement among individuals, within certain state agencies, and collectively across the entirety of state government.

Apart from these longitudinal observations, it is interesting that several results from state agencies indicated a slight negative directional relationship (albeit very weak) between the variables. Though it would be inappropriate to draw a meaningful conclusion from these results, the findings do raise the possibility that there may be an inverse relationship between inclusion and engagement for some employees. Relatedly, some research suggests that how diversity, equity, and inclusion (DEI) strategies are implemented can have negative implications, such as reverse discrimination, decreased psychological capital, or perceptions of tokenism among marginalized groups (Leslie, 2019; Waldman & Sparr, 2022). Further research is warranted in order to ascertain why a negative relationship between inclusion and engagement may be exhibited by the responses of certain employees. Conversely, the only state agencies that exhibited statistically significant correlation coefficients greater than 0.100 were the Civil Service

Commission, the Department of Civil Rights, and the Gaming Control Board. Further research and analysis of these agencies could reveal factors that may have contributed to a weak positive relationship between the variables.

Assumptions and Limitations of the Study

Assumptions

There were several assumptions made in this study. Based on the existing research and relevant theories, it was assumed that there was a directional relationship between workplace inclusion and employee engagement and that such a relationship could be statistically demonstrated. From a theoretical standpoint, it was assumed that social exchange theory and social capital theory could be applied to public sector organizations, specifically to a state government workforce. From a methodological standpoint, it was assumed that the inclusion and engagement questions utilized by Guidehouse and the SOM accurately measured employee sentiments related to these constructs. The SOM survey questions were consistent with the types of questions typically used to measure inclusion and engagement, but this study assumed that the questions were valid and reliable and that the responses would provide an accurate and comprehensive measure of the variables.

Finally, it was assumed that the survey respondents understood the questions and provided responses that authentically represented their sentiments about working for the SOM. For example, question E6 (“I understand how my job contributes to the mission of the State of Michigan”) had relatively high rates of agreement. Still, it is unclear whether the survey provided a mission statement for the participant to reference. It is possible that participants could recall the mission of the SOM and it is equally possible that

respondents answered this question in a manner that reflected alignment with their respective agency mission statements. Another example is that the 2012 and 2013 surveys included “other” as a response option for the demographic question identifying which department or agency the participant worked in. Subsequent surveys removed this option, but it was also assumed that participants understood and accurately represented where they worked within state government.

Limitations

Two key limitations were anticipated which ultimately affected the results of the statistical tests and the overall conclusions of the research. The first key limitation was the absence of participant-level demographic responses on elements such as age, gender identity, race, education, employment group classification, and tenure with the organization. Having this level of demographic data could have yielded more conclusive results about the relationship between inclusion and engagement. This study has referenced other research indicating that employee experiences and perceptions of the workplace can vary by race (Ibarra, 1995; Linnehan et al., 2006; Settles, 2016). Assessing the correlation between the variables by race, age, or tenure with the organization could have illuminated other differences in the perspectives and experiences of state employees. The relationship between inclusion and engagement may vary by demographic profile, but that question was not testable within this study due to dataset limitations.

The second key limitation was the use of secondary data instead of primary data. A research design incorporating primary data would have allowed greater flexibility to construct and expand the survey questions intended to measure the independent and dependent variables. The Guidehouse and SOM surveys assessed diversity and inclusion

utilizing six questions measuring sentiments on sharing opinions, respecting individual differences, valuing diverse perspectives, and contributing to one's full potential (SOM, 2012a, 2013, 2015, 2017, 2018, 2020a). This study only used five of those six questions to create a factor score of workplace inclusion, as one question was unique to the 2020 survey. By contrast, Settles (2016) utilized the U.S. Office of Personnel Management's New Inclusion Quotient (New IQ), which incorporated 18 questions measuring sentiments related to the five factors believed to contribute to workplace inclusion: fairness, openness, cooperativeness, support, and empowerment. Another contrasting approach is the Gartner Inclusion Index, which utilizes 45 questions about inclusion components: fair treatment, integrating differences, decision-making, psychological safety, trust, belonging, and diversity (Romansky et al., 2021). These models reveal varying methodological approaches toward measuring workplace inclusion.

With regard to employee engagement, the Guidehouse and SOM surveys utilized six questions measuring the themes of advocacy, commitment, discretionary effort, pride, achievement, and alignment (SOM, 2012a, 2013, 2015, 2017, 2018, 2020a). This study ultimately used four of those six questions to create a factor score of employee engagement. This factor score was based on the principal components analysis indicating that two questions (E3 and E5) were more appropriately grouped as a standalone component given that they measured employee sentiments about their colleagues' work ethic and passion for their job. The engagement questions included in the Guidehouse and SOM surveys are appropriate, but they are also narrow in scope and appear to focus primarily on whether the employee likes working for the state. By contrast the Gallup Q12 model utilizes 12 questions related to four levels of employee engagement: basic

needs, individual contribution, teamwork, and growth (Gallup, n.d.). While there is not a universal approach to measuring inclusion or engagement, conducting primary research on the SOM workforce could have incorporated one of these models and possibly produced a more comprehensive assessment of the variables and potentially more conclusive results pertaining to the research question. It is worth acknowledging that there were other questions in the SOM surveys that could have been used to create an alternative measure of inclusion and engagement, but the development, validity, and reliability of such a model was outside the scope of this particular study.

Finally, this study attempted to demonstrate a direct relationship between workplace inclusion and employee engagement but did not account for the impact of other factors. The general results of the SOM surveys suggest that other components of the work environment may indeed impact employee engagement (state agency communications, leadership, the employee's immediate supervisor, the employee's workgroup/colleagues, and the employee's job). Beyond these factors, other intangibles may have impacted employee engagement (e.g., compensation adjustments, the overall economy, sociopolitical events, and improvements in other aspects of the work environment). While it was not practical for this study to account for the potential impact of all these factors, future research might consider how organizational, economic, and sociopolitical factors may affect employee engagement within public sector organizations.

Recommendations

Based on the results of this study, several recommendations can be made for both practitioner and academic communities.

Recommendations for Public Sector Practitioners

It is admirable that a public sector organization such as the SOM has prioritized an ongoing and systematic review of employee sentiments and attitudes. This effort has generated positive attention for the state and also produced a wealth of data that is extremely useful to both practitioners and researchers alike. However, given that it has been a decade since the first employee engagement survey was conducted, it is recommended that the SOM revisit how it is measuring engagement and other key organizational dynamics. Such an evaluation could help ensure that future surveys achieve the state's intended goals of enhancing the work culture.

Moreover, while the Guidehouse analyses of the survey data provide useful descriptive statistics, the SOM may benefit from greater statistical analysis of the results, including whether there are causal relationships that could be identified. For example, after each survey, departments and agencies established action plans to address concerns raised in the responses (Brown, 2019, 2021). These action plans included objectives to increase the visibility of engagement efforts, involve employees from different employment classifications in action planning sessions, increase interactions between employees and leadership, and obtain additional feedback through interim surveys (Brown, 2019, 2021; SOM, 2021). Though subsequent surveys have assessed whether employees felt that meaningful action was taken as a result of the prior survey, there has not been a systematic evaluation of specific actions taken and their relationship to employee engagement. Equally, as the state shifts its focus toward cultivating an equitable and inclusive work environment, it is recommended that future surveys and

resulting analyses examine the underlying components of workplace inclusion and their relationship with employee engagement.

It is also crucial that employee engagement surveys disaggregate responses based on key demographics within the survey population. This is particularly important for organizations to better understand employee sentiments related to DEI issues. Prior research has indicated that employee perspectives on isolation, job satisfaction, turnover, communication, and interpersonal relationships are associated with race (Ibarra, 1995; Linnehan et al., 2006). Additionally, the literature on workplace inclusion suggests that the practice of concealing a personal attribute or aspect of one's identity is common within the workplace and prevents employees from expressing their true selves concerning gender, race, or sexual orientation (Smith & Yoshino, 2013; Yoshino, 2006). This likely means that organizational strategies to foster greater inclusion or drive engagement cannot be a "one size fits all" approach, but should instead account for the demographic profile of the employees. Acknowledging the tremendous importance of maintaining the anonymity of all individuals participating in employee engagement surveys, practitioners should nonetheless consider using participant-level demographic responses in the datasets and survey analysis. This will facilitate a deeper level of understanding which can aid the successful development and implementation of DEI strategies.

Recommendations for Future Academic Research

This study was intended to provide a comprehensive assessment of the relationship between workplace inclusion and employee engagement among SOM employees; however, several study elements warrant additional research and scholarly

consideration. One area for future research is the extent to which individual components of one's demographic profile could mediate the relationship between inclusion and engagement. Prior research indicated that employee experiences can be differentiated based on race or other demographic characteristics. While this study could not explore this question due to limitations within the datasets, further study of this question could help organizations determine how to appropriately channel DEI efforts in a way that is meaningful to all segments of the workforce.

Secondly, the research community should seek methodological consensus regarding how to measure workplace inclusion and employee engagement. This study's literature review and limitations acknowledged that there are varying approaches to measuring these variables. For example, OPM's New IQ utilizes 18 questions, and the Gartner Inclusion Index utilizes 45 questions to measure inclusion. By contrast this study used five questions to measure that same variable. The Gallup Q12 model utilizes 12 questions to measure engagement, whereas this study only used four questions. Furthermore, the research community would benefit from greater understanding of whether such models can accurately measure inclusion and engagement as macro-level variables, or if it is more appropriate to measure components of these variables at the micro-levels (as in the case of Settles, 2016). Future studies should examine what constitutes a comprehensive measurement of inclusion and engagement (e.g., how many and what types of questions produce the most reliable and valid responses) and whether a standard model could be created for academic and practitioner use.

A third area for future study is why some employees' responses exhibited a negative relationship between inclusion and engagement. This research produced results

suggesting that there was a slight negative directional relationship in some instances. Future research should seek to ascertain whether an inverse relationship exists and under what conditions this phenomenon could be observed. For example, would a negative relationship call into question the effectiveness of organizational strategies related to inclusion and engagement? Or would a negative relationship indicate that an individual employee does not believe inclusion and engagement are personally significant or meaningful? To the extent that a negative relationship can be demonstrated, additional quantitative and qualitative study could provide greater insight and yield more instructive conclusions.

The impact of remote or hybrid work on employee engagement is another topic that would benefit from further scholarly exploration. This study examined the SOM workforce from 2012-2020 which was prior to the onset of the COVID-19 pandemic. As a result, employee sentiments were largely through the perspective of those working onsite in a traditional office environment. However, during the pandemic, significant numbers of SOM employees were working remotely, and a recent State Budget Office report indicates that approximately 23,700 state employees (50% of the state workforce) are still working remotely (SOM, 2023). There are mixed findings in the research on this topic. Some research has indicated that remote work can have a negative effect on engagement and the likelihood that an employee will stay with the organization long-term (Sardeshmukh et al., 2012; Schawbel, 2018). Other research has indicated that remote workers are engaged with their colleagues, tend to be happier and more productive, and that organizations need to offer this type of flexibility in order to remain competitive in the current marketplace (Brodsky & Tolliver, 2022; Choudhury, 2020; Hanover, 2023).

The COVID-19 pandemic created an environment where remote work was more widespread, and the post-COVID environment requires organizations to facilitate onsite, remote, and hybrid work arrangements. This creates a much different framework for measuring and enhancing workplace inclusion and employee engagement. Future research should seek greater clarity on how remote work impacts these variables and provide insight to practitioners on how to mitigate potential negative effects of this new work environment.

Finally, while this study focused on workplace inclusion and employee engagement within the public sector, future research should seek to define these variables across disciplines. For example, research suggests that public service motivation may impact employee engagement within the public sector (Crewson, 1997; Lavigna, 2013). Future studies should consider whether public service motivation provides a competitive edge compared to the private sector. Researchers may also consider what other motivational differences exist between the public and private sector and to what extent those differences impact inclusion or engagement. Lastly, from a philosophical perspective, does an organization need to justify a business case for implementing DEI strategies, or should these values be more intrinsic to the workplace culture and society at large? These questions, and others, constitute a broad research agenda that may further illuminate how workplace inclusion and employee engagement can ultimately enhance organizational culture and drive organizational performance.

Key Takeaways

This research is important to the discipline of public administration because employee engagement leads to citizen satisfaction which builds trust and confidence in

our governing institutions (Lavigna, 2013; Heintzman & Marson, 2005). As organizations invest significant resources toward cultivating a positive work environment, it is vital that decision-makers understand what affects the individual employee experience. Accordingly, this study offers the following key takeaways for research and practice:

- The SOM may want to focus on how state agencies are soliciting employee opinions and how those agencies are fostering respect for individual differences. The correlation analysis revealed that these inclusion questions had a moderate relationship with recommending the SOM as a great place to work. The SOM should also revisit its survey methodology, particularly as it relates to ascertaining differences between state agencies and identifying correlational or causal relationships between various organizational dynamics and employee engagement.
- Practitioners and public sector organizations conducting engagement surveys should evaluate results based on the demographic profile of the respondents. This will ultimately provide a better understanding of how different segments of the workforce relate to the work environment and respond to inclusion and engagement strategies.
- Academicians and other researchers should explore how to best measure inclusion and engagement, and whether a standard model can or should be created. This should consider the volume and types of questions that produce the most reliable and valid results, in addition to comparing the methodologies utilized by the U.S. Office of Personnel Management (i.e., the Employee Engagement Index and the

New Inclusion Quotient that are part of the Federal Employee Viewpoint Survey), Gallup (Q12 engagement survey), Gartner (inclusion index), Guidehouse, and others. Moreover, future studies should examine the possibility of a negative relationship between inclusion and engagement and what factors contribute to such an outcome.

Conclusion

The purpose of this study was to assess the relationship between workplace inclusion and employee engagement among SOM employees. The study incorporated secondary data from six SOM employee engagement surveys between 2012 and 2020. The statistical analyses indicated a weak positive and negative relationship between the two variables with varying levels of statistical significance. Accordingly, the results failed to support that increasing sentiments on the inclusivity of the work environment will lead to higher individual or collective employee engagement rates. Given that the results were somewhat inconclusive, this study does not particularly align with current research. This might suggest an indirect relationship between inclusion and engagement which could be mediated by other factors.

This study ultimately sought to expand interdisciplinary knowledge about the distinct concepts of workplace inclusion and employee engagement. The study validates that both are complex and multifaceted constructs, possibly accounting for the challenges in demonstrating a correlational relationship. As such, while it is plausible that employee sentiments about inclusion does not mean that they will feel engaged about their work, it is still uncertain whether sentiments about specific components of inclusion (e.g., fairness, openness, cooperativeness, supportiveness, and empowerment) correlate to

specific components of engagement (e.g., job satisfaction, organizational satisfaction, and organizational commitment). Despite these uncertainties, and the need for further study on this topic, it remains clear that greater inclusion and engagement within our places of work is warranted. Regardless of the interconnectedness of these variables, inclusion and engagement yield positive outcomes at the individual and organizational levels. Realizing these ideals will improve workplace experiences and facilitate environments where everyone can be their authentic self and contribute to the best of their ability. This in itself is a worthy goal for all organizations to pursue.

Afterword

This research study was based on publicly available data from the six State of Michigan (SOM) employee engagement surveys conducted between 2012 and 2020. This author acknowledges that a seventh SOM employee engagement survey was conducted from October 3-24, 2022. The results of that survey were not publicly available when this research study was completed. As such, all references to the 2020 survey as the most recent iteration reflected the status quo at the time of this writing. Future research incorporating data from the SOM employee engagement surveys will want to include 2022 survey results in order to have an updated perspective on the organization and how employee sentiments has changed in recent years.

Also, the author of this study acknowledges that he is a current SOM employee and has participated in each of the employee engagement surveys used for this research. In addition, the views and conclusions contained in this study are those solely of the author and should not be interpreted as representing the opinions or policies of the SOM.

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Appendix A:

State of Michigan Freedom of Information Act (FOIA) Responses



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET
LANSING

BROM STIBITZ
DIRECTOR

FREEDOM OF INFORMATION ACT (FOIA) RESPONSE

March 22, 2021

Mr. Marlon Brown
marlbrown@valdosta.edu

Dear Mr. Brown:

This notice is in response to your request dated March 12, 2021 (attached), for information under the Freedom of Information Act (FOIA), MCL 15.231 *et seq.* Your request was received by the Department of Technology, Management and Budget on March 15, 2021.

You requested:

1. The raw data sets (statewide) for each year that the employee engagement survey has been conducted. This would include 2012, 2013, 2015, 2017, 2018, and 2020.
2. Responses to the demographic questions posed in the survey (i.e., age, education, employment group, gender identity, race, and tenure).

The following action has been taken in response to this request:

REQUEST GRANTED IN PART, DENIED IN PART, as follows:

Request Granted, In Part. As to item 1 listed above, that data will be emailed to you in multiple attachments.

Request Denied In Part. As to item 2 listed above, It is hereby certified that, to the best of the undersigned's knowledge, information, and belief, records do not exist within the department under the description you provided or under another name reasonably known to the department. Our survey vendor who has partnered with us to conduct these surveys has excluded demographic questions from the data files they have provided as filtering on those could jeopardize anonymity and break the rule of 10. This vendor is contractually obligated to maintain anonymity and cannot provide the state any information that would allow us to identify an individual respondent.

Mr. Marlon Brown
March 22, 2021
Page 2 of 2

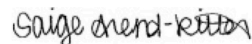
As to the denial determination, pursuant to section 10 of the FOIA, you may do either of the following:

1. Appeal this decision in writing to the Director of the Department, Brom Stibitz, Elliott-Larsen Building, 320 South Walnut, P.O. Box 30026, Lansing, Michigan 48909. The writing must specifically state the word "appeal" and must identify the reasons you believe the denial should be reversed. The head of the department must respond to your appeal within 10 business days of its receipt. Under unusual circumstances, the time for response to your appeal may be extended by 10 business days.
2. File an action in the Court of Claims within 180 days after the final denial determination. If you prevail in such an action the court is to award reasonable attorney fees, costs, disbursements, and possible damages.

ADDITIONAL COMMENTS:

The Department's written procedures and guidelines and a summary thereof can be viewed at: www.michigan.gov/foia-dtmb.

Sincerely,



Saige Arend-Ritter
DTMB FOIA Coordinator

Enclosure(s)



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET
LANSING

MICHELLE LANGE
ACTING DIRECTOR

FREEDOM OF INFORMATION ACT (FOIA) RESPONSE

February 17, 2022

Mr. Marlon Brown
244 Price Street
Mason, MI 48854

Dear Mr. Brown:

This notice is in response to your request dated February 10, 2022 (attached), for information under the Freedom of Information Act (FOIA), MCL 15.231 *et seq.* Your request was received by the Department of Technology, Management and Budget on February 11, 2022.

You requested the raw data sets (statewide but with department identifiers) for each year that the employee engagement survey has been conducted. This would include 2012, 2013, 2015, 2017, 2018, and 2020.

The following action has been taken in response to this request:

REQUEST GRANTED. Your request will be granted as to existing, non-exempt records within the departments possession. We are working on compiling the requested information and expect to provide it to you by February 25, 2022. Please note the survey results from Governors Office staff will not be included in our response, as they are not subject to FOIA. The Department's written procedures and guidelines and a summary can be viewed at: www.michigan.gov/foia-dtmb.

Sincerely,

A handwritten signature in cursive script that reads "Saige Arend-Ritter".

Saige Arend-Ritter
DTMB FOIA Coordinator

Enclosure(s)

Appendix B:
Engagement and Inclusion Questions and Abbreviations

Table 26

Engagement and Inclusion Questions and Abbreviations

Survey Question	Abbrev.	Full Text	Abbreviated Text
Engagement Question 1	E1	I would recommend the State of Michigan to friends and family as a great place to work.	Recommend SOM to others
Engagement Question 2	E2	I intend to stay with the State of Michigan for at least another 12 months.	Intend to stay with SOM
Engagement Question 3	E3	My colleagues go beyond what is expected for the success of the State of Michigan.	Colleagues exceed expectations
Engagement Question 4	E4	I am proud to work for the State of Michigan.	Proud to work for SOM
Engagement Question 5	E5	My colleagues are passionate about providing exceptional customer service.	Colleagues customer service
Engagement Question 6	E6	I understand how my job contributes to the mission of the State of Michigan.	Contribute to SOM mission
Inclusion Question 1	I1	Sufficient effort is made to get the opinions of people who work here.	Employee opinions are solicited
Inclusion Question 2	I2	The State of Michigan has an inclusive work environment where individual differences are respected.	Inclusive work environment
Inclusion Question 3	I3	I provide my opinions without fear of retaliation or retribution.	Provide opinions without fear
Inclusion Question 4	I4	My work group has a climate in which diverse perspectives are encouraged and valued.	Encourage/value diverse perspectives
Inclusion Question 5	I5	Employees at the State of Michigan are able to contribute to their fullest potential [without regard to such characteristics as religion, race, color, national origin, age, sex, sexual orientation, height, weight, marital status, partisan considerations, or a disability or genetic information that is unrelated to the person's ability to perform the duties of a particular job or position].	Contribute to fullest potential

Note. Contents show engagement and inclusion questions and abbreviations used throughout this study.

Appendix C:
VSU Institutional Review Board Exemption Report



**Institutional Review Board (IRB)
For the Protection of Human Research Participants**

PROTOCOL EXEMPTION REPORT

Protocol Number: 04316-2022

Responsible Researcher(s): Marlon I. Brown

Supervising Faculty: Dr. Keith Lee

Project Title: *An Assessment of the Relationship Between Workplace Inclusion and Employee Engagement Among State of Michigan Employees.*

INSTITUTIONAL REVIEW BOARD DETERMINATION:

This research protocol is **exempt** from Institutional Review Board (IRB) oversight under 45 CFR 46.101(b) of the federal regulations **category 4**. If the nature of the research changes such that exemption criteria no longer apply, please consult with the IRB Administrator (irb@valdosta.edu) before continuing your research study.

ADDITIONAL COMMENTS:

- *Upon completion of the research study, all collected data (e.g. data set, name lists, email lists, payment log, etc.) must be securely maintained and accessible only by the researcher(s) for a minimum of 3 years. At the end of the required time, collected data must be permanently destroyed.*

If this box is checked, please submit any documents you revise to the IRB Administrator at irb@valdosta.edu to ensure an updated record of your exemption.

Elizabeth Ann Olphie 05.13.2022

Elizabeth Ann Olphie, IRB Administrator

Thank you for submitting an IRB application.

Please direct questions to irb@valdosta.edu or 229-253-2947.

Revised: 06.02.16

Appendix D:
Correlation Matrices for Engagement and Inclusion Survey Questions

Table 27

2012 SOM Survey: Spearman's Rank-Order Correlation of Survey Questions (Statewide)

		E1	E2	E3	E4	E5	E6	I1	I2	I3	I4	I5	
Spearman's rho	E1	Correlation Coefficient	1.000	.339	.269	.646	.319	.386	.506	.522	.445	.424	.473
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	27327	27308	27309	27314	27315	27312	27308	27300	27310	27304	27298
	E2	Correlation Coefficient	.339	1.000	.206	.407	.214	.293	.238	.256	.232	.249	.284
		Sig. (2-tailed)	.000	.	<.001	.000	<.001	.000	.000	.000	.000	.000	.000
		N	27308	27314	27297	27302	27304	27301	27297	27289	27299	27292	27286
	E3	Correlation Coefficient	.269	.206	1.000	.339	.674	.350	.352	.392	.290	.463	.346
		Sig. (2-tailed)	.000	<.001	.	.000	.000	.000	.000	.000	.000	.000	.000
		N	27309	27297	27314	27303	27306	27302	27297	27293	27300	27295	27290
	E4	Correlation Coefficient	.646	.407	.339	1.000	.376	.485	.423	.467	.385	.403	.452
		Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000	.000	.000	.000
		N	27314	27302	27303	27319	27309	27306	27301	27296	27305	27297	27292
	E5	Correlation Coefficient	.319	.214	.674	.376	1.000	.391	.378	.407	.309	.492	.363
		Sig. (2-tailed)	.000	<.001	.000	.000	.	.000	.000	.000	.000	.000	.000
		N	27315	27304	27306	27309	27320	27313	27304	27298	27310	27305	27299
	E6	Correlation Coefficient	.386	.293	.350	.485	.391	1.000	.325	.381	.314	.399	.404
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000	.000	.000
		N	27312	27301	27302	27306	27313	27318	27301	27294	27307	27305	27299
	I1	Correlation Coefficient	.506	.238	.352	.423	.378	.325	1.000	.575	.565	.533	.474
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000	.000	.000	.000
		N	27308	27297	27297	27301	27304	27301	27312	27289	27298	27292	27287
	I2	Correlation Coefficient	.522	.256	.392	.467	.407	.381	.575	1.000	.549	.593	.601
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000	.000	.000
		N	27300	27289	27293	27296	27298	27294	27289	27305	27291	27287	27281
	I3	Correlation Coefficient	.445	.232	.290	.385	.309	.314	.565	.549	1.000	.527	.497
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.	.000	.000
		N	27310	27299	27300	27305	27310	27307	27298	27291	27317	27299	27293
	I4	Correlation Coefficient	.424	.249	.463	.403	.492	.399	.533	.593	.527	1.000	.518
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.	.000
		N	27304	27292	27295	27297	27305	27305	27292	27287	27299	27309	27291
	I5	Correlation Coefficient	.473	.284	.346	.452	.363	.404	.474	.601	.497	.518	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.
		N	27298	27286	27290	27292	27299	27299	27287	27281	27293	27291	27303

Note. Contents show statewide correlation coefficients reflecting the relationship between the individual engagement and inclusion questions based on the year the survey was conducted. Spearman's correlation revealed a moderate to weak relationship that was also statistically significant at the $p < .001$ level.

Table 28

2013 SOM Survey: Spearman's Rank-Order Correlation of Survey Questions (Statewide)

		E1	E2	E3	E4	E5	E6	I1	I2	I3	I4	I5	
Spearman's rho	E1	Correlation Coefficient	1.000	.382	.339	.665	.369	.441	.505	.531	.471	.460	.495
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	31502	31472	31469	31492	31481	31463	31466	31476	31450	31446	31460
	E2	Correlation Coefficient	.382	1.000	.241	.444	.238	.340	.268	.282	.262	.274	.303
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	31472	31481	31453	31471	31465	31444	31451	31458	31432	31429	31442
	E3	Correlation Coefficient	.339	.241	1.000	.379	.719	.404	.443	.452	.346	.518	.403
		Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000	.000	.000	.000	.000
		N	31469	31453	31479	31471	31466	31447	31448	31462	31432	31430	31445
	E4	Correlation Coefficient	.665	.444	.379	1.000	.400	.525	.439	.475	.416	.441	.469
		Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000	.000	.000	.000
		N	31492	31471	31471	31500	31483	31465	31466	31479	31450	31449	31462
	E5	Correlation Coefficient	.369	.238	.719	.400	1.000	.420	.449	.447	.354	.528	.410
		Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.000	.000	.000	.000	.000
		N	31481	31465	31466	31483	31493	31463	31460	31472	31453	31448	31460
	E6	Correlation Coefficient	.441	.340	.404	.525	.420	1.000	.393	.434	.382	.450	.450
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000	.000	.000
		N	31463	31444	31447	31465	31463	31471	31440	31454	31433	31443	31457
	I1	Correlation Coefficient	.505	.268	.443	.439	.449	.393	1.000	.596	.584	.578	.518
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000	.000	.000	.000
		N	31466	31451	31448	31466	31460	31440	31475	31453	31429	31425	31438
	I2	Correlation Coefficient	.531	.282	.452	.475	.447	.434	.596	1.000	.576	.637	.633
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000	.000	.000
		N	31476	31458	31462	31479	31472	31454	31453	31483	31440	31439	31451
	I3	Correlation Coefficient	.471	.262	.346	.416	.354	.382	.584	.576	1.000	.561	.533
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.	.000	.000
		N	31450	31432	31432	31450	31453	31433	31429	31440	31462	31420	31431
	I4	Correlation Coefficient	.460	.274	.518	.441	.528	.450	.578	.637	.561	1.000	.566
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.	.000
		N	31446	31429	31430	31449	31448	31443	31425	31439	31420	31456	31443
	I5	Correlation Coefficient	.495	.303	.403	.469	.410	.450	.518	.633	.533	.566	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.
		N	31460	31442	31445	31462	31460	31457	31438	31451	31431	31443	31468

Note. Contents show statewide correlation coefficients reflecting the relationship between the individual engagement and inclusion questions based on the year the survey was conducted. Spearman's correlation revealed a moderate to weak relationship that was also statistically significant at the $p = .000$ level.

Table 29

2015 SOM Survey: Spearman's Rank-Order Correlation of Survey Questions (Statewide)

			E1	E2	E3	E4	E5	E6	I1	I2	I3	I4	I5
Spearman's rho	E1	Correlation Coefficient	1.000	.428	.358	.687	.409	.463	.523	.529	.501	.494	.510
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	31733	31693	31717	31657	31693	31723	31505	31669	31571	31692	31718
	E2	Correlation Coefficient	.428	1.000	.249	.455	.245	.369	.279	.283	.276	.276	.306
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	31693	31696	31680	31628	31655	31687	31470	31633	31535	31658	31682
	E3	Correlation Coefficient	.358	.249	1.000	.439	.775	.419	.397	.394	.326	.423	.376
		Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000	.000	.000	.000	.000
		N	31717	31680	31721	31645	31685	31713	31497	31658	31564	31683	31710
	E4	Correlation Coefficient	.687	.455	.439	1.000	.482	.576	.476	.487	.453	.467	.482
		Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000	.000	.000	.000
		N	31657	31628	31645	31658	31621	31652	31441	31600	31500	31619	31647
	E5	Correlation Coefficient	.409	.245	.775	.482	1.000	.474	.442	.432	.362	.465	.415
		Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.000	.000	.000	.000	.000
		N	31693	31655	31685	31621	31695	31689	31478	31634	31538	31659	31685
	E6	Correlation Coefficient	.463	.369	.419	.576	.474	1.000	.390	.404	.364	.398	.414
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000	.000	.000
		N	31723	31687	31713	31652	31689	31725	31500	31663	31565	31687	31714
	I1	Correlation Coefficient	.523	.279	.397	.476	.442	.390	1.000	.639	.619	.645	.566
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000	.000	.000	.000
		N	31505	31470	31497	31441	31478	31500	31511	31462	31369	31478	31501
	I2	Correlation Coefficient	.529	.283	.394	.487	.432	.404	.639	1.000	.591	.664	.648
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000	.000	.000
		N	31669	31633	31658	31600	31634	31663	31462	31674	31523	31642	31667
	I3	Correlation Coefficient	.501	.276	.326	.453	.362	.364	.619	.591	1.000	.666	.573
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.	.000	.000
		N	31571	31535	31564	31500	31538	31565	31369	31523	31577	31541	31568
	I4	Correlation Coefficient	.494	.276	.423	.467	.465	.398	.645	.664	.666	1.000	.621
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.	.000
		N	31692	31658	31683	31619	31659	31687	31478	31642	31541	31699	31693
	I5	Correlation Coefficient	.510	.306	.376	.482	.415	.414	.566	.648	.573	.621	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.
		N	31718	31682	31710	31647	31685	31714	31501	31667	31568	31693	31725

Note. Contents show statewide correlation coefficients reflecting the relationship between the individual engagement and inclusion questions based on the year the survey was conducted. Spearman's correlation revealed a moderate to weak relationship that was also statistically significant at the $p = .000$ level.

Table 30

2017 SOM Survey: Spearman's Rank-Order Correlation of Survey Questions (Statewide)

		E1	E2	E3	E4	E5	E6	I1	I2	I3	I4	I5	
Spearman's rho	E1	Correlation Coefficient	1.000	.445	.375	.685	.422	.468	.528	.543	.482	.487	.510
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	34308	34308	34308	34308	34307	34307	34308	34307	34308	34308	34307
	E2	Correlation Coefficient	.445	1.000	.268	.475	.261	.380	.303	.298	.285	.286	.316
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	34308	34308	34308	34308	34307	34307	34308	34307	34308	34308	34307
	E3	Correlation Coefficient	.375	.268	1.000	.448	.776	.431	.384	.409	.342	.444	.395
		Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000	.000	.000	.000	.000
		N	34308	34308	34308	34308	34307	34307	34308	34307	34308	34308	34307
	E4	Correlation Coefficient	.685	.475	.448	1.000	.489	.577	.472	.490	.440	.460	.486
		Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000	.000	.000	.000
		N	34308	34308	34308	34308	34307	34307	34308	34307	34308	34308	34307
	E5	Correlation Coefficient	.422	.261	.776	.489	1.000	.477	.420	.450	.372	.480	.434
		Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.000	.000	.000	.000	.000
		N	34307	34307	34307	34307	34307	34306	34307	34306	34307	34307	34306
	E6	Correlation Coefficient	.468	.380	.431	.577	.477	1.000	.391	.403	.362	.402	.422
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000	.000	.000
		N	34307	34307	34307	34307	34306	34307	34307	34306	34307	34307	34306
	I1	Correlation Coefficient	.528	.303	.384	.472	.420	.391	1.000	.675	.611	.622	.557
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000	.000	.000	.000
		N	34308	34308	34308	34308	34307	34307	34310	34309	34310	34310	34309
	I2	Correlation Coefficient	.543	.298	.409	.490	.450	.403	.675	1.000	.614	.668	.663
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000	.000	.000
		N	34307	34307	34307	34307	34306	34306	34309	34309	34309	34309	34308
	I3	Correlation Coefficient	.482	.285	.342	.440	.372	.362	.611	.614	1.000	.675	.574
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.	.000	.000
		N	34308	34308	34308	34308	34307	34307	34310	34309	34310	34310	34309
	I4	Correlation Coefficient	.487	.286	.444	.460	.480	.402	.622	.668	.675	1.000	.629
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.	.000
		N	34308	34308	34308	34308	34307	34307	34310	34309	34310	34310	34309
	I5	Correlation Coefficient	.510	.316	.395	.486	.434	.422	.557	.663	.574	.629	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.
		N	34307	34307	34307	34307	34306	34306	34309	34308	34309	34309	34309

Note. Contents show statewide correlation coefficients reflecting the relationship between the individual engagement and inclusion questions based on the year the survey was conducted. Spearman's correlation revealed a moderate to weak relationship that was also statistically significant at the $p = .000$ level.

Table 31

2018 SOM Survey: Spearman's Rank-Order Correlation of Survey Questions (Statewide)

		E1	E2	E3	E4	E5	E6	I1	I2	I3	I4	I5	
Spearman's rho	E1	Correlation Coefficient	1.000	.462	.388	.698	.444	.495	.544	.555	.501	.501	.509
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	33052	33052	33052	33052	33052	33052	33052	33052	33051	33052	33052
	E2	Correlation Coefficient	.462	1.000	.272	.488	.274	.402	.316	.318	.301	.301	.333
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	33052	33052	33052	33052	33052	33052	33052	33052	33051	33052	33052
	E3	Correlation Coefficient	.388	.272	1.000	.452	.780	.436	.397	.414	.351	.448	.408
		Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000	.000	.000	.000	.000
		N	33052	33052	33052	33052	33052	33052	33052	33052	33051	33052	33052
	E4	Correlation Coefficient	.698	.488	.452	1.000	.500	.595	.490	.504	.458	.466	.494
		Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000	.000	.000	.000
		N	33052	33052	33052	33052	33052	33052	33052	33052	33051	33052	33052
	E5	Correlation Coefficient	.444	.274	.780	.500	1.000	.496	.432	.456	.386	.483	.441
		Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.000	.000	.000	.000	.000
		N	33052	33052	33052	33052	33052	33052	33052	33052	33051	33052	33052
	E6	Correlation Coefficient	.495	.402	.436	.595	.496	1.000	.411	.422	.384	.416	.436
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000	.000	.000
		N	33052	33052	33052	33052	33052	33052	33052	33052	33051	33052	33052
	I1	Correlation Coefficient	.544	.316	.397	.490	.432	.411	1.000	.682	.623	.629	.561
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000	.000	.000	.000
		N	33052	33052	33052	33052	33052	33052	33052	33052	33051	33052	33052
	I2	Correlation Coefficient	.555	.318	.414	.504	.456	.422	.682	1.000	.623	.673	.671
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000	.000	.000
		N	33052	33052	33052	33052	33052	33052	33052	33052	33051	33052	33052
	I3	Correlation Coefficient	.501	.301	.351	.458	.386	.384	.623	.623	1.000	.685	.582
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.	.000	.000
		N	33051	33051	33051	33051	33051	33051	33051	33051	33051	33051	33051
	I4	Correlation Coefficient	.501	.301	.448	.466	.483	.416	.629	.673	.685	1.000	.635
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.	.000
		N	33052	33052	33052	33052	33052	33052	33052	33052	33051	33052	33052
	I5	Correlation Coefficient	.509	.333	.408	.494	.441	.436	.561	.671	.582	.635	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.
		N	33052	33052	33052	33052	33052	33052	33052	33052	33051	33052	33052

Note. Contents show statewide correlation coefficients reflecting the relationship between the individual engagement and inclusion questions based on the year the survey was conducted. Spearman's correlation revealed a moderate to weak relationship that was also statistically significant at the $p = .000$ level.

Table 32

2020 SOM Survey: Spearman's Rank-Order Correlation of Survey Questions (Statewide)

			E1	E2	E3	E4	E5	E6	I1	I2	I3	I4	I5
Spearman's rho	E1	Correlation Coefficient	1.000	.482	.402	.693	.450	.490	.532	.543	.497	.491	.495
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	27315	27315	27313	27314	27314	27314	27312	27312	27314	27315	27313
	E2	Correlation Coefficient	.482	1.000	.290	.495	.297	.407	.319	.326	.301	.308	.327
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000	.000	.000	.000
		N	27315	27316	27313	27315	27315	27315	27312	27313	27314	27316	27314
	E3	Correlation Coefficient	.402	.290	1.000	.474	.784	.444	.398	.414	.354	.456	.391
		Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000	.000	.000	.000	.000
		N	27313	27313	27313	27313	27312	27312	27312	27311	27312	27313	27311
	E4	Correlation Coefficient	.693	.495	.474	1.000	.515	.600	.476	.485	.446	.462	.469
		Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000	.000	.000	.000
		N	27314	27315	27313	27315	27314	27314	27312	27312	27313	27315	27313
	E5	Correlation Coefficient	.450	.297	.784	.515	1.000	.497	.436	.454	.391	.492	.431
		Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.000	.000	.000	.000	.000
		N	27314	27315	27312	27314	27315	27315	27311	27313	27313	27315	27313
	E6	Correlation Coefficient	.490	.407	.444	.600	.497	1.000	.397	.409	.371	.417	.419
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000	.000	.000
		N	27314	27315	27312	27314	27315	27315	27311	27313	27313	27315	27313
	I1	Correlation Coefficient	.532	.319	.398	.476	.436	.397	1.000	.675	.621	.620	.534
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000	.000	.000	.000
		N	27312	27312	27312	27312	27311	27311	27312	27310	27311	27312	27311
	I2	Correlation Coefficient	.543	.326	.414	.485	.454	.409	.675	1.000	.619	.672	.666
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000	.000	.000
		N	27312	27313	27311	27312	27313	27313	27310	27313	27311	27313	27311
	I3	Correlation Coefficient	.497	.301	.354	.446	.391	.371	.621	.619	1.000	.681	.564
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.	.000	.000
		N	27314	27314	27312	27313	27313	27313	27311	27311	27314	27314	27313
	I4	Correlation Coefficient	.491	.308	.456	.462	.492	.417	.620	.672	.681	1.000	.626
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.	.000
		N	27315	27316	27313	27315	27315	27315	27312	27313	27314	27316	27314
	I5	Correlation Coefficient	.495	.327	.391	.469	.431	.419	.534	.666	.564	.626	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.
		N	27313	27314	27311	27313	27313	27313	27311	27311	27313	27314	27314

Note. Contents show statewide correlation coefficients reflecting the relationship between the individual engagement and inclusion questions based on the year the survey was conducted. Spearman's correlation revealed a moderate to weak relationship that was also statistically significant at the $p = .000$ level.

Appendix E:
Spearman's Rank-Order Correlation of Factor Scores by State Agency

Table 33

2012 SOM Survey: Spearman's Rank-Order Correlation of Factor Scores by Agency

State Agency	Correlation Coefficient	Sig. (2-tailed)	N
Agriculture and Rural Development	0.045	0.422	322
Civil Rights	-0.039	0.767	61
Civil Service Commission	0.111	0.061	285
Corrections	-0.006	0.632	6,425
Department of State			
Education	-0.062	0.208	409
Environment, Great Lakes, and Energy			
<i>Environmental Quality</i>	-0.079	0.017	923
Gaming Control Board	0.203	0.028	116
Health and Human Services			
<i>Community Health</i>	0.002	0.948	1,467
<i>Human Services</i>	-0.052	<0.001	6,178
Insurance and Financial Services			
Labor and Economic Opportunity			
<i>Talent and Economic Development</i>			
<i>Michigan Economic Development Corporation</i>	-0.049	0.437	250
<i>Michigan State Housing Development Authority</i>	-0.053	0.416	234
<i>Workforce Development Agency</i>	-0.026	0.792	108
Licensing and Regulatory Affairs	-0.043	0.033	2,498
Lottery	0.142	0.101	134
Military and Veterans Affairs	0.051	0.388	293
Natural Resources	-0.097	0.002	1,042
State Police	-0.011	0.666	1,607
Technology, Management, and Budget	0.047	0.056	1,671
Transportation	0.000	0.990	1,636
Treasury	-0.047	0.144	977
<i>Other (no agency indicated)</i>	-0.028	0.497	582
Statewide	0.028	<.001	27,218

Note. Contents show correlation coefficients and levels of significance reflecting the relationship between the factor scores representing the dependent and independent variables based on the year the survey was conducted.

Table 34

2013 SOM Survey: Spearman's Rank-Order Correlation of Factor Scores by Agency

State Agency	Correlation Coefficient	Sig. (2-tailed)	N
Agriculture and Rural Development	0.016	0.759	351
Civil Rights	-0.055	0.661	67
Civil Service Commission	0.151	0.008	307
Corrections	0.018	0.134	7,211
Department of State			
Education	-0.050	0.285	462
Environment, Great Lakes, and Energy			
<i>Environmental Quality</i>	0.001	0.976	911
Gaming Control Board	0.361	<0.001	99
Health and Human Services			
<i>Community Health</i>	-0.050	0.027	1,993
<i>Human Services</i>	-0.091	<0.001	7,025
Insurance and Financial Services	0.013	0.836	247
Labor and Economic Opportunity			
<i>Talent and Economic Development</i>			
<i>Michigan Economic Development Corporation</i>	-0.113	0.050	304
<i>Michigan State Housing Development Authority</i>	-0.090	0.110	317
<i>Workforce Development Agency</i>	-0.011	0.895	151
Licensing and Regulatory Affairs	0.010	0.644	1,936
Lottery	0.045	0.574	162
Military and Veterans Affairs	0.008	0.864	502
Natural Resources	-0.063	0.022	1,328
State Police	0.029	0.174	2,212
Technology, Management, and Budget	0.022	0.328	2,047
Transportation	0.039	0.100	1,807
Treasury	-0.046	0.132	1,059
<i>Other (no agency indicated)</i>	-0.073	0.036	827
Statewide	0.021	<.001	31,325

Note. Contents show correlation coefficients and levels of significance reflecting the relationship between the factor scores representing the dependent and independent variables based on the year the survey was conducted.

Table 35

2015 SOM Survey: Spearman's Rank-Order Correlation of Factor Scores by Agency

State Agency	Correlation Coefficient	Sig. (2-tailed)	N
Agriculture and Rural Development	-0.123	0.018	373
Civil Rights	0.029	0.793	86
Civil Service Commission	0.035	0.525	327
Corrections	0.034	0.002	8,420
Department of State			
Education	-0.109	0.021	448
Environment, Great Lakes, and Energy			
<i>Environmental Quality</i>	-0.090	0.007	916
Gaming Control Board	0.055	0.533	132
Health and Human Services			
<i>Community Health</i>	-0.034	0.160	1,673
<i>Human Services</i>	-0.102	<0.001	6,017
Insurance and Financial Services	0.026	0.657	299
Labor and Economic Opportunity			
<i>Talent and Economic Development</i>			
<i>Michigan Economic Development Corporation</i>	-0.203	<0.001	306
<i>Michigan State Housing Development Authority</i>	-0.139	0.019	281
<i>Workforce Development Agency</i>	-0.009	0.915	158
Licensing and Regulatory Affairs	-0.057	0.012	1,953
Lottery	-0.219	0.005	163
Military and Veterans Affairs	-0.022	0.644	443
Natural Resources	-0.088	0.002	1,274
State Police	-0.067	<0.001	2,503
Technology, Management, and Budget	-0.049	0.014	2,474
Transportation	-0.010	0.646	2,016
Treasury	-0.035	0.291	933
<i>Other (no agency indicated)</i>			
Statewide	0.010	0.072	31,195

Note. Contents show correlation coefficients and levels of significance reflecting the relationship between the factor scores representing the dependent and independent variables based on the year the survey was conducted.

Table 36

2017 SOM Survey: Spearman's Rank-Order Correlation of Factor Scores by Agency

State Agency	Correlation Coefficient	Sig. (2-tailed)	N
Agriculture and Rural Development	0.035	0.469	428
Civil Rights	0.274	0.020	72
Civil Service Commission	-0.043	0.430	340
Corrections	0.041	<0.001	8,847
Department of State			
Education	0.007	0.893	419
Environment, Great Lakes, and Energy			
<i>Environmental Quality</i>	-0.071	0.033	892
Gaming Control Board	-0.169	0.050	135
Health and Human Services	-0.084	<0.001	9,457
<i>Community Health</i>			
<i>Human Services</i>			
Insurance and Financial Services	0.079	0.200	267
Labor and Economic Opportunity			
<i>Talent and Economic Development</i>	-0.081	0.008	1,086
<i>Michigan Economic Development Corporation</i>			
<i>Michigan State Housing Development Authority</i>			
<i>Workforce Development Agency</i>			
Licensing and Regulatory Affairs	-0.049	0.044	1,692
Lottery	-0.156	0.054	153
Military and Veterans Affairs	0.037	0.385	542
Natural Resources	-0.098	<0.001	1,286
State Police	-0.062	0.001	2,655
Technology, Management, and Budget	-0.012	0.527	2,727
Transportation	-0.007	0.727	2,238
Treasury	-0.036	0.235	1,069
<i>Other (no agency indicated)</i>			
Statewide	0.002	0.664	34,305

Note. Contents show correlation coefficients and levels of significance reflecting the relationship between the factor scores representing the dependent and independent variables based on the year the survey was conducted.

Table 37

2018 SOM Survey: Spearman's Rank-Order Correlation of Factor Scores by Agency

State Agency	Correlation Coefficient	Sig. (2-tailed)	N
Agriculture and Rural Development	-0.043	0.368	436
Civil Rights	0.171	0.151	72
Civil Service Commission	-0.119	0.020	385
Corrections	0.094	<0.001	7,281
Department of State			
Education	-0.039	0.423	419
Environment, Great Lakes, and Energy			
<i>Environmental Quality</i>	-0.120	<0.001	927
Gaming Control Board	-0.108	0.229	126
Health and Human Services	-0.078	<0.001	9,732
<i>Community Health</i>			
<i>Human Services</i>			
Insurance and Financial Services	-0.086	0.159	271
Labor and Economic Opportunity			
<i>Talent and Economic Development</i>	-0.115	<0.001	1,103
<i>Michigan Economic Development Corporation</i>			
<i>Michigan State Housing Development Authority</i>			
<i>Workforce Development Agency</i>			
Licensing and Regulatory Affairs	-0.084	<0.001	1,724
Lottery	-0.223	0.003	175
Military and Veterans Affairs	0.051	0.229	550
Natural Resources	-0.109	<0.001	1,374
State Police	-0.042	0.028	2,751
Technology, Management, and Budget	-0.015	0.454	2,592
Transportation	-0.007	0.758	1,939
Treasury	-0.056	0.051	1,194
<i>Other (no agency indicated)</i>			
Statewide	0.005	0.354	33,051

Note. Contents show correlation coefficients and levels of significance reflecting the relationship between the factor scores representing the dependent and independent variables based on the year the survey was conducted.

Table 38

2020 SOM Survey: Spearman's Rank-Order Correlation of Factor Scores by Agency

State Agency	Correlation Coefficient	Sig. (2-tailed)	N
Agriculture and Rural Development	-0.073	0.141	413
Civil Rights	0.205	0.268	31
Civil Service Commission	-0.105	0.036	395
Corrections	0.088	<0.001	5,196
Department of State	-0.062	0.085	771
Education	-0.108	0.062	297
Environment, Great Lakes, and Energy	-0.104	0.001	937
<i>Environmental Quality</i>			
Gaming Control Board	-0.062	0.550	96
Health and Human Services	-0.083	<0.001	7,315
<i>Community Health</i>			
<i>Human Services</i>			
Insurance and Financial Services	0.037	0.615	184
Labor and Economic Opportunity	-0.060	0.018	1,571
<i>Talent and Economic Development</i>			
<i>Michigan Economic Development Corporation</i>			
<i>Michigan State Housing Development Authority</i>			
<i>Workforce Development Agency</i>			
Licensing and Regulatory Affairs	-0.079	0.011	1,019
Lottery	-0.093	0.285	133
Military and Veterans Affairs	-0.046	0.515	203
Natural Resources	-0.072	0.007	1,413
State Police	-0.010	0.653	2,145
Technology, Management, and Budget	-0.050	0.028	1,932
Transportation	0.008	0.716	2,099
Treasury	0.035	0.233	1,159
<i>Other (no agency indicated)</i>			
Statewide	0.000	0.967	27,309

Note. Contents show correlation coefficients and levels of significance reflecting the relationship between the factor scores representing the dependent and independent variables based on the year the survey was conducted.