



Minnesota State University, Mankato
**Cornerstone: A Collection of Scholarly
and Creative Works for Minnesota
State University, Mankato**

All Graduate Theses, Dissertations, and Other
Capstone Projects


Graduate Theses, Dissertations, and Other
Capstone Projects

2022

A Quantitative Examination of the Impostor Phenomenon in Community College and Technical College Presidents in the Upper Midwest

Jeffrey Pool
Minnesota State University, Mankato

Follow this and additional works at: <https://cornerstone.lib.mnsu.edu/etds>

 Part of the [Educational Administration and Supervision Commons](#), and the [Educational Leadership Commons](#)

Recommended Citation

Pool, J. (2022). A qualitative examination of the impostor phenomenon in community college and technical college presidents in the upper midwest [Doctoral dissertation, Minnesota State University, Mankato]. Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato. <https://cornerstone.lib.mnsu.edu/etds/1267>

This Thesis is brought to you for free and open access by the Graduate Theses, Dissertations, and Other Capstone Projects at Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato. It has been accepted for inclusion in All Graduate Theses, Dissertations, and Other Capstone Projects by an authorized administrator of Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato.

**A Quantitative Examination of the Impostor Phenomenon in Community College
and Technical College Presidents in the Upper Midwest**

By

Jeffrey Pool

A Dissertation Proposal Submitted in Partial Fulfillment

of the Requirements for the Degree of

Educational Doctorate

In

Educational Leadership

Minnesota State University, Mankato

Mankato, Minnesota

November 2022

Date of Final Defense: November 15, 2022

A Quantitative Examination of the Impostor Phenomenon in Community College and
Technical College Presidents in the Upper Midwest

Jeffrey Pool

This dissertation has been approved by the following
members of the examining committee:

Dr. Bernadeia Johnson

Dr. Jinger Gustafson

Dr. Roberta Anderson

**A QUANTITATIVE EXAMINATION OF THE IMPOSTOR PHENOMENON IN
COMMUNITY AND TECHNICAL COLLEGE PRESIDENTS IN THE UPPER
MIDWEST**

JEFFREY POOL

**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF EDUCATIONAL DOCTORATE IN
EDUCATIONAL LEADERSHIP**

**MINNESOTA STATE UNIVERSITY, MANKATO
MANKATO, MN
November 2022**

ABSTRACT

The purpose of this dissertation is to study the impostor phenomenon feelings in community and technical college presidents in the upper Midwest. This research is grounded in the previous works of Dr. P.R.Clance and uses her Clance Impostor Phenomenon Scale (CIPS) to evaluate the strength of impostor phenomenon feelings. Previous research has examined business leadership, women in leadership roles, university faculty, and students, but there is currently no research that applies specifically to higher education leadership. The research specifically examines the strength of impostor feelings in correlation to the president's race, gender, and length of time in a presidency.

Acknowledgments

This dissertation is dedicated with love and gratitude to:

- Randy and Colleen, who made a leap of faith for education and moved me to a college campus when I was two. Who knew that 38 years later I would still be on one?
- Molly, who has supported me through every crazy idea and journey that I have thrown her way, and who is my rock through it all. Thanks for keeping Team Pool running through Covid lockdowns, major moves up North, and multiple career changes.
- Harper and Max, who were willing to give up daddy one night a week for two years and (mostly) let me get my work done.
- Queen B., who has become an invaluable mentor through my journey in educational leadership, but who has more importantly become an invaluable friend. Thanks for making me apply to the program.
- Dr. Gustafson and Dr. Anderson, who both supported me from my decision to go back to graduate school to finish my Master's degree and who are standing next to me at the finish line.
- My cohort, who became my support system and best friends through a time where being a leader in education wasn't easy, let alone while also being a doctoral student. The friendship, games, laughs, and drinks made this a ride I'm so glad that I took with all of you. Cheers!

Table of Contents

Abstract	iii
Acknowledgments.....	iv
List of Tables.....	vii
List of Figure.....	vii
Chapter I - Introduction	1
Background of the Problem	1
Problem Statement	3
Purpose Statement	4
Research Questions	4
Delimitations and Limitations	5
Definitions of Key Terms	5
Chapter II – Review of the Literature	7
The Impostor	7
Clance’s Impostor Profile	9
The Impostor Cycle	10
The Need to Be Special	11
Superwoman/Superman Traits	13
Fear of Failure	13
Denial of Competence and Discounting Praise.....	14
Fear of and Guilt About Success	14
Community and Technical College Presidents	15
Demographics	15

Role of the president	16
Leadership theories and the college president.....	17
Chapter III – Method	21
Participants	21
Measures	21
Demographic Survey	21
Impostor Scale	22
Design	22
Data Analysis	23
Quantitative Research and Survey Design.....	23
Chapter IV – Results	26
Demographic Data	26
Impostor Phenomenon.....	27
Hypothesis 1.....	29
Hypothesis 2.....	31
Hypothesis 3.....	34
Chapter V – Discussion.....	37
Summary of Findings.....	37
Implications.....	38
Strengths and Limitations.....	39
Recommendations for Further Research.....	40
References	42
Appendix A – Demographic Questionnaire.....	49

Appendix B – Permission to Use the Clance Impostor Phenomenon Scale (CIPS).....	50
Appendix C – Clance IP Scale	52
Appendix D - Scoring the Impostor Test.....	55
Appendix E – E-mail Invitation to Participate.....	56
Appendix F - Informed Consent.....	57

List of Tables

Table 1 – Group Responses to Clance Impostor Phenomenon Scale.....	28
Table 2 – Mean CIPS Scores for White Community and Technical College	
Presidents.....	30
Table 3 - Mean CIPS Scores for Non-White Community and Technical College	
Presidents.....	30
Table 4 - t-Test: Two-Sample Analysis on White and Non-White Community and	
Technical College Presidents’ CIPS Scores Assuming Unequal Variances.....	
	31
Table 5 - Mean CIPS Scores for Presidents With Six or More Years of Service.....	
	32
Table 6 - Mean CIPS Scores for Presidents With Five or Less Years of Service.....	
	33
Table 7 - t-Test: Two-Sample Analysis on Years of Service Community and	
Technical College Presidents Assuming Unequal Variances.....	
	34
Table 8 - Mean CIPS Scores for Female Community and Technical College	
Presidents.....	34
Table 9 - Mean CIPS Scores for Male Community and Technical College	
Presidents.....	35
Table 10 t-Test: Two-Sample Analysis on Male and Female Community and	
Technical College Presidents’ CIPS Scores Assuming Unequal Variances.....	
	36

List of Figures

Figure 1 – The Impostor Cycle.....11

**Figure 2 – CIPS Scores for Community and Technical College Presidents in the
Upper Midwest.....28**

CHAPTER I

Introduction

Background of the Problem

In a 2013 Business Insider story, Toby Thomas, an American entrepreneur and CEO, described a situation that he believes is common to many leaders. He called it a man riding a lion. “People look at him and think, “This guy’s really got it together! He’s brave!” And the man riding the lion is thinking, “How the hell did I get on a lion, and how do I keep from getting eaten?”” (Carlson, 2013). The core problem of the man on the lion, these feelings of inadequacy that contradict one’s achievements, was first studied in high achieving women by Clance and Imes in 1978 and more thoroughly examined by Clance (1985) in her book, “The Impostor Phenomenon.” Clance used the term “impostor phenomenon” to describe the psychological experience of intellectual fraudulence. While her initial studies focused on high achieving women (Clance & Imes, 1978), the impostor phenomenon generally occurs when a high achieving person experiences feelings of fraudulence and inadequacy in the face of professional or academic success (Clance, 1985). The phenomenon has been studied across academe, with the primary focus being on academic performance among female students and students of color (Bothell & Roulett, 2019; Kumar & Jagacinski, 2006) and female faculty and faculty of color (Clance & Imes, 1978; Clance et al., 1995).

Clance and Imes (1978) established the impostor phenomenon (IP) as a psychological experience in which a person feels that their accomplishments are not deserved or due to natural ability, but rather as a result of being lucky, working harder than others, or giving false impressions of their ability to others. Clance (1985) developed the Clance IP Scale that included items that measured fear of failure, attribution of success to external factors such as charm and

luck, the overall desire to stand out, the feeling of giving off fake impressions, discounting positive feedback, having a fear of being evaluated, thinking that past success can't be replicated and having an overall feeling of being less capable than peers. Studies have shown that impostorism is strongly related to low self-esteem and self-criticism (Chrisman et al., 1995) and increased anxiety across multiple situations (Topping, 1983; Clance & Imes, 1978). Harvey and Katz (1985) are also leading researchers on impostorism and have developed a more structured theory that states a subject must meet all three of their core factors to be considered impostors: a belief that they are fooling others, an inability to attribute success to internal ability, and a fear of being exposed.

There is a somewhat paradoxical relationship between the central characteristics of IP (Leary et al., 2000). Impostors fear that others will discover their inadequacies but often behave in self-deprecatory behaviors that highlight those inadequacies. There is evidence that these negative self-evaluations can result in self-sabotaging behavior which ultimately reinforces their negative self-views, such as procrastination and perfectionism (Clance, 1985; Cowman and Ferrari, 2002). While others feel increases in self-esteem after achieving success and praise at work, those who demonstrate high IP feel an increase in negative feelings and dissatisfaction (Cowman & Ferrari, 2002), as well as an increased sense of fraudulence that impacts future behaviors and thought patterns in what Clance (1985) describes as the impostor cycle.

Past studies have specifically looked at IP in college faculty (Topping, 1983), undergraduate students (Leary et al., 2000) graduate students (Gibson-Beverly & Schultz, 2011; Henning et al., 1998; Cisco, 2019), and working professionals (Neureiter & Traut-Mattausch, 2016; Leonhardt et al., 2017), but little research currently exists regarding college administration.

Some researchers have found that females have a higher correlation to feelings of impostorism than their male counterparts (Clance & Imes, 1978; Clance, 1985; Kumar & Jagacinski, 2006), however other studies (Harvey, 1981; Langford, 1990; Topping, 1983; Edwards, et al., 1987) have shown that men also feel impostorism similarly to women. Bernard et al. (2002) examined the relationship between IP and the Big Five personality factors of the NEO-PI-R (Extroversion, Agreeableness, Conscientiousness, Neuroticism, and Openness) and found that those high in IP were much more disposed to feelings of anxiety and depression, as well as low self-discipline and perceived competence, regardless of sex. Holmes et al. (1993) attribute these discrepancies to biased sampling (studies tend to select populations that are more prone to impostor dynamics) and different measurement instruments (Harvey Scale and Clance IP Scale being the most prominent), while Hoang (2013) attributes these differences to external factors that the measurements may not explicitly measure, such as the societal and family pressures that women face or the societal pressures for success that are often put on men. The impostor phenomenon has also been shown to have a cross-cultural impact (Chae et. al, 1995; Clance et. al, 1995). Clance (1985) reported that nearly 30% of professionals surveyed experienced nearly constant IP, with some studies showing that an estimated 70% of people will experience at least one episode of IP at some point in their careers (Sakulku & Alexander, 2011).

Problem Statement

Research on the impostor phenomenon has not meaningfully addressed the impact that it has had on higher education leadership, particularly at the community and technical college levels. The research to date has focused separately on leaders in business, graduate students, and faculty, which are all feeder categories for upper-level college administration. Given the intersectionality of these groups, there exists an opportunity to reexamine levels of impostor

phenomenon once these former graduate students and faculty ascend to senior-level administration in higher education. Many of the studies have focused on these populations with a special lens aimed at key demographics such as race, gender, and age, but this study examines the impact that years of service as a college president and previous career titles that led to the presidency might impact the prominence of impostor feelings. Community college presidents are a more diverse group of leaders than their counterparts at universities, so there is the opportunity to better understand how these variables may appear across these variables (Brawer et al., 2013).

Purpose Statement

This quantitative study examines levels of impostor phenomenon using Clance Impostor Phenomenon Scale (Clance, 1985) in community and technical college presidents in the upper Midwest, as well as any links to variables such as race, gender, or length of their role as president. The Clance Impostor Phenomenon Scale (CIPS) was sent, along with a short demographic survey, to community and technical college presidents in Iowa, Minnesota, Nebraska, North Dakota, South Dakota, and Wisconsin.

Research Questions

The study addressed the following research questions:

1. At what levels do community and technical college presidents in the Upper Midwest self-identify feelings of the impostor phenomenon?
2. Does the race of the community and technical college president impact the prominence of feelings of impostor phenomenon?
4. Does the gender of the community and technical college president impact the prominence of feelings of impostor phenomenon?

5. Do the number of years as president of a community and technical college impact the degree of feelings of impostor phenomenon?

Delimitations and Limitations

The study was limited to community and technical college presidents in states the researcher defined as the “upper Midwest.” The community and technical college systems in each state are structured differently, so the role of the executive may differ slightly based on the institution’s role in a larger statewide system. Some presidents surveyed are currently the executive administrator at multiple campuses, which could be a variable that impacts feelings related to the impostor phenomenon. While the researcher is interested in the impact that race, gender, and years of work experience had on levels of impostor phenomenon, the survey does not allow for any one variable to be completely isolated. There exists the potential for untested variables that may impact the level of the impostor phenomenon.

Definition of Key Terms

Impostor Phenomenon. Impostor phenomenon, which is commonly abbreviated as IP, describes the internal cognitive experience of “intellectual phoniness” which results in an inability to internalize any sense of accomplishment. (Clance & Imes, 1978; Clance, 1985)

Community College and Technical College. Community colleges and technical colleges are generally public, non-residential higher education institutions that provide lower-division coursework that can lead to diplomas, certificates, or Associate degrees. The oversight structure of the community and technical colleges can vary from state to state, with some colleges governing independently, some belonging to statewide systems, and some being overseen by local school districts.

College President. Each community and technical college is led by an executive administrator who holds the title of president. The president generally has the responsibility and executive oversight of an institution's academics, accreditation, budget and financial planning, human resources, fundraising, and public advocacy.

CHAPTER II

Review of the Literature

To fully understand the impact that the impostor phenomenon might have on community and technical college presidents, it is essential to understand the background of existing research in the field. While there is currently a gap in the research pertaining specifically to college leadership, there is an abundance of research that focuses on the impostor phenomenon in other populations, including gender groups, ethnic and racial groups, college students, and teaching faculty. The impetus for much of this research is Dr. Pauline Rose Clance's work in establishing the theoretical basis for the impostor phenomenon. Her research, as well as the research of her contemporaries, is summarized here to show the impact back that it had on the current research. It is also important to understand the community and technical college president. This review provides background on the role of the president, the background of college presidents, and the characteristics of college presidents.

The Impostor

In their initial study, which focused on highly successful women from various fields and specialties, Clance and Imes (1978) found that there were at least four behaviors that someone suffering from the impostor phenomenon might demonstrate. One type is that the subject lives in fear of having their lack of knowledge or ability discovered. This results in the subject working extra hard to prevent the discovery of their perceived shortcomings, and when that hard work results in additional success, it produces stronger feelings of phoniness which continues the cycle. Another behavior can be demonstrated when the subject engages in intellectual authenticity. This could be through intellectual flattery, like putting others' ideas out front or proposing ideas that align with the beliefs of stakeholders, or by keeping quiet when someone

presents an idea that is in direct opposition to the subject's beliefs. This type of behavior also continues to feed future feelings of impostorism because the subject's authentic views are never put forth for evaluation. A third behavior is rooted in two conflicting thoughts that the impostor might be experiencing that are best summarized as: "I am stupid or incapable" and "I am brilliant and special if only the right person would discover me" (Clance & Imes, 1978). In this behavior, the impostor is overly charming, which then is used to explain away any future successes. If someone praises them for creative work, the subject attributes that praise to the act they are putting on, not the work that was done. They also believe that their need to act with such phoniness is reflective of their own lack of ability because those with natural talents and abilities wouldn't need to appease others for validation. To participate in the process of putting on a fake self only further deepens their belief in their impostorism. Clance (1985) suggested that impostors actually have high expectations for their goals, but that they will disregard any positive feedback if there is a gap between their actual performance and their ideal standard. While Clance and Imes (1978) initially believed that the impostor phenomenon was unique to successful females, multiple studies since have shown that the impostor phenomenon can be seen across the population, regardless of gender (Harvey, 1981; Topping, 1983; Langford, 1990; Bussotti, 1990).

Harvey (1981) found that the impostor phenomenon had a much wider reach. In fact, Gravois (2007) estimates that 70% of the population experiences at least one instance of impostor phenomenon in their lives, though most impostors are able to perform in academics and at work despite their feelings of fraudulence (Sakulku & Alexander, 2011). Instead, impostorism could be felt by anyone who was presented with an achievement task and who demonstrated four unique and interconnected factors (Harvey, 1981; Harvey & Katz, 1985). Based on the research

of Clance and Imes (1978), Harvey (1981) presented four factors that lead to feelings of impostorism. They include interpersonal assets, which allow the person to present as an interpersonal chameleon depending on the task and people involved while never modifying their self-perceptions to permanently change their beliefs about themselves; self-monitoring, or the ability to be aware of the interplay between their internal feelings of inadequacy and their external presentation; cognitive patterns of self-perception, or the inability to rationalize internal and external factors for success; social context of achievement, or the inability to internalize success and praise and instead look for situational explanations or luck as the source of accomplishment (Harvey, 1981). Leary et al. (2000) further focused on the three common key factors of the impostor phenomenon as the feelings of being a fraud, fear of being discovered to be a fraud, and difficulty internalizing accomplishment while behaving in ways that maintain these beliefs.

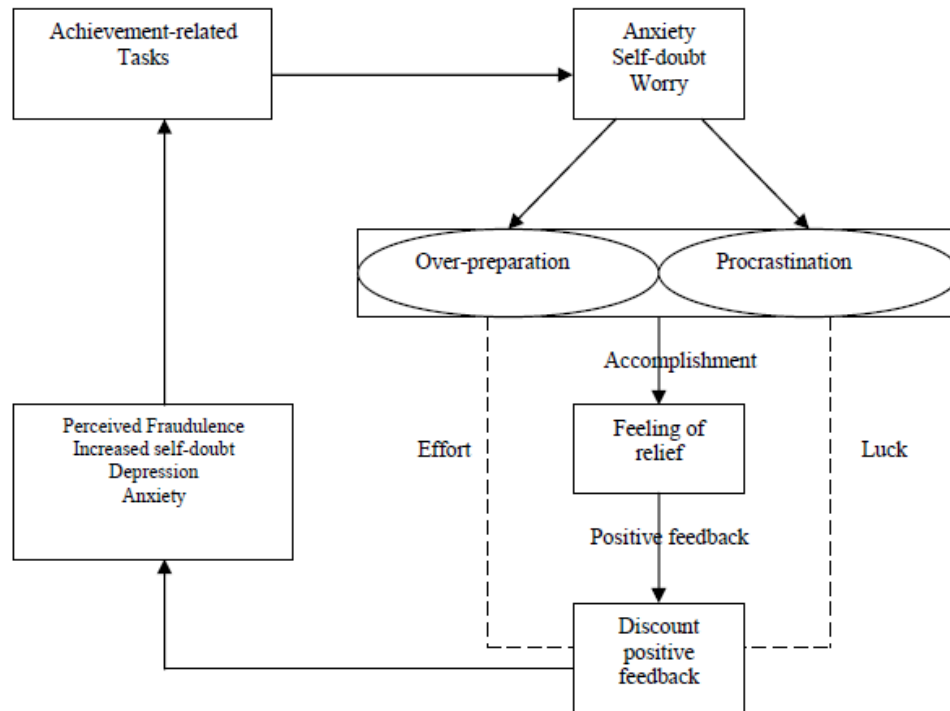
Clance's Impostor Profile

Clance (1985) developed an overarching profile of those with high impostor phenomenon feelings. The profile features six traits that corresponded to the CIPS results. She believed that those suffering from the impostor phenomenon would not necessarily have all six traits present, but would have at least two or three of those characteristics.

The Impostor Cycle

Clance (1985) found that the first characteristic of the impostor phenomenon is a cycle rooted in anxiety and self-doubt that repeats itself based on perceived interactions with past experiences. The cycle begins when the person is presented with an achievement task (Chrisman et al., 1995; Clance & Imes, 1978, Thompson et al., 2000). Because the impostor has levels of self-doubt, they will react to their anxiety and self-doubt through either procrastination ("I won't

be able to do well, so why start?") or over preparation ("I'm doomed to fail, but maybe I can get by if I spend all of my time and energy on this") (Clance, 1985; Thompson et. al, 2000). Once the impostor realizes that the task deadline is quickly approaching, they become frenzied and put extra stress on themselves as they scramble to complete the task (Clance, 1985). Once the task is completed, feelings of accomplishment are short-lived because any praise received causes internal dissonance with the way that success was perceived as being achieved (Casselman, 1991). As the next task presents itself, they will remember the stress and the feelings of self-doubt related to the last task, which will increase their feeling of impostorism, and will directly impact the way they approach their next task, resulting in a continuation of the Impostor Cycle (Clance, 1985). This can be further summarized as: Achievement task is present, anxiety symptoms present (Chrisman et al., 1995; Clance & Imes, 1978, Thompson et al., 2000). One place that the Impostor Cycle presents itself is when the person attempts to advance in their career. Those with high IP are able to put on a mask when interviewing for new positions that allows them to highlight their strengths while they are harboring doubts about their ability. When they are hired for a new position or given additional opportunities, the Impostor Cycle begins again and they immediately launch into feelings of self-doubt about their ability to do what they claimed they could accomplish.

Figure 1*The Impostor Cycle*

Note. This diagram represents the Impostor Cycle and is based on Clance (1985). The cycle begins with the assignment of achievement-related tasks.

The Need to Be Special

Impostors often have internal desires to be the very best and are often in the top of the class through their K-12 years (Clance, 1985). However, as soon as the impostor is in a large setting with other talented people and realizes that their talents and abilities aren't extraordinary, they will begin to become dismissive of their talent and harbor feelings of inadequacy when they aren't the very best at something (Clance, 1985; Sakulku & Alexander, 2011). Strong impostor feelings are often developed unimpeded because the person is a high-achiever or perceived as "special" when they are a child (Clance, 1985). As they continue to develop, they are burdened with the pressure of continuing to be the best, feeling like everything they do is evaluated against

others. At some point, usually in childhood, they shift their concept of “self” to reflect what they perceive to be the most desirable traits of those evaluating them. The impostor also learns which aspects their parents value and unconsciously shifts to develop those attributes (Clance et.al., 1995). Those attributes that are more highly valued by the parents build into the core values of the children, so when success occurs there is more weight given to those attributes that are valued (social skills, attractiveness) and less to those that are not (intelligence). If there is any dissonance with the “self” created through these family values, a state of anxiety is created in the impostor (Clance et.al., 1995). According to one study, 55% of high achieving minority female science students cited factors other than intelligence for their achievement, 79% believed teachers overestimated their abilities, and 24% believed they put in much more time and effort than their peers (Stahl et.al., 1980).

One of the consequences of this push to be recognized as special is an avoidance of situations where the person with high IP feels they might fail. They identify the place they feel they can most safely hide with continued success and aim for goals well below their capabilities (Clance, 1985). If they find themselves in situations where they feel like they are challenged or where there is clearly someone else present who is equal or more qualified for the task at hand, they will remove themselves from the situation and discontinue participating in the activity. As Clance (1985, p. 70) described it, “This need to be special also causes some IP victims to remain the “Big Fish in the Little Pond” instead of branching out and trying their luck at some of those larger ponds, where the competition is much more keen.” They live in constant fear of appearing foolish or being humiliated, even though this is an experience most people will have at some point. Clance (1985) theorizes this could be because they witnessed someone they admired looking foolish at some point and were overwhelmed by the feelings of shame they perceived the

other person feeling. This can result in the person participating in less spontaneous and creative endeavors, which then reinforces self-doubt about their ability to engage in those kinds of endeavors moving forward (Clance, 1985).

Superwoman/Superman Traits

Someone experiencing strong feelings of impostor phenomenon often doesn't just need to feel special or the best in one task but strives for absolute perfectionism in all aspects of their lives (Clance, 1985). While not every perfectionist suffers from feelings of IP, most victims of IP feelings find themselves in the pursuit of perfection. They set nearly impossible standards for self-evaluation and feel like they must be perfect to be loved (Imes & Clance, 1984; Clance, 1985). These feelings of perfectionism being tied to love and praise are usually established in childhood. Langford and Clance (1993) found in their study of successful women that impostor phenomenon can be brought on in situations where the child is in an unsupported family system, often full of conflict, that only selectively validates the child. Without complete validation, the child feels ashamed to ask for help and believes that they should naturally know everything, which creates an impossible standard of perfection and unrealistic expectations of themselves. This standard continues into adulthood as they find themselves in work situations where they need to be the expert in all areas and they become ashamed to ask for help because they perceive it as a sign of weakness that will result in superior and peer dissatisfaction, which creates additional feelings of anxiety and depression (Clance, 1985).

Fear of Failure

The fear of failure is one of the cornerstones of the impostor phenomenon. Impostors are aware that failure is an inevitable part of the human experience, but they are unable to internalize this awareness and apply it to their thoughts and behaviors. The very thought of failure causes

anxiety and stress, which results in task avoidance, procrastination, or overworking to avoid the chance that they might be humiliated or viewed as less than perfect (Clance 1985). This fear of failure is the driving motive behind nearly all of the other impostor thoughts and behaviors (Clance, 1985; Clance & O'Toole, 1988; Imes & Clance, 1984).

Denial of Competence and Discounting Praise

Along with the fear of failure, one of the hallmark characteristics of those suffering from impostor phenomenon is an inability to accept praise or acknowledge earned accomplishments. Impostors struggle with internalizing success and accepting praise and tend to attribute their successes to external circumstances (Clance, 1985; Harvey, 1981; Thompson et al. 1998; Topping & Kimmel, 1985). While others may view this as false modesty or an attempt to gain more praise, it is actually a deeply rooted belief that they do not deserve praise or credit for their achievements (Clance, 1985). Impostors cannot accept or internalize praise because it is contradictory to their beliefs that their success is tied to anything beyond their ability to outcharm and out luck everyone else. Praise causes increased pressure on future success, which brings on additional stress and anxiety (Clance, 1985). They are more likely to believe that everyone in the world is capable of constant misjudgment about them than to accept that their abilities led to their success.

Fear of and Guilt About Success

Impostors often feel guilty about their success and fear that those successes may alienate them from family and peers (Sakulku & Alexander, 2011). They also fear that any success may lead to higher demands that are even further above their perceived level of ability, which will cause them to shy away from additional responsibility or promotion for fear that the next step will be the one that reveals their phoniness (Clance, 1985). Research has shown that nearly 70%

of the population has experienced impostor feelings (Matthews & Clance, 1985; Gravois, 2007) and that those who found success came easily or quickly at an early age were more likely to experience feelings of impostorism as an adult (Clance, 1985). Feelings of impostorism can be tied to two very different childhood experiences. In one circumstance, the child may have a perfectionist guardian who gives no praise and helps establish a nearly impossible standard that the child is always chasing (Clance, 1985). On the other hand, children who have general praise heaped upon them grow up not believing that they have earned any of the accolades that they are given (Clance, 1985). Also, these successful people do not believe they are entitled to success and feel guilt when peers who are important to them do not obtain the same levels of success. This causes them to feel shame and to explain away their successes as luck in an effort to remain on the same level as their peers (Clance, 1985). They are also reluctant to outdo those who they look up to, including parents and mentors. Because impostor feelings are tied directly to fears of humiliation and a potential loss of love, they will downplay their abilities and successes so as to not cause embarrassment to those they admire by outshining them (Clance, 1985).

Community and Technical College Presidents

Demographics

The American Council on Education (ACE) has conducted a study of American college and university presidents every five years since 2001, with the most recent data set representing the 2016 survey (Gagliardi et al, 2017). The 2016 data showed that, while more diverse in gender, race, and previous experience than in past years, the presidents of American higher education institutions are still predominantly White and male (Gagliardi et al., 2017). According to the 2016 data, presidents at Associate degree-granting institutions were 64% male to 36% women. 80% of respondents identified as White, White American, or Caucasian, down from

87% in the 2011 survey. 9% of respondents identified as Black, Afro-Caribbean, or African American (up from 5% in 2011). Others surveyed identified as Hispanic/Latino (5% in both 2016 and 2011), Asian or Asian American (3% in 2016, 1% in 2011), American Indian/Alaska Native (1% in both 2016 and 2011), and Multiple Races (2% in 2016, 1% in 2011). An additional category, Middle Eastern or Arab American, was added for the 2016 survey with 1% of respondents identifying in that category (Gagliardi et al., 2017). The survey broke age into decade-based categories. 42% of those surveyed reported being between the age of 61 and 70, 37% reported being between 51 and 60, 12% reported being between 41 and 50, and 9% reported being over 71 years old. Less than 1% of those surveyed reported being under the age of 40 (Gagliardi et al., 2017).

The ACE survey also looked at the pathway to the presidency at Associate degree-granting institutions, including their immediate prior position and the number of previous presidencies held. Of those surveyed in 2016, 40% reported being the chief academic officer, provost, dean, or another senior executive in academic affairs prior to ascending to the presidency. 28% of respondents were already presidents or interim presidents, 18% were non-academic senior executives in higher education, and 1% were faculty or department chairs. Not all college presidents come from higher education, as 13% of respondents identified as coming from a profession outside of higher education (Gagliardi et al., 2017). The field is dominated by first-time presidents (71%). They were followed by 21% in their second presidency, 6% in their third, 1% in their fourth, and 1% in their fifth or more role as president.

Role of the president.

The community and technical college presidents oversee unique institutions that often serve very different missions that have evolved over time. Once seen as only Associate's degree-

granting schools that focused on general education completion or technical training institutions that provided certificates and diplomas towards trades, the Carnegie Classification of Institutions of Higher Education now includes a category for institutions that offer both Associate's and Bachelor's degrees (Carnegie Foundation, 2021). Brawer et al. (2013) identified some of the key responsibilities of these institutions as offering educational access to underrepresented populations, providing liberal arts training that prepares students for university enrollment, meeting the developmental education needs of under-skilled learners, providing high-demand technical education to meet the demands of the workforce, and offering community education programs that meet a wide variety of learning needs from their local communities, including professional development, continuing education, and adult basic education.

Leadership theories and the college president.

The role of the community college president has evolved as the needs of community colleges have changed over the years. The climate of higher education, changing demographics, and job market needs have put college presidents in a position where they can no longer just focus on meeting accreditation and enrollment expectations but must also build complex organizations that are interculturally aligned with the needs of their communities (Amey, 2013). Research on community college presidents from the mid-to-late 20th century focused on these leaders as revolutionary leaders who were battling traditional education pillars to open access to more learners (Brint & Karabel, 1989). However, 21st century research has turned the focus toward two primary leadership themes: individually oriented theories and organizationally oriented theories (Amey, 2013).

Under the theme of individually oriented leadership theories, four key theories were identified (Amey, 2013). The first theory of leadership is cognitive theory, which focuses on the

thought process of individuals and seeks to understand how outcomes and actions are attributed to leaders with an eye toward the perception of the leader by their constituents (Kezar et al., 2006). Cognitive theories focus on the way that the leader uses frames (Bolman & Deal, 2017) and emphasize mental maps in their decision making (Senge, 1998). Another closely tied theory is sense making, which takes into account subconscious core values and prior experiences of the leader when evaluating the process they use to make complex decisions (Eddy, 2010). The leader goes beyond just being a great orator or idea creator and instead ties context in decision making to the complex organization. They lead with knowledge of the who, what, when, how and why of each situation and are able to make decisions that will have the greatest impact for their constituents (Eddy, 2010). While data-driven decision making is still the predominant force in higher education, they are also able to use perspective to form a more nuanced decision-making process (Morgan, 2006; Alfred, 2008). A modern college leader must also demonstrate strong emotional intelligence. Goleman (1998) found that leaders with highly developed emotional intelligence were more keenly aware of how their own emotions impacted their behaviors, as well as how the emotions of others might be impacted by those behaviors. Community college presidents may not have traditionally been emotional monitors for their organization, but high emotional intelligence fosters trust and cohesion across the college (Bensimon & Neumann, 1993; Amey, 2013). Finally, the modern community college president must have a strong grasp of intercultural competency theories. Community colleges do not function in a bubble where the assumption is that the president knows what is best for their community and constituents (Eddy & Cox, 2008; Lester, 2008). Instead, the college president must understand that their community has unique needs and must have a strong understanding of the college's place in the community and in society. They must be able to listen, build relationships, and construct meaningful

experiences for themselves in an effort to better understand the culture of their college and community (Cooper & Ideta, 1994). While race, gender, sexuality and ethnicity are all commonly thought of as cultural components, the president must also be aware of issues of socio-economic status, social identity, organizational sectors, evolving technology, and global issues (Amey, 2013).

From an organizational theory view, the college president must be able to be a change agent with the entrepreneurial spirit that has been a core component of colleges' missions since their inception (Amey, 2013). They must create innovation, initiatives, and opportunities that are rooted in the college's mission and values to get sustainable community support (Bolman & Deal, 2017; Bugay, 2001). They do this by building effective teams, taking risks, and finding the resources to stay ahead of competition from for-profit and online educational alternatives (Amey, 2013). Another organizational theory lens that can be used is organizational development and chaos. The needs of the community and society are constantly changing, and community colleges are institutions built to grow and evolve with those changes (Amey, 2013). Leadership challenges are created because community colleges are loosely coupled with multiple power players (boards, collective bargaining, student groups), long-held traditions, and natural resistance to nearly constant change (Brawer et al., 2013; Levin, 2001). A college president must understand these organizational complexities and make decisions that are both data-driven and use emotional intelligence to ensure the health of the organization as a whole is always in focus (Amey, 2013). Finally, college presidents must be able to ground their work in collaboration theories. As has been noted, colleges are complex organizations with stakeholders that are both internal and external, including students, staff, faculty, governing boards, and the communities they serve. Presidents must have the ability to be the face of the institution and build

collaboration across parties to be what Eddy (2010) calls a multidimensional leader. This form of networked leadership, or collaborative leadership, requires strong communication, expertise, power, and trust in order to be successful (Amey, 2005).

Chapter III

Methods

This study sought to discover the degree to which community and technical college presidents experience the impostor phenomenon and what specific factors may impact the intensity of the experience. By identifying the impostor phenomenon, colleges and university systems could help mitigate some of the confidence issues and feelings of inadequacy that may be causing lower outcomes and morale from these top-level administrators. The following hypotheses are explored within the research as a part of this study. If a president has less administrative experience, then they will experience a higher level of impostor phenomenon. If the president is White, then they will experience lower levels of impostor phenomenon than presidents who identify as non-White. If a president identifies as male, they will experience lower levels of impostor phenomenon than colleagues who identify as any other gender.

Participants

The participants of this study were presidents of public community and technology colleges in a six-state region, consisting of colleges in North Dakota, South Dakota, Nebraska, Iowa, Minnesota, and Wisconsin. The group was identified through directory information located on their respective state education websites. In total, the survey will be sent to 70 participants, with 23 participants in Minnesota, 16 in Wisconsin, 15 in Iowa, six in South Dakota, five in Nebraska, and five in North Dakota.

Measures

Demographic Survey

A demographic questionnaire was given to the subjects. The questionnaire asked for the participants to identify their race, gender, and the number of years they have served in a presidency (Appendix A).

Impostor Scale

With permission from the author (Appendix B), the 20-item Clance Impostor Phenomenon Scale (Clance, 1985) was used to identify the occurrence of the impostor phenomenon in the sample (Appendix C). The scale is a five-option Likert scale, with “1” representing “not at all true” and “5” representing “very true,” and the middle range representing “rarely” (2), “sometimes” (3), and “often” (4). A total compiled score of 40 or less shows very few Impostor characteristics, 41-60 experiencing moderate Impostor characteristics, 61-80 representing frequent Impostor characteristics, and scores that are higher than 80 showing intense Impostor Phenomenon experiences (Clance, 1985) (Appendix D). A higher score correlates to a higher frequency and intensity of the Impostor Phenomenon’s interference with the subject’s life.

Design

To recruit participants who fit the criteria model, the researcher used state-provided directory information for the community and technical colleges in North Dakota, South Dakota, Nebraska, Iowa, Minnesota, and Wisconsin. Data will be collected using Qualtrics (www.qualtrics.com). The data was then analyzed using JASP (www.jasp-stats.org).

The presidents were invited to participate via e-mail, which contained a link to the Qualtrics survey (Appendix E). The survey began with an informed consent statement (Appendix F), which was also be available for them to download, that allowed the participants to opt-out. Once the participants consented to participate in the study, they were directed to the Clance

Impostor Phenomenon Scale (Clance, 1985). Upon completion of the Clance Impostor Phenomenon Scale, they were directed to a page that contained demographic questions that identified their age, gender, and years of service in their presidency. No incentive was offered to the participants by the researcher.

Data Analysis

To test the hypotheses, t-tests were used to identify statistically significant differences between the occurrence of impostor phenomenon in White presidents and presidents of color, male and female presidents, and presidents who have served less than five years and presidents who have served six years or more in their presidency. There was testing for a null hypothesis that the averages are the same, and if $p > 0.05$, then the null hypothesis was rejected because it indicated that the difference in the averages is statistically significant. The data collected was used to find descriptive statistics such as central tendency, frequency, and variation.

The data will be used to test the following hypotheses:

1. Community and technical college presidents of color (non-White) will experience higher reported levels of impostor phenomenon than their White counterparts.
2. Community and technical college presidents who have been a president for less than five years will experience higher reported levels of impostor phenomenon than those who have been in a presidency for six years or more.
3. Female community and technical college presidents will experience higher reported levels of impostor phenomenon than male community and technical college presidents.

Quantitative Research and Survey Design

This study is considered quantitative research and will use a survey research design. Creswell (2019) defines survey research designs as a set of procedures used to administer a

survey to a sample or to an entire population to describe their attitudes, opinions, behaviors, or characteristics. Educational research surveys date back to at least 1817, though modern surveys began to increase during World War I and World War II as the rise of the social sciences and marketing began to take off (Creswell, 2019). The strengths of a survey design are that it can be used to gather information quickly and economically across a wide geographic area. However, the potential downfalls of a survey research design are that the data consists of self-reported information that only captures what someone is thinking at that moment. They do not control for many variables that can explain relationships between independent and dependent variables and response rates can be low, which make it difficult to make claims regarding the representativeness of the entire population (Creswell, 2019).

The seminal research conducted on Impostor Phenomenon all used the Clance Impostor Phenomenon Scale (Clance, 1985), a 20-item survey designed to collect personal feeling data from respondents using a Likert scale. This study used a cross-sectional survey design that collects data at one moment in time and will not be using a longitudinal design that continues the survey across a period of time. This study compared the self-reported personal assessments of groups of individuals and the hypotheses will be tested by comparing these results. For data analysis, the respondents were broken into two categories per hypothesis, which include male/female, White/non-White, and five and under years of service/over six years of service. Creswell (2019) describes survey research as having a population, a target population, and a sample population. The population for this survey are community and technical college presidents. The target population are presidents in the upper Midwest, and the sample are the respondents who complete the survey.

This research used an online survey that was e-mailed to the respondents. As Sills and Song (2002) identified, this method is not without its limitations, which include low response rates, technology problems, and e-mail junk filters that may stop the invitation to participate from being delivered to the targeted population. However, these limitations are offset by the advantages of being able to conduct the survey in a timely fashion, reach a wide geographic audience, and have immediate access to the data (Creswell, 2019).

The quantitative design allowed for the data to be examined for descriptive statistics, including central tendency (mean) and variability (variance and standard deviation).

CHAPTER IV

Results

This study explored the occurrence of the impostor phenomenon in community and technical college presidents in the upper Midwest and whether years of service in the position, gender, or race influenced the rate and strength of impostor feelings. The study tested three hypotheses. The first was that community and technical college presidents of color (non-White) will experience higher reported levels of impostor phenomenon than their White counterparts. Second, it was hypothesized that community and technical college presidents who have been in a presidency for less than five years will experience higher reported levels of impostor phenomenon than those who have been in a presidency for six years or more. The final hypothesis was that female community and technical college presidents will experience higher reported levels of impostor phenomenon than male community and technical college presidents.

Demographic Data

Of the 70 eligible presidents that were surveyed across Minnesota, Wisconsin, North Dakota, South Dakota, Nebraska, and Iowa, 28 respondents completed the survey (40% response rate). One of those 28 respondents chose not to complete the demographic portion of the survey. Of the respondents, 23 self-identified as White (85.2%), three identified as Black, African American, or Afro-Caribbean (11.1%), and one identified as Hispanic or Latino (3.7%). Seventeen respondents identified as male (63%) and ten identified as female (37%). The respondents indicated that 13 had served as a president less than five years (48.2%), nine served between six years and ten years (33.3%), four served between 11 and 15 years (14.8%), and one served for greater than 16 years (3.7%). The race and gender data closely mirrored the American Council on Education (ACE) 2016 study of American college and university presidents

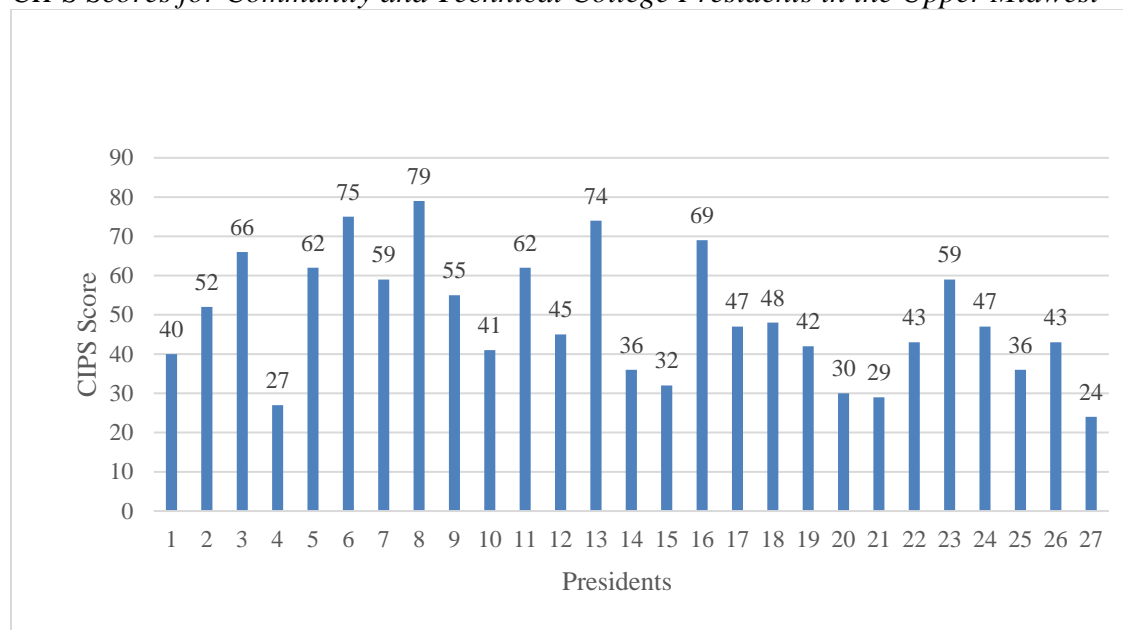
(Gagliardi et al, 2017). According to the 2016 data, presidents at Associate degree-granting institutions were 64% male to 36% women. 80% of respondents identified as White, White American, or Caucasian and 9% of respondents identified as Black, Afro-Caribbean, or African American. Others surveyed identified as Hispanic/Latino (5%), Asian or Asian American (3%), American Indian/Alaska Native (1%), and Multiple Races (2% in 2016). For the purpose of data analysis, the populations were combined to create two categories for each demographic group: male/female, White/non-White, and five years or less in presidency/six years or more in presidency.

Impostor Phenomenon

The Clance Impostor Phenomenon Scale (CIPS) is a 20-item survey that uses a Likert scale of 1 through 5 (1=Not At All True, 2=Rarely, 3=Sometimes, 4=Often, and 5=Very True) (Appendix A) (Clance, 1985). To identify whether the respondent has Impostor Phenomenon characteristics and the extent that these characteristics are felt, the numbered answers for the 20 items are added together. If the score is 40 or less, there are few Impostor characteristics present. A score of 41-60 means that moderate Imposter Phenomenon characteristics are experienced. A score of 61-80 means the respondent frequently experiences Impostor feelings. Finally, a score over 80 means the respondent has intense Impostor Phenomenon experiences. The higher the score, the more disruptive these feelings and characteristics are to the respondent's daily life (Clance, 1985). The range of scores was 24 to 79, as shown in Figure 2.

Figure 2

CIPS Scores for Community and Technical College Presidents in the Upper Midwest



The results of all respondents ($n=28$) showed that when the mean scores for each item for the entire group were added together the group had an overall score of 49.38 (Table 1). This score puts Midwestern community and technical college presidents in the moderate Impostor Phenomenon characteristics category (Clance, 1985).

Table 1

Group Responses to Clance Impostor Phenomenon Scale

	Survey Statement	Mean	SD
Q1	I have often succeeded on a test or task even though I was afraid I would not do well before I undertook the task.	3.43	1.05
Q2	I can give the impression that I'm more competent than I really am.	3.25	0.99
Q3	I avoid evaluation if possible and have a dread of others evaluating me.	1.96	1.02
Q4	When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.	1.89	0.98
Q5	I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.	2.00	0.89
Q6	I'm afraid people important to me may find out that I'm not as capable	1.82	0.93

	as they think I am.		
Q7	I tend to remember the incidents in which I have not done my best more than those times I have done my best.	3.07	1.13
Q8	I rarely do a project or task as well as I'd like to do it.	2.79	1.21
Q9	Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.	1.57	0.82
Q10	It's hard for me to accept compliments or praise about my intelligence or accomplishments.	3.29	1.06
Q11	At times, I feel my success has been due to some kind of luck.	1.75	0.74
Q12	I'm disappointed at times in my present accomplishments and think I should have accomplished more.	2.54	1.15
Q13	Sometimes I'm afraid others will discover how much knowledge or ability I really lack.	2.04	1.09
Q14	I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.	2.36	1.11
Q15	When I've succeeded at something and received recognition for my accomplishments, I have doubts that can keep repeating that success.	2.18	1.2
Q16	If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I've done.	3.00	0.93
Q17	I often compare my ability to those around me and think they may be more intelligent than I am.	2.57	1.37
Q18	I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well.	2.22	1.13
Q19	If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.	3.29	1.31
Q20	I feel bad and discouraged if I'm not "the best" or at least "very special: in situations that involve achievement.	2.36	1.26

Hypothesis 1. It was hypothesized that community and technical college presidents of color (non-White) would experience Impostor Phenomenon feelings at a higher level than White community and technical college presidents.

There were 27 presidents who chose to self-identify their race. One president chose not to provide this information. The mean responses for each survey item for the White presidents (n=23) is presented in Table 2. The mean responses for each survey item for non-White presidents (n=4) is presented in Table 3.

Table 2*Mean CIPS Scores for White Community and Technical College Presidents (n=23)*

	Mean	SD	
Q1	3.478	1.039	
Q2	3.174	0.984	
Q3	1.913	1.041	
Q4	1.870	1.058	
Q5	2.174	0.887	
Q6	1.913	0.996	
Q7	3.087	1.164	
Q8	2.696	1.222	
Q9	1.609	0.891	
Q10	3.435	1.037	
Q11	1.826	0.778	
Q12	2.522	1.201	
Q13	2.087	1.164	
Q14	2.348	1.112	
Q15	2.261	1.287	
Q16	3.043	0.976	
Q17	2.565	1.441	
Q18	2.227	1.232	
Q19	3.217	1.380	
Q20	2.435	1.376	

Table 3*Mean CIPS Scores for Non-White Community and Technical College Presidents (n=4)*

	Mean	SD	
Q1	3.000	1.414	
Q2	3.500	1.291	
Q3	2.000	1.155	
Q4	1.750	0.500	
Q5	1.250	0.500	
Q6	1.250	0.500	
Q7	3.000	1.414	
Q8	3.250	1.500	
Q9	1.250	0.500	
Q10	2.250	0.957	
Q11	1.500	0.577	
Q12	2.500	1.291	
Q13	1.500	0.577	

Q14	2.250	1.500	
Q15	1.750	0.957	
Q16	2.500	0.577	
Q17	2.250	1.258	
Q18	2.000	0.816	
Q19	3.500	1.291	
Q20	2.000	0.816	

A t-test was run with the summed totals of the mean scores to each item on the survey comparing the totals of the White and non-White groups where the null hypothesis would be rejected at $p > 0.05$ (Table 4). For the White/non-White comparison, the test statistic is $t = 0.734$, where $p = 0.496$. Because the p-value is greater than 0.05, the null hypothesis is not rejected. There is not enough evidence to conclude that there is a statistical difference in Impostor Phenomenon feelings between White and non-White community and technical college presidents in the Upper Midwest.

Table 4

t-Test: Two-Sample Analysis on White and Non-White Community and Technical College Presidents' CIPS Scores Assuming Unequal Variances

	White	Non-White
Mean	49.78261	44.25
Variance	254.9051	182.9167
Observations	23	4
Hypothesized Mean Difference	0	
df	5	
t Stat	0.734023	
P(T<=t) one-tail	0.247945	
t Critical one-tail	2.015048	
P(T<=t) two-tail	0.495891	
t Critical two-tail	2.570582	

Hypothesis 2. It was hypothesized that community and technical college presidents with five years or less of service in a presidency would experience higher Impostor Phenomenon feelings than presidents with six or more years of service in their presidency.

There were 27 presidents who chose to self-identify their years of service in a presidency. One president chose not to provide this information. The mean score for each survey item for presidents with five years or less in their position (n=13) is presented in Table 5. The mean score for each survey item for presidents with six or more years of service (n=14) is presented in Table 6.

Table 5

Mean CIPS Scores for Presidents With Six or More Years of Service (n=13)

	Mean	SD	
Q1	4.000	0.707	
Q2	3.692	0.855	
Q3	2.154	0.899	
Q4	2.231	1.013	
Q5	2.154	0.987	
Q6	2.154	0.987	
Q7	3.462	1.198	
Q8	3.077	1.320	
Q9	1.769	1.013	
Q10	3.462	0.967	
Q11	1.923	0.760	
Q12	2.846	1.281	
Q13	2.308	1.316	
Q14	3.000	1.155	
Q15	2.692	1.316	
Q16	3.231	0.832	
Q17	3.231	1.536	
Q18	2.615	1.193	
Q19	3.692	1.182	
Q20	3.000	1.291	

Table 6*Mean CIPS Scores for Presidents With Five or Less Years of Service (n=14)*

	Mean	SD	
Q1	2.857	1.099	
Q2	2.786	0.975	
Q3	1.714	1.139	
Q4	1.500	0.855	
Q5	1.929	0.829	
Q6	1.500	0.855	
Q7	2.714	1.069	
Q8	2.500	1.160	
Q9	1.357	0.633	
Q10	3.071	1.207	
Q11	1.643	0.745	
Q12	2.214	1.051	
Q13	1.714	0.825	
Q14	1.714	0.726	
Q15	1.714	0.994	
Q16	2.714	0.994	
Q17	1.857	0.864	
Q18	1.769	1.013	
Q19	2.857	1.406	
Q20	1.786	1.051	

A t-test was run with the summed totals of the mean scores to each item on the survey comparing the totals of the presidents with five years or less in their presidency and presidents with six years or more in their presidency where the null hypothesis would be rejected at $p > 0.05$ (Table 7). For the five years or less/six years or more comparison, the test statistic is $t = 2.779$, with a p-value equal to 0.011. Because the p-value is less than 0.05, the null hypothesis is rejected. There is enough evidence to conclude that there is a statistical difference in Impostor Phenomenon feelings between presidents with less than five years and those with six years or more.

Table 7

*t-Test: Two-Sample Analysis on Years of Service
Community and Technical College Presidents
Assuming Unequal Variances*

	<i>Five and Under</i>	<i>Six and Over</i>
Mean	56.69231	41.78571
Variance	237.3974	147.2582
Observations	13	14
Hypothesized Mean Difference	0	
df	23	
t Stat	2.778655	
P(T<=t) one-tail	0.00534	
t Critical one-tail	1.713872	
P(T<=t) two-tail	0.010681	
t Critical two-tail	2.068658	

Hypothesis 3. It was hypothesized that female community and technical college presidents would experience higher Impostor Phenomenon feelings than male community and technical college presidents.

There were 27 presidents who chose to self-identify their gender. One president chose not to provide this information. The mean responses of each item on the survey for female presidents (n=10) are presented in Table 8. The mean responses of each item on the survey for male presidents (n=17) are presented in Table 9.

Table 8

Mean CIPS Scores for Female Community and Technical College Presidents (n=10)

	Mean	SD
Q1	3.600	1.265
Q2	3.600	1.075
Q3	2.200	0.919
Q4	2.300	1.059
Q5	2.100	1.101

Q6	2.200	1.033	
Q7	3.300	1.337	
Q8	3.600	1.174	
Q9	2.000	1.054	
Q10	3.000	1.155	
Q11	2.000	0.667	
Q12	2.800	1.317	
Q13	2.700	1.160	
Q14	2.600	1.265	
Q15	2.600	1.265	
Q16	2.800	1.033	
Q17	3.400	1.430	
Q18	2.700	0.949	
Q19	3.300	1.337	
Q20	2.900	1.197	

Table 9

Mean CIPS Scores for Male Community and Technical College Presidents (n=17)

	Mean	SD	
Q1	3.294	0.985	
Q2	3.000	0.935	
Q3	1.765	1.091	
Q4	1.588	0.870	
Q5	2.000	0.791	
Q6	1.588	0.870	
Q7	2.941	1.088	
Q8	2.294	1.047	
Q9	1.294	0.588	
Q10	3.412	1.064	
Q11	1.647	0.786	
Q12	2.353	1.115	
Q13	1.588	0.870	
Q14	2.176	1.074	
Q15	1.941	1.197	
Q16	3.059	0.899	
Q17	2.000	1.118	
Q18	1.875	1.204	
Q19	3.235	1.393	
Q20	2.059	1.298	

A t-test was run with the summed totals of the mean scores to each item on the survey comparing the totals of the female presidents at community and technical colleges and male

presidents at community and technical college where the null hypothesis would be rejected at $p > 0.05$ (Table 10). For the male/female president comparison, the test statistic is $t = -1.655$, with a p-value equal to 0.119. Because the p-value is more than 0.05, the null hypothesis cannot be rejected. There is not enough evidence to conclude that there is a statistical difference in Impostor Phenomenon feelings between male and female presidents.

Table 10

*t-Test: Two-Sample Analysis on Male and Female
Community and Technical College Presidents'
CIPS Scores Assuming Unequal Variances*

	<i>Male</i>	<i>Female</i>
Mean	45	55.7
Variance	166	320.4556
Observations	17	10
Hypothesized Mean Difference	0	
df	15	
t Stat	-1.655	
P(T<=t) one-tail	0.059367	
t Critical one-tail	1.75305	
P(T<=t) two-tail	0.118735	
t Critical two-tail	2.13145	

CHAPTER V

Discussion

Summary of Findings

Of the 28 respondents, 27 provided demographic information. This self-reported demographic data closely matched the American Council on Education 2016 study on American presidents at Associate degree granting institutions (Gagliardi et al, 2017), with 85.2% self-reporting as White and 14.8% self-reporting as non-White (80% identified as White in the ACE national survey, with 20% reporting as non-White), and 63% identifying as male and 37% as female (64% and 36% in the ACE survey). In this study, community and technical college presidents in the Upper Midwest, which ranged from 24 to 79, were found to have an Clance Impostor Phenomenon Scale (CIPS) score of 49.38 (Clance, 1985). This score puts them in the moderate impostor characteristics range.

After the scores for each president were added together to create an individual CIPS score, the data was run through a t-test with three separate self-reported demographic categories: White/non-White, male/female, and five years or less/six years or more in their presidency. The null hypothesis could not be rejected when comparing the scores of male and female presidents ($t = -1.655$; $p=0.119$), or White and non-White presidents ($t = 0.734$; $p =0.496$) at a null hypothesis threshold of $p > 0.05$. However, when comparing presidents with five or less years of service to presidents with six or more years of service, $t = 2.779$, with a p-value equal to 0.011, meaning that the null hypothesis at $p > 0.05$ can be rejected and that there is a statistically significant difference between the CIPS scores of the two groups.

Implications

This study sought to determine if there was a significant difference in the self-reported strength of impostor feelings and characteristics between community and technical college presidents in the upper Midwest based on three demographic points: male/female, White/non-White, and the length of service in their presidency. Based on studies of other groups in academe (Cisco, 2019; Clance, 1985; Clance & Imes, 1978; Gibson-Beverly & Schultz, 2011; Henning et al., 1998; Kumar & Jagacinski, 2006; Topping, 1983), it was hypothesized that female presidents and presidents of color would experience the Impostor Phenomenon at higher rates than their counterparts. This study was not able to establish that link. However, there was a statistically significant difference in the rate that newer presidents (five years or less in a presidency) experience impostor feelings than their more seasoned colleagues.

This could represent an opportunity for college systems to look at how college presidents are trained and supported during their formative years of service. As shown in the ACE survey (Gagliardi et al, 2017), there are many different paths to a president position, and the overwhelming majority of presidents (71%) are in their first presidency. With the age of presidents skewing older (Gagliardi et al, 2017) and nearing retirement age, there will be more presidential positions opening to first-time candidates. The three survey items that had the highest mean scores for the group of presidents with five or less years of experience were:

1. I have often succeeded on a test or task even though I was afraid I would not do well before I undertook the task.
2. I can give the impression that I'm more competent than I really am.
3. If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.

These three items are a demonstration of the Impostor Cycle and fear of failure highlighted by Clance (1985). The opportunity exists to address competency and confidence gaps through training, mentorship, and regular evaluation to help lower these feelings of impostorism and disrupt the cycle.

Strengths and Limitations

One of the main limitations of the study was the small response rate. With only 28 respondents, 27 of whom completed the demographic survey, the study was not representative of all community college and technical presidents in the upper Midwest or community and technical college presidents across the country. Response bias most certainly could occur because it was too small of a sample, meaning that a single extreme answer in a smaller subgroup could have impacted the overall mean score of that group. (Creswell, 2019). For instance, there were only four presidents of color who completed the full survey and demographic questions.

Another limitation could be the response set that occurs when the respondents quickly complete the survey without fully reading it or begin to see a pattern that they attempt to fit their answers to (Creswell, 2019). As established in the ACE survey (Gagliardi et al, 2017), presidents have highly complex, multi-faceted roles. While the survey only had 20 items, plus the three demographic questions, the items all require some level of self-reflection. The items also follow a similar theme. It could be assumed that a president might find themselves rushing through the end of the survey or answering questions based on the answers they think the study is looking for. The latter point could be particularly true for presidents who know the researcher. While every effort was made to keep the results anonymous, it was possible that the presidents who

were aware of the researcher because they work in the same Minnesota State system may have answered differently than they truly believed.

The study also had strengths and serves as a strong starting point for future studies. There exists a gap in the research between the Impostor Phenomenon and leaders at higher education institutions. The study sought to look for common impostor experiences among subgroups of community and technical college presidents and attempted to reach out to presidents across a six-state region, as well as look at the overall experience of impostor feelings in community and technical college presidents in the upper Midwest. The results showed that these presidents do experience moderate impostor feelings as a group. Although the sample size was small, the findings pertaining to new college presidents may be relevant to these colleges and college systems as they consider on-boarding and support practices. It might also serve as a starting point for future research into wider populations of college and university presidents.

Recommendations for Further Research

Based on the results of this survey, as well as the strengths and weaknesses, there are multiple recommendations for future research that can be made. The first is that the study be replicated with a larger population. Limiting the study to the presidents at community and technical colleges in the upper Midwest resulted in a small sample size ($n=70$). The response rate further cut down the data collected. It is recommended that future research is conducted on a national scale.

The second recommendation would be to perform a mixed methods study on the same population. Participants could be provided with an immediate calculation of their score and asked an open-ended question to reflect on why they feel they received the score that they did.

This would provide further insight into which of the six characteristics identified by Clance (1985) was the more prominent impostor feeling within this population.

The third recommendation would be to provide the survey with less direct indication on the intended research outcome. By priming the subjects with the description of the study, the results could be skewed as presidents self-edit their responses based on their own perceptions of the connotations of the word “impostor.” This is particularly true for presidents who may know the researcher.

The fourth recommendation would be to focus larger scale longitudinal research on presidents who have been in their role for five or less years. By offering the CIPS to presidents as they begin their leadership position, along with quantitative methods, and then checking in again at multiple points in their presidency, the research might highlight the important factors that take place during those formative years where the impostor feelings begin to be reduced and confidence begins to build.

Finally, it is recommended that the survey be conducted in-person. Presidents are incredibly busy with multiple responsibilities. With several large professional development gatherings nationally and in individual states, larger and more representative data could be collected. This would be a large undertaking but could help increase the sample size while eliminating some of the biases that come with e-mail surveys.

References

- Alfred, R. L. (2008). Governance in strategic context. In R. C. Cloud & S. T. Kater (Eds.). *Governance in the community college. New Directions for Community Colleges, no. 141* (pp. 79089). San Francisco, CA: Jossey-Bass.
- Amey, M. J. (2005). Leadership as learning: Conceptualizing the process. *Community college journal of research and practice, 29*(9-10), 689-704.
- Amey, M. J. (2013). Leadership: Community college transitions. In Levin, J.S., & Kater, S.T. (Eds.), *Understanding community colleges* (pp. 135–152)). New York, NY: Routledge.
- Bensimon, E., & Neumann, A. (1993). *Redesigning collegiate leadership*. Baltimore: The Johns Hopkins University Press.
- Bernard, N. S., Dollinger, S. J., & Ramaniah, N. V. (2002). Applying the big five personality factors to the impostor phenomenon. *Journal of Personality Assessment, 78*(2), 221–233. https://doi.org/10.1207/S15327752JPA7802_07
- Bolman, L. G., & Deal, T. E. (2017). *Reframing organizations: Artistry, choice, and leadership*. John Wiley & Sons.
- Bothello, J., & Roulet, T. J. (2019). The Imposter Syndrome, or the Mis-Representation of Self in Academic Life. *Journal of Management Studies, 56*(4), 854–861. <https://doi.org/10.1111/joms.12344>
- Bugay, D. P. (2001). TransformActional leadership: Leaders building on trust. *International Leadership Association Proceedings*. College Park, MD: Academic of Leadership. Retrieved from <http://www.ila-net.org/publications/proceedings/2001/dbugay.pdf>

Brawer, F. B., Cohen, A. M., & Kisker, C. B. (2013). *The American Community College*. Germany: Wiley.

Brint, S. G., & Karabel, J. (1989). *The diverted dream: Community colleges and the promise of educational opportunity in America, 1900-1985*. Oxford University Press on Demand.

Bussotti, C. (1990). *The impostor phenomenon: Family roles and environment* (Doctoral dissertation, Georgia State University-College of Arts and Sciences).

Carlson, N. (2013.). "How The Hell Did I Get On A Lion, And How Do I Keep From Getting Eaten?" Business Insider. Retrieved November 27, 2020, from <https://www.businessinsider.com/how-the-hell-did-i-get-on-a-lion-and-how-do-i-keep-from-getting-eaten-2013-8>

Carnegie Foundation for the Advancement of Teaching. (2021). *A Classification of Institutions of Higher Education, 2021 Edition*. Princeton: Author

Casselmann, S. E. (1991). *The impostor phenomenon in medical students: Personality correlates and developmental issues* (Doctoral dissertation, Virginia Consortium for Professional Psychology (Old Dominion University)).

Chae, J., Piedmont, R., Estadt, B., & Wicks, R. (1996). Personological Evaluation of Clance's Imposter Phenomenon Scale in a Korean Sample. *Journal of Personality Assessment*, 65, 468–485. https://doi.org/10.1207/s15327752jpa6503_7

Chrisman, S. M., Pieper, W. A., Clance, P. R., Holland, C. L., & Glickauf-Hughes, C. (1995). Validation of the Clance Imposter Phenomenon Scale. *Journal of Personality Assessment*, 65(3), 456–467. https://doi.org/10.1207/s15327752jpa6503_6

- Cisco, J. (2020). Exploring the connection between impostor phenomenon and postgraduate students feeling academically-unprepared. *Higher Education Research & Development, 39*(2), 200–214. <https://doi.org/10.1080/07294360.2019.1676198>
- Clance, P. R. (1985). *The imposter phenomenon: Overcoming the fear that haunts your success*. Atlanta, Peachtree Publishers.
- Clance, P. R., Dingman, D., Reviere, S. L., & Stober, D. R. (1995). Impostor phenomenon in an interpersonal/social context: Origins and treatment. *Women & Therapy; London, 16*(4), 79. http://dx.doi.org.ezproxy.mnsu.edu/10.1300/J015v16n04_07
- Clance, P. R., and Imes, S. (1978). The imposter phenomenon in high achieving women: dynamics and therapeutic intervention. *Psychother. Theory Res. Pract.* 15, 241–247. doi: 10.1037/h0086006
- Clance, P. R., & O’Toole, M. A. (1987). The Imposter Phenomenon: An Internal Barrier to Empowerment and Achievement. *Women & Therapy, 6*(3), 51–64. https://doi.org/10.1300/J015V06N03_05
- Cooper, J. E., & Ideta, L. M. (1994). Dealing with difference: Maps and metaphors of leadership in higher education. In *an annual meeting of the Association for the Study of Higher Education, Tucson, AZ*.
- Cowman, S., & Ferrari, J. (2002). “Am I for real?” Predicting impostor tendencies from self-handicapping and affective components. *Social Behavior and Personality: An International Journal, 30*, 119–125. <https://doi.org/10.2224/sbp.2002.30.2.119>
- Creswell, J. W., Guetterman, T. C. (2019). *Educational Research: Planning, Conducting,*

- and Evaluating Quantitative and Qualitative Research. United Kingdom: Pearson.
- Eddy, P. L. (2010). *Community college leadership: A multidimensional model for leading change*. Stylus Publishing, LLC.
- Eddy, P. L., & Cox, E. M. (2008). Gendered leadership: An organizational perspective. *New Directions for Community Colleges*, 2008(142), 69-79.
- Edwards, P. W., Zeichner, A., Lawler, N., & Kowalski, R. (1987). A validation study of the Harvey Impostor Phenomenon Scale. *Psychotherapy: Theory, Research, Practice, Training*, 24(2), 256.
- Gagliardi, J. S., Espinosa, L. L., Turk, J. M., & Taylor, M. (2017). *The American college president study: 2017*. American Council on Education, Center for Policy Research and Strategy; TIAA Institute.
- Gibson-Beverly, G., & Schwartz, J. P. (2008). Attachment, Entitlement, and the Impostor Phenomenon in Female Graduate Students. *Journal of College Counseling*, 11(2), 119–132. <https://doi.org/10.1002/j.2161-1882.2008.tb00029.x>
- Goleman, D. (1998). *Working with emotional intelligence*. New York, NY: Bantam Books
- Gravois, J. (2007). You're Not Fooling Anyone. *Chronicle of Higher Education*, 54(11).
- Harvey, J. C. (1981). *The Impostor Phenomenon and Achievement: A Failure to Internalize Success*. Temple University, Philadelphia, PA (Unpublished doctoral dissertation).
- Harvey, J. C., and Katz, C. (1985). *If I'm So Successful, Why Do I Feel Like a Fake? The Impostor Phenomenon*. New York, NY: St Martin's Press.
- Henning, K., Ey, S., & Shaw, D. (1998). Perfectionism, the impostor phenomenon and

- psychological adjustment in medical, dental, nursing and pharmacy students. *Medical Education*. <https://doi.org/10.1046/j.1365-2923.1998.00234.x>
- Hoang, Q. (2013). The Impostor Phenomenon: Overcoming Internalized Barriers and Recognizing Achievements. *The Vermont Connection*, 34(1).
- Holmes, S. W., Kertay, L., Adamson, L. B., Holland, C. I., & Clance, P. R. (1993). Measuring the Impostor Phenomenon: A Comparison of Clance's IP Scale and Harvey's I-P Scale. *Journal of Personality Assessment*, 60(1), 48. https://doi.org/10.1207/s15327752jpa6001_3
<https://scholarworks.uvm.edu/tvc/vol34/iss1/6>
- Imes, S. A., & Clance, P. R. (1984). Treatment of the impostor phenomenon in high achieving women. *Women working with women*, 75-88.
- Kezar, A., Carducci, R., & Contreras-McGavin, M. (2006). *Rethinking the "L" word in higher education: The revolution of research on leadership: ASHE higher education report*. John Wiley & Sons.
- Kumar, S., & Jagacinski, C. M. (2006). Imposters have goals too: The impostor phenomenon and its relationship to achievement goal theory. *Personality and Individual Differences*, 40(1), 147–157. <https://doi.org/10.1016/j.paid.2005.05.014>
- Langford, J. (1990). *The need to look smart: The impostor phenomenon and motivations for learning* (Doctoral dissertation, Georgia State University-College of Arts and Sciences).
- Langford, J., & Clance, P. R. (19940501). The impostor phenomenon: Recent research findings regarding dynamics, personality and family patterns and their

- implications for treatment. *Psychotherapy: Theory, Research, Practice, Training*, 30(3), 495. <https://doi.org/10.1037/0033-3204.30.3.495>
- Leary, M. R., Patton, K. M., Orlando, E., and Funk, W. W. (2000). The impostor phenomenon: self-perceptions, reflected appraisals, and interpersonal strategies. *J. Pers.* (2000) 68, 725–756. doi: 10.1111/1467-6494.00114
- Leonhardt, M., Bechtoldt, M. N., & Rohrmann, S. (2017). All Impostors Aren't Alike – Differentiating the Impostor Phenomenon. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.01505>
- Lester, J. (2008). Gendered perspectives on community college. *New directions for community colleges. No. 142*. San Francisco, CA: Jossey-Bass.
- Levin, J. (2001). *Globalizing the community college: Strategies for change in the twenty-first century*. Springer.
- Matthews, G., & Clance, P. R. (1985). Treatment of the impostor phenomenon in psychotherapy clients. *Psychotherapy in Private practice*, 3(1), 71-81.
- Neureiter, M. & Traut-Mattausch, E. (2016). An Inner Barrier to Career Development: Preconditions of the Impostor Phenomenon and Consequences for Career Development. *Frontiers in Psychology*. 7:48. <https://doi.org/10.3389/fpsyg.2016.00048>
- Sakulku, J. & Alexander, J. (2011). The Impostor Phenomenon. *The Journal of Behavioral Science*, 6(1), 75–97. <https://doi.org/10.14456/ijbs.2011.6>
- Senge, P. M. (1990). Leading learning organizations. In W. E. Rosenbach & R. I. Taylor (Eds.), *Contemporary issues in leadership* (4th ed.) (pp. 174-178). Boulder, CO: Westview Press.

- Sills, S. J., & Song, C. (2002). Innovations in Survey Research: An Application of Web-Based Surveys. *Social Science Computer Review*, 20(1), 22–30.
<https://doi.org/10.1177/089443930202000103>
- Stahl, J. M., Turner, H. M., Wheeler, A. E., & Elbert, P. (1980). The impostor phenomenon in high school and college science majors. In *meeting of the American Psychological Association, Montreal*.
- Thompson, T., Davis, H., & Davidson, J. (1998). Attributional and affective responses of impostors to academic success and failure outcomes. *Personality and Individual Differences*, 25(2), 381-396.
- Thompson, T., Foreman, P., & Martin, F. (2000). Impostor fears and perfectionistic concern over mistakes. *Personality and Individual Differences*, 29(4), 629-647.
- Topping, M. E. H. (1983). *The impostor phenomenon: A study of its construct and incidence in university faculty members* (Doctoral dissertation, University of South Florida).
- Topping, M. E., & Kimmel, E. B. (1985). The imposter phenomenon: Feeling phony. *Academic Psychology Bulletin*.

Appendix A

Which gender do you identify as?

- Male
- Female
- Non-binary / third gender
- Prefer not to say
- Other

Are you White, Black or African American, Hispanic or Latino, American Indian or Alaskan Native, Asian or Asian American, Middle Eastern or Arab American, Native Hawaiian or Pacific Islander, or some other race?

- White
- Black, African American, or Afro-Caribbean
- Hispanic or Latino
- American Indian or Alaska Native
- Asian or Asian American
- Middle Eastern or Arab American
- Native Hawaiian or Pacific Islander
- Multiple Races
- Other

How many years have you served in a college or university presidency?

Appendix B

Permission To Use the Clance Impostor Phenomenon Scale (CIPS)

Please find attached the requested Clance IP Scale and scoring instructions. This correspondence constitutes permission to use the scale. I request that on each CIPS you use/distribute, that you have the copyright and permission information printed on each page:

Note. From The Impostor Phenomenon: When Success Makes You Feel Like A Fake (pp. 20-22), by P.R. Clance, 1985, Toronto: Bantam Books. Copyright 1985 by Pauline Rose Clance, Ph.D., ABPP. Reprinted by permission. Do not reproduce without permission from Pauline Rose Clance, drpaulinrose@comcast.net, www.paulinroseclance.com.

This clause is already on the attached CIPS copy.

If you do not want to put the name of the test or book on the scale if it may affect your research, contact me and I can send you a version of the scale without that specific information yet retaining the clause, “Under copyright. Do not reproduce without the permission of Dr. Pauline Rose Clance.”

For research purposes, I also request that you send a citation and abstract/results summary of your work to me when you are completed with your research to add to the IP reference list.

For IP presentation purposes, I request that you send me a brief summary (i.e., couple of sentences) of participant (and your own) feedback about the presentation in regard to how the Impostor Phenomenon was received.

Thank you again for your interest in the Impostor Phenomenon. Please e-mail me that you agree with these conditions. You may refer participants to my website (www.paulinroseclance.com) for any interest in viewing IP articles and for my contact information.

Best,

Pauline Rose Clance, Ph.D., ABPP

Appendix C

Clance IP Scale

For each question, please circle the number that best indicates how true the statement is of you. It is best to give the first response that enters your mind rather than dwelling on each statement and thinking about it over and over.

- 1. I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.**

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

- 2. I can give the impression that I'm more competent than I really am.**

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

- 3. I avoid evaluations if possible and have a dread of others evaluating me.**

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

- 4. When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.**

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

- 5. I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.**

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

- 6. I'm afraid people important to me may find out that I'm not as capable as they think I am.**

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

- 7. I tend to remember the incidents in which I have not done my best more than those times I have done my best.**

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

8. I rarely do a project or task as well as I'd like to do it.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

9. Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

10. It's hard for me to accept compliments or praise about my intelligence or accomplishments.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

11. At times, I feel my success has been due to some kind of luck.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

12. I'm disappointed at times in my present accomplishments and think I should have accomplished much more.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

13. Sometimes I'm afraid others will discover how much knowledge or ability I really lack.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

14. I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

15. When I've succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating that success.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

16. If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I've done.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

17. I often compare my ability to those around me and think they may be more intelligent than I am.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

18. I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

19. If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

20. I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

Note. From *The Impostor Phenomenon: When Success Makes You Feel Like A Fake* (pp. 20-22), by P.R. Clance, 1985, Toronto: Bantam Books. Copyright 1985 by Pauline Rose Clance, Ph.D., ABPP. Reprinted by permission. Do not reproduce without permission from Pauline Rose Clance, drpaulinrose@comcast.net, www.paulinroseclance.com.

Appendix D

Scoring the Impostor Test

The Impostor Test was developed to help individuals determine whether or not they have IP characteristics and, if so, to what extent they are suffering.

After taking the Impostor Test, add together the numbers of the responses to each statement. If the total score is 40 or less, the respondent has few Impostor characteristics; if the score is between 41 and 60, the respondent has moderate IP experiences; a score between 61 and 80 means the respondent frequently has Impostor feelings; and a score higher than 80 means the respondent often has intense IP experiences. The higher the score, the more frequently and seriously the Impostor Phenomenon interferes in a person's life.

Note. From *The Impostor Phenomenon: When Success Makes You Feel Like A Fake* (pp. 20-22), by P.R. Clance, 1985, Toronto: Bantam Books. Copyright 1985 by Pauline Rose Clance, Ph.D., ABPP. Reprinted by permission. Do not reproduce without permission from Pauline Rose Clance, drpaulinrose@comcast.net, www.paulinroseclance.com.

Appendix E

Dear (insert president's name),

My name is Jeff Pool, and I am currently a doctoral student at Minnesota State University, Mankato working on my dissertation research. I am reaching out to ask your help in completing a short survey for my research. The focus of my research is on the impostor phenomenon in community and technical college presidents in the upper Midwest. The research will also look at the impact that race, gender, and years of service in the presidency have on the occurrence of impostor feelings. I will be using the 20-question Clance Impostor Phenomenon Scale, as well as a short demographic questionnaire. The survey should take between five and ten minutes to complete. If you meet these qualifications, the survey can be found at:

https://mnsu.co1.qualtrics.com/jfe/form/SV_6GAKjbneOBwfwde

I would greatly appreciate it if you would complete the survey. If you have any questions about the survey, feel free to contact me directly at jeff.pool@mnsu.edu or at 763-458-7457. My advisor and the primary investigator for this study can be reached at bernadeia.johnson@mnsu.edu. The contact for Minnesota State University, Mankato's IRB board is irb@mnsu.edu or 507-389-1242.

I appreciate your consideration.

Sincerely,

Jeff Pool

Minnesota State University, Mankato

Department of Educational Leadership

jeff.pool@mnsu.edu 763-458-7457.

Appendix F

ONLINE/ANONYMOUS SURVEY CONSENT

You are requested to participate in research by Jeff Pool, a doctoral student, and supervised by Dr. Bernadeia Johnson from the Department of Educational Leadership at Minnesota State University, Mankato on the rate of the impostor phenomenon in community and technical college presidents in the upper Midwest. This survey should take about 5 to 10 minutes to complete. The goal of this survey is to understand the degree to which college presidents experience the impostor phenomenon and if demographic information such as gender, race, or years of service have any impact on the feelings of impostorism, and you will be asked to answer questions about that topic. If you have any questions about the research, please contact Dr. Bernadeia Johnson at 952-818-8924 or bernadeia.johnson@mnsu.edu.

Participation is voluntary. You have the option not to respond to any of the questions. You may stop taking the survey at any time by closing your web browser. The decision whether or not to participate will not affect your relationship with Minnesota State University, Mankato, and refusal to participate will involve no penalty or loss of benefits. If you have any questions about participants' rights and for research-related injuries, please contact the Administrator of the Institutional Review Board, at (952) 818-8877 or irb@mnsu.edu.

Responses will be anonymous. However, whenever one works with online technology there is always the risk of compromising privacy, confidentiality, and/or anonymity. If

you would like more information about the specific privacy and anonymity risks posed by online surveys, please contact the Minnesota State University, Mankato IT Solutions Center (507-389-6654) and ask to speak to the Information Security Manager.

The risks of participating are no more than are experienced in daily life. There are no direct benefits for participating. Higher education might benefit by the increased understanding of impostor feelings in community and technical college presidents.

Submitting the completed survey will indicate your informed consent to participate and indicate your assurance that you are at least 18 years of age. Please print a copy of this page for your future reference. If you cannot print the consent form, take a screen shot, paste it to a word document and print that.

Minnesota State University, Mankato IRBNet Id#1963826

Date of Minnesota State University, Mankato IRB approval: October 14, 2022

Do you agree to participate? Yes No

(If participant selects No, it immediately ends the survey and thanks them for their time.)