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Cultivating Women College Presidents: Difference Makers

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CULTIVATING WOMEN COLLEGE PRESIDENTS: DIFFERENCE MAKERS

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ABSTRACT

The intention of this qualitative research study is to interview women who are college presidents/chancellors at two- or four-year, public higher education institutions in California about their experiences that have contributed to where they are today. There were twenty-six (26) participants in the study.

The research questions for the study were inspired by the statistics that show the current representation of women college presidents at two and four-year, public institutions in California is greater in comparison to the national statistic. The researcher became curious as to how and why women college presidents in California were thriving in a system that, according to the statistical representation as well as the literature, was not optimal. There are four main research questions: 1) What are the significant factors that women college presidents/chancellors at two and four-year public higher education (HE) institutions in California attribute to their ascension to high-level leadership? 2) What are the significant challenges to the cultivation of the women as leaders and in attaining the position of College President/Chancellor at a two and four-year public HE institution in California? 3) What strategies for optimal growth are suggested for women leaders who aspire to become a College President/Chancellor at a two and four-year public HE institution in California? And, 4) What factors can be attributed to the significant presence of women College Presidents/Chancellors at two and four-year public HE institutions in California?

Using complex adaptive systems as the conceptual framework for the research, themes emerged as data was analyzed. The paradigm that encapsulates the essence of the findings in this research is emotional intelligence (EI). Additional themes that represent findings for this research within the CAS model are: Relationships, Authenticity as agency, Adaptability and Purpose & Intention (RQ1), "Always-on", Finding a seat at the table, and Being non-linear in a linear system (RQ2), Just do it, Build relationships and Know your purpose (RQ3); and, Governance, Role models, and System adaptations (RQ4).

Re-designing the CAS model for HE in California after the findings emerged from the data, highlights how adaptable and interconnected the elements are. The findings of the study suggest that the recognition of EI competencies, not just of the women leaders in HE in California but throughout the network of the CA system, is prevalent. The shared purpose of higher education in California is to serve students yet the mechanism of how to do that requires adaptive, intuitive and situational decisions. This study illuminates directly from the source, the knowledge, skills and abilities to make that reality.

Keywords: Emotional intelligence (EI), complex adaptive system (CAS), mentorship, sponsorship, women college presidents, women college presidents in California, women leaders in higher education.

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CHAPTER 1

INTRODUCTION

The California redwoods are known for their massive size, resilience and complex adaptive biome. A healthy redwood forest is more than just redwood trees, it typically includes douglas-firs, western hemlocks, tanoaks, and madrones. Among the ferns and leafy redwood sorrels, mosses and mushrooms help to regenerate the soils (National Park Service: Redwood National Park, 2015). Many of the organisms in this forest share similar qualities yet are unique, in that they contribute different elements to the overall well-being of the system. This continual feedback informs that behavior of other elements in the system. In the framework for this research, the redwoods will symbolize college presidents in higher education in the United States. Although all of them hold the same "title" of College President, the characteristics, behaviors and experiences of each are unique. Even so, the data show that on average, a college president in the U.S. is a white male, over 61 years old, who has been a president for seven years on average (ACPS, 2017). Nationwide, only 30% of these "trees" are women and 17% are ethnic and/or racial minorities (Gagliardi, Espinosa, Turk, & Taylor, 2017), resulting in an ecosystem that lacks diversity and has not adapted to the demands of the environment.

Unlike the dynamic environment of the redwoods, the system of higher education in the United States is organized in a hierarchical, linear configuration. Often an organizational chart dictates the "flow" of information, typically represented as unidirectional, top to bottom. Each individual position or agent on the chart has a designated role that is pre-determined as necessary for organizational effectiveness and fulfillment of the institutional mission. Organizational

structure is not gender neutral and reflects an organizational culture of powerful men (Burkinshaw & White, 2017).

An intent of this research is to reveal more about the higher education environment, specifically that of California and what adaptations have taken place, resulting in a greater presence of women college presidents at two and four-year public HE institutions. In 2018, 41% of California community college presidents (47/115), 30% of University of California Chancellors/President (2/10 plus the President), and 52% of California State University presidents (12/23) are women (Metzler, 2018).

Exactly why redwoods grow so tall is a mystery, similar to the unheard stories of women college presidents in California; what has been pivotal to their growth in an environment that is not balanced, nor optimal? Although there are theories about the redwoods and women college presidents, this study applied qualitative approaches to represent and learn from women college presidents of two and four-year public HE institutions in California who have somehow optimized the growth factors of their environment and are thriving. With more than 50% of College Presidents of U.S. higher education institutions planning to leave within five years and a high percentage of institutions without succession plans (Howard & Gagliardi, 2018), the outcomes of this research have the potential to re-vitalize the higher education environment and to optimize the growth of women as leaders.

Statement of the Problem

A disparity of women in higher education leadership positions exists and much of the literature focuses on just that; barriers, cultural and gender inequities, bias, and double standards. This does nothing to validate and utilize the most valuable resource in potentially changing the

situation, the women who have successfully cultivated and fostered the required growth to attain the leadership position of college president.

Purpose of the Study

The purpose of this study is to learn from women who hold the position of college President/Chancellor at a two- or four-year public higher education institution which tools and amendments have been effective in cultivating their growth as leaders.

Research Questions

1. What are the significant factors that women college Presidents/Chancellors at two and four-year public higher education (HE) institutions in California attribute to their ascension to high-level leadership?
2. What are the significant challenges to the cultivation of the women as leaders and in attaining the position of college President/Chancellor at a two and four-year public HE institution in California?
3. What strategies for optimal growth are suggested for women leaders who aspire to become a college President/Chancellor at a two and four-year public HE institution in California?
4. What factors can be attributed to the significant presence of women college Presidents/Chancellors at two and four-year public HE institutions in California?

Framework

Complexity theory provides a platform for exploring emergent properties of larger systems and it describes fundamental properties of non-linear, self-organizing networks, termed complex adaptive systems (CAS), (Appendix A). The agents (elements) in these systems are interconnected in some way, which can shift depending on the dynamic of the other agents in the

system. Within this web of multiple agents' interactions, feedback to and from the system informs the overall function of the system. These systems exist everywhere, an example being the human body. The systems of the human body are independent agents such as the heart, the liver and the tongue but are connected to one another to modulate and facilitate resistance. The body systems exchange information via feedback loops and what one agent does influences the response of another. All of these systems began as a single cell, that differentiated and diversified as individual cells, some with unique characteristics and others with redundancy, but all interact together for the good of the whole as a system, known as homeostasis.

When higher education is framed as a CAS, the same roles (agents) would be present but functioning in a different configuration that would vary depending on the needs and demands of the organizational culture such as the students, programs, community, and marketplace. These components are interdependent and form a dynamic network of social interactions and patterns which are complex, non-linear, and interactive with the ability to adapt to the environment. The rationale for applying this framework for this research inquiry is to explore the institution of HE as a CAS and determine if and how it is a factor in women attaining high level leadership positions such as college president. Organizations, such as higher education, are an example of this phenomenon, where 100 years ago a framework was established. Over time, the demands on it have changed, yet the structure of the system has remained virtually the same. Higher education was primarily designed to prepare men for some roles that were needed in society, especially in positions of high-level leadership. Gender assumptions pervade structures and processes in organizations (Burkinshaw & White, 2017).

Within the higher education ecosystem, college presidents will be represented as trees. (see Figure 5, p. 102). The living organism of the tree is dependent on the interaction with the

environment in order to reach its maximal growth potential. Part of this growth process and exposure to the challenges of the environment are what dictates the resilience of the tree to overcome and thrive. The root system of a redwood tree is shallow, but long and intertwined with the other trees in its environment, creating networks. These networks have the ability to share resources and for the framework of this study represent mentorship, sponsorship and networks. The bark is indicative of the health of the tree as well as resilience, something that is influenced by an individual's personality traits and experience as well as the impact of the environment (institution) on her and those around her. The bark of a redwood is multiple layers and within the framework, represents all personal and life experiences, leadership style, and core values and ethics. The composition of a bark layer of a redwood has adapted to its environment to be resistant to environmental stressors such as fire and certain fungi, making it resilient. There are essential elements in order for the tree to grow but also to survive over time and continue its growth. The contributing categories are sunshine, water and soil. If there is not a balance of these elements a tree cannot grow or flourish in the environment. Sunlight and air quality in the framework represent attitudes and behaviors shaping the organizational culture. If gender bias attitudes are pervasive, such as the assumption that only men should hold high level leadership positions and that bias is not challenged, the canopy of old trees will dominate the other trees and not allow in enough sunshine for equitable growth. Water represents professional preparation and development opportunities, cultural capital, and the institutional culture of policies and procedures. The soil biome is a world in and of itself and about 40% of it is fungi. The fungi along with bacteria are decomposer--yet through this process comes new growth. In the framework, soil represents governance and stakeholders such as Board of Trustees.

Assumptions and Limitations

Assumptions

The following assumptions are present in the development and execution of this research project: 1) Women college presidents will participate as subjects in the data collection; 2) Women college presidents will deem this research as significant and relevant to aspiring women leaders in higher education; and, 3) Women college presidents that agree to participate will respond candidly and openly about their personal and professional journeys.

Limitations

The following were potential limitations to the research process and potentially influenced the outcome: 1) Access to contact information of current college presidents at two and four-year public HE institutions to request their participation in the study; 2) sequencing of survey dissemination and responses, 3) coordinating scheduling interviews and mode of interview (in-person, phone, or web-based); and, 4) researcher bias due to personal experience with the significant factors that enable success in male-dominated professions.

Rationale

There is an informational gap as to why the disparity of women in higher education leadership positions exists. The data conveys that women have the formal preparation to take on high-level leadership positions in higher education, yet this is not the reality of the current representation of women college presidents nationwide. The stories from women who are currently college presidents are essential for the cultivation of women to high-level leadership roles.

Definition of Terms

Agentic leadership: Derives from the term agency. A style of leadership that demonstrates assertiveness, independence, competitiveness, and mastery achieving the task at hand (Rosette & Tost, 2010).

Agents: individual parts that make up the system in a complex adaptive system.

Amendments: Soil amendments are elements added to the soil, such as natural fertilizer (for example, compost), peat moss, manure, or chemical fertilizer, improving its capacity to support plant life (thespruce.com). Verb form: to amend soil means to add elements to improve it.

Chancellor: A leader of a college or university; usually the executive or public figure representing a university campus or university system.

Cognitive intelligence: Abilities such as understanding information, solving problems, decision making. Can be developed through professional training and development and/or technical aspects of a job.

Communal leadership: Style of leadership that demonstrates cooperation, affiliation, and communication. Focused on group dynamics and process of decision-making (Rosette & Tost, 2010).

Complex Adaptive Systems: living, open systems that exchange matter, energy or information across boundaries and use that exchange of energy to maintain that structure (Cleveland, 2005).

Ecosystem: a system, or group of interconnected elements formed by the interaction of a community of organisms with their environment (dictionary.com).

Emotional intelligence: Wide array of skills and competencies that drive leadership performance.

Empathy: thoughtfully considering others' feelings, perspectives along with other factors in the process of decision making.

Glass ceiling: An invisible upper limit in corporations and other organizations, above which it is difficult or impossible for women to rise in the ranks. "Glass ceiling" is a metaphor for the hard-to-see informal barriers that keep women from getting promotions, pay raises and further opportunities. This metaphor has also been used to describe limits and barriers experienced by minority groups (race, religion, ethnicity, socio-economic status).

Higher education*:* Post-secondary education, including two- or four-year college, university, undergraduate and graduate levels, may be publicly or privately funded.

Mentor: Someone who gives valuable career support and advice, builds self-esteem, and provides a sounding board. He or she has the time and desire to aid the beneficiary in self-assessment and "blue sky thinking," and is often considered a role model (CMD, 2007).

Mentorship: A process for the informal transmission of knowledge, social capital, and psychosocial support perceived by the recipient as relevant to work, career, or professional development (Bozeman & Feeney, 2007).

Motivation: Deeply imbedded desire to achieve for the sake of achievement.

Pipeline myth: The persistent idea that there are too few women qualified (e.g. degree-holding) for leadership positions. However, the data indicates that there are more than enough qualified women to fill leadership positions. In fact, the pipeline is preparing women at a greater rate than men.

Positional leadership*:* refers to role in organization or institutional leadership such as President, Chancellor, Superintendent, Chief Executive Officer (CEO), Director, or Chief.

Self-awareness: Knowing one's emotional strengths, weaknesses, drives, values, goals- and the impact on others.

Self-regulation: How we chose to manage emotions and impulses; adapting to changing circumstances.

Social skill: Proficiency in managing relationships and building networks. An ability to find common ground and rapport.

Sponsor: Individuals who have a voice at decision-making tables, champion their protégés for promotions and critical opportunities when they are not in the room and provide "air cover" for the less experienced individuals to take risks. Sponsors may also make introductions to senior leaders, promote visibility, and provide critical feedback (CMD Report, 2007).

Sponsorship: Focused on advancement and predicated on power. An active support by someone appropriately placed in the organization who has significant influence on decision-making processes or structures and who is advocating for, protecting, and fighting for the career advancement of an individual (Harvard Business Review).

Conclusion

This research strives to identify the elements that have optimized the growth and resilience of women college presidents in California in an environment that is challenging in its composition. The position of this study is that the current system of higher education does not function as a complex adaptive system due to imbalances and asymmetries in the system. This system consists of many components that interact with each other to achieve a common goal under the guidance of a relatively simple sets of rules

What is to be learned from these leaders will inform and serve as a strong frame of reference for the overall health of higher education and its future leaders. In the upcoming

chapter, existing literature is reviewed and synthesized to serve as a platform for the research questions and the process of inquiry.

CHAPTER 2

REVIEW OF THE LITERATURE

Focusing on women college presidents in California was of interest due to the more equitable representation of women in this leadership position at both two and four-year public institutions. Of 115 community colleges (2-year) in California, 47 are led by women College Presidents/Superintendents (Chancellors Office); of the 23 California State Colleges, 12 are led by women College Presidents/Superintendents (California State Universities); and of the ten University of California institutions, two are led by women Chancellors, in addition to a female President of the University of California system. The representation of women in high-level leadership roles is near parity and exceeds that of the national representation of women college presidents of 30% (ACE, 2017). This calls for further exploration on both macro (system) and micro (agents) levels to gain insight to the variables that have supported this growth.

The literature review begins with an overview of the higher education system, women in higher education and women in leadership roles. Following this background, an overview of existing related research as well as areas that call for further exploration will be presented.

Higher Education in the United States

History

Modeled after a combination of British undergraduate colleges and German research universities, higher education in the United States today maintains it foundation, although internal and external demands have changed dramatically. Three main philosophical tenants influenced the character of higher education: Jeffersonian ideals, capitalism and social mobility (Eckel & King, 2004). Until the 20th century, higher education in the United States was elitist,

then social and economic change broadened the access for individuals regardless of race, religion, gender or social status. The establishment of community colleges in the 20th century was significant in this access and opportunity as well. The rationale for community colleges reflected the mindset of higher education leaders in the early 20th century who felt they should not be burdened with the initial two years of undergraduate education. Time and energy should be dedicated to those exceptional students, and they believed community colleges should serve as a "proving ground". Those who made the cut would go on to a four-year institution. Between 1920-1945, universities significantly increased their student population post World War I. This further justified community colleges as a default for students who did not display desirable characteristics for a four-year institution. This proposition did result in a significant increase of community colleges in the U.S., between 1920-1940 the number of community colleges grew to 456 from 52 (Brint & Karabel, 1989, in Kobayashi, 2009). Community college leaders had to work hard to establish credibility in order for students to be able to transfer to a four-year or for vocational training and certificates earned to be accepted within the industries where they would be applied. It wasn't until post WWII and the influence of strong marketing to their customers (i.e. students) that the perception of community colleges shifted as a mechanism for vocational training rather than a steppingstone for transfer. The evolution of the community college to a comprehensive educational experience continued into the 1980's alongside the open access vocational program opportunities.

Organization and Governance

Traditional administrative organization of higher education in the United States is a hierarchical, linear configuration often represented as follows. This structure would be typical of

a large university with smaller institutions having a less diversified administration (Eckel & King, 2004).

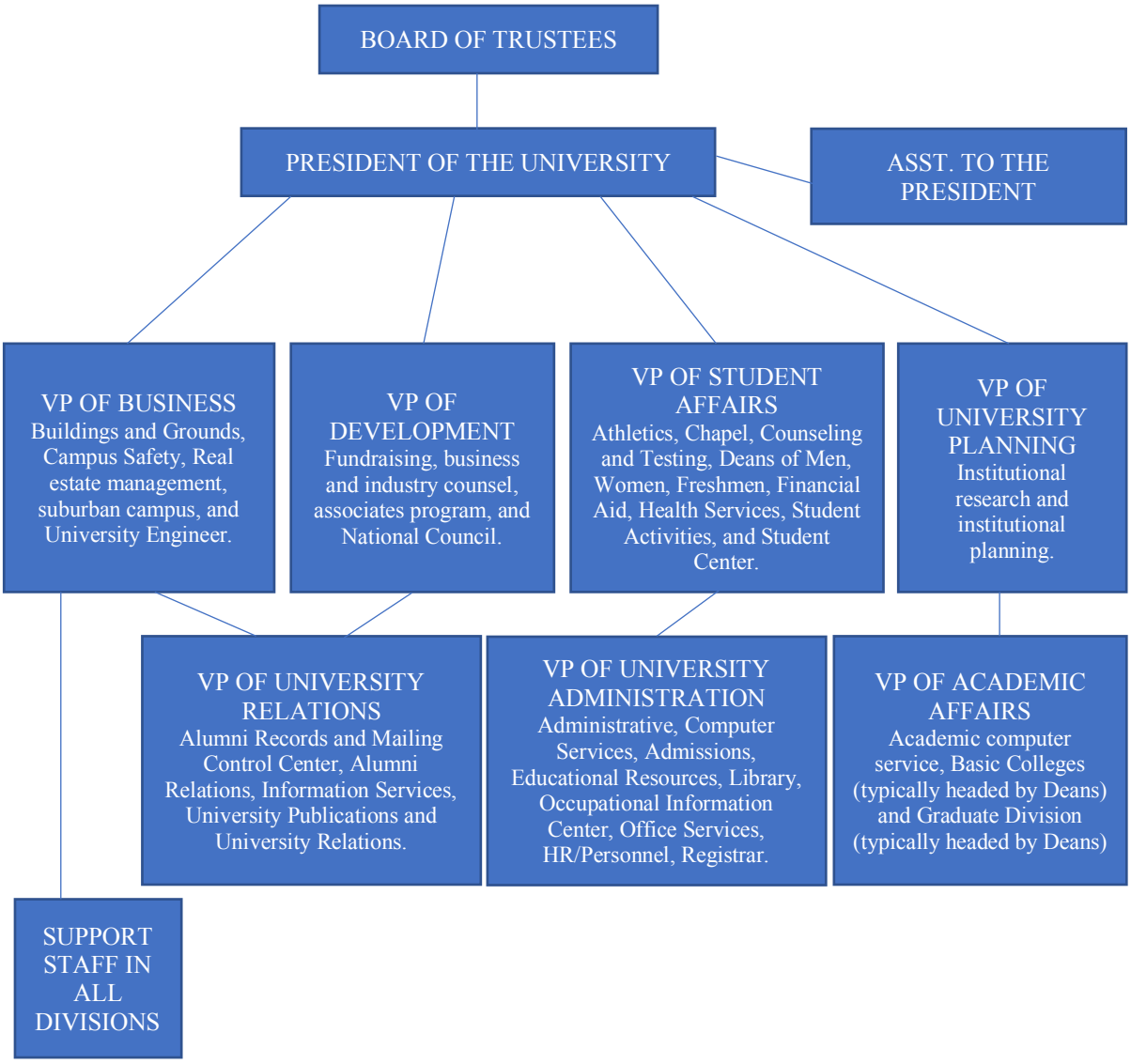

Figure 1. Traditional administrative organization of higher education in the United States.

One of the Jeffersonian notions in the philosophical underpinnings of higher education in the United States is that of limited and whenever possible, locally controlled government involvement (Eckel & King, 2004). Hence, the states are responsible for governing their own public higher education institutions, which translates to a spectrum of oversight State to State.

With the exception of the Morrill Land Grant Act of 1862, the federal government was virtually uninvolved with the higher education system. This changed in the mid-20th century with the onset of WWII and the necessity for research and development for military purposes, which the federal government funded. The G.I. Bill, signed by FDR in 1944, was another federally supported program, which provided aid to military personnel who had served their country and were honorably discharged. In the 1960's, the federal government implemented a number of grant and loan programs to create accessibility for students from underrepresented groups to pursue higher education opportunities. Along with these programs came criteria for compliance, known as accreditation standards, that educational institutions had to comply with in order to ensure institutional quality. Traditionally, state appropriations have made up the bulk of institutional revenue at public institutions, but they are diminishing both as a share of state expenditures and as a percentage of institutional revenue. In response, state governments and public institutions have raised tuition, shifting the responsibility from taxpayers to students (Eckel & King, 2004). The issue of finance has resulted in numerous "for profit" higher education institutions and in the public section, grant based projects as well as contracts with private research and development companies.

Higher Education in California

California's higher education system is the largest and most diverse in the United States. It includes three public segments—the University of California (UC), the California State University (CSU), and the California Community Colleges. California also has more than 150 private non-profit colleges and about 200 for-profit institutions. In total, the state's colleges and universities enroll more than two million students from a wide range of backgrounds. The majority of students in California attend public institutions: 44% in the California Community

College System (CCC), 18% in the California State University (CSU), and 12% in the University of California system (UC) (PICC, 2016).

The state legislature adopted a Master Plan for Higher Education in 1960, of which the overarching structure and principles are still intact, although changes occurred at district and institutional levels due to internal and external demands. The master plan has for the most part ensured the maintenance of low-cost tuition for state residents, and up until two decades ago, the master plan made "no-cost" education a reality for thousands of students. California does not have a higher education governing body; rather a mix of government and independent agencies regulates it. For example, the California Student Aid Commission oversees the state financial aid expenditures, such as Cal Grant. The U.S. Department of Education oversees financial aid, surveillance data collection and, dissemination on student outcomes. A number of independent organizations oversee accreditation which directly influences the eligibility of institutions for various types of financial aid and programs. This "many hands in the pot" organization has come under scrutiny and is often blamed for the challenges facing higher education in California.

California funds less per student than it did 30 years ago, although the data supports that education has a positive benefit to the market and economy in the state. Forty years ago, higher education spending accounted for a quarter of the state General Fund; since then, it has dropped to 10% (PPIC, 2016). This has resulted in state legislations and initiatives to provide more ample funding for HE in California. Propositions, such as Prop 98, passed in 1998, have re-distributed funding in HE with 60% going to community colleges and 40% split between the UC and CSU systems. Public institutions have overcome funding challenges, with the exception of community colleges, and diminished student enrollment, increasing tuition.

University of California (UC)

The University of California system is comprised of 10 major campuses (Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara, Santa Cruz), five medical centers, and three national laboratories and a statewide agriculture and natural resources program. The University of California system receives approximately one-billion dollars in research funds annually (University of California, Office of the President, [year]).

History. The College of California was chartered in 1855, with the first campus established at Berkeley in 1860. The Morrill Act, a land grant measure, supported the establishment of curriculum in agriculture, mining and mechanical arts, which expanded around 1870 to include humanities. This "complete" university was established in Oakland and soon after, a Medical school was founded on the Berkeley campus. By the early 1920's, University of California has added a southern campus, UCLA and reached the largest student enrollment in the U.S. with 14,061 students (University of California, Office of the President, [year]). Campus locations, enrollment and the UC reputation for innovation and exceptional education continued to explode to 1960, with the legislation of the Master Plan for Higher Education in California. This legislation mandated that UC have a 60:40 ratio of upper division to lower division students and acknowledge the three-tier system. The last UC campus established was UC Irvine in 1965. The UC student population is 250,000 undergraduate and graduates. UC continue to be California's primary awarder of doctoral and professional degrees.

UC Organization and Governance

The Regents, the President and administration, the Chancellors and their administration, and the faculty via the Academic Senate share the governance of the University of California.

The Board of Regents is essentially the corporation that administers the public trust known as the University of California. The California State Constitution grants the Regents full powers of organization and government (University of California, Office of the President, [year]). The Board of Regents consists of twenty-six members. Seven of them are ex officio members (the Governor and Lieutenant Governor of the State, the Speaker of the State Assembly, the State Superintendent of Public Instruction, the President and Vice President of the Alumni Association of the University, and the President of the University). The Governor, with the approval of the State Senate, appoints eighteen other Regents who serve twelve-year terms. The Board appoints a Student Regent who serves for one year. The Academic Senate has chosen to be represented on the Board by the Chair and Vice Chair of the Academic Council who sit with the Board and participate in its discussions but do not vote (University of California, Office of the President, [year]). The Officers of the Board of Regents are the President who is the Governor of California, a Board-elected Chairman and Vice Chairman of the Regents, and the board-appointed Secretary, Treasurer, General Counsel and their associates.

The Board of Regents appoints the President of the University of California. At the writing of this dissertation, Janet Napolitano, appointed in 2013, is the first woman President of the University of California in its 150-year history. The president is the CEO of the University and oversees all other officers of the University with the exception of the Principal Officer of the Regents. The President has many responsibilities including but not limited to administration and oversight of all operations, collaboration with the Chancellors and Academic Senate regarding educational and research policies, annual budget and expenditure operations, and representing all entities of the University of California system. The Office of the President is organized into five

vice presidential divisions: Academic Affairs, Business and Finance, University and External Relations, Health Affairs and Agricultural and Natural Resources.

The Chancellors serve as the executive heads of all academic campuses supported by administrative officers and staff. The main duties of the Chancellors include organization and representation of their respective campuses, including academic, student, staff, business operations, and the disciplines within all of them (University of California, Office of the President, [year]).

The Academic Senate serves as the formal representation of the faculty in the process of shared governance. It is made up of all ranks of faculty and campus and administrative officers. The Academic Senate advises the Presidents and Chancellors of any and all issues, including proposals for the consideration of the administration. The Senate oversees all academic courses as well as admission and degree requirements. There is also a University Academic Senate, named the Assembly, that represents the Senate faculty of the University and is made up of the Chairs of the nine divisions, chairs of major university wide Senate committees, and 35 faculty members.

California State University (CSU)

CSU is largest public university system in the nation with 23 campuses and a 2017 undergraduate and graduate student population of 478,638 (calstate2.edu).

History. Normal schools were established early in educational history to train teachers, of which there were a number of throughout the state. In 1862, two normal schools evolved to become the first campuses in the California State system, San Jose State and University of Los Angeles (UCLA). Years later, Cal State Chico (1887), San Diego State (1897) and San Francisco (1899) were established as Cal State campuses. These colleges were later renamed to “teacher’s

colleges" from "normal schools" (www2.calstate.edu). In 1960 under the Master Plan of Education in California and the Donahoe Higher Education Act the individual campuses were brought together as a system and in 1972 became the California State Universities and Colleges. The California State University was formalized in 1982. It was at this time that the CSU system was organized with a Board of Trustees and a Chancellor who oversaw all of the individual campuses. This followed with the establishment of an Academic Senate in 1963 to represent faculty as well as a CSU Foundation. In 1972, fourteen campuses were designated universities having met criteria established by the Board of Trustees as well as the State Board of Education (www2.calstate.edu). The newest CSU campus was established in 2002 at Channel Islands.

CSU Organization and Governance. The California State University system is incorporated as the Trustees of the University of California. Governance is a shared responsibility among the Board of Trustees (BOT), the Chancellor, Executives and the President. The CSU BOT was formed as part of the Donahoe Higher Education Act of 1960 and it replaced the oversight of the individual campuses by the State Board of Education. The BOT is a 25-member board comprised of appointed Trustees, CSU system officers, and ex officio Trustees. The Board adopts regulations and policies governing the CSU system. The various board committees have authority over educational policy, finance, campus planning, and facilities. The CSU Chancellor oversees all 23 campuses, more than 479,000 students and 49,000 faculty and staff (www2.calstate.edu). Unlike the Chancellor of the UC system, the all of the 23 CSU Presidents report to the Chancellor and in turn the Chancellor represents them in communication with the Board of Trustees. A staff of vice chancellors and senior executive staff work with and support the Chancellor and the CSU mission. They coordinate system wide efforts in areas such as academic affairs, business affairs, technology, physical plant development, employee

relations, state and federal governmental affairs, legal affairs, audit and advisory services, and university advancement and communications. The campus presidents of the California State University system have numerous responsibilities as the chief executive officers of their respective institutions, as the primary liaison between the university and the greater community, and as the public "face" of the institution. The presidents maintain a close working relationship with the CSU's system wide office, reporting to the chancellor and representing their campus on the system wide Executive Council (www2.calstate.edu).

Community Colleges in California (CCC)

History. In the Progressive Era, California established and funded a framework of public higher education institutions as well as a multi-campus state college. The basis for this structure was to provide access to higher education as well as emphasize high-quality education; inclusive and exceptional. This was a forward-thinking response as California faced challenges much like other states of accountability, funding, and policy. The California Progressives modeled a structure and vision for higher education in the state that came to be known as the “California Idea” (4faculty.org, n.d.). This model, initiated in the 1850’s served as the foundation for legislation in 1960, known as the California Master Plan for Higher Education, which still guides policy for higher education today.

The first two-year colleges in California sprouted on the local level in response to students finishing high school and wanting to pursue higher level studies but not be able to afford the cost of moving away from home. The first iteration of these programs was associated with local high schools and offered as a post high school experience. Once the junior college movement gained momentum in California, it quickly grew into a comprehensive junior college experience. John Rainey Harper, President of the University of Chicago and David Starr Jordan,

President of Stanford University were major influences in the formation of junior colleges in California during the early 1900's (4faculty.org, n.d.). The Upward Extension Act empowered the designation of the first official junior colleges in California, with Fullerton, Bakersfield and Long Beach junior colleges in 1913. By the end of the decade, California had the most extensive network of junior colleges in the nation. The 1920's saw the establishment of districts in the junior college system which allowed for influence with funding and administration. Due to social and economic demands, junior colleges nationwide continued to grow and expand through the 1920's and 1930's. World War II created a major opportunity for junior colleges to offer vocational training programs to prepare a workforce to serve in and out of country, bringing the number of junior colleges in California to 57 by 1945 (Witt in 4faculty.org, n.d.). Junior colleges were also boosted post-World War II by the GI Bill which provided tuition, fees and material costs for students who had served honorably in the military. By the 1950's, California had the largest junior college enrollment in the United States. A commission led by University of California President, Clark Kerr in 1960, championed the California Master Plan for Higher Education. The main tenets of this plan created a three-tier system of education in California and placed admission restrictions on state colleges and universities, such as the upper 41% of high school graduates could enter state colleges or universities and the remainder could attend junior colleges. This legislation did not come without questions of social, economic and racial bias, yet it passed. Over the next three decades, community colleges in California faced challenges of decreases in student enrollment, economic demands requiring shifts in programs offered, and funding issues. In 2000, a commission was activated to research the role of and current effectiveness of community colleges in the economy while still embracing the vision of Walter Rainey Harpers plan to revolutionize two-year education for all Californians. As of 2019,

California Community Colleges (CCC) make up the largest system of higher education in the nation, with 2.1 million students attending 115 colleges and in 72 Districts (cccco.org).

CCC Organization and Governance. A 17-member board that is appointed by the Governor and serves to represent in exchanges with federal, state and local entities comprises the Board of Governors. The board selects a Chancellor for the system and through a process of consultation the Chancellor brings recommendations to the board. The CCC is guided by shared governance to ensure that there is representation from all levels in the 73 Districts and 115 Colleges in the CCC system. This process was implemented as AB1725 (1988) to function as a complex web of consultation and decision-making and responsibility that translates goals into district policy or action. Within the process of shared governance is a Consultation Council, composed of designees from various institutional groups such as trustees, students, administrators, faculty and staff union representatives to share information and perspective on organizational function within their area. This counsel is guided by a Deputy Chancellor and meets every other month.

The Chancellor leads the California Community Colleges Chancellor's Office for the California Community Colleges, serves as the CEO of the board of governors and oversees the executive office. The deputy chancellor oversees the divisions of Student Services, Academic Affairs, Workforce & Economic Development, College Finance & Facilities Planning and Internal Operations. For each of these divisions there is a Vice Chancellor that oversees the functions and programs that support the overall mission and vision of the California Community Colleges Board of Governors and the Chancellors Office. The Chancellor's Office oversees matters pertaining to the board of governors, the Consultation Council, the annual budget and legislative process, communications to the general public and media, and the internal operations

of the agency. There is a liaison appointed to the Board of Governors and the Consultation Council. The mission of the California Community Colleges Board of Governors and the Chancellors Office is to: *empower the community colleges through leadership, advocacy and support*. The vision of the California Community Colleges Board of Governors and the Chancellors Office share the vision of *a better future for Californians by exemplifying exceptional leadership, advocacy and support on behalf of the community colleges. Their guidance provides access to lifelong learning for all citizens and creates a skilled, progressive workforce to advance the State's interests* (Chancellor's Office website, 2018).

Women in Higher Education

Since the 1800's the presence of women in higher education, as students, teachers and administrators has clearly grown. There have been events throughout history that have shifted the dynamics of gender presence as well as its pace of change. In the 1830-1840's women obtaining higher education was a highly debated situation influenced by religious and political opinion. Although males and females may have attended coeducational primary school, higher education was a typically male environment. Oberlin and Antioch Colleges were the first two institutions to admit women and offer co-education in the mid-1800's and there were a handful of liberal arts colleges established specifically for women during this period. The most well-known of these was a collective named the Seven Sisters. Created over a 24-year span, they were modeled after the Ivy League institutions that did not allow female students. The Seven Sisters became known for excellence in education as well as a large percentage of female faculty members, which was a first (Parker, 2013, p. 7). Between 1870-1930 women slowly established a presence in higher education to pursue careers in medicine, law, dentistry, ministry, architecture or as university professors. Termed the "professions," these educational and occupational paths were considered

elite due to the elevated social status and pay that came with them. Women were more present in higher education to pursue occupations such as elementary school teaching, nursing, social work, and librarianship, labeled, "semi-professions." During the first half of the 20th century the major barriers to women in higher education were institutionally imposed such as quotas established by universities that limited the number of women admitted (Parker, p. 4). By the 1960-1970's legislation targeted many of the social and cultural barriers for women and minorities that resulted in expanded opportunities in higher education and the workforce in the United States. In research on black and white women and occupational presence between 1960-1980, Sokoloff (1992) determined that white males dominated the "professions" while white women were primarily in the "semi-professions" (Parker, p. 3).

Women comprise more than half of college students at private and public institutions yet only slightly more than 25% of all full professors and less than 15% of presidents at doctoral granting institutions are women (Johnson, 2016). The pipeline myth is the notion that there are too few degree-holding women for senior level leadership roles in higher education when clearly the data indicate that is not the case, yet women still lag significantly behind men in status, salary and high-ranking leadership positions in academia (Lennon, 2012). In 1969-70, women received 43% of undergraduate degrees (Associate and Bachelors), 40% of master's degrees, 13% of Doctoral degrees and 5% of law and medical degrees. In 2009-10 women received 62% of Associate degrees, 57% of bachelor's, 60% of master's and 52% of doctoral and professional degrees (NCES, 2012).

Balancing family and career continues to be a cited barrier for women, not only in pursuance of higher education but also in developing executive careers and leadership. The expectation that women bear children, raise children, take care of themselves, manage the

household and cultivate a professional career is a challenge that is multifaceted. Considerations such as cost/standard of living, family size, geographical location, and commute are a few of many factors that may influence the workforce path of women in the United States.

Women in Higher Education Leadership

Historically

Dean of Women was the first administrative position that women held at coeducational institutions (Parker, 2015, p. 7). This was the institutional "solution" for women to oversee the female students and insulate them from the male students both in and out of the academic environment. In the early 1900's, the deans formed professional organizations such as the National Association of Women Deans (NAWD). Founded by Marion Talbot, the second female dean at the University of Chicago, it created a network for the seventeen female deans to discuss the challenges of their institutions as well as recommendations for change. The first graduate program created specifically to train Deans of Women was established in 1916 at the Teacher's College of Columbia University (Parker, 2015, p. 8). During World War II there was increased opportunity for women to expand their presence and pursuits of higher education, with a large number of men at war, women filled the roles and vacancies. By the end of WWII (1945) the NAWD had established best practices and solidified its purpose in higher education but the presence of women diminished as men returned home from war, and the societal pressures of engendered roles dominated. A baby boom followed soon after. Schwartz (1997) documented that 60% of workers released from their jobs post WWII were women and women were 75% more likely to be terminated from their positions than men (cited in Parker, 2015, p. 9). From 1950 to the present, men have occupied the majority of senior leadership positions in higher education such as President, Vice-President, Chancellor, and Dean. This warrants exploration to

identify the "why" as the data is clear that women are more than formally qualified to hold these positions.

Present Day

Women comprise more than half of college students at private and public institutions yet only slightly more than 25% of all full professors and less than 15% of presidents at doctoral granting institutions are women (Johnson, 2016). The pipeline myth is the notion that there are too few degree-holding women for higher level leadership roles in higher education when clearly the data indicate that is not the case, yet women still lag significantly behind men in status, salary and high-ranking leadership positions in academia (Lennon, 2012). In 1969-70, women received 43% of undergraduate degrees (Associate and Bachelors), 40% of master's degrees, 13% of doctoral degrees and 5% of law and medical degrees. In 2009-10 women received 62% of associate degrees, 57% of bachelor's, 60% of master's and 52% of doctoral and professional degrees (NCES, 2012). In a 2014 study by Wallace, et al., a cohort of women college presidents at two and four-year institutions across the U.S. were tracked for two years to determine if women had achieved proportional representation in leadership positions as well as equitable pay. Although the percentage of men and women presidents differed significantly (84% v. 16%) the researchers took the angle of "pipeline time" to attain the position of President, calculating on average it was the same for men and women (approximately 22 years). Based on this, the group concluded that there is no longer imbalance and since more women than men are conferring doctoral degrees this ratio would change even more (Wallace, Budden, Juban, & Budden, 2014). Theoretically, this assumption may hold up, but with it comes with four presumptions. First, the qualifications of men and women in senior-level higher education positions are considered equal, secondly, there is no gender bias, thirdly, organizational systems and structures work as well for

women as they do for men, and lastly, it is just a matter of time (Kellerman & Rhode in Longman and Madsen, p. 23). The reality of equality is more complex than the numbers reveal, it is not just a matter of institutions making a quota.

Women College Presidents

Nationwide

Frances Elizabeth Willard, the first woman college president, was appointed in 1871 at Evanston College of Ladies in Illinois. The first female college president of a co-ed institution was Emma Elizabeth Johnson in 1925 (Foust-Cummins, Dinolfo, & Kohler, 2011).

According to findings of the American College President Study (ACPS) women account for 30% of all college presidents at higher education institutions in the United States (Gagliardi et al., 2017). This equates to three of every ten college presidents as women. Despite a 4% increase from 2011, this ratio is still significantly disproportionate from the percentage of women conferred doctoral and master's degrees in comparison to male colleagues. Publications such as the ACPS study, now in its 8th evolution, serve as valuable markers to measure the cultivation and growth of women college presidents in the United States.

California. California leads the paradigm shift and shatters the glass ceiling for women and minorities in public higher education leadership positions. Of 115 community colleges, 47 are led by women college presidents/superintendents (Chancellors Office), of the 23 California State Colleges, twelve are led by women college presidents/superintendents (CalState.edu), and two of the ten University of California institutions are led by women chancellors. The president of the entire University of California system is a woman.

Framework

Studies over the last ten years have provided snapshots of the higher education leadership experience for women college presidents as well as the challenges they encounter. There has yet to be a complete view of how these different elements interact to achieve an integrated whole. The current study aims to promote deeper understanding of the experiences of women college presidents in California as individuals and within the system of higher education. In this section, complex adaptive systems (CAS) will be introduced through the literature, the framework will incorporate recent relevant literature on women college presidents in higher education by subsystems and, lastly, gaps and potential areas to explore in-depth will be identified.

CAS is a concept that will guide the process of this research and conceptualize the experience for women college presidents. Since the formation of higher education institutions in the 1800s, the system has become more complex from both internal and external demands. Over the years, there have been macro and micro changes that have shaped the current climate of higher education. Student populations have increased and become more diverse, there are more institutions competing for students, an increased presence of privatized and not for profit institutions, fewer funding sources and greater budget demands, changing workforce trends and needs, and higher costs of living, to name a few. The interaction of all of these agents brings with it change which affects something else within the system and triggers movement somewhere else. Complex systems are described as "living, open systems that exchange matter, energy or information across its boundaries and use that exchange of energy to maintain that structure" (Cleveland, 2005). Several principles that are key features of a complex adaptive system are: 1) decentralized control, 2) neighbor interactions and connectivity, 3) self-organization, 4) internal diversity, 5) non-linearity, and, 6) adaptability. The next section will define each of these

and put them in context of higher education related to women in the leadership role of college president.

Decentralized Control

What makes a complex *adaptive* system unique is the ability of the interacting agents within the systems to monitor when the control needs to be more or less centralized (Insana, 2015). The overarching organizational structure of higher education is a centralized system. This allows for the flow of information in only one direction, therefore limiting feedback of significance to be generated. The implications of this pattern could be that entities are given access to positions of power without being subject to evaluation or application. Thus, not pushing the organization to the edge of "chaos" where, per complexity theory, is where adaptation occurs.

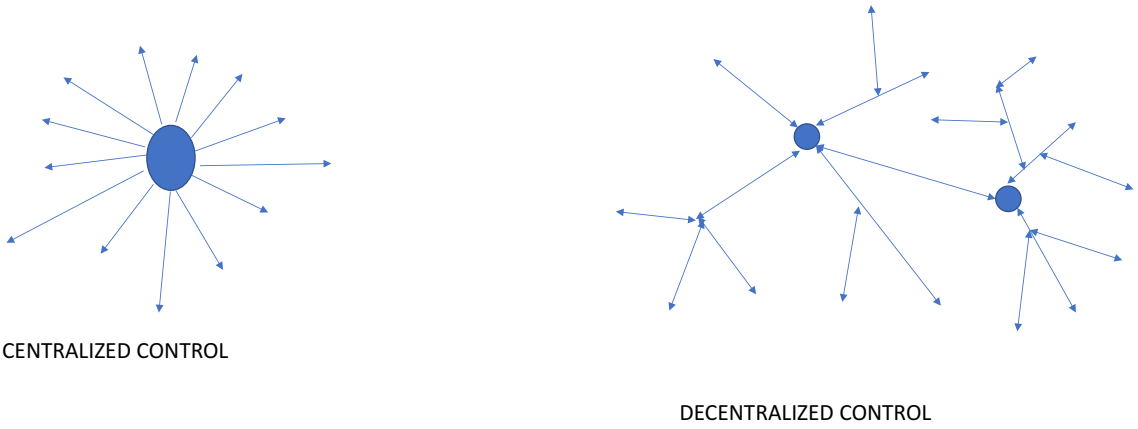

Figure 2. "Network" concept.

Neighbor interaction and connectivity

As noted by Insana (2015), "Most of the information that is exchanged in a complex system is exchanged locally" (p. 30). Connectivity can also mean different things to different people, influenced by their prior experiences, implicit and explicit biases. In higher education

institutions, this may positively or negatively affect and influence interactions at all levels of the system, from day to day interactions between faculty, to hiring practices and tenure and promotion processes. Sharing best practices, supporting one another to grow as professionals and an exchange of ideas on how to navigate challenges are examples of interaction and connectivity.

Self-organization

Self-organization shares two meanings: 1) the subsystems within a system interact with one another through feedback and iteration to give birth to new orders or patterns of relationship between their inner elements, and 2) such spontaneous emergence of new order is not imposed by external forces (Cleveland, 2005). An example of this in the higher education environment is the informal or spontaneous interactions established among individuals (agents) when functioning in a decentralized environment. Again, these decisions can be positive or negative depending on the spectrum of interactions. The business deals that are made on the golf course, or the connections that are made during an informal lunch with colleagues are where sponsorship is sparked. Informal mentoring has value for leadership development, but may perpetuate different levels of access to high-level, power positions.

Internal diversity

Internal diversity is contrary to homogeneous. There is individuality within the agents of the system. For women college presidents, this diversity may include the professional path she has taken on her way to the presidency, type of degree conferred, style of leadership, or religious practice. While we humans observe and count our separate selves and pay a great deal of attention to the differences that seem to divide us, we survive only as we learn how to participate in a web of relationships (Wheatley, 2006, p. 20). Complexity thinking embraces diversity because it is closely linked with a system's creativity or intelligence (Insana, 2015).

Non-linearity

In a system that functions in a linear process, there is only one output for every input. In education, that would suggest all students have the same learning style so teachers should all use the same instructional style, or another version of the example, that all learners will know how to read by a certain age or grade. The reality is that the inputs and outputs for both examples would look like a spectrum or rainbow as there would be significant variation. The non-linearity principle embraces this diversity and acknowledges the interplay of variables in a complex adaptive system.

Adaptability

Adaptability refers to the response of changing in response to the demands of the environment, according to Cleveland (2005), or the system's ability to "form new rules from combinations of old rules and new information from the environment" (p. 86). An example of this in higher education would be a college implementing new student support services to meet needs of the student population, something that ebbs and flows over time with changing demographics, socioeconomics and resource availability.

Conceptual Framework

A review of related literature identified five subsystems which serve as a platform to explore factors related to the cultivation of women college presidents. The subsystems are: 1) leadership style and gender stereotypes, 2) social roles and cultural attitudes, 3) professional pathways and hiring, 4) pay and promotion; and, 5) mentorship, sponsorship and networks. This system is represented visually in Figure 5.

Stereotypes of leadership style and gender roles

Johnson (2008) explored how gender stereotypes and leadership prototypes might influence perceptions and evaluation of leaders. Their research raised the question, if leadership outcomes of male and female leaders are similar in terms of efficacy, what might attribute to the disparity in perception of them as leaders? Social role theory suggests that sex roles dictate that women should be communal (gentle, caring and communicative) and men should be agentic (strong, assertive and dominating). Social role theory, combined with perceptions of leadership prototypes (interpersonal orientation v. task orientation), inform human attitudes. The development of agentic traits such as achievement orientation and self-confidence, while maintaining communal traits such as kindness and compassion, makes it easier for women to adapt to the male-defined organizational culture (Eagly & Carli in Moor, 2015). Culture is defined as the characteristics and knowledge of a particular group in a particular environment, therefore these attitudes, both real and perceived, influence behavior. These cultured notions can be gendered as part of the socialization that occurs and is enacted in workplaces (Gallant, 2014). Further exemplifying the intangible extra jobs expected of women presidents, shared by a current president: "It's hard to think that someone would stop and ask a male president what the fax number for the (President's) office is. Some people see a woman and think that you are in a service role. They see a woman as having infinite wisdom and stuff to keep the day going" (Howard & Gagliardi, 2018).

Women often face different expectations than men in the workplace, as well as increased scrutiny in areas other than ability (e.g., appearance), and are frequently evaluated more severely. This is true particularly for women in management and leadership roles (Chisolm-Burns, Spivey, Hagemann, & Josephson, 2017). These patterns begin early in socialization, often in the

academic setting. Behaviors such as assertiveness may elicit a different reaction for young boys and girls. Rather than being praised for being a leader when calling out answers in class, young girls are often reprimanded to raise their hands (Beaman, Wheldall, & Kemp in Stock & Szendrey, 2016). Contributors to the report, *The Sponsor Effect* point out: "Women are caught up in the Catch-22 of assertiveness: if they don't speak up for themselves they will be completely overlooked, and if they do, they'll be resented or even thwarted because they are perceived as being self-serving". The authors conclude, "women don't ask for what they want or feel because they are fearful they won't be liked, whereas men perceive asking as a *fun* and *exciting* game with little downside" (Babcock & Laschever, 2016, p. 18). In a "Ban Bossy" National Campaign led by the CEO for the Girls Scouts of America it was pointed out that when a man leads he is referred to as a "leader" yet when a woman leads she is often referred to as "bossy" (Chavez, 2011). This may seem simplistic, but it encapsulates how systemic inequality perpetuates a culture of attitudes and norms that hinder upward growth.

Social Roles and Cultural Attitudes

A challenge faced more commonly by women than men is achieving a work-life balance, primarily with caregiving for children and elder parents, while managing a household and professional pursuits. Research suggests men are less likely to assume these responsibilities, often resulting in women taking on the "second shift" wherein women work a full day outside the home and then take on caregiving and household tasks as well (Chisholm-Burns et al., 2017). In a study of female managers across various fields, Aycan (2004) noted that about 50% attributed their achievement in senior management positions to emotional and practical support from their partners and expressed a more equal division of labor at home. Outside of the U.S. and in some private corporate organizations, cultural and organizational shifts to the paradigm such

as paid maternity and paternity leave, on-site childcare, and banked leave for family emergencies have lessened the stigma of work/family being an either/or decision for women. According to the Organization for Economic Cooperation and Development (OECD), the United States is the only country of 41 nations that does not mandate any paid leave for new parents. Research shows that in almost half of two parent U.S. households both parents work full-time, and in 40% of all families with children, the mother is the sole or primary breadwinner (Livingston, 2016).

Another perceived barrier to attainment of formal leadership positions is that women may feel cornered to make the decision not to have children in order to maximize their career path and potential, as evidenced in higher education where 44% of women remain childless (Sherman, 2015). Women college presidents are less likely to be married, less likely to have children, and more likely to have altered their career for family then their male colleagues (American College President Study, 2017).

Professional Pathway and Hiring

Several researchers (e.g., Meyerson & Fletcher, 2000; Rainbird, 2007; Townsend, 1995) have determined that the primary explanation for women being stuck in the lower rungs of the institutional hierarchy is structural in nature. Senior positions in academia are mostly occupied by men, who tend to use their authority to create or maintain existing structural barriers that inhibit women's acquisition of power. According to Bornstein (2008), although most search committees today are 50% male and 50% female, boards of trustees which are generally charged with the task of hiring college presidents are male dominated. It is more common for women college presidents to follow non-traditional paths to presidency, and in the hiring process, experience undue scrutiny or skepticism regarding their ability to lead. The "traditional" route is academic (faculty) to Chair, to Dean, to senior administrator leadership, to President. There are a

number of reasons congruent with a non-traditional path: balancing caregiving and career, stepping out of the workplace for a period of time for family, or moving from the executive or political world into academics. In the studies focusing on women college presidents in the United States (Woollen, 2015, Chavez, 2011, ACE President Study, 2012), the characteristics of diversified, well-rounded, and entrepreneurial are threads that connect women who have successfully navigated the leadership labyrinth. Conceptually this makes sense; life experiences foster resilience, grit and survival skills, not always acquired in a formal education environment, but in "real-life." The characteristics of motivated, hard-working, and persistence over time ties in directly with the research of Duckworth and colleagues (2007) on grit where *grit* is defined as perseverance and passion for long-term goals. This quality was identified when comparing successful leaders of equal IQ, yet some were more effective than others over time, fueling the query of what matters most. Grit entails working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity and plateaus in progress (Duckworth et al., 2007). The personal quality of grit has been identified across a spectrum of high-achieving male and female leaders (although limited in the literature) as a shared characteristic that has played a significant role in their success. Is grit something learned (nurture) or genetic (nature)? The bulk of the literature supports nurture and the role of environment, suggesting that inborn ability is less important than commonly thought. More plausible loci of individual differences are factors that predispose individuals to perseverance and deliberate practice and enable them to sustain high levels of performance for many years (Duckworth, 2007). When it comes to traversing the pathway to leadership, it is imperative that hiring committees for positions such as President amend the search criteria and review the process to consider candidates that are a "best fit" for the institution.

Pay and Promotion

Data highlights disparity in pay and promotion for women throughout higher education. Men make more than women at every rank, in every discipline, and in every institution type except for private two-year institutions (Johnson, 2016). In the Pathways and Pipelines report (2016), the data showed that in the 2013-1014 academic year, male faculty members made on average $83,528 compared to women of the same rank earning, $70,355. A study conducted in 2014 tracked a cohort of women college presidents at two and four-year institutions across the U.S. for a two-year period to determine if women had achieved proportional representation in leadership positions. The findings conveyed that although the percentage of men and women presidents that were followed differed significantly (84% vs. 16%), the researchers calculated a factor known as "pipeline time" to attain the position of president and on average it was the same for men and women (approximately 22 years). Based on this, the group concluded that there is no longer an imbalance in representation and since more women than men are conferring doctoral degrees, this is forecasted to continue to shift (Wallace et al., 2014).

Mentorship, Sponsorship and Networks

Lack of empowerment for women is a contributing factor why many women do not attain and retain more leadership positions in higher education (BlackChen, 2015). Take for example the notion of sponsorship versus mentorship. *Sponsorship* is advocacy which can take many forms; recommending someone for a promotion, co-authoring or co-presenting with a person in a position of power and an aspiring leader, or when an influential person shares professional skills and abilities with potential clients or donors. The common thread in all of these situations is that an individual who has already attained a "position of influence or power" attaches their name and reputation with an "up and coming" protégé or developing leader, hence creating a network.

Mentorship often takes place in the background and may include but is not limited to coaching, advising, listening, role modeling, and support. The very exercise of leadership is cultivating relationships and mobilizing them on their own behalf (Hewlett, Paraino, Sherbin, & Sumberg, 2010). The practice of seeking out powerful people, cultivating their favor and cashing in those chips is itself a demonstration of leadership potential. There is no such thing as a "good old girls club" however the significance of women mentoring and being mentored positively correlates with women who have successfully navigated the leadership labyrinth. How has this gender bias perpetuated by a patriarchal culture been navigated by women who have achieved power positions in higher education? Through the lens of role congruency theory, the barriers that challenge women in the higher levels of leadership exist due to incongruences between social role expectations (gender stereotypes) and leadership roles (Eagly & Diekman, 2005).

Through interviews with 24 women who held executive or administrative positions, Cullen and Luna (1993) demonstrated that 21 of the 24 women had a mentor, although it was more common for the mentor to be male. Additional studies have identified both male and female mentors as well as a combination of the two as significant in the journey to leadership positions in higher education (Ballenger, 2015; BlackChen, 2015; Awang-Hashim et al., 2016; Longman & Madsen, 2016). Dennehya and Dasgupta (2015) advanced this idea in their research that indicated that a mentor's professional status, not gender, had the greatest impact on career advancement. In a study of women in higher education leadership positions and mentorship conducted by Searby, Ballenger, and Tripses (2015) the findings supported that: 1) informal mentoring or seeking out a mentor is most common, 2) women who are mentored serve as mentors, and lastly, mentoring is diverse in how it is defined as well as the purpose it serves throughout life. In their analysis of over 300 research-based mentoring articles in the fields of

education, medicine and business Ehrich, Hansford, and Tennent (2004) found that mentoring yields positive outcomes of learning, personal growth and development of professionals. Research conducted for the Catalyst report, *Mentorship, Sponsorship and Networking,* by Bentley University (2017) supported that when women have sponsors, women are as likely as men to be promoted (p. 3). No matter the mentoring model or approach the potential benefits for mentor and mentee are multi-faceted. According to Kotter, "Extensive informal networks are so important that if they do not exist, creating them has to be the focus of activity early on in a major leadership initiative" (in Hewlett et al., 2010). Ibarra, Ely, and Kolb (2013) posit the idea of "second-generation" forms of gender bias that result in an underrepresentation of women in higher education leadership positions. This bias "erects powerful but subtle and often invisible barriers for women that arise from cultural assumptions and organizational structures, practices, and patterns of interaction that inadvertently benefit men while putting women at a disadvantage" (HBR, p. 6). In a study of six college presidents, Woollen (2016) observed the ability to establish and cultivate relationships as essential to developing and sustaining an effective presidential tenure. The women presidents interviewed were deliberate, strategic and entrepreneurial in understanding role and purpose of relationships, building social capital and capitalizing on their relationships (p. 6). Networking is also crucial to professional growth as well as re-shaping stereotypes and gender role perception of both men and women. The American College Presidents Study (2017) supports the importance of networking and relationships not only to navigate the leadership experience but also once established, to grow organizationally.

Both sponsorship and mentorship appear to be beneficial for the overall development of the individual but does one foster more resilience and result in more growth in the cultivation of

aspirant women leaders? According to data collected from the Center for Talent Innovation (CTI), sponsors offer real career traction on the path of power and influence affecting three things: pay raises, high-profile assignments, and promotions (Hewlett, 2013). Data from the CEO Pipeline Project part of the 100 x 25 Initiative for females to lead 100 companies in the Fortune 500 by 2025, shows that currently the representation is 6.4% female CEOs. Although few, these leaders are significant in that they have attained CEO status in an environment that is not optimal. A theme in the interviews with female high-level executives was the critical nature of mentors, and particularly sponsors, in their success. The CEO Pipeline and other related initiatives at Korn Ferry aim to crack the code on womens' success and help organizations better identify female leaders to ensure more women succeed in the future (Korn Ferry Research Institute, 2017).

In an initial review of leadership programs in higher education, the seminars and curriculum that are marketed to women in higher education who are aspiring to high level leadership positions such as college president, focus primarily on mentorship. The data emerging from sectors such as business, private industry and politics supports the theory that women who attain high level leadership positions have sponsors (Hewlett et al., 2016). If this is also true for current college presidents, higher education professional organizations and leadership curriculum are not emphasizing tools of sponsorship and networking, and the cycle of inequity of women in higher education leadership will continue to perpetuate itself.

Chavez (2011) conducted a study with women college presidents to look at their strategies for success with a sample of California college presidents at two-and four-year public and private institutions which yielded insightful data and outcomes. Although the sample was small, the researcher concluded mentorship as an important item that emerged from the survey

and interviews (p. 141). Searby et al. (2015) surveyed upper level administrators in higher education regarding mentors in their professional experience. The main conclusions in their study were: 1) women are being informally mentored, 2) mentoring occurs across gender, 3) female leaders are mentoring others, and 4) mentoring experiences are informal and intentional.

Cultivation Strategies

Significant shifts have occurred over the past 30 years for women in higher education. Organizational analysis supports that when women function in leadership roles and are involved in research it can positively affect the nature of both the questions that are asked and the findings (Lennon, 2012). A study of Fortune 100 companies showed that when women hold leadership positions productivity and revenue are higher, sales are greater, and influence and scope in the industry are more extensive (Colorado Women's College, 2013, in Woollen). Three studies (Woollen, 2016; Herwatic, 2016; Moore-Brown, 2011) focused specifically on women college presidents and elements that empowered, challenged and facilitated their navigation of the leadership labyrinth. The studies reiterated the importance of mentorship (both formal and informal), breadth and depth of the leader as an individual and professional, changing attitudes that value a "non-traditional" path through the labyrinth and policies (institutionally as well as nationally) that support women to strike a work-family balance. Leadership and professional development, formal mentoring and professional organizations for women in leadership roles do exist and have existed for some time across all industries. This process of inquiry offers relevant insight from current leaders that can be applied to an assessment of these programs to ensure that "best practices" are in place. The literature on mentoring, sponsorship and networking suggests that these tools evolve informally for men, but not for women. It is imperative if there is formal

curriculum that promotes itself as preparing women to grow as leaders in higher education that these tools are authentic. This shift is not a task of merely checking the boxes, instead, it begins with awareness and conversation in all layers of the organizational culture, with both men and women as the catalyst for change.

CHAPTER 3

METHODOLOGY

The purpose of this study was to learn from women who have excelled in an institutional culture where becoming a female college president is statistically inequitable. The participants in this study represented two and four-year public HE institutions in California, where there is a higher representation of women college presidents than there are nationally. Through one-on-one interviews, the goal of the researcher was to gain insight into the individual experience as well as the institutions the women lead. This purpose of this chapter is to present the questions of inquiry for the study as well as the approach for data collection and data analysis. Included is the rationale for conducting the study as well as the lens that visualized this particular framework.

The literature supports that women are formally prepared to serve as college presidents, yet they are underrepresented (Burkinshaw & White, 2017). The purpose of this study was to learn from women who have achieved the position of college president in higher education what informal tools (amendments) have been effective in cultivating their leadership experience.

Research questions that guided this inquiry were as follows:

1. What are the significant factors that women College Presidents/Chancellor at two- or four-year public higher education (HE) institutions in California attribute to their cultivation as high-level leaders?
2. What have been significant challenges to the cultivation of the women as leaders and in attaining the position of College President/Chancellor at a two- or four-year public HE institution?

3. What strategies for optimal growth are suggested for women leaders who aspire to blossom into a college president/chancellor at a two- or four-year public HE institution?
4. What factors can be attributed to the significant presence of women college presidents/chancellors at two and four-year public HE institutions in California?

The plans and procedures that guide the inquiry of a topic or question are identified as research approaches. The selection of the research approach should be informed by the nature and purpose of the research focus. Elements that comprise frameworks for research are philosophical worldview or paradigm, research design and research methods which determine the "best fit" for the research approach.

Philosophical Paradigm

Creswell and Creswell (2018) define philosophical worldview as "a basic set of beliefs that guide action" (p. 5). At the origin of philosophy there is a curiosity about a broad area or a specific question. The "why" is the philosophical worldview in research and the research design and methods are the "what and how." Identifying and shaping the philosophy of the process prior to defining research design and the methods is critical. To analogize, much like a funnel, the philosophical worldview comprises the structure and integrity of the actual funnel. Once defined, this philosophical orientation for the world and for the nature of the research provides direction for the research approach and consequently the research design and methods that follow. Once "funneled" the output will be a quality stream of information about the initial query. If the philosophical paradigm is not established, there may be disconnection in the inquiry process or there will be incongruences in the outcomes. The outcome would be similar if an attempt was made to pour liquid into an inverted funnel it would result in a mess or prove to be such a tedious task that most would abandon the effort. There are four commonly discussed philosophical

worldviews in the literature: post-positivism, constructivism, pragmatism, and transformative (Creswell & Creswell, 2018, p. 6). The foundation of this study builds upon a transformative paradigm which posits that research must be intertwined with politics and a political change agenda to confront social repression at whatever level it occurs (Mertens, 2010). Features of the transformative paradigm include: the primary focus of the research is the study of the lives and experiences of diverse groups that have traditionally been marginalized, the study of these diverse groups drives the exploration of inequities such as gender, race, socioeconomic, these inequities are linked to social and political action, and within this exploration there is a guiding theory of how a program or system functions and why these social and political problems, such as power and oppression exist. This paradigm is also represented as the critical theory paradigm with a clear focus on social justice (Creswell, 2009). This position came onto the radar in the 1980's by researchers who suggested the current common paradigms were too rigid and as a result excluded marginalized individuals in society as well as issues of power, social justice, discrimination, and oppression (Creswell & Creswell, 2018, p. 9). Research of this nature is assumed to contain an integral action-oriented agenda that that will bring about reform and change the lives of research participants and the institutions and communities in which they work and live, as well as the researcher's life (Bloomberg & Volpe, p. 29).

The prevailing philosophical stance for this research inquiry was the transformative paradigm, with the goal of the research being to serve as a catalyst for change at multiple levels; institutionally, socio-culturally and individually. This ideology of research fosters a transformative approach for reform and addresses social issues such as empowerment, equality and equity. This research provided a voice for women college presidents to share their personal and professional experiences in a system where inequity is well documented, yet the nature of

the inequity is blurry. The theoretical framework woven into this design, Complex Adaptive Systems (CAS), also aligned with the transformative paradigm in that when an environment is self-organizing and adaptive, more women will ascend and thrive in high level leadership positions. With 50% of current college presidents in the U.S. planning to leave education in the next five years (Gagliardi et al., 2017), it is imperative to learn from the women college presidents who are currently flourishing and to document ways that inform the cultivation of higher education leaders.

Research Design

Strategies of inquiry such as qualitative, quantitative and mixed methods are approaches that provide direction for the procedures in a research process. Within each of these are designs that serve as foundations for the researcher to build on, such as experimental designs in quantitative research, case studies in qualitative research and, explanatory or exploratory, sequential research in mixed methods. For the purposes of this study, a qualitative approach served as the foundation for inquiry. According to Denzin & Lincoln (2011), qualitative methods share basic characteristics: 1) Natural setting: data is typically collected in the environment that is "natural" to the subjects, compared to a lab. Natural setting also implies that rather than a device or instrument collecting data, there is a human to human interaction in the data collection process, 2) the researcher is the key instrument for not only data collection but also data analysis and synthesis, 3) it is common that multiple forms of data are collected, often open-ended in nature as to not restrain the human expression, 4) the process of data analysis is inductive to deductive, 5) the focus of the research is kept on the experience of and meaningfulness to the participant, 6) the design for qualitative research is emergent, 7) there is a call to the reflective nature of the researcher throughout the research process that is inclusive of his/her own

experiences and sensations, and 8) qualitative research is holistic by design. When exploring dynamic systems such as humans and all of the interrelated dimensions that are intrinsic and extrinsic to them, the approach must also be a network and fluid in nature. The intent of this research study was to learn from women who are college presidents at two and four-year public HE institutions in California. Such research is not a cut and dry process due to a multi-layer dynamic of an engendered culture of women in high level leadership as well as institutional practices that have not evolved with the demands of the higher education demographics. In order to accurately represent the individual experiences of these women, opened-ended, one-on-one interviews were conducted to foster deep, quality discussions around the personal, community, institutional and systemic aspects that are part of their experience. According to Capra (1996), when we study individual parts or try to understand the system through discrete quantities, we get lost. Deep inside the details we cannot see the whole. Yet to understand and work with the system, we need to be able to observe it as a system, in its wholeness. Wholeness is revealed only as shapes, not facts. Systems reveal themselves as patterns, not as isolated incidents or data points (Wheatley, 2006, p. 125).

Setting

The setting for the study was two and four-year public higher education institutions in California. The rationale for selecting this setting was that the percentage of women college presidents in California is higher than the national average of 30% as reported in the 2017 American College Presidents Study opening the inquiry as to what has facilitated this change.

Participants

Presently there are 62 women college presidents of two and four-year public higher education institutions in California. The four-year institutions include the University of

California (UC) with 10 campuses, and two have female chancellors, as well as the President of the entire UC system. California State University (CSU) system has 23 institutions, in which twelve women hold the position of Chancellor/President. The California Community College (CCCCO) system is comprised of 115 colleges with 47 women college presidents. Access to contact information for the potential participants includes the University of California (UC) system website, California State University (CSU) system website and the California Community College Chancellor's Office (CCCO) website. The only inclusion criterion for participants is that they are currently sitting as an interim or appointed College President/Superintendent/Chancellor.

Timeline and Steps for Carrying Out the Research

Although each research study is unique in the time it takes to reach readiness for data collection, for the actual data collection, and the analysis and synthesis, Bloomberg and Volpe (2012) suggest the following sequencing for carrying out the research.

A review of the literature was conducted to assess the contributions of related academic research that form the understanding of the current status of women college presidents in the United States as well as in California. The development of the conceptual framework for the study included an appraisal of literature on complex adaptive systems.

1. Following the proposal presentation, the researcher applied for approval to conduct the study with the University of New England Institutional Review Board (IRB). This approval process determined that sufficient measures were in place to protect the participants' safety and integrity if they elected to contribute to the research.
2. Potential research participants were contacted via e-mail. An invitation letter and UNE consent for participation form was sent to 62 women college presidents at two and four-

year public HE institutions in California. The purpose of this letter was to identify participants that were willing to interview with the researcher (Appendix B & C).

3. Ten calendar days after sending out the initial contact e-mail, a follow-up e-mail was sent to the potential participants that had not responded (Appendix D).
4. When a potential participant replied that she was willing to contribute to the study, the researcher arranged a time, date and location for the interview (Appendix E).
5. A confirmation e-mail with time, date and location for the interview was sent to the participant as well as the consent form and interview script.
6. Interviews were recorded on a SONY ICD-UX 560 Stereo Digital Voice Recorder with Built-in USB as well as a secondary source (Appendix G).
7. As interview data was collected, it was submitted for transcription with REV.com.
8. Within one business day after the interview had been conducted, an e-mail thanking the study participants as well as a link to the demographic information survey was sent (Appendix H).
9. When a transcribed interview was received, the researcher read the script and created "first impression" memos that were noted on the personal information data sheet.
10. Once all interviews had been transcribed, data analysis began, guided by the Data Analysis Spiral (Creswell, 2013). This dynamic process facilitated interpreting the findings related to higher education as a Complex Adaptive System (CAS) as well as addressed why there are more women college presidents in higher education in California compared to nationally.

Data

Relevant information that was essential to conducting the research includes a comprehensive review to define the current state of women college presidents in higher education and an accurate statement of the problem. Once solid research questions had been declared the method of data collection and actual instruments were defined. The information needed to answer the research questions that were connected with the conceptual framework fit into 3 categories: 1) contextual information, 2) demographic information, and 3) perceptual information (Bloomberg & Volpe, 2013). For the purposes of this study, demographic and perceptual information was documented.

Instrumentation

Demographic. Demographic information is data about the participants in the study reported by the individuals themselves. This information was collected as a survey administered to interview participants after the interview via Survey Monkey (Appendix G).

Perceptual. Perceptual information refers to participants' perceptions related to the particular subject of inquiry (Bloomberg & Volpe, 2012, p. 106). For the purposes of this study one-on-one, in person or virtual interviews were conducted with the women college presidents that agreed to participate. The following matrix was utilized to develop interview questions that are directly linked to the research questions. The interview protocol is Appendix G.

Table 1

Matrix for Interview Questions

Interview Question	RQ1:	RQ2:	RQ3:	RQ4:
Describe your pathway to the presidency?	X			X
Was the role of a college president in your professional plan?	X			X
What personal qualities do you attribute to your success in becoming a college president?	X		X	
What professional experiences do you attribute to your success in becoming a college president?	X		X	
How do you define mentorship?	X		X	X
How do you define sponsorship?	X		X	X
Were your mentors and/or sponsors men, women, or both?	X	X	X	
How were your connections with mentors and/or sponsors established?	X	X	X	
How would you describe your leadership style/philosophy?	X		X	
What have been challenges to your growth as a leader in Higher Education (HE)?		X		
What are your strategies for work/life balance?	X		X	
What are your top three suggestions for women to optimize their growth to high level leadership positions in HE?			X	X
Should there be more women college presidents?	X			
Have you been an administrator at an institution outside of California?	X			X
Women comprise a higher percentage of college presidents in California. In your experience, what factors can be attributed to this difference?	X			X

Research questions that guided this inquiry are as follows:

1. What are the significant factors that women college Presidents/Chancellor at two- or four-year public higher education (HE) institutions in California attribute to their cultivation as high-level leaders?

2. What have been significant challenges to the cultivation of the women as leaders and in attaining the position of college President/Chancellor at a two- or four-year public HE institution?
3. What strategies for optimal growth are suggested for women leaders who aspire to blossom into a college President/Chancellor at a two- or four-year public HE institution?
4. What factors contribute can be attributed to the significant presence of women college Presidents/Chancellors at two and four-year public HE institutions in California?

Data Analysis

Once the data was collected, a process began to engage with the data through different lenses, and much like fractal theory, the goal was to recognize patterns and themes. The essential shape of a fern is a pattern of four straight lines, and, when the patterns repeat, the complex yet fluid curves of the fern emerge. The researcher had the opportunity to analyze holistically any emerging patterns and discover complex structures due to the connection fostered by the interview process.

To manage the significant amount of data generated in the interviews, Creswell (2012) suggests a data analysis spiral.

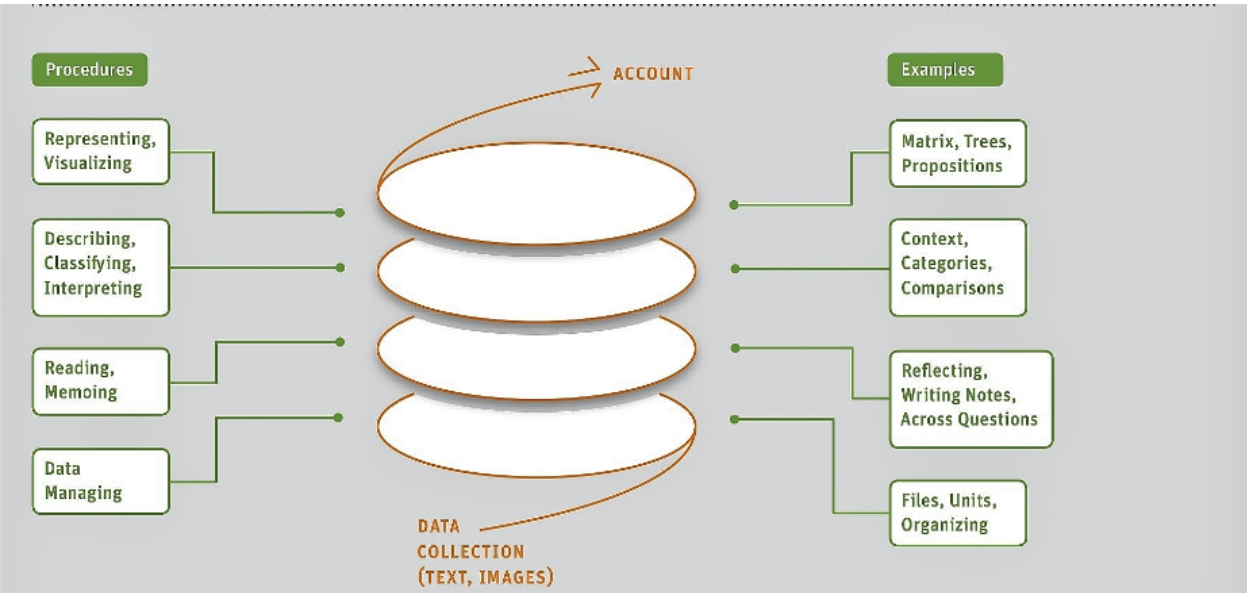

Figure 3. Data Analysis Spiral (Creswell, 2013).

This model represents the dynamic and emergent process of qualitative analysis. The researcher moves between reading the data, identifying patterns as words or visuals, assigning meaning or codes to the data, and then shuffling the data or actualizing the procedures in another order to continue "working with the data." The most important facet of qualitative research is that the analytic process is an interweaving of inductive and deductive thinking (Bloomberg & Volpe, 2012, p. 137).

Demographic Data

Personal Information

The data from the personal information instrument was analyzed using the Survey Monkey platform. Survey Monkey stored the data as the surveys were completed and the researcher was able to sort and analyze the data. Although a survey link was sent to each participant, the responses were anonymous. Demographic information was also collected on the interview cover sheet that was created for each interview.

Interviews

Coding. The data analysis spiral was the method by which coding of the data was conducted. The process method was applied as a way of ordering the capacity for insight, but it does not produce it (Saldana, p. 40). Once the interview was transcribed, the researcher read the transcript one time through and highlighted as well as notated in the margins of the transcript, any words, phrases, or statements that "stood out." Once all of the interviews were completed and transcribed, the second phase of coding was initiated. As the data spiral suggests, this process was comprised of multiple iterations of becoming intimate with the data. Having an organized system in place to manage and sort data is one of the seven personal attributes suggested by Saldana (2016), as essential to qualitative research and coding in particular (p. 38).

In qualitative data analysis, a code is a researcher generated construct that symbolizes or translates data (Vogt, 2010, in Saldana, p. 4). Although there are multiple methods to coding, it is important that there is alignment with the purpose of the research and the coding method(s) that are applied. According to Saldana (2016), specific coding methods may happen before, during, and/or after the initial review of the data corpus. Based on the nature of the research, the first cycle of coding was generic (in vivo) coding. This coding method is an intuitive method used with interviews and provides the stage for the researcher to attune herself to participant perspectives and actions. In the second cycle of coding, a pattern coding and/or focused coding was applied to the data with the intention of developing the breadth and depth of the data analysis. Additional personal attributes suggested by Saldana (2016) as necessary for coding are flexibility, perseverance, and creativity. After the second cycle of coding, focusing strategies were applied in order to highlight and prioritize the themes emerging from the study. Coding was approached from a manual (hands-on) approach using highlighting, color coded sticky notes and

visual presentations of the data on a poster board. Coding was also conducted using NVivo, a data management software tool and all work was completed on a MacBook Air with NVivo v12. The culmination of this process was to transition from coding to theorizing and where the conceptual framework of complex adaptive systems was overlaid with the themes that emerged from the data. At its most practical, a theory is an elegant statement that proposes a way of living or working productively (Saldana, p. 278). The data from the interviews and personal information represented the individual experience of the participant and offered insight to higher education as a CAS.

Triangulation of Data

Collecting information via various methods and examining data from other sources are key components in supporting themes and patterns that are established in data analysis. For the purposes of this study data was generated and then triangulated through the interview question design and included multiple questions for each of the principal research questions. Related research was also referenced to compare and contrast outcomes that emerged during data analysis and that may inform data synthesis. Coding was conducted with manual and computer-based software, allowing for data analysis from a "third party" or non-biased source, in that queries and analyses can be conducted on coded and non-coded files.

Transcription

A third-party professional transcription service, REV.com, was contracted to transcribe all data gathered in the interviews of women college presidents. The interviews were recorded on a SONY digital voice recorder (ICD-UX560) as well as a back-up recording source or device. In the case of in-person interviews the back-up machine was an I-Phone and for virtual interviews the back-up was the host site for the virtual meeting and/or call (Webex). The data was submitted

to the transcription company and stored outside of the devices to limit a potential breach. Once the dissertation was defended and approved, the raw data and all other related materials will be stored in a limited access area for a reasonable amount of time. The recommendation for a reasonable time period per APA is five years (Creswell & Creswell, 2018, p. 98)

Ethical Considerations

Participants' Rights

Dues to the emergent and dynamic design of qualitative research, it is imperative that the research considers ethical issues such as safeguarding participants rights and ensuring confidentiality for every step of the research process. Informed consent, which seeks to retain autonomy for all human subjects and the ability to judge for themselves what risks are worth taking for the purpose of furthering scientific knowledge, is central to research ethics (Bloomberg & Volpe, p. 112).

Prospective participants that agreed to interview with the researcher were provided with, reviewed and signed a consent form (Appendix C). The consent form template utilized for the study was a template provided by the University of New England Institutional Review Board (IRB).

Confidentiality

Actual subject names were not used in anything written or shared that was related to the research process or outcomes in order to uphold confidentiality of the participants. Pseudonyms were assigned to all subjects and no information that connected the subjects with the data was included in the paper. This does not ensure anonymity due to the highly focused nature of the research and the small sample size. This statement of confidentiality was disclosed to

participants in the informed consent letter that was included in the e-mail with the invitation to participate in the study and consent form (Appendix B & C).

Issues of Trustworthiness

Member check procedures. Member checking was incorporated into the data collection process, after the interviews are transcribed but prior to data analysis, to give participants the opportunity to review the interview transcript and ensure their responses were expressed as desired and representative of their individual experience.

Potential Limitations

1. Researcher bias. The researcher is a female leader in higher education with experiences and ideas about the types of amendments that are necessary to thrive in a male-dominated industry. For this reason, she expected these similar patterns to be revealed through the interviews with women college presidents in California.
2. Participants would be hesitant to disclose their authentic experiences during interviews due to being new, or interim in the position of college president and/or political or cultural pressures at their institution.
3. The specific focus of the research only with women college presidents of two and four-year public HE institutions in California may limit the generalizability of the findings and recommendations.

Chapter Summary

This chapter presented detailed descriptions of the research methodology for this study. The table below provides a summary of the essential elements of the methodology:

Table 2

The Essential Elements of This Study's Research Methodology.

Who	What	How	Why
Women college presidents at two and four-year public HE institutions in California.	Research paradigm	Transformative	Non-linear and dynamic. Multi-dimensional. Representative of the Complex Adaptive system.
	Strategy for Inquiry	Qualitative	Understand the meaning individuals ascribe to a social or human situation.
		Phenomenological	Human connection.
	Methods of inquiry	Demographic and Perceptual	Personal information reported by the individual, One-on-one interviews so the interviewee shares her story in her voice.

Once the data were collected, the data analysis was facilitated by guided discovery while employing the data analysis spiral (Creswell, 2012). The optimistic outcome of this process was to work with the data in a patient manner and distill it to what is of most importance and interest as it transforms to draw out themes and patterns (Bloomberg & Volpe, 2012, p. 137). These patterns and themes were overlaid with the conceptual framework and previous literature to convey to the reader the valuable information that emerged. The vision of this research was that findings would serve as a resource for future leaders in higher education as well as shape institutional perspectives and practices.

CHAPTER 4

FINDINGS

The intent of this research was to speak with and hear from women who are college presidents/chancellors at a two- or four-year public higher education institution in California about their journey and experiences that have contributed to where they are today. From these conversations the researcher mindfully explored what had been shared and identified difference makers that have contributed to more women college presidents in California than nationally.

In public higher education institutions in California, there are 115 two-year colleges in the California Community College system, 23 institutions in the California State University (CSU) system and ten institutions in the University of California (UC) system. As of 2019, there are 47 women college presidents in the CCC system (41%), twelve in the CSU system (52%) and two Chancellors at the UC institutions, as well as the President that oversees the entire UC system (30%).

As a qualitative approach was central to the research, an invitation letter was sent to the 62 female presidents requesting the valuable contribution of their individual experience through one-on-one interviews. Of the 62 women college presidents who were invited, 26 interviews were conducted either in-person, via Webex, or via phone. After the interview took place, there was a quantitative measure, a demographic information survey sent via e-mail. Of 26 survey links sent, 13 were completed and returned.

Of the 26 interviews that were conducted, the majority, (23), took place through the web conference platform, Webex and phone, with three of the interviews taking place in-person, at a location of their choosing.

The interview was guided by an interview script (Appendix G) and was e-mailed prior to the interview with the interview confirmation information as well as the informed consent document (Appendix C). The intent of sharing the interview script was to be fully transparent with the interviewee, give them time to prepare if desired and to optimize the time that was scheduled for the conversation.

Interview Environment

The administrative/executive assistants played an integral role in facilitating access to the presidents as well as coordinating the details of the virtual and in-person interviews. The daily schedule that is navigated by these women is beyond impressive, so it was an honor to have the one-on-one time that was scheduled with each of them.

The conversations that took place with the 26 women were phenomenal. The exchanges that took place during the interviews were energizing and inspiring. The interview script was key for keeping the conversation semi-structured and "on-track." As the interviewer, it was imperative to maintain the role of "active listener," which was easier said than done due to the dynamic and at times lively candor of the conversation.

Overview of Participants

Pseudonyms were assigned to each of the participants and although the intent was to convey an "authentic voice," direct association with individuals, institutions or role specifics were not included in the paper. In keeping with a theme of complex adaptive systems and nature, each participant was assigned the name of a flower that "represents" their voice. The 26 pseudonyms were selected only by the criteria of the letter of their last name, are listed here: Amaranth, Azalea, Belladonna, Blossom, Bluebell, Buttercup, Calla, Cassia, Clover, Dahlia,

Edelweiss, Gardenia, Giacinta, Jasmine, Lavender, Lilac, Lily, Marigold, Myrtle, Nerine, Poppy, Rosalind, Rosemary, Sage, Sireli, and Spruce.

There were 15 interview questions that guided the conversation with each participant (Appendix G) and supported the exploration of the four main research questions. The following section provides a background of the participant as a composite in order to ensure the confidentiality of each individual. The data for this summary is drawn from responses to interview question 1: Describe your personal and professional pathway to the presidency, as well as information received from 13 of 26 participants on the Survey Monkey link sent as a follow-up to the interview with a thank-you note. Demographic information was cross-referenced and confirmed using the professional biography of each president provided on the institutional website.

Demographics

The participants in this study brought with them not only a breadth and depth of personal and professional experiences but also a diverse profile of ethnicity, chronological age, and family orientation. The participants identified as Hispanic, Asian, Caucasian, Pacific islander, African-American, Filipina, Latina, Black, and Asian American. The age range for the 26 participants was in the 40's to mid-70's, the majority in the 50's, about 50% were married and 40% divorced and most had children of varying ages.

Educational Area of Study

The majority of participants (23 of 26) held doctorates, both Ph.Ds and Ed.Ds., with a variety of degree emphases such as organizational leadership, educational administration, educational leadership, humanities, social science and math. The areas of study for graduate degrees was as diverse and included degrees in communications, counseling, history, human

relations, speech, business, fine arts, gender and women's studies, law and numerous education-focused degrees.

Professional Experience

Over 90% of the participants were educators, most of them had taught in higher education and many of them attained tenure in their faculty position. Professional experiences were often the catalyst for continued degree pursuits. Advanced degrees added cultural capital that was applied to create desired professional outcomes. The participants often referred to the "traditional" pathway to the presidency as: faculty to dean to vice president to president. Within that progression exist "routes" such as academic affairs, instructional, student services and economic development/finance (CBO). Within the 26 interviews, most women described their pathway as a blend of traditional and non-traditional, even "indirect", yet emphasized the significance of that journey and how it was pivotal in building the foundation of who they are and what they do in their current role. There were three participants who initially entered higher education as an administrator from private, non-education related backgrounds and roles. The duration of careers in education and higher education are impressive, all with over 20 years directly serving humans in some capacity.

Of the 26 participants, 23 were current presidents at community colleges in California and three oversee public, four-year institutions in California. The title of the role President, Chancellor, President/Superintendent or CEO varied by the organizational structure of the institution. For 15 of the 26 participants, this was the first time she had been in the position of a college president and four of the participants were concluding their presidency this year with retirement. The longest sitting president in her current role was 11 plus years with the majority of

appointments within the last five years. Only one of the 26 participants had initially set out in her career with the goal of becoming a college president.

Method of Analysis

Data was collected in one-on-one interviews either in person (3) or via Webex, or phone (23) over nine weeks. Conversations were recorded with two devices and once completed it was sent electronically to the transcription service, REV.com. The researcher received transcripts by the next day, read them one time and wrote a general impression memo on the interview cover sheet (Appendix I), created as a data management tool. The analytic coding process was initiated once all of the interviews were completed and transcribed. The objective of the analytic coding process is that, after the data is prepared and organized, large amounts of data can be coded and condensed into a set of themes. Creswell (2013) described the spiral of analysis which was the guideline for this data analysis process. This spiral of analysis approach is analogous to viewing the data as a ball of clay on the pottery wheel; the artist (researcher) does not know what the finished work of art will be. The artist worked with the clay, patiently, molding shapes, using different tools and saw how the clay responded. This was the mindset of the researcher for work with the data for this study, being open to what emerges, being fully present while working with the data, and analyzing the data over a period of time.

The first phase of coding was reading and creating memos on each transcript to get an overall sense of the data as well as to notate words or phrases that stood out. Saldana (2016) described this as “in vivo” coding where words or short phrases are directly extracted from the transcripts to bring the voice of the participant into the analysis process. The second phase of coding was thematic coding to represent the context of the responses and from this process, 15 categories and 188 codes were identified. Since the interview questions were linked to one or

more of the research questions, each code was written on a color-coded sticky note on a 3x4 poster board and organized by research question. So, the poster board for RQ1 had codes by color for questions RQ 1 (1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 14, 15), RQ 2 (7, 8, 10), RQ 3 (3, 4, 5, 6, 7, 8, 9, 11, 12), and RQ 4 (1, 2, 5, 6, 12, 14, 15). The language of the participants was maintained throughout this process. Over the next week the researcher sorted, grouped and reflected on this visual representation of the data.

The next phase of analysis was to use software, NVivo 12 for Mac for coding the data. The transcripts were uploaded into the software and the categories that were identified from the manual coding of the data designated initial nodes. In the first phase of coding with the software there were five categories and 101 codes, and in the second coding phase, with thematic coding related to the research questions there were five nodes, two with child nodes that generated 184 codes.

Codes became distilled into themes by word frequency queries that visualized word clouds and/or word trees to explore the content with which words or phrases appeared in the data. Mind maps and relational webs were additional strategies. The software analyzed the coded and un-coded data to compare the patterns presented from queries and the interweaving of themes.

In making the transition from coding to writing, Saldana (2013) suggests a number of approaches to facilitate the shift. Two of those ideas, the top 10 list and the touch test resonated with the researcher and were applied in the process. This was beneficial in solidifying that the analytic work was worthy to share as findings.

Overarching Theme

The paradigm that encapsulates the essence of the findings in this research is emotional intelligence (EI). In each interview with all 26 women, emotional intelligence was a resounding shared characteristic woven throughout each individual tapestry. This is not to suggest the formula or "recipe" of competencies, and/or professional experiences that develop social and emotional skill sets are the same, but it is evident that EI is the foundation of these phenomenal humans. As the data was explored from various angles and through the lens of higher education as a complex adaptive system, themes began to emerge. The themes were approached as "parts of a whole" so they were expressions of correlated relationships that offered insight into the four focused research questions within the conceptual framework of complex adaptive systems (CAS). Findings will be presented in this order to support the significance of EI and the relevance of this work.

There are numerous models of emotional intelligence, yet all support a multi-dimensional and dynamic array of emotional and social competencies that optimize individual capacity. When it comes to individuals with high EI in leadership roles, the performance of those they lead (followers) is also enhanced. The model that was most correlated and best represents the findings in this research is that proposed by Goleman (1996, 2000), which is comprised of five dimensions: social skills, self-management, empathy, motivation/attitude, and self-awareness.

Below is a table that defines each of these dimensions as considered in the research and their hallmark characteristics.

Table 3

Research Dimensions

EI Component	Definition	Hallmarks
Self-awareness	Knowing one's emotions, strengths, weaknesses, drives, values and goals- and their impact on others.	Self-confidence Realistic self-assessment Self-deprecating sense of humor Thirst for constructive criticism
Self-management	Controlling or re-directing disruptive emotions and impulses.	Trustworthiness Integrity Comfort with ambiguity and change
Motivation/Attitude	Being driven to achieve for the sake of achievement.	A passion for the work itself and new challenges Unflagging energy to improve Optimism in the face of failure
Empathy	Considering others' feelings, especially when making decisions.	Expertise in attracting and retaining talent Ability to develop others Sensitivity to cross-cultural differences
Social skill	Managing relationships to move people in desired directions.	Effectiveness in leading change Persuasiveness Extensive networking Expertise in building and leading teams
		(Goleman, 1996, 2001)

The section that follows supports EI as the overarching theme (finding) through the voices of the participants.

Self-awareness

Self-awareness was the most coded node, with 77 coding references, which is of significance in that it is considered the foundational component in emotional intelligence. One of the most notable comments from a participant illustrates self-awareness succinctly:

> My strengths are my weaknesses, and what I mean by that is my strengths are my weaknesses. Part of my strengths are that I am not afraid of anything. I grew up in the segregated South and from my perspective, there is nothing they can do to intimidate me. The other thing is, that because I am not afraid I am crystal clear about what I think is important and I am willing to go beyond myself. (Sage)

Empathy

This was the second most coded characteristic of emotional intelligence and is particularly important today in leadership due to the presence of the team concept, the rapid pace of globalization and the growing need to retain talent. Three statements from participants that support the significance of empathy in higher education are:

> Understanding how to deploy people, because the greatest resource you have are people. How do you understand the deployment of passion, what is the value of passion, and what is the value of talent that someone brings in? And if someone, if hired to do one piece of work, do they get stuck in a rut with the same piece of work or are you as an administrator, able to tap into that talent and repurpose that talent as the individual evolves and the organization evolves? (Clover)

> I have always had an equity lens. Looking to see who is missing from the room, I've always been one to believe that more heads are better than one, right? People feel like I am an inclusive leader, because I pay so much attention to that. (Lilac)

> Because if I am doing my job right, when people advance above me, that is my success. Leaders can't get a big ego about someone going on and doing better than me. If someone is doing better than me, then I did something right. (Rosalind)

Social Skills

The third most coded EI characteristic was social skills and in combination with empathy, concerns a person's ability to manage relations with others.

> Women are doing well right now (in HE) because the skillsets we have, we have sort of been nurtured to have, which are as multi-taskers. Doing lots of things at the same time is very, very helpful in higher education right now, because it is not a top down leadership. It's absolutely getting diverse groups to work and you have to be a multi-tasker. So I think women are doing well right now because culturally they've been trained to do that. Now men are going to have to learn those skillsets. (Spruce)

Social skill is the culmination of the other dimensions of emotional intelligence:

> I think about an organization as a whole. I am able to look outside into other areas that maybe did not report to me, but I understood the relationship between the department I oversaw and the other area. I am always looking for ways to better those relationships and connections, that's my system's thinking. (Calla)

As leaders at each level of the HE systems acknowledge and accept emotional intelligence as key to effective leadership, women serve as a catalyst for this change:

> Education has changed therefore the leadership should as well. The emotional intelligence of women, particularly the ability to connect with people is key. It will be another couple of generations before men will connect like women do. I do not want to be a man. I hope a man does not want to be me. Because we both have a lot to give. I am not saying men shouldn't do it, but they need to evolve. Education has evolved. (Gardenia)

Self-management

This characteristic, also referred to as self-regulation or impulse control, reflects the propensity to suspend judgment and think before responding. A wonderful example of this notion is: "We live in a world that views civility and kindness as weak, when in fact only the very strong can hold their temper under pressure and maintain kindness in a world that is not always kind…I do believe in this thing called, civil leadership" (Rosalind). Self-regulation was conveyed as a skill that has been learned through experience and that has to be constantly practiced as Rosalind illustrates the inter relatedness of EI and how it strengthens self-regulation in this statement: "The ability to deal with 100 different personalities from all different walks of life…act with kindness and civility…willingness to give up the battle to win the war…so, an ability to let things go."

The importance of self-regulation to leadership is that it enhances personal integrity, which is not only a personal virtue but also an organizational strength, supported by this statement, "Commitment of heart. Leaders are those who commit to moving an agenda that is beyond themselves. Never compromising compassion, never demonizing" (Clover).

Motivation/attitude

If there were one word that captured the essence of the contributors in this dimension it would be selfless. This characteristic was supported not just in their words but also as difference makers, as change agents for everyone and everything they connect with. Responses such as these represented the EI competency of motivation and attitude:

> If you want to do it (be a president) for the money or the dress up and sitting in the front row, then don't do it. But if you really want to have an impact, a social impact on the community, that is the thing to do. (Belladonna)

You have to be gritty. If you are not gritty, you're not going to make it in this job. You have to be willing to be loved, hated. You have to be a wife, a mistress, a friend, a mother, a psychiatrist, a daughter, a politician, a diplomat. You have to be everything to everybody and that takes pure grit. And it, at times, can be very lonely, but you have to have that to be in this chair. (Rosalind)

Figure 4. Coding frequency of EI with NVivo software.

EI and Research Questions: Interactions and Connectivity

The research questions for the study were inspired by the statistics that show the current representation of women college presidents at two and four-year public HE institutions in California is greater in comparison to the national statistic. In California, 41% of college presidents at two-year, public institutions are women, in the California State University (CSU) system, women are 52% of college presidents and in the University of California system women are 30% of college presidents. Nationally, women represent 30% of college presidents at two and four-year public and private institutions (ACPS, 2017). The researcher became curious as to how and why women college presidents in California thrive in a system that, according to the

statistical representation and the literature, was not optimal. The interview questions connected to one or more of the research questions in order to delve more deeply into the exploration of the problem of practice. The following section explores the findings for each of the research questions.

Research Question 1

What are the significant factors that women college presidents/chancellor at two and four-year public higher education institutions attribute to their ascension to high-level leadership?

Significant factors that have contributed to the participants making their way to their current role as a college president were: 1) Relationships, 2) Authenticity as strategic agency, 3) Adaptability, and 4) Purpose and Intention.

Relationships. Interpersonal relationships emerged as a key element in fortifying the capacity to thrive in the role of a college president. These relationships are dynamic systems that encompass a variety of skillsets in order to facilitate effective interpersonal relations, "Building relationships, which is more than just knowing a lot of people, it is the actual building of a positive relationship." (Bluebell). The foundation of relationships is communication, verbal and non-verbal but also the ability to listen and observe what non-verbal cues are, and lastly, to manage interactions with others, as expressed here, "Interpersonal skills are very important, you have to be able to listen carefully and watch all of the communication cues…the ability to relate to people, showing them you are interested in them as a person." (Amaranth) In the EI model, the ability to manage relationships embodies the characteristics of social skills and empathy,

> I was a good counselor and listener, I was good at observing individuals, not just what they said but your body language, I was good at asking questions that they didn't ask me

> to really figure out what they needed when they came to see me and in my career I have notice that this skill almost singularly has made me stronger working with people across the college setting because it's not always…it's not about me. (Jasmine)

Networks are the culmination of relationship building and connect the framework of a complex adaptive system, like the neuronal pathways of the brain. The competencies of emotional intelligence, such as social skills, self-regulation and empathy are key in not only the development and maintenance of these connections, "I have always been told I have excellent interpersonal skills which really allowed me, I believe, to be able to connect different constituencies and different students, different types of people." (Azalea)

Mentorship. Relationships with mentors have been important to the participants throughout their growth and continue to be so,

> I have mentors that I think are key. People I can call at six in the morning. People I can tell, oh, I think I blew it on that. Or people that can say, you blew it on that. Or, you probably should've done this, but the mentors are critical because you do not know everything and people have different types of experiences and areas of expertise so they can help you where you are not strong. (Belladonna)

Lessons learned from mentors are represented in comments such as:

> It's about relationships and building relationships. There's the professional skills but there are all of the soft skills that determine whether we are successful or not…mentoring deals with tasks at hand but also those emotional and psychological pieces that impact the skill set. (Lily)

Another participant concurred, stating, "Someone who is going to do the tough love stuff but also let me know they care about me and that I'm not in this by myself." (Belladonna)

Mentors have served as support for self-awareness and growth into their high-level leadership roles, “It was really my supervisors, the administration of the district in our college, that actually saw my strengths and capitalized, if you will, on those strengths and gave me the opportunity to move into different roles of leadership.” (Buttercup)

On being mentors in their current role as a college president:

> My primary job is to replace myself and grow leaders to come up behind me. We’ve been implementing a leadership pipeline program at my college where we offer opportunities for people to come in and do the jobs that are higher level than the ones they have. It is really helping people to grow into their capacity. (Marigold)

It was evident that prior positive experience with mentors shaped how the participants mentored in their current institutions:

> I would not be doing my job as a college president if I wasn’t always thinking about helping my folks find ways to fill gaps in their own development. With each of my VP’s we sit down, even if they are not being evaluated, and lay out a plan. I had a president that did that with me… (Lilac)

In their role as mentors, being transparent was emphasized as key for an effective mentor-mentee experience,

> It’s about looking out for the best interest of that person, thinking about their strengths and weaknesses, building a relationship of trust with them where you can be frank about here is what I see, and the mentee can take that as constructive criticism and use it to their advantage. (Calla)

While at the same time, it is critical that "We need to teach our leaders to develop the grit, the strength, the stamina, the grace and the elegance to be able to deal with the day in and day out tough times and adversities." (Rosalind)

Sponsorship. There were two strands that emerged from the data about sponsorship. The first was that of partnerships that may benefit the institution and make things happen. An example was partnering with a donor from the community to build a physical space and program for a food co-op on campus that not only served as a food security program but also offered the opportunity for internship experience for nutrition and hospitality majors within the program. This was a beautiful example of collaboration and optimizing resources for maximal benefit to students.

Quite a few of the participants made the point of "paying it forward" as a sponsor or for the people they work with.

> It is about cultivating talent and know that someday you'll lose it. And in some ways you help your own loss. I mean, in the sense that you know the person wants X or Y and you do what you can to help them with nominations, introductions, things like that. (Lavender)

Stories also supported how sponsorship is functioning for women in their career advancement: "Sponsorship is someone who actually opens the door for you to people and says, this is so and so…I want you to know who she is, I think she brings skills to the table that will benefit your organization." (Jasmine) and, when somebody endorses you for a professional opportunity.

> I think that is critical (sponsorship) because if we have people we respect as colleagues, you are 9 times out of 10 going to hire somebody that you've got an endorsement or

> sponsorship from over someone on a piece of paper. All of us have hired someone who looked good on paper and when they got the job you realize this was not what you were looking for. (Calla)

In a few interviews, sponsorship was cited as being the reason that the individual was currently a president. “I don’t think that it is overt in our field. But it has definitely been a part of my experience moving up the ladder.” (Gardenia)

Teambuilding. Characteristics that differentiate a group and a team are that the persons associated together on a team, 1) share a common cause or goal, 2) specific tasks assigned to each individual, 3) members are interdependent, and 4) members are aware of each other’s strengths and weaknesses. This notion was almost intuitive in the interviews and in some instances attributed to prior life experiences:

> I think of it as a team and maybe that is because I grew up playing sports. I’d say it’s pretty collaborative. I try to be transparent. I do feel that we are in it together, but at the end of the day if anyone takes a fall, it should be me. You know it’s all situational leadership, I vary my style sometimes depending on who is in the room, what they need and how the situational dynamics are. (Lily)

The concept of team includes being a player as well as building teams, both skills where the participants demonstrated proficiency in their practice and that share the common denominator of people. “Managing budget and understanding how to deploy people, because the biggest resource you have is people.” (Clover)

Optimizing the resource of people is about:

> Being able to listen with quietness in a deep way, to be able then to understand the dynamics that are happening in the community and therefore see the champions who can

> really do the work. True change happens when individuals who are the catalyst for change really own the change, it doesn't come from outside, it comes from within. (Clover).

As well as, being always mindful of the external and internal environments and its' dynamics,

> When I understand where people are coming from, I understand what they are going to do next because I am thinking, Hey, what if I was in their shoes what would I be thinking? That helps me to modify and change my behavior or my decisions in a way that is going to help reach the goal. (Calla)

People; be it family, staff, students, community members, colleagues or a combination of each requires,

> The ability to connect with people, to have the emotional intelligence to kind of understand the team you are working with, the people in it, and how to work as a leader of a team. The kind of things you do as a leader to create a vision, get people excited and want to move in that direction. Be visible. (Myrtle)

Authenticity as strategic agency. Authenticity correlates with the EI competencies of self-awareness, self-regulation and motivation/attitude. In a leadership role the participants described how they are always in view, be it when they are at the grocery store in their community or attending a social function at the college. Truly knowing who you are as a human was expressed as critical to withstanding the constant evaluation from all directions, "Being my authentic self. Feeling comfortable in your own skin and who you are is one of the qualities that has helped me…but I had to grow into this." (Bluebell) From this capacity comes the strength in conviction, integrity and confidence that provides backbone to every decision that is made on a minute to minute basis:

> I am an inclusive leader. I'm pretty authentic. I say what I think and mean what I say. Very collegial, open. Courageous. I am willing to take on things that some people aren't. It's just you've got to and if you don't, things don't get better. (Marigold)

The strategic agency that stems from confidence and competence is exemplified by the work ethic of these women,

> I have a very strong work constitution. I believe in giving a full day's work every day. I want to be an example for people, it's not that I want people to be like me, but I want people to have a feeling of excellence about what they do every day. I have a feeling of excellence about what I do every day. (Gardenia)

Adaptability. The image that best represents the finding of adaptability is that of a multi-tool, like a Swiss army knife. This is an "all in one" device that can cut, slice, dice, screw, pry, cut, tweeze, file, open and much more. Theoretically carrying a tool such as this should make you "ready" for any situation, and that was the essence of what was heard from the participants as key to their role, "I am very eclectic in my leadership style and philosophy. I think leadership to be most effective has to be situational. You have to use the skills that best apply to the situation that's in front of you." (Jasmine) High-level leaders navigate a domain of complexity that requires them to be nimble, "I'm contextual, it really depends on what is going on there or not, although the leadership style I tend to use the most is collaborative, in a way, because that's dictated by context." (Azalea) All of the EI competencies directly correlate with adaptability as well as the ability to multi-task, which was commonly viewed as a challenge that became more streamlined over the duration of their careers. These skills have been learned and assimilated over time, "All of my professional experiences have informed my leadership and my management competencies, and I am very well grounded as a result of the experiences." (Azalea)

EI competencies such as empathy and social skills are the foundation for leadership styles that are collaborative, consultative and relational, and as described by one of the participants,

> A hodgepodge of a lot of different things, and you pivot from day to day and from moment to moment. What you are doing is finding the strengths and weaknesses in your organization. You're capitalizing on the strengths. You're addressing the weaknesses, and you are working collectively to move a vision forward. (Calla)

Purpose and intention. This theme represents the process of building both breadth and depth of experience that the participants shared in the interviews. With the exception of one participant, no one had entered higher education with the goal of being a college president. The prevailing attitude was that as long as they had purpose in what they were doing, there was no need to change roles.

> When I was a faculty member, I could have done that forever. When I was the state academic president, I could have done that forever. When I became the dean, I could have done that forever. Each job I did, I could have done it forever from my perspective. I didn't have any specific ambitions and I did what I call, stumbling up, because there were other people who saw potential and would push me. Only becoming from the vice presidency to presidency, was I intentional about setting a goal and seeking the presidency. (Sage)

A significant contributor to the diverse backgrounds that these women drew from in their role as presidents were attributed to being present in the role they were in,

> Just being in the roles that I was in. Really caring about learning, really caring about the position and not caring about one day moving up. I've always been present in the jobs I've done, contributing the most I can, not just to move on. (Giacinta)

Accepting opportunities for growth and challenges that require one to move outside of a perceived comfort zone were significant actions that have contributed to their current role.

> I was very realistic and purposeful in how I took my next step. I didn't rush to become president; I didn't rush to become vice president. I collected information, experiences along the way because I knew that on a kind of fundamental, visceral level that was more. (Edelweiss)

Self-organization was also a key skill in optimizing potential throughout their careers,

> Things that could have been challenges, have never really been challenges. I always made sure I was prepared. And I think for women we have to over prepare in many situations. And we have to hold everyone accountable including ourselves. (Amaranth)

Although formal education was acknowledged as important, experiential knowledge was equally significant, "In your career as you move from one position to another, you should be able to draw upon that as each one adds to my experience and knowledge base, sure some comes from education but the majority from experiences." (Amaranth) Cognitive intelligence includes the formal training and preparation that would consist of professional degrees such as a doctorate. The consensus among the participants was that a doctoral degree was important in opening doors for advancement in higher education as well as in adding tools to their toolbox, "I certainly learned things through the way on the job and day to day, but the doctoral program helped to crystalize the practice." (Lilac)

Research Question 2

What are the significant challenges to the cultivation of the women as leaders and in attaining the position of College President/Chancellor at a two and four-year public HE institution in California?

Significant challenges that the participants have negotiated and navigated in attaining their position and as a college president were: 1) "Always-on", 2) Finding a seat at the table, and 3) Being non-linear in a linear system.

Always-on. The phrase of "always-on" was selected to represent findings that connected the challenges of being in the spotlight and constantly evaluated by everyone in your role as a college president.

Self-awareness is one of the EI competencies that is critical to processing and managing the various challenges of having to be "always on." Self-awareness not only creates emotional and social stability for the leader, but it drives the moods and behaviors of those around them, known as mood contagion. According to one of the participants, you represent more than you might imagine:

> They need to know you are there. If the phone rings, you can handle a situation. If the place is on fire, they need to know someone is driving the boat. Even if they don't like the way you are going, they still need to know it. The second you turn off the light, things descend into chaos. The people who were counting on you become lost. The people who hated you don't have a direction because they need someone to hate…you can't do that to people. People need to have something to believe in. They need to have something they can depend on, someone who believes in them. You can't ever turn the light out, or if you do, you can't let them see it. It's hard, some days you want to turn out the light, but you cannot. (Rosalind)

The role itself was not the only reason that women shared as to why they felt the responsibility to be "always-on",

> Being a woman, sometimes I do think it's a little more difficult. Part of that is the psyche that goes with being a woman and societal pressures. The combination of always feeling like you have to go above and beyond to prove yourself. (Calla)

This applied to how they develop their personal/professional outward presentation, "so always with women, particularly as president, know that people will always notice whatever you do, especially what you wear. They don't look at men, but they know what women wear." (Amaranth) Also reflected throughout their professional growth, "There are little nuances and things that as women we have to think about…we are judged from the moment we walk into an interview more on our looks that I think men are sometimes." (Calla) That said, the majority of the women embraced the approach of, "Being 100% present in what you are doing. The college is a culture of family so there is no separation of institutional life and family life." (Buttercup) demonstrating the high-level of EI that these women bring into their roles as president, where the "always on" mindset is approached as positive, "My work is my love, and I love what I do." (Marigold)

Finding a seat at the table. The findings that support the theme of getting a seat at the table were varied much like the personal and professional journeys of the participants. In responses the table represented an element of the environment where the gendered nature of "doing" leadership still pervades,

> When I first started in this career I thought that the glass ceiling idea was ridiculous and that people would not see me differently because I am a female. But it has definitely impacted me, I've been discriminated against, had lies told about me, been sexually harassed, gender harassed, has horrible things said about me as to how I got to the top

> and I couldn't have possibly gotten to the top through my own talent and hard work…And I struggle with it to this day. (Rosalind)

Micro-aggressions were commonly expressed by participants as challenges, "...they are exhausting, they are time-consuming, they occupy you psychologically, but it ain't nothing new, having to deal with that." (Sage), as well as the challenge of "being the first" at the institution, "I never felt issues around me being a female in higher education until I became a president. I am also the first person of color here so that is challenging as well." (Belladonna) The proverbial glass-ceiling came up in number of conversations,

> The glass ceiling is alive and well. I make less than men, it makes me very frustrated. But I don't let money drive what I do. But it is not equitable. Men are assumed just automatically to be able to do things that it is not assumed women can do…people are surprised when woman comes in and does a great job…" (Gardenia)

The EI competencies of self-awareness and self-regulation are critical in these situations and the participants shared numerous approaches to mitigate these challenges,

> Perceptions about who should be a college president…my race, my gender, how I look, the perception about those kinds of things. People make a lot of assumptions about me, or what I understand or know, so it just pisses me off. (Giacinta)

Getting a seat at the table also presented a challenge for presidents among their fellow presidents when it came to hierarchy of district and institutional organization within California,

> So getting a seat at the table, to be valued with a seat at the table when others are a chancellor of a system, or a superintendent is sometimes difficult. I mean, I have my seat now. But that has been a challenge. But because of that in my training, I believe it is a

> skillset, because you can be a superintendent, CEO, and have your own five-person board, and then be running the college as well. (Buttercup)

Being non-linear in a linear system. Findings from this research suggest the HE system and institutions in California are shifting culturally yet the reality is, "a lot of business gets done metaphorically in the locker room. You don't get to go into that locker room." (Sireli) Facilitating this shift is women "calling out" the linear mindsets towards diversity,

> I think it is always going to come down to the gender issue more than anything else. I tell people I have experienced far more sexism in my career than homophobia. The challenge is in calling it out when you see it, and it takes a lot of courage, but you have to have courage of your conviction. (Edelweiss)

The tenacity and persistence of the participants shone through as they shared their stories,

> …So that was a harsh reality. Just the micro-aggressions and everything. As a woman and a person of color, that's been challenging for me lately. But I get it, I'm like, okay fine. Let me see if I can get one. Because I have stuff to get done and I'm like, that's holding me up. (Belladonna)

Another aspect of being non-linear in a linear system refers to the engendered roles that women are expected to fulfill, "As an individual, the time-consuming nature of the job, of the jobs. The challenge is that I don't have time to reflect and recharge, because we not only have our jobs but our families, and we have other realms to function in." (Blossom) Highly developed EI competencies clearly contribute to the ability to multi-task, yet the additional expectations do not go unacknowledged, "I think it is harder for women, because women still have roles in the home. While they are more shared now, it's still not evenly shared. If you have children, you still have to take the majority role of being a parent, and all that stuff." (Azalea) Non-linear also describes

the path to the presidency for the majority of participants, where if evaluated by a linear criteria of higher education recruitment, may appear circuitous and may be a challenge to moving forward in a hiring pool. That said the participants expressed no regrets about the value of the experiences that they have amassed, "It hasn't been a direct path to the presidency, but certainly all of those pieces contribute significantly." (Blossom)

Research Question 3

What strategies for optimal growth are suggested for women leaders who aspire to become a College President/Chancellor at a two and four-year public HE institution in California?

Themes of strategies for optimizing growth in leadership roles in higher education were: 1) Just do it, 2) Build relationships, and 3) Know your Purpose

Just do it. The participants were emphatic about the importance of challenging oneself to grow by stretching outside of a comfort zone regularly, which comes from,

> Not saying no when given assignments you are asked to do. I think that is important. I think people want to know that you can do the work and that you're not going to take shortcuts to it. Then also in the work, take your credits. Take ownership of the work, take credit for the work. (Rosemary)

There is no substitution for real experience, while being 100% present in each one,

> The experiences themselves. I would rarely say no when given a task or asked to help out on a project or something. I'm not sure at the time I looked at it as an opportunity for growth…but I got to learn so much in so many different areas. (Rosemary)

Knowledge, skills and abilities were highly valued as strategies for success and as products of experience,

> From my own experience, developing expertise and strong content knowledge and expertise in your field. People often say to me; she knows what she is talking about. Along the way get some of the real hands on kind of work. That is actually what gains your credibility as you move on, is your ability to have that expertise. Then make sure that you're drawing on others and their expertise. (Blossom)

Being patient and purposeful with the growth process was also a thread throughout the findings, supporting the EI competency of motivation as being driven to achieve something outside of one's self-interest, yet that requires self-efficacy,

> There are no shortcuts for making real contributions to your institution as you are trying to ascend and move your way up the ladder…as you do, illuminate your successes. It's okay to take some credit, feel okay about it, and I think we don't often do that. Work hard, make your contributions, get some good outcomes and then celebrate it. (Bluebell)

Build relationships. This share from a president highlights the role of building relationships:

> Building relationships with people, being honest and transparent, doing what you say you are going to do, I think competency is really important but really, it's about trust, and people trust you when (A), you are competent and that you know you can do the job. (B), when you do what you say you are going to do. If you can't do something then you are honest about why. (Calla)

Establishing and actively engaging mentors, sponsors, surrounding yourself with people that can help while developing networks was also cited as significant for optimal growth as a leader in higher education. The majority of presidents had sought out and established their own connections with mentors: "I sought out some mentors and others came my way." (Sireli), which

require EI competencies of social skills and empathy to develop and manage the connections. There were a number of professional organizations and leadership seminars that had served as significant networking opportunities for the participants on their journey to the presidency.

Mentorship and advocacy within their institution played an influential role for a number of participants in their decision to pursue the position of president. “The opportunities had presented themselves to get the training, and I had the mentorship, and I had people that believed in me and let me know I could do it. That is kind of when the lightbulb came on…” (Belladonna) and, “It was really my supervisors, the administration of the district in our college, that actually saw my strengths and capitalized, if you will, on those strengths and gave me the opportunity to move into different roles of leadership.” (Buttercup)

Supporting other women in professional environments was reiterated by a number of participants as something that does not happen as often as one might think,

> Women can be the very voice at the table to say, I don’t like working for a woman. Or that they perpetuate these stereotypes where they say things like, yeah, but she can be hard on herself, and they critique and criticize women leaders in ways they do not criticize men. Get smart about that and get some consciousness around gender stuff. (Sage)

Even as colleagues,

> Sometimes women are our own worst enemies. We don’t uplift each other and support each other in ways we should. We compete with each other, sometimes to our own detriment. I think that’s something we need to be cognizant as women generally speaking. (Calla)

Having support outside of the professional realm, be it a partner, colleague out of state, or best friend, is critical for weathering the storms of the role, primarily the impact on self, "it's extremely lonely and extremely stressful." (Belladonna) Added to the stresses of the job are the demands of daily life, "for me, especially trying to support my children as a single-parent, I was lucky to have family…that kinda chipped in when needed." (Azalea)

Know your purpose.

Self-awareness. A common thread among contributors is the importance of defining and upholding one's authentic self in everything that you do: "Be honest with yourself. Know what your strengths and weaknesses are and make a plan to deal with those realities." (Lavender) Doing the work to define your authentic and genuine self, "clarity about who you are as an individual, because if you do not have that clarity, you'll blow in the wind." (Belladonna), as it will be challenged in everything that you do.

Skills of emotional intelligence were also emphasized, "develop the interpersonal skills that only women have, we are nurturing, don't ever lose that, but develop it, so that you become the problem solver, the person who encourages the win-win" (Amaranth). With each experience that you fully immerse yourself in self-awareness becomes more apparent, "I think that it was critical for me to overcome my own sense of self-confidence…it is really about developing the sense that yes, I can do it." (Azalea)

Self-acceptance. Another component of know your purpose is self-acceptance. This was acknowledged as a continual process that has to be significantly developed before accepting a high-level leadership role. As shared by one of the participants,

I am happy to be at this point where I can be reflective and look back and think about it. I don't think about it in a way that allows me to peel back some of the layer and see myself

> perhaps the way others see me and to see where I have strengths and see where I've got weaknesses because I think you always have areas you can improve upon even when you are at the top of your game, you could always be better. (Jasmine)

Research Question 4

What factors can be attributed to the significant presence of women College Presidents/Chancellors at two and four-year public HE institutions in California?

Findings that support the significant presence of women college presidents in California were: 1) Governance (structure and agency), 2) Role models, and 3) systemic adaptations.

Governance. The model of shared governance as established in AB 1725 (1988) in the California community college system and its influence on women leading in high-level leadership roles, was mentioned in about half of the contributors' responses: "Our system, since it is built on participatory governance, it lends itself to women's leadership style. You are supposed to work with people, you are supposed to consult with people, and so it is very compatible." (Marigold) The framework of participatory governance is only made effective by the agents who enact it,

> Participatory governance can be more of a natural, relational, typical temperament of women, whereas men, regardless of what we say, in society, are raised to be more type A and in charge. And if you look at personality and temperament, if you look at Myers Briggs data, you'll see that as well play out. So the males that are more natural at being more participatory, tend to do well in California, i.e. higher education leadership. (Buttercup)

This finding appears to be a catalyst that has resulted in more women leading in high level positions in the California community college system over the past 30 years, "Most of the

leadership work done in the community college system, the real leadership work, is done by women. And I'm only saying that based on empirical observation." (Sireli)

Role models. There have been and are exceptional women leaders in higher education in California that have built the pipeline, for more women to ascend into high-level roles such as president. "Way back (1980's) the boards and trustees were willing to take the risk of a women president/chancellor. These women were willing to step up and sometimes encountered really difficult situations and then help the people grow behind them." (Lily) "In California we see more and more women in the pipeline and more women who are competently and confidently serving at levels of increasing responsibility in our higher education institutions, both two and four year." (Jasmine)

Systemic adaptations. The community college system in California is the largest and most diverse educational system in the United States. "Their (community college systems) very nature is to be open-minded and social justice oriented, a philosophy and value that bleeds out into the way we hire in California." (Bluebell) Echoed in another response,

> Public education in California has been inclusive in who they welcome in their doors, particularly in the community colleges, and that mission has permeated into our hiring practices about being representative of the students that we serve. (Calla)

Findings supported that the culture of California was favorable for the presence of women leading in high-level positions, in the public and private sector, "California is something of a frontier, you know, with incredible problems and promise and, this fantastic diversity. And I think there have been opportunities for women that have not been available, through what's still our, to some extent, all-boys network." (Sireli) Participants characterized the culture of California as more open, liberal and progressive, "People came to California from the East Coast

because they were the ones willing to take those challenges, 100 years ago or more, and I think women have grown up with the idea that, I can do this." (Amaranth)

Where participatory/shared governance has been influential in the presence of female leaders, at the four-year institutions, findings support the actions of Chancellors or Presidents to re-structure the hiring and recruitment practices that acknowledge the value of emotional intelligence in higher education administration, and as a result the leadership has become more diverse and representative of the demographic that is served at two and four-year institutions in California.

> My theory of why women are doing much better in California is that we having been riding the wave of change for much longer than the rest of the country. It is not from the top down; it is from who you are serving in your organization or institution. (Spruce)

Summary of Findings

In this chapter, the researcher reported the process of how data was collected for this study as well as the findings that emerged from the analysis of the data. Through the voices of women college presidents at two and four-year public institutions in California this study sought to explore four main lines of inquiry with the intention to reveal more about the higher education environment, specifically that of California and what adaptations have taken place, resulting in a greater presence of women College Presidents at two and four-year public HE institutions.

The conceptual framework of this work represents women college presidents in California as analogous to redwood trees due to their capacity to attain incredible height, resilience in their habitat and variance in structures such as bark, trunk, leaves & cones in response to environmental demands. What became clear through the interviews and data analysis was how unique the journeys had been for each woman, yet there were shared layers forming the

trunk of each individual. An overarching theme, that of emotional intelligence is the trunk that connects the leafy crown of the tree with its roots. This connection is multi-directional in function, forming a network of "pipes" known as vascular tissue that allows for the exchange of nutrients and water. Multiple layers comprise the trunk, each with internal diversity but connected to and interactive with the other trunk layers. These trunk layers; bark, phloem, vascular cambium and xylem are synonymous with the themes identified for each research question. In summary, themes that represented the findings for this research were: Relationships, Authenticity as agency, Adaptability and Purpose & Intention (RQ1), "Always-on", Finding a seat at the table, and Being non-linear in a linear system (RQ2), Just do it, Build relationships and Know your purpose (RQ3); and, Governance, Role models, and System adaptations (RQ4). These relationships and their significance will be explored more deeply as a CAS in the following chapter.

CHAPTER 5

CONCLUSIONS

The purpose of this chapter is to integrate and support the findings from the study within the conceptual framework of a complex adaptive system. The chapter will also explore the potential implications of these findings within the complex adaptive system (CAS) of higher education in California and for women as high-level leaders in HE.

The literature supports that women are formally prepared to serve as college presidents, yet they are underrepresented (Burkinshaw & White, 2017). Statistically, there are as many or more women college presidents in two- and four-year public institutions in California than the national average, as reported in the American College Presidents Study by Gagliardi et al. (2017). The purpose of this study was to hear directly from women who have achieved the position of college president in higher education and through their stories become more informed about the paradigm shift. Exploring this information through the lens of a complex adaptive system identified the principles that are thriving as well as the themes in the experience of the individual, yet most importantly the interplay of all dimensions. Four research questions were crafted to guide the exploration as well as to develop the interview questions.

Research Questions

1. What are the significant factors that women college presidents/chancellors at two- and four-year public higher education (HE) institutions in California attribute to their ascension to high-level leadership?

2. What are the significant challenges to the cultivation of the women as leaders and in attaining the position of college president/chancellor at a two- and four-year public HE institution in California?
3. What strategies for optimal growth are suggested for women leaders who aspire to become a college president/chancellor at a two- and four-year public HE institution in California?
4. What factors can be attributed to the significant presence of women college presidents/chancellors at two and four-year public HE institutions in California?

Complex Adaptive Systems (CAS)

The notion of a complex adaptive system is based on the complexity theory which provides a framework for investigating the emergent properties of large systems and can be applied to a variety of them. Complex adaptive systems are non-linear and self-organizing networks that consist of numerous elements that ebb and flow in order to achieve a common goal under a set of relatively simple rules (Appendix A). These elementary rules determine the responses of each individual component with little apparent connection to the overall emergent behavior of the system (Stacey, 1996). Complex adaptive systems have the ability to adjust to a changing environment while maintaining a stable output (Cleveland, 1994; Newell, 2008). Teaching strategies in a diverse and dynamic environment such as a community college exemplify how measurable outcomes such as demonstrated skills in an Emergency Medical Technician (EMT) course could be facilitated by multi-modal methods, not just lecture. The contention is that higher education in the U.S. does not function as a complex adaptive system due to impingements such as linearity, lack of internal diversity, centralized control, fixed mindset and practices, and lack of networks across the system. The vision of the researcher was

that by applying this conceptual model to the two- and four-year public institutions in California where women are leading as presidents, the findings would illuminate the difference makers.

The Tree

For the purpose of this study, women college presidents were represented as redwood trees within a complex adaptive system, that of higher education (Figure 5, pg. 102). Redwoods are iconic for their massive stature and sturdy structure as well as how they acclimate to environmental demands. The tree is not just responsive to the environment, instead, its internal diversity contributes to the organisms around it to maintain homeostasis as the stable output achieved by a complex adaptive system. The findings strongly support that emotional intelligence (EI) is a quiver of competencies that is shared among the participants in this study. Being that EI competencies of self-awareness, empathy, social skills, self-regulation, and motivation were so robust in the findings, it is reinforced as "the core" of who these women are and the mechanism for their actions; EI is the trunk of the tree. The trunk of a tree connects the leafy crown with its roots, a horizontal and vertical network for water and nutrient transport from the roots to the leaves where photosynthesis can occur. The nutrient yield is then moved down to the roots and to the other parts of the tree to support growth.

Trunk and Bark Layers

Prior to this study, the researcher was familiar with EI but the model itself (Goleman, 1996) was not specifically identified in the CAS framework that was proposed. The trunk and bark layers were predicted to be personality traits, leadership style, core values and ethics, formal education and life experience. EI's significance was evident in data analysis and emergent themes. It is a "difference maker" of and for the participants. Most of the elements proposed in the initial framework were present, but it was on a magnitude so much higher than research

suggested. Related studies on women college presidents in the United States support skills of active listening, networking and teambuilding (Bonnstein, 2007), problem-solving and listening (Herwatic, 2016), and the ability to build and maintain relationships (Venzant-Sampson, 2017) as significant to their leadership. Although none contend that EI is the pivotal skillset that empowers women to optimize their knowledge, skills and abilities as humans but related skills, such as self-awareness, self-regulation, and social expertise are identified (Corcoran, 2008; Reyes, 2011). Parrish (2015) explored the relevance of EI for leadership in Australian institutions and supports that EI is recognized as highly germane for academic leadership. Findings also supported that empathy, inspiring and guiding others and responsibly managing oneself were most applicable for academic leadership (p. 19). Scientific inquiry strongly suggests that EI is a combination of nature and nurture, but unlike cognitive intelligence (IQ) which is maximized in one's first decade, EI can increase throughout one's lifetime with maturity, experience and training. EI competencies are largely part of the neurotransmitters of the limbic system in the brain, which is where feelings, impulses and drives are regulated. As this type of learning is nurtured, the network of neurotransmitters becomes more integrated and versatile. Cognitive intelligence is associated with the neocortex, the conceptual and analytical part of the brain, and is responsible for processing information. Findings in this study support that both cognitive intelligence and emotional intelligence are important and interconnected. Participants shared that their cognitive intelligence, be it a doctoral degree or technical skills such as budgeting, was enhanced by their ability to collaborate, receive and actualize feedback, while maintaining self-awareness.

Research outside of the higher education realm has supported that EI is key to women leading in the private business sector, as well as men. Goleman reinforced the importance of EI

through multiple studies, which apply a quantitative tool for EI assessment and what competencies are characteristic of highly effective and successful leaders. Women leaders on average are better at almost all of the critical leadership skills than men. The two areas that are the least different are positive outlook and self-regulation, whereas self-awareness is the most different competency (2001). Korn Ferry, a global organizational consulting firm, utilizes the Four-dimensional Leadership and Talent assessment in the search process for upper management and executive role vacancies (Korn Ferry Research Institute, 2017). The foundation of this tool is that there are four dimensions: competencies, experiences, traits and drivers that provide predictive and descriptive value for candidate selection. These dimensions highly correlate with the EI competencies and support the importance of these skills for highly effective leaders.

Current demands on educational institutions to not just function but flourish in a competitive, fast-paced global economy require adaptability, resilience, collaboration and leaders who bring high level EI competencies as the catalyst for this change. Reports such as the 2013 Crisis and Opportunity report (Aspen Institute) acknowledge that the development and selection of a new generation of educational leaders is imperative, and those components of EI such as teambuilding, communication, and managing relationships are key in order for students to be successful. This work generated a toolkit for institutions to implement in the hiring and recruitment process for leadership, and although community colleges were the focus, the information is highly applicable in the CAS of HE. Shifts in the recruitment and hiring practices in the two and four-year institutions of the participants that prioritize candidates with demonstrated EI skillsets were also noted and will be addressed in a later section.

Bark Layers

The trunk of a tree is comprised of multiple layers, each with internal diversity yet connected to and interactive with the other trunk layers. These trunk layers, bark, phloem, vascular cambium and xylem are synonymous with the themes identified in each research question. The physical proximity of vascular bundles of xylem and phloem within a trunk's layer support the function of each, creating a structure/function relationship. Characteristics of the bundles vary in different parts of the organism to accomplish an outcome, be it stability or flexibility. Specific to bark layer, the vascular cambium produces new phloem to its outside and new xylem to the inside. When these structures are enhanced, the tree adapts well to environmental demands and grows. In all cases, the sum of the parts is imperative to the whole.

Like the structures of a trunk, themes that emerged from the data are rooted in EI and enable the exchange of information and the flow of action. This informs the necessary adjustments to and from internal and external reference markers within the overall system. In summary, themes that represented the findings for this research were: (RQ1): Relationships, Authenticity as agency, Adaptability and Purpose & Intention, (RQ2): "Always-on", Finding a seat at the table, and Being non-linear in a linear system, (RQ3): Just do it, Build relationships and Know your purpose; and, (RQ4): Governance, Role models, and System adaptations. The themes have been bundled for the purpose of discussion.

Relationships (RQ1), Build relationships (RQ3), Role models (RQ4). Establishing and managing relationships was a quintessential finding in the study and is supported in multiple studies in HE and in other domains exploring women leaders. The skills and abilities associated with building and managing relationships tie in closely with EI competencies such as social skills, empathy and self-awareness. Mentors and creating networks were also strong themes that

emerged in the interviews and are supported in HE research on women leaders (BlackChen, 2015; Herwatic, 2016; Reyes, 2011). In a study of female college presidents (Brown, 2005), mentorship emerged as invaluable in advancing women through the ranks of higher education. Mentorship is also important for learning interpersonal skills such as self-reflection, receiving feedback, and effective verbal and non-verbal communication skills. These skills facilitate the capacity for sponsorship in someone who is competent and confident to seek out an advocate, or others notice the actions of the individual and initiate sponsorship. Sponsorship alone does not facilitate the EI competencies that are learned through the mentor-mentee relationship, as was heard from the participants in this study. Although the concept of sponsorship was not as common for the participants in this study, for those who had experienced it, the importance was acknowledged. Hewlett et al. (2010) suggest that sponsorship, defined as advocacy from either a male or female, is key to women becoming CEO's, presidents and CFO's. It differs from mentorship in that sponsorship provides relationship capital in the form of personal endorsement, face-to-face introductions and advocacy.

Ibarra et al (2013) proposed that people become leaders iteratively, in that they take on challenges, learn from mentors, and experiment with new behaviors. If performance is affirmed, they repeat the process. In a system that is imbalanced by bias surrounding gender roles, race, or culture, lack of affirmation may hinder growth. For this reason, self-awareness, clarity of purpose, mentors and networks are crucial to actualizing the potential of an individual prior to functioning in the capacity of a high-level leader. This was a definitive finding in this study on women college presidents in California and what has been significant in their journey.

Just do it (RQ3), Adaptability (RQ1), Being non-linear in a linear system (RQ2). Numerous studies support that the path of women to the presidency is not a direct one (Eagly &

Carli, 2007; Krull, 2011; Switzer, 2006). Reasons for this include but are not limited to: lack of flexibility of institutional policies, expectations of family, taking or turning down a position in order to support a partner/spouse, professional roles in private sector prior to public sector, and/or not feeling well prepared to apply for administrative positions. The participants in this study emphasized: be 100% engaged in every position and role that you hold and elevate your potential in that role. Many of the participants ventured into related areas to develop skillsets that they identified would strengthen what they could offer and then be applied it in a different capacity. Interviewees cited always accepting an opportunity as imperative to their current role as president as well as a recommendation for women to advance in the realm of higher education leadership. A linear hiring process that only screens candidates on fixed criteria such as type of degree conferred or years in a designated role, and does not acknowledge a breadth and depth of experiences, might inadvertently benefit males in the recruitment and hiring process (Ibarra et al., 2013). The culmination of and reflection on the experiences that the participants have amassed in their personal and professional lives are practiced as the capacity of adaptability. Women's complex lives make them adaptable, creative and responsive--just the skills needed in HE leadership today (Bornstein, 2003). Without the EI competency of self-awareness, the key step of reflection does not happen and the potential for growth from an experience is diminished. In a study of female presidents of public and private institutions in California (Reyes, 2011), breadth and depth of professional experiences as well as self-awareness, described as, know thyself, were identified as top strategies to becoming a college president.

Authenticity as strategic agency (RQ1), Purpose and intention (RQ1), Know your purpose (RQ3), Always on (RQ2), Finding a seat at the table. The art of leadership is knowing how and when to act (Bornstein, 2007) accurately summarizes the participants

descriptions of how their decision-making and process is informed. With the exception of one participant in the study, none of the other women had initially set out to be the president of an educational institution. As seen in related studies, this is not uncommon (Herwatic, 2016; Krull, 2011; Venzant-Sampson, 2017). Reasons that influenced the decision to pursue the position were commonly tied to advocacy and encouragement that was received from colleagues, mentors and the occasional sponsor. Paralleling this finding was the commitment that the women made to self-assessment and take action to grow personally and professionally.

Corcoran (2008) described leading with authenticity as leading from the inside out, a finding that was clearly communicated by the participants in this study. Women often face different expectations than men in the workplace, as well as increased scrutiny other than ability (e.g., appearance), and are frequently evaluated more severely, particularly women in management and leadership roles (Chisolm-Burns et al., 2017). A number of the participants mentioned the existence of different expectations and how important defining one's authentic self and self-acceptance was so that these double standards are not distractors to the work.

Bornstein (2007) discusses how when women first came into presidency positions, they and their constituents had gender specific expectations for the presidency derived from a long history of male-dominated institutions. This created a dilemma of gender role conflicts for the women as far as how to lead and what to do or not do. Based on the social role theory, gender roles dictate that women should be communal (gentle, caring and communicative) and men should be agentic (strong, assertive and dominate), often leaving women leaders feeling "damned if they do, and damned if they don't." That appears to be changing in HE in California and what might have once been perceived as a barrier for women in becoming presidents, such as managing multiple life responsibilities, is a now seen as a critical tool of effective leaders.

Women tend to take a flexible and situational approach to leadership which was supported by the findings in this study. Descriptors such as collaborative, participatory, civil, interactive, relational represented how these women facilitated relationships that resulted in action. In a study about leadership style (Bornstein, 2002), 41% of the women respondents indicated they applied a style of leadership appropriate to the particular situation, whereas only 25% of male respondents indicated this flexible approach. The role of EI competencies in this ability is of importance in that without self-awareness, authentic relationships, clear purpose, and genuinely knowing your community, the "theory" will not fit the "practice."

Governance (RQ4), System adaptations (RQ4). Reyes (2011) researched women college presidents at two and four-year institutions in California and at that time (2010), there were 38/112 female presidents in the community colleges, three of ten were female presidents in the UC system, and 4/23 in the CSU system. In less than ten years, this has changed substantially, particularly in CA community colleges and the CSU system. The findings that emerged in this study suggest that shared governance, with AB 1725 in the community colleges and variations of it at the UC and CSU institutions could be favorable for leaders with strong EI competencies. Shared governance a CAS supports multiple components as well as a mutual goal of the system guided by a set of simple rules, to provide quality education for all. No specific studies were identified to support shared governance equating a greater number of women as presidents although the correlation was mentioned often in participant responses. Parrish (2015) and Coco (2011) posit that EI is significant for academic leaders, regardless of gender, and has a number of strategic implications to identify leaders who can manage the complexities of HE.

The findings in this study reflect that the system and/or institutions are accepting that leaders should represent those they serve. The California community college system is unique to

any other system in the U.S. with 2.1 million students, 73 districts and 115 colleges with the "average" community college student in California being: female (53.6%), Hispanic (44.54%) and age 20-24 (30.9%) (CA Chancellor, 2019). The UC and CSU institutions are also diverse by campus, as they are admission based and not open access like community colleges, the student demographic may vary but it does not diminish the essential need for diversity in leadership; be it racial, cultural, ethnic, or gender identity. These role models are key for future women leaders and re-shaping structural and cultural biases and if leadership in HE is homogenous, the CAS will not be supported. This applies to entities such as the Board of Regents in the UC system which is comprised of mostly political appointees and statewide elected officials. This group holds ultimate authority for ten campuses in the UC system, with a shared mission of teaching the best students and conducting world class research, therefore diversity is pivotal to the CAS.

Recruitment and hiring practices are shifting to embrace candidates with diverse backgrounds and skillsets. One of those skillsets, EI competencies, is now included in current recruitment announcements for presidential searches at California community colleges. The "ideal characteristics" specify EI competencies in multiple domains such as personal, educational leadership, board leadership and development, and educational leadership in the community (www.cccregistry.org). This requires the candidate to do more than just check the boxes, these are applied skills with observable outcomes. Shepard (2017) makes the case that, in order for the underrepresentation of women in higher education leadership to change, it is not about "fixing" one thing that is independent of the system. Rather, it is a mix of change interventions on multiple dimensions of the whole.

What seems to be aligning in CAS model? In the CAS conceptual framework for this study, where women college presidents were represented as trees, the researcher speculated on

what elements were essential to the growth and survival in the context of higher education (Figure 5). These initial pairings under each element were the themes identified in the review of related literature. The elements defined were: Water, Air and Sun, Roots, and Soil. The findings from the data provided clarity to the elemental relationships in the CAS of higher education in California.

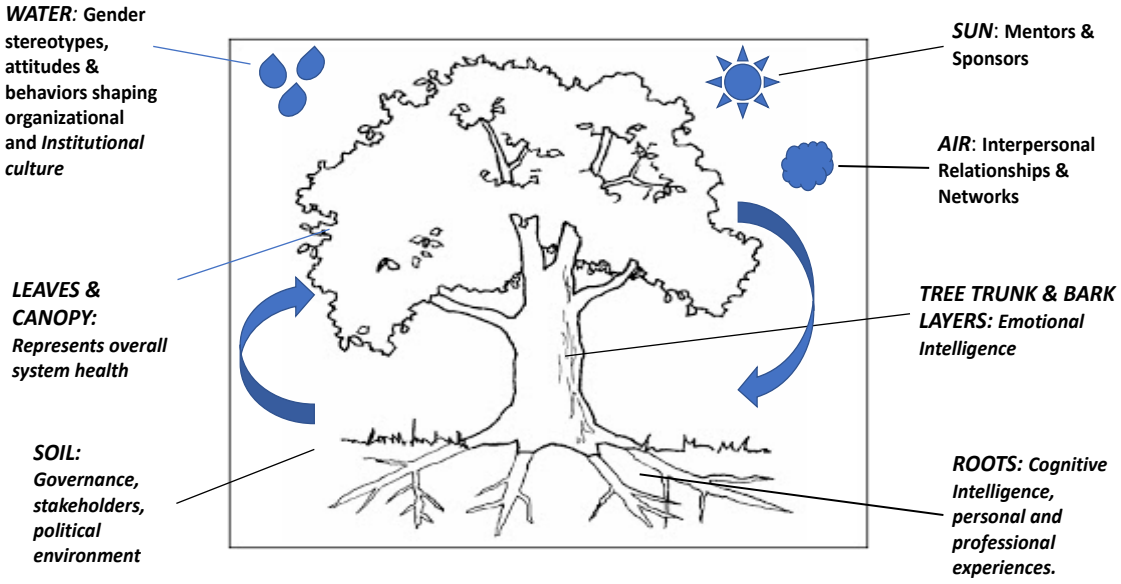

Figure 5. Higher education in California as CAS.

Sun and air were initially grouped together and included gender stereotypes, attitudes and behaviors shaping organizational culture. Through the lens of the conceptual framework, the researcher elected for the sun to represent mentors and sponsors and air as interpersonal relationships and networks. Justification for this shift is the significance of mentors and sponsors on multi-levels and the critical role of the sun in energy production for a tree. Air also represents exchanges and is essential, much like the relationships and people that comprise the core of the system.

Roots provide foundation and anchoring so, as the findings suggest, cognitive intelligence as well as personal and professional experiences are the foundation for the EI skillset as well as a reference for actions.

Water was also revised based on the findings to acknowledge that it comes from the ground as well as the sky, therefore characteristics such as gender stereotypes, attitudes and bias within an institutional culture may seep throughout the CAS.

Re-designing the CAS model for HE in California after the findings emerged from the data highlights how adaptable and interconnected the elements are. The findings of the study suggest that the recognition of EI competencies, not just of the women leaders in HE in California but throughout the network of the CA system, is prevalent. These connections provide opportunity for boosting the abundance of each element and their capacity to synergize, as a CAS should.

Suggestions for Future Research

Throughout this journey there have been numerous ideas for other avenues of exploration. The findings revealed in this work are unique and representative of the experience of those who shaped it. Ideas for additional research include but are not limited to:

- Include male college presidents in California as qualitative study. Is EI as significant of a skillset to their leadership practice?
- Add a quantitative component such as the Goleman or Korn Ferry tools and assess EI competencies for all two and four-year presidents at public institutions in California.
- If EI is a skillset that can be learned throughout our lives, how do our cultural and social experiences influence what competencies are fostered?

- Replicate the study in a state with a large public higher education system such as New York or Texas.
- Explore the role of sports in developing team-building skills among college presidents, both men and women. Do high-level leaders tend to be more individual or team-sport oriented?
- Investigate how recruitment and hiring practices have changed in California over the past 20 years and what has been impetus for the changes.
- Compare recruitment and hiring practices of higher education in California to that of other states with similar institutional demographics.
- Develop a conceptual model that links emotional intelligence and academic leadership outcomes.

Implications: What Does It All Mean?

Ideas for implementing theory into practice related to the findings of this study include but are not limited to the following: 1) Leadership development experiences that includes both men and women with the focus on developing EI competencies, 2) Opportunity to practice the EI competencies in personal and professional capacities, 3) Leadership development that is based on the brain and neural circuitry (Goleman, p. 8). And lastly, 4) internal and external evaluation and audit of the recruitment and hiring process for positions such as presidency with the intention being to develop tools to identify the most authentic candidates. This study supported that mentors are both male and female and add different value to the mentor-mentee relationship, not due to his or her gender, rather their human experience. As speculated, role models are a contributing factor as to why there are more women college presidents in California. These women have not only navigated the leadership labyrinth (Eagly & Corli, 2007), but have created

a path through grit, authenticity and integrity. This does not imply that it is "easy" to become a college president as a woman, but these characteristics appear significant to their success.

Closing Thoughts

The title for this study is *Women College Presidents: Difference Makers*, which may seem somewhat ambiguous, yet purposely so. The majority of literature on why there is a paucity of women in high-level leadership positions addressed what needed to change with women in order to change the outcome. On the other end of the spectrum is the position that the institution or industry was antiquated and needed to change with the demands of the current market. Applying the CAS framework within this study validated that it is far more integrated and multi-dimensional. The shared purpose of higher education in California is to serve students yet the mechanism of how to do that requires adaptive, intuitive and situational decisions. This study illuminated directly from the source, the knowledge, skills and abilities to make that reality.

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Appendix A

Complex adaptive systems

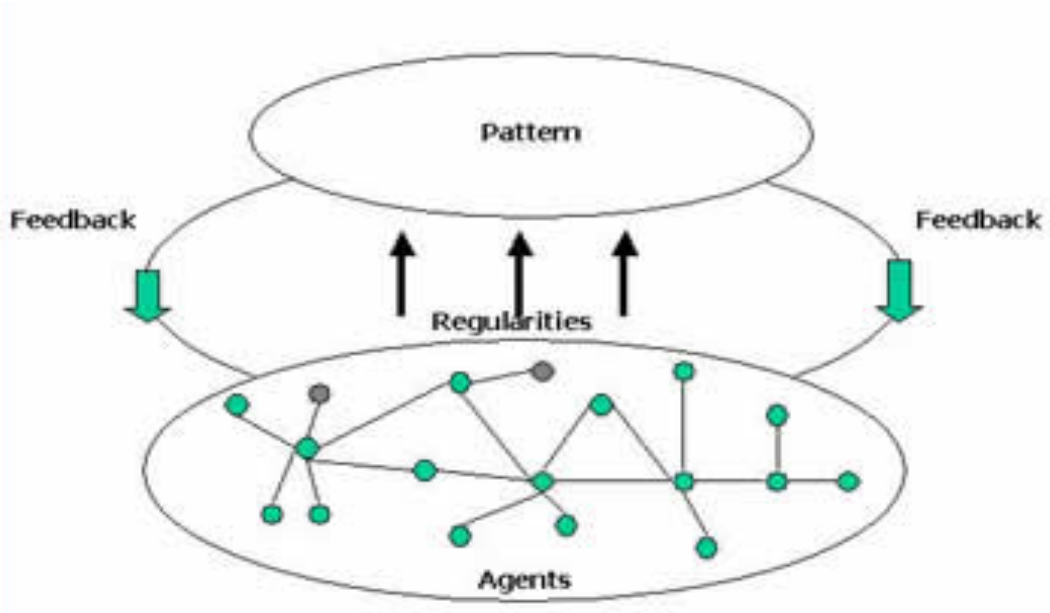

Figure 6. Complex adaptive systems (fractal.org, [year]).

Appendix B

Invitation letter

<<Date>>
<<Name of potential participant>> <<Contact information>>
Re: *Cultivation of women college presidents: From present to President*

Dear President/Chancellor/Superintendent _____:

My name is Kas Metzler and I am a faculty member in the Kinesiology Department at Santa Monica College as well as a Doctoral candidate at the University of New England. As you are well aware, women are underrepresented in high-level leadership positions across all sectors, including Higher Education. In California, the presence of women College Presidents is greater than the National average which peaks my intellectual curiosity as to how this has come to be and what can be learned from women such as yourself who have achieved this role. Through one-on-one interviews my goal is to represent the individual experiences of women College Presidents at 2 and 4-year institutions in California. The vision for this process is to empower future women leaders as well as to inform and influence institutional culture and practice. As a College President of a California institution and as a woman, you and your experiences are the catalyst for this paradigm shift to gain momentum.

If you are willing to share more about your leadership experience I would like to conduct an interview with you, either by phone or in-person, at a day and time of your choosing. Please reply to this e-mail (kmetzler@une.edu) with the best mode of contact and to arrange the interview. I respect that your time is valuable and appreciate you recognizing the significance of this research.

Professionally.

Kas Metzler

Appendix C

Informed consent

UNIVERSITY OF NEW ENGLAND
CONSENT FOR PARTCIPATION IN RESEARCH

Project Title: Cultivating women college presidents: Difference Makers

Principal Investigator(s): Kas Metzler

Introduction:

- Please read this form. You may also request that the form is read to you. The purpose of this form is to give you information about this research study, and if you choose to participate, document that choice.

- You are encouraged to ask any questions that you may have about this study, now, during or after the project is complete. You can take as much time as you need to decide whether or not you want to participate. Your participation is voluntary.

Why is this research study being done?
To represent the collective experiences of women college presidents at public, 2 and 4-year institutions in California and as a result empower future women leaders as well as to inform and influence institutional culture and practice.

Who will be in this study?
Current female college presidents at public, 2 and 4-year Colleges and Universities in California

What will I be asked to do?
Participate in an interview with the PI and complete a personal information sheet.

What are the possible risks of taking part in this study?
Although the confidentiality of participants will be priority there may be the potential for readers to associate the participant by information that is shared in interviews.

What are the possible benefits of taking part in this study?
Contribute to understanding of what it takes to become a college president in an environment where women are significantly underrepresented.

What will it cost me?
Time.

How will my privacy be protected?

Participant information on the personal data sheet as well as from the interviews will be maintained as confidential throughout the data collection and analysis process.

How will my data be kept confidential?

Names and identifying information will be encoded and all data will be kept in secured location.

What are my rights as a research participant?

- Your participation is voluntary. Your decision to participate will have no impact on your current or future relations with the University.
- Your decision to participate will not affect your relationship with Kas Metzler.
- You may skip or refuse to answer any question for any reason.
- If you choose not to participate there is no penalty to you and you will not lose any benefits that you are otherwise entitled to receive.
- You are free to withdraw from this research study at any time, for any reason.
    - If you choose to withdraw from the research there will be no penalty to you, and you will not lose any benefits that you are otherwise entitled to receive.
- You will be informed of any significant findings developed during the course of the research that may affect your willingness to participate in the research.
- If you sustain an injury while participating in this study, your participation may be ended.

What other options do I have?

- You may choose not to participate.

Whom may I contact with questions?

- The researchers conducting this study are Kas Metzler.
    - For more information regarding this study, please contact kmetzler@une.edu.
- If you choose to participate in this research study and believe you may have suffered a research related injury, please contact
- If you have any questions or concerns about your rights as a research subject, you may call Olgun Guvench, M.D. Ph.D., Chair of the UNE Institutional Review Board at (207) 221-4171 or irb@une.edu.

Will I receive a copy of this consent form?

- You will be given a copy of this consent form.

Participant's Statement

I understand the above description of this research and the risks and benefits associated with my participation as a research subject. I agree to take part in the research and do so voluntarily.

Participant's signature or Legally authorized representative

Date

Printed name

Researcher's Statement

The participant named above had sufficient time to consider the information, had an opportunity to ask questions, and voluntarily agreed to be in this study.

Researcher's signature

Date

Printed name

Appendix D

Follow-up letter to potential participants (10 days)

<<Date>>
<<Name of potential participant>> <<Contact information>>
Re: *Cultivation of women college presidents: from Present to President*

Dear President/Chancellor/Superintendent _____:

My name is Kas Metzler and I am a faculty member in the Kinesiology Department at Santa Monica College as well as a Doctoral candidate at the University of New England. A couple of weeks ago I contacted you requesting an interview for a research project about women college leaders in California. As you are well aware, women are underrepresented in high-level leadership positions across all sectors, including Higher Education. In California, the presence of women College Presidents is greater than the National average which peaks my intellectual curiosity as to how this has come to be and what can be learned from women such as yourself who have achieved this role.

I would appreciate the opportunity to speak with you by phone or in person. Please reply to this e-mail (kmetzler@une.edu) with the best mode of contact and to arrange the interview. I respect that your time is valuable and appreciate you recognizing the significance of this research.

Professionally.

Kas Metzler

Appendix E

Interview tracking and contact form for participants

Interviewee/Title	Institution	Contact info	Date/Time of Interview	Interview Format	Personal Data Sheet

Appendix F

Demographics survey

General information: About you and your Presidency

Position:

- President/Chancellor/ Superintendent of a 4-year higher education institution
- President/Chancellor/ Superintendent of a 2-year higher education system

Date of appointment _____
First Presidency?
- Yes
- No

Background: Please share about you.

1. What is your gender identity?
- Male
- Female
- Other (please specify you choose to)

2. Age range:

- 40-45
- 46-50
- 51-55
- 56-60
- 61-65
- 66-70
- 71-75

3. What is your racial identity? (Check ALL that apply.) Note: Broad racial background options are provided below. If you wish to provide further information, please add.

- Caucasian, White, or White American (non-Middle Eastern descent)
- Middle Eastern or Arab American
- Black, Afro-Caribbean, or African American
- American Indian/Alaska Native
- Asian or Asian American
    - _____

4. What is your marital status?

- Never married
- Married
- Domestic partner
- Separated
- Divorced

5. Do you have children?

- Yes
  Age (s):
- No

6. Was the consideration of long-term partnership and/or having children influenced by your professional path?

- Yes
- No
- Mixed response _____

7. Did your professional path influence your decisions of long-term partnership and/or having children?

- Yes
- No
- Mixed response _____

Educational Background:

8. Please check all the degrees you have earned: (Check ALL that apply.)
   - Associate's degree
   - Bachelor's degree
   - Master's degree (except MBA)
   - Master's of Business Administration (MBA)
   - Doctor of Philosophy (PhD)
   - Doctor of Education (Ed. D)
   - Doctor of Medicine (MD)
   - Other health-related degree (e.g., DDS, DVM)
   - Law degree (e.g., JD, LLB, LLD, JSD)
   - Other (please specify):

9. Please indicate the major field of study for your highest earned degree:
    - Agriculture/natural resources
    - Biological sciences
    - Business
    - Computer science
    - Education or higher education
    - Engineering
    - Humanities/ Fine arts
    - Law
    - Mathematics
    - Health professions
    - Medicine
    - Physical/natural sciences
    - Religion/theology
    - Social sciences

Appendix G

Interview protocol

Thank you President/Chancellor/Superintendent _____for making the time to interview with me today. The purpose of the study you are contributing to is to learn from women such as yourself who have attained the position of College President, what strategies and tools have been significant to you.

1. Describe your pathway to the Presidency?

    1a. Educational preparation

    1b. Professional experience

2. Was the role of a College President in your professional plan?

    2a. If yes, discuss inspiration.

    2b. If no, what changed?

3.What personal qualities do you attribute to your success in becoming a College President?

    3a. As President, are there additional qualities that you draw upon in your daily operations?

4.What professional experiences do you attribute to your success in becoming a College President?

    4a. As President, are there additional experiences that you draw upon in your daily operations?

5. How do you define mentorship?

    5a. Was it (is it) significant for you? If so, how? If not, please explain.

6. How do you define sponsorship?

6a. Was it (is it) significant for you? If so, how? If not, please explain.

7. Were your mentors and/or sponsors men, women, or both?

8. How were your connections with mentors and/or sponsors established?

9. How would you describe your leadership style/philosophy?

10. What have been challenges to your growth as a leader in Higher Education (HE)?

10a. For you as an individual

10b. For you as a woman in a male-dominated field

10c. In your community

10d. In the system of higher education

11. What are your strategies for work/life balance?

12. What are your top three suggestions for women to optimize their growth to high level leadership positions in HE?

13. Should there be more women College Presidents?

13a. If yes, why and what would make this possible?

13b. If no, please explain.

14. Have you been an Administrator at an institution outside of California?

14a. If yes, compare and contrast the institutional culture specific to women in high-level leadership positions.

15. Women comprise a higher percentage of College Presidents in California. In your experience, what factors can be attributed to this difference?

Appendix H

Post-interview thank you e-mail to participants

<<Date>>
<<Name of participant>>
Re: *Thank you for your time and support*

Dear President/Chancellor/Superintendent _____:

I truly enjoyed the opportunity to speak with you on _____ (date). Your experience and insight to your personal journey as well as the institutions that you have led are impressive.

The next step will be to have the interview transcribed by a professional service and then I will share the transcript with you for your review and approval. From there I will delve deeper into the data, looking through the lens of Complex Adaptive Systems to "see" relationships of the parts and whole. I am excited to share with you what the outcome is.

Thank you again for your time and contribution.

Professionally.

Kas Metzler

Appendix I

Interview cover sheet

DATE/TIME

DATE and TIME:

TYPE:

(Related information)

INTERVIEWEE:

INSTITUTION:

CONTACT:

EXECUTIVE ASSISTANT:

CONTACT:

QUICK FACTS (PERSONAL):

QUICK FACTS (INSTITUTION):

NAME OF INTERVIEWEE/INSTITUTION:

CHECK		DATE of COMPLETION
	POST INTERVIEW THANK YOU	
	POST INTERVIEW SURVEY	
	RECEIVED SURVEY	
	SUBMITTED FOR TRANSCRIPTION	
	RECEIVED TRANSCRIPTION	
	TRANSCRIPT SENT TO INTERVIEWEE	
	APPROVED BY INTERVIEWEE	

DATA ANALYSIS: FIRST IMPRESSIONS
DATE:
DURATION: