Elevating the Silicon Slopes

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Honors Thesis

ELEVATING THE SILICON SLOPES

by
Joseph Ó. Evans

Submitted to Brigham Young University in partial fulfillment of graduation requirements for University Honors

School of Accountancy
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Advisor: Matthew Jennejohn
Honors Coordinator: Mark Zimbelman
ELEVATING THE SILICON SLOPES

Joseph O. Evans
School of Accountancy
Juris Doctor, Master of Accountancy, Bachelor of Science - Accountancy

From Utah’s humble beginnings in agriculture and mining, Utah has become an economic powerhouse in the United States, largely due to the rise of Silicon Slopes. Despite the successes of Silicon Slopes, there are still significant shortcomings related to diversity and inclusion in Silicon Slopes that must be remediated if it intends to achieve its economic aspirations and ensure its economic benefits flow to people of all types and backgrounds. This work outlines both the rise of Silicon Slopes as well as existing and potential private- and state-ordered solutions that may be implemented to overcome Silicon Slopes’ existing diversity and inclusion shortcomings.
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Elevating the Silicon Slopes

Joseph O. Evans

INTRODUCTION

Brigham Young entered the Salt Lake Valley on July 24, 1847, and famously exclaimed, “This is the right place.”¹ What he had found to be the “right place” was a seemingly endless desert with little vegetation perched next to a large body of undrinkable water that early explorers had mistaken for the Pacific Ocean.² Far from being the Pacific Ocean—which teemed with life and opportunity—apart from brine flies and the migratory birds who sat on the water, the largest organisms in the Great Salt Lake were tiny brine shrimp.³ The economic prospects of the state were much like the waters of the Great Salt Lake—nearly barren.

Utah’s first economic success came in the form of agriculture, as the early settlers reshaped the land to feed themselves.⁴ However, early agriculture was

¹ See Richard C. Poulson, “This Is the Place”: Myth and Mormondom, 36 WESTERN FOLKLORE 246, 246–252 (1977), https://doi.org/10.2307/1499252 (this phraseology may or may not be historically accurate).
³ While the organisms themselves are quite small, they have become a substantial economic output for the state, with the brine shrimp harvesting industry bringing in between $10 million and $60 million annually. See Brine Shrimp Harvests, UTAH DIV. WILDLIFE RES. (Sep. 29, 2022), https://wildlife.utah.gov/gslep/harvests.html#::text=The%20brine%20shrimp%20harvest%20industry%20produces%20brine%20shrimp%20cysts%20harvested.
very boom-and-bust and, but for some hungry seagulls,⁵ may have failed completely.⁶ Eventually, the settlers were able to monetize the almost lifeless water of the Great Salt Lake.⁷ They also found mineral and ore deposits throughout the state and began large mining operations.⁸ Later on, other industries developed, including manufacturing and steel production, and the state even began producing rockets.⁹

However, despite all the progress, Utah’s economy was still largely barren, filled with economic brine shrimp, so to speak. In 1984, Utah had the third-lowest gross-domestic-product per capita in the United States.¹⁰ Wages were low and wealth within the state was scarce.¹¹ While some industries in Utah, like the mineral and natural resources industries, seemed to be thriving, the overall economic health of the state was still quite poor.¹² With these issues in mind, Utah leaders made the decision to involve the state in the “high

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¹¹ See Id.
¹² See Id.
technology industry” in an effort to stimulate economic growth—and the rest is history.\textsuperscript{13}

Flash forward to 2022 and Utah’s economy is currently teeming with economic life. Nearly all of Utah’s economic indicators are at the top of various rankings in the United States, including that the state has experienced the fastest economic growth in the nation over the past 15 years.\textsuperscript{14}

A central driver to this growth and prosperity is Silicon Slopes, which, despite its intriguing history and promising future, still has significant hurdles to overcome. In this note, I will outline three phases of Silicon Slopes. In Part I, I will outline the rise of Silicon Slopes, including the story of how the state turned from a largely agricultural- and mining-centric economy to a technology powerhouse. In Part II, I will discuss the issue of diversity and inclusion in Silicon Slopes and what can be done to elevate Silicon Slopes, including existing and potential state-ordered solutions as well as existing and potential private-ordered solutions. Part III then outlines recommendations about how leaders and market participants can elevate Silicon Slopes.

I. THE RISE OF SILICON SLOPES

This section outlines the rise of Silicon Slopes from its beginnings in the 1960s until present day. This section is organized in three phases, which is generally

\begin{footnotesize}
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\item \textsuperscript{13} See Id.
\end{itemize}
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how the development of Silicon Slopes is discussed by market insiders. Phase I includes the first players in the market, including Evans & Sutherland, WordPerfect, and Novell. Phase II begins with the founding of Omniture and concludes with its 2009 sale to Adobe. Phase III includes the founding of Qualtrics, Vivint, Entrata, and others.

A. Phase I: The Foundation of Silicon Slopes

The story of Silicon Slopes begins in 1957 with the launch of the Soviet Union’s first Sputnik satellite. In response, and out of fear of the Soviet Union’s growing technological advantage, President Eisenhower ordered the creation of the Advanced Research Projects Agency (now referred to as DARPA). DARPA’s central mission was to foster technological innovation and to ensure that the United States would “from that time forward . . . be the initiator and not the victim of strategic technological surprises.” From its incipience, DARPA has produced many life-altering technologies in fields like defense, the internet, language translation software, and GPS. An early project of DARPA was a defense objective to create a network of computers that could communicate with

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16 Id.
17 Id.
18 Id.
22 Id.
each other “but not from a central headquarters that an enemy could easily
attack.”

This is where David Evans, an early pioneer of not only the Utah technology
industry but the entire computer industry, entered the picture. David Evans was
born and raised in Salt Lake City and received an undergraduate degree in
electrical engineering and a PhD in physics. After a short stint in the technology
industry, Evans returned to academia, joining the computer science department
at the University of California at Berkeley, where he led the department’s
DARPA projects. In 1965, after several years of success and technological
breakthroughs at Berkeley, Evans was recruited by University of Utah president
James Fletcher to move back to Salt Lake City and create a computer science
department at the University of Utah. Shortly afterward, Evans recruited Ivan
Sutherland, who was researching at Harvard, to join the University of Utah’s
computer science department. During a conversation over dinner, they decided
to create Utah’s first home-grown technology company: Evans & Sutherland, the
world’s first computer-graphics company.

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23 Utah’s Computer Innovators, I LOVE UTAH HIST., https://ilovehistory.utah.gov/utahs-
computer-innovators/ (last visited Feb. 27, 2023).
pioneer-in-computer-graphics-dies-at-74.html.
25 Id.
26 Id.
27 Id.
28 Id. See also About Us, EVANS & SUTHERLAND, https://www.es.com/about/.
While the founding of Evans & Sutherland was groundbreaking in what it represented in Silicon Slopes—its first home-grown tech company—Evans’s real contributions to Silicon Slopes came through the computer science department at the University of Utah. Evans brought with him millions of dollars in research grants from DARPA, which were essential to the technological innovations that have come out of Utah. Numerous technological innovations came about due to those grants, and the University of Utah was at the forefront of other influential technologies, including the internet, when the University of Utah became the fourth node in ARPANET, which was the precursor to the modern internet. Many of his students were pioneers in their own rights, including Jim Clark, John Warnock, Ed Catmull, and Alan Ashton, who became one of the next entrepreneurs to carry the baton of Silicon Slopes.

In 1979, Alan Ashton was a professor at Brigham Young University in the school’s computer science department, where he began working after a stint with Evans & Sutherland. Ashton had been working on an idea for a word-

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29 Harvey, supra note 19.
30 Id.
31 Markoff, supra note 24 (“Jim Clark, a founder of Silicon Graphics Inc., a maker of advanced workstations, and the Netscape Communications Corporation, the company that first successfully commercialized the World Wide Web browser; John Warnock, a co-founder of Adobe Systems Inc., whose printing software helped create the desktop publishing industry; Edwin Catmull, a computer graphics pioneer who co-founded Pixar, the computer animation studio, and Alan Ashton co-founder of the Wordperfect Corporation.”)
32 Id.
processing venture and convinced Bruce Bastian, who was a music major, to switch to the school’s computer science program.\textsuperscript{34} Ashton developed a software for a what-you-see-is-what-you-get word processor, which was cutting-edge at the time.\textsuperscript{35}

Together, Ashton and Bastian embarked on a venture that would eventually become WordPerfect.\textsuperscript{36} A pioneer in word processing, WordPerfect grew dramatically through the 1980s, with sales doubling almost every year, until it peaked after reaching over $500 million in sales in 1991.\textsuperscript{37} Due to steep competition from Microsoft and other market newcomers, sales began to decline, and it was sold to Novell for $855 million in 1994.\textsuperscript{38}

Novell was another early Utah tech success story. It was founded in 1980 with the intent to manufacture personal computers.\textsuperscript{39} Despite receiving venture capital near its founding, by 1982 it could not even afford a booth at the Comdex trade show in Las Vegas.\textsuperscript{40} Ray Noorda was an engineer attending Comdex and was impressed by the Novell products he saw at a Las Vegas hotel room.\textsuperscript{41} As luck would have it, he had previously flipped two technology startups.\textsuperscript{42} By 1983, Noorda had invested enough of his own and borrowed money to purchase

\textsuperscript{34} See Id. \\
\textsuperscript{35} See Id. \\
\textsuperscript{36} See id. \\
\textsuperscript{37} See id. \\
\textsuperscript{38} See id. \\
\textsuperscript{39} Novell, Inc. History, FUNDING UNIVERSE, \texttt{http://www.fundinguniverse.com/companyhistories/novell-inc-history/} (last visited Feb. 27, 2023) [hereinafter Novell History]. \\
\textsuperscript{40} See id. \\
\textsuperscript{41} See id. \\
\textsuperscript{42} See id.
a 33% stake in the firm and shifted its focus away from PC manufacturing toward networking, which ended up being a winning strategy.\textsuperscript{43} By 1988, Novell held a 50% share of the PC networking market.\textsuperscript{44} Throughout the 1990s, Novell engaged in several M&A transactions in an effort to compete head-on with Microsoft.\textsuperscript{45} However, almost none ended with the success that Noorda envisioned, and much like WordPerfect, Novell too went by the wayside.\textsuperscript{46}

Despite the ultimate demise of Novell and WordPerfect’s fall from grace, both companies laid down the seeds of Utah’s technology ecosystem that would begin to blossom in Phase II of Silicon Slopes’ development. They set in motion a flywheel of innovation and investment that propelled the Utah technology ecosystem into its next phase and beyond.

\textbf{B. Phase II: The Beginning of the Internet Era}

By 1996, the internet was in full swing, lifting Utah’s technology ecosystem with it. That year, Josh James sat in an information systems course as an undergraduate at Brigham Young University. James recalled, “This kid corrected the teacher three times. I said, ‘I have to get to know that kid.’ His name was John Pestana.”\textsuperscript{47} Eventually, James and Pestana started making webpages.\textsuperscript{48}

\begin{footnotesize}
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\item \textsuperscript{43} See id.
\item \textsuperscript{44} See id.
\item \textsuperscript{45} Id. Novell engaged in several mergers and acquisitions throughout the early 1990s, including deals with Lotus Development Corporation, a rival with Microsoft, among others.
\item \textsuperscript{46} Id.; see also Joab Jackson, \textit{Micro Focus buying Novell, Sues Linux Owner for $1.2 billion}, PCWORLD (Sep. 16, 2014), https://www.pcworld.com/article/435306/micro-focus-buying-novell-suse-linux-owner-for-12-billion.html.
\item \textsuperscript{47} Novell History, \textit{supra} note 39.
\item \textsuperscript{48} Jason Del Rey, \textit{Josh James Omniture: An Unlikely Tech Tycoon, INC.}, Mar. 2010, at 75, 76.
\end{itemize}
\end{footnotesize}
Within a short period of time, their customer base grew, culminating into a business analytics company called Omniture.\textsuperscript{49} James described capital as “hard to come by,”\textsuperscript{50} as evidenced by Omniture’s first round of venture capital funding in 1998, where it raised only $150,000.\textsuperscript{51} However, as the company continued to grow, the capital came. The company ultimately received close to $80 million in funding in over five rounds and listed on NASDAQ, raising close to $70 million in its initial public offering.\textsuperscript{52} It was finally sold for $1.8 billion to Adobe to “anchor” Adobe’s cloud business unit.\textsuperscript{53}

Ancestry.com, another foundational piece of Silicon Slopes and now a household name, also came into focus in the Utah technology scene around the same time.\textsuperscript{54} However, the path to Ancestry.com was far less straightforward than Omniture’s. Paul Allen and Dan Taggart founded Infobases, Inc. in 1990, which specialized in CD books.\textsuperscript{55} Infobases received investments from a local network of Utah venture capital, including Ashton, the founder of WordPerfect, and continued to grow, eventually making the Inc. 500 list.\textsuperscript{56} In 1996, Allen and

\textsuperscript{49} James, supra note 15.
\textsuperscript{50} Id.
\textsuperscript{51} Id.
\textsuperscript{53} James, supra note 15.
\textsuperscript{56} Id.
Taggart’s Infobases purchased a stake in Ancestry,\(^{57}\) and by 1997, purchased the remaining ownership from its original founder, John Sittner.\(^{58}\) Over the next several years, Ancestry raised more than $90 million in venture capital and continued to grow, all while barely surviving the dot-com bubble burst and the departure of Paul Allen in 2002.\(^{59}\) After a short stint as a public company, Ancestry was purchased by various private equity firms and was most recently acquired by Blackstone for $4.7 billion in 2020.\(^{60}\)

Besides Ancestry, other internet startups also came into the market. Founded by Patrick Byrne in 1999, Overstock made its mark by capitalizing on the cheap assets of companies who succumbed to the dot-com burst.\(^{61}\) Overstock is now publicly traded with a market cap over $2 billion.\(^{62}\) Altiris, a systems development firm founded in 1998, was another great example of the rapid growth, going public in 2002\(^{63}\) and eventually being acquired by Symantec in 2007 for $830 million.\(^{64}\) The end of Phase II came in 2009.\(^{65}\) Omniture was purchased by Adobe for $1.8 billion, and suddenly Utah was on the map.\(^{66}\)

\(^{57}\) Id.
\(^{58}\) Id.
\(^{59}\) Id.
\(^{60}\) Id.
\(^{62}\) Id.
\(^{65}\) James, *supra* note 15.
\(^{66}\) Id./
C. Phase III: The Business-to-Business Boom

The next phase of Silicon Slopes saw the advent of the business-to-business software-as-a-service (SaaS) boom, which capitalized on the successes of the internet startups of Phase II, resulting in increased attention from venture capital firms and other investors across the country. This era is still currently in force and includes recent unicorns such as Qualtrics, Domo, Weave, Pluralsight, and Podium.

In 2001, Ryan Smith was an intern for the summer at Hewlett-Packard when he received a call from his father, a professor at Brigham Young University, telling Ryan that he had throat cancer. Ryan returned home to support his father and found that his father had developed a survey technology which would serve as the central product of Qualtrics, a portmanteau of “Quality” and “Metrics.” Ryan began to sell, and soon one customer became twenty as the company began to grow immensely. Despite the success, Qualtrics shunned the spotlight, turning down dozens of VC investments until, in 2012, it finally accepted $70 million from Sequoia Capital and Accel Partners, both blueblood VC firms. By 2018, the company had plans to go public when it

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68 Id.
69 Id.
70 Id.
was acquired for $8 billion in cash by European software giant SAP.\textsuperscript{71} The company was later spun off in an IPO, with a current market valuation of close to $15 billion.\textsuperscript{72}

Outside of Qualtrics, there are other substantial business-to-business software giants. Domo, a cloud-computing company and another brainchild of Josh James, has experienced immense success, with a current market cap of over $1.4 billion.\textsuperscript{73} Pluralsight, founded by Aaron Skonnard in 2004, was recently acquired by Vista Equity Partners for close to $4 billion after a brief stint as a public company.\textsuperscript{74} Weave and Podium, both software companies emphasizing customer interaction, have exceeded $1 billion valuations, making them unicorns.\textsuperscript{75} In Phase III of Silicon Slopes, it has become apparent that the market is substantial and here to stay, with Utah companies receiving over $3.4 billion in funding in close to 200 VC deals.\textsuperscript{76}

II. ELEVATING THE SILICON SLOPES: PROBLEMS AND SOLUTIONS

A. Increasing Diversity in Silicon Slopes

Demographically, Utah has changed significantly since David Evans came over from UC Berkeley to start the University of Utah’s computer science department in 1965. At the time of the 1960 census, the state was 98.1% White.\textsuperscript{77} Utah has become the fastest-growing state in the nation over the past ten years\textsuperscript{78} and experienced a significant expansion in its ethnic diversity, where it was observed that 75.4% of the population identifies as White, with another nearly 20% of the population identifying as either Hispanic/Latino or two or more races.\textsuperscript{79} Across the country women make up 51.8% of workers employed in management or professional services occupations.\textsuperscript{80}

Despite the demographic changes in the state, the diversity, equity, and inclusion (DEI) metrics of Silicon Slopes companies continue to lag. For example, women only compose about 15.2% of the Silicon Slopes workforce, significantly below the already small percentage of women in the tech industry in the United States more broadly (22.5%).\textsuperscript{81} In looking at more concrete available data from

\textsuperscript{77} PAMELA S. PERLICH, UTAH MINORITIES: THE STORY TOLD BY 150 YEARS OF CENSUS DATA 8 (2002). Other race/ethnicity statistics observed: 0.5% Black, 0.8% Indigenous American, 0.5% Japanese, 0.1% Chinese, and 0.0% Filipino.
\textsuperscript{79} See id. Within Utah and Salt Lake Counties, the home of Silicon Slopes, the demographic breakdown is the following: Utah County, 81.6% White; Salt Lake County, 71.5% White.
\textsuperscript{81} Why TECH-MOMS in Utah, RISE NEXT, https://rizenext.com/tech-moms-program; Lauren Bennet, Workforce Diversity is Important to Success of Utah’s Tech Industry, Leader Says at Town Hall, KSL (Feb. 10, 2021),
companies within Silicon Slopes, according to data from Qualtrics, a major Utah employer and Silicon Slopes cornerstone, only 7.4% of its U.S. workforce is made up of underrepresented minorities, with only 5.4% of its leadership identifying as an underrepresented minority.\textsuperscript{82} Pluralsight, another large employer in Silicon Slopes, has similar numbers, with 15.8% of employees coming from historically underrepresented groups.\textsuperscript{83} The trend likely holds with others in the market, although specific numbers are difficult to come by, especially due to the fact that only a few members of Silicon Slopes publicly disclose information.\textsuperscript{84}

These numbers are alarming but not shocking in the context of other technology hubs in the United States. Silicon Valley has a history of well-documented issues with diversity and inclusion, with particularly problematic statistics related to Black and LatinX employment. Black and LatinX employees making up less than 10% of the workforce of Silicon Valley’s 177 largest firms.\textsuperscript{85} Not surprisingly, the problems with diversity in the technology industry appear to begin at the outset of the company. For example, women-led startups receive

\textsuperscript{82} Qualtrics, QUALTRICS DEI BI-ANNUAL REPORT 13 (July 15, 2021), https://www.qualtrics.com/blog/dei-report-q2-2021/.
about 2.3% of all venture capital funding, with Black and LatinX founders only receiving about 2.4% of venture capital funding between 2015 and 2020.\textsuperscript{86} The problem also exists within the school and recruiting pipelines, with women and other historically underrepresented groups making up a disproportionately small share of students receiving a STEM education not only in Utah but across the country.\textsuperscript{87}

B. Why Diversity Matters

Apart from the self-evident reasons of equality and justice reasons, both of which serve as a bedrock of the American experience, a lack of diversity in organizations has the potential to lead to suboptimal outcomes for organizations themselves and communities who are stakeholders of those organizations. While many aspects of the benefits of ethnic, racial, socioeconomic, or other forms of diversity are difficult to quantify, some benefits are and have been quantified. These benefits include but are not limited to better decision-making, better financial performance, and overall increases in firm valuations and exit proceeds.

Diverse teams have been observed to make better decisions. For example, one study conducted found that diverse teams make better decisions up to 87% 


of the time.\textsuperscript{88} While some productivity is sacrificed due to the potential for increased operational friction among a more diverse workforce, the benefits seem to greatly outweigh.\textsuperscript{89} Thus, by having teams and organization comprised of relative homogenous decision-makers, companies within the Silicon Slopes leave potential decision-making benefits on the table.

Firms with heightened gender, racial, and ethnic diversity have shown increases in financial performance. One study conducted by McKinsey in 2021 found a positive correlation between gender, racial, and ethnic diversity and EBIT.\textsuperscript{90} The study found that a 10\% increase in racial and ethnic diversity of senior executives led to a .8\% increase in a firm’s EBIT.\textsuperscript{91} While correlation does not necessarily mean causation, there does appear to be a positive relationship between increased diversity and financial performance.

Finally, firms with gender and ethnically diverse teams have historically brought higher valuations and better realized exits. For example, one survey of close to 6,800 U.S. companies found valuations of gender-diverse executive

\textsuperscript{89} Id.
\textsuperscript{91} See id.
teams to be 64% larger in the initial round of venture investment and 49% larger in the final round of investment.92

While the survey provided here is limited, those findings in conjunction with the self-evident benefits of diversity, including equality and justice, demonstrate how important an issue the lack of diversity in Silicon Slopes is. If firms within the Silicon Slopes continue to operate with relative racial, ethnic, and gender homogeneity, vast benefits are being left on the table.

C. Potential Solutions

Throughout this section, I will outline potential solutions to Silicon Slopes’ issues with diversity and inclusion. I have grouped the potential solutions between state-ordered solutions and private-ordered solutions. In each portion, I will discuss what has been done in the past, whether it has been effective, and how Utah or firms in Utah may adopt similar solutions to bring about beneficial change in the Silicon Slopes market.

Existing State-Ordered Solutions

Federal Law

From the latter half of the 20th century until the present day, there have been several state-ordered attempts at remedying issues involving diversity and inclusion in the workplace. The legislative work of overcoming the United States’ history of oppression of racial and other minorities in the American workplace

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began with Title VII of the Civil Rights Act of 1964 and was later expanded through other Acts, including the Age Discrimination in Employment Act of 1967, the Americans with Disabilities Act of 1990, and others.\textsuperscript{93} Title VII of the Civil Rights Act of 1964 serves as the baseline in protecting minority groups from discrimination in the hiring process and while working for a firm.\textsuperscript{94}

Recently, some states have adopted other legislative means aimed at not only preventing workplace discrimination but incentivizing, and in some cases mandating, certain diversity benchmarks to foster a more diverse workplace.\textsuperscript{95}

**State Law**

California has been at the forefront of applying state-ordered solutions to Silicon Valley’s diversity problems. California first attempted to increase employment diversity through Senate Concurrent Resolution 62, which urged California companies to increase female board representation by adding one to three women to their boards, depending on the board size.\textsuperscript{96} That suggestion became mandatory in the form of SB 826, which was signed into law in September 2020.\textsuperscript{97} Most recently, AB 979, which was signed into law in September 2020, further expands the requirements of SB 826 to include not only

\begin{itemize}
\item \textsuperscript{93} *Laws Enforced by EEOC*, EEOC, https://www.eeoc.gov/statutes/laws-enforced-eeoc.
\item \textsuperscript{94} Id.
\item \textsuperscript{95} See CAL. CORP. CODE § 301.3 (SB 826); CAL. CORP. CODE § 301.4 (AB 979); Michael Hatcher & Weldon Latham, *States Are Leading the Charge to Corporate Boards: Diversify!*, HARV. L. SCH. F. ON CORP. GOVERNANCE (May 12, 2020).
\item \textsuperscript{97} See id.
\end{itemize}
gender diversity on the board but also members of historically underrepresented groups.98

The laws are enforced through two enforcement mechanisms held by California’s Secretary of State.99 One enforcement mechanism is called a “soft” enforcement mechanism, which allows the Secretary to “publish various reports on its Internet Web site documenting, among other things, the number of corporations in compliance with these provisions.”100 This mechanism is essentially intended to publicly shame firms into compliance through public disclosure.101 In addition to the soft enforcement mechanism, the Secretary can also “impose fines for violations of the bill.”102 These fines would generally range between $100,000 to $300,000 per violation of the statute.103 To date, however, the Secretary has not levied any fines, nor has the Secretary “adopted regulations regarding fines.”104

The general idea behind this legislation is that there would be a trickle-down effect and that the mandates “will boost the California economy, improve

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99 Id.
100 CAL. CORP. CODE § 301.3.
101 Id.
103 See Id.
104 Id.
opportunities for women in the workplace.”\textsuperscript{105} The results of California’s legislative attempts are still difficult to parse through, considering how recently both laws were passed and the lack of enforcement thus far. However, there have been some estimates that at least gender diversity would see an “an increase of 82 hundredths of one percent, which annualizes to a rate of change of 27 hundredths of one percent per year over three years.”\textsuperscript{106}

**Effectiveness of Existing State-Ordered Solutions**

The adoption of these state-ordered solutions brings to light the acute challenges that come with any attempts to enforce state-mandated diversity requirements. Both SB 826 and AB 979 are currently being challenged on several legal fronts.\textsuperscript{107} From the beginning, Governor Jerry Brown acknowledged that there had been “serious legal concerns” raised.\textsuperscript{108} Additionally, some other critics note that “while well intentioned, this legislation will not achieve its intended effect because it is unconstitutional as applied to the vast majority, if not all, of publicly held corporations headquartered in California.”\textsuperscript{109}


\textsuperscript{108} See Posner, supra note 105.

\textsuperscript{109} Grundfest, supra note 106.
Most of the challenges center around constitutional issues. The central contention against these state-ordered solutions is the internal affairs doctrine.\textsuperscript{110} The internal affairs doctrine is discussed at length by the Supreme Court in \textit{Edgar v. Mite Corp.},\textsuperscript{111} saying that “[t]he internal affairs doctrine is a conflict of laws principle which recognizes that only one State should have the authority to regulate a corporation's internal affairs—matters peculiar to the relationships among or between the corporation and its current officers, directors and shareholders—because otherwise a corporation could be faced with conflicting demands.”\textsuperscript{112} What this means in practice is that essentially the only state that can issue such demands on the corporation is the state in which the corporation is chartered.

There have been other constitutional challenges, like allegations that the legislation violates the Equal Protection Clause of the California Constitution, although some argue that the statutes do not violate the Equal Protection Clause, as “membership on a corporate board is not a common occupation of the community.”\textsuperscript{113} Even the California State Assembly Judiciary Committee Recognized would “likely be challenged on equal protection grounds and the means that the bill uses, which is essentially a quota, could be difficult to defend.”\textsuperscript{114}

\textsuperscript{110} Id.
\textsuperscript{111} Edgar v. Mite Corp., 457 U.S. 624 (1982).
\textsuperscript{112} Id. at 645.
\textsuperscript{113} See Riley, supra note 96.
There are, however, promising initial findings about the laws’ effectiveness in bringing about diversity. The number of women on California-headquartered Russell 3000 boards has more than doubled from 480 to 964.\footnote{See Matthew Listi, Boardroom Diversity: The Impacts of Legislation in the New Decade, EQUILAR (June 30, 2020), https://www.equilar.com/blogs/466-boardroom-diversity-andimpacts-of-legislation.html; Sung Eun Kim, Mandating Board Diversity, 97 IND. L.J. SUPP. 31 (2021).} This appears to show that even if such legislation as California’s is unconstitutional, it appears to be bringing about a measurable number of positive effects.

**Application to Silicon Slopes**

The issues faced by California’s enacting state-ordered diversity statutes make it difficult to believe that the state of Utah would be able or even willing to adopt any meaningful state-ordered diversity requirements. Any attempts at enforcing such statutes, even if they were passed, would likely run into the same issue that California is facing: the internal affairs doctrine. Many of Utah’s largest employers, especially in Silicon Slopes, are incorporated outside of the state of Utah, with the vast majority of them being incorporated in Delaware.\footnote{Many of Utah’s largest technology companies, including Qualtrics, Domo, Weave, Adobe, 1-800-Contacts, Overstock.com, and Ancestry.com are all incorporated in Delaware. See generally https://icis.corp.delaware.gov/eCorp/EntitySearch/NameSearch.aspx (State of Delaware Entity Search Engine).} This would mean that any state-ordered attempt at a diversity mandate, at least coming from within the state of Utah, would also potentially run directly into the internal affairs doctrine.
Further, this would be assuming that Utah’s legislature, which is largely conservative, would be willing to impose such state-ordered diversity requirements, which, at least anecdotally, does not seem to be likely. Because of the aforementioned reasons, it is likely that a private-ordered solution would best suit Silicon Slopes.

Potential State-Ordered Solutions

Provide Universal ESG Reporting Standards

The practice now termed ESG (environmental, social, and governance) investing began in the 1960s (or potentially earlier) as a “socially responsible investment” strategy,\(^\text{117}\) the idea being that social change or good could be enacted through investment. Historically the strategy was values-driven, with some investing in firms or securities that were against the South African apartheid or the tobacco industry or some other social ill.\(^\text{118}\)

More recently, there has been a shift to the inclusion of not only social considerations but environmental and governance issues in investment decisions and away from purely social metrics, with the term ESG originating from the United Nations’ 2004 Global Impact Report.\(^\text{119}\) This inclusion both broadened the definition of SRI and also shifted the focus away from purely social benefits to include financial benefits as well that can result from increased ESG


\(^{119}\) Eccles, supra note 117; see also THE GLOBAL IMPACT, WHO CARES WINS: CONNECTING FINANCIAL MARKETS TO A CHANGING WORLD (2004).
performance.\textsuperscript{120} As of 2022, $8.4 trillion is currently invested in ESG assets\textsuperscript{121} and that number is only likely to increase over time as more investors and asset managers move into the various ESG asset classes.

Despite the vast investment in ESG assets, there is still relative confusion as to what ESG actually is and what creating and managing an ESG asset or firm looks like. As it stands, the two prevailing ESG reporting and sustainability standards are provided by the Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative (GRI), with SASB emerging as the frontrunner, although other competing standards also exist.\textsuperscript{122}

This lack of uniformity is problematic; it becomes difficult for investors to craft investment strategies incorporating ESG as ESG data provided by and about ESG companies and assets can be so diverse. Recent studies have noted that “the absence of accurate data and the weak comparability of data are the most important hurdles to the implementation of ESG criteria.”\textsuperscript{123} Despite this confusion, investors, especially institutional investors, continue to desire to increase their ESG investments due to “increased client demand for sustainable products.”\textsuperscript{124}

\begin{flushright}
\textsuperscript{120} Eccles, supra note 117.  \\
\textsuperscript{121} US SIF FOUNDATION, SUSTAINABLE INVESTING OVERVIEW (2022), https://www.ussif.org//Files/Trends/2022/Overview%20infographic.pdf.  \\
\textsuperscript{122} Eccles, supra note 117.  \\
\textsuperscript{124} Id. at 27.  \\
\end{flushright}
Another issue with such reporting regimes is that the adherence to their standards, apart from pre-existing reporting regulations in the countries or states where firms operate, is almost entirely voluntarily. The “lack of teeth” in enforcement of the reporting standards further decreases the usefulness of the existing reporting framework.

As a solution, the United States could implement its own reporting requirements in an arrangement similar to the relationship that currently exists between the SEC and FASB. That is, that the federal government could empower a third party, such as SASB (Sustainability Accounting Standards Board), to promulgate enforceable sustainability and reporting rules. In turn, the number of firms adhering to the SASB standards would increase and the reliability of the data companies provide would similarly increase. SASB has already hinted at forming a such a relationship in a comment letter it submitted to the SEC in 2021.

This arrangement would then break down more existing barriers to ESG investment and lend increased legitimacy to ESG metrics and reporting, making ESG standards more effective as well.

Presently, SASB has started in such an arrangement on an international level with the International Accounting Standards Board (IASB), which

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promulgates the international equivalent to U.S. GAAP called IFRS.\textsuperscript{127} Through the arrangements, the SASB reporting standards are being incorporated into the broader IFRS standard.\textsuperscript{128}

**Effectiveness of the Solution**

While this solution, at least in some respects, is currently being implemented through the IFRS, it is still too early to tell whether the change has made any substantive changes to the ESG investment market, as the consolidation of SASB into IFRS only took place in August of 2022.\textsuperscript{129}

**Application to Silicon Slopes**

The implementation of such a solution would likely be out of the control of the state of Utah, as such an arrangement would be implemented by the SEC. However, the potential benefits streaming from the universal standard would likely impact the Silicon Slopes market, at least indirectly.

Most obviously, the universalization of ESG reporting would diminish the existing barriers of ESG investing that investors most complain about, namely the lack of a uniform standard by which investors can compare potential ESG investments.\textsuperscript{130} In removing some of the barriers to ESG investment, there would likely be an increase in investor demand for ESG-focused startups and investments. Under the existing framework, LPs are already exhibiting an


\textsuperscript{128} Id.

\textsuperscript{129} Id.

\textsuperscript{130} Eccles, *supra* note 117.
increased demand for ESG investments, as many view ESG investments as providing an increased financial return.\textsuperscript{131} This increase in the demand by LPs for more ESG-centric funds and investment has in turn led GPs to invest more in ESG-focused investments to increase their capital acquisitions.

Because of this increased demand for ESG investments by GPs, there would presumably be a comparative advantage for those founders who posit their ventures as being ESG-focused. Thus, in theory there would be more incentive for founders to ensure they have more ESG-forward pitches for their ventures, which could be accomplished by seeking out diversity in founding teams and making existing ventures socially conscious to receive subsequent venture or private equity funding.

Furthermore, the universal reporting standard would likely lead to more transparency and the disclosure of diversity-related metrics. Such disclosures would shed more light on the diversity struggles of Silicon Slopes and could lead to more public discussion of those struggles, further incentivizing founders to increase efforts toward diversity.

\textit{Private-Ordered Solutions}

Institutions and industries have also attempted to remedy the diversity issues faced in Silicon Slopes and in the technology industry as a whole. Two potential solutions start at the lifeblood of the tech industry: venture capital. The first solution consists of diversity-focused contractual and corporate governance

\textsuperscript{131} Mc Cahery et al., \textit{supra} note 123, at 27.
obligations placed upon companies during initial funding rounds, and the latter is a much more radical solution, revamping the funding process to get rid of the pitch to investors.

**Governance Solutions**

The current contractual solution to diversity looks very similar to the California solution discussed previously but is able to avoid the constitutional issues faced by state-ordered diversity requirements. In 2021, NASDAQ promulgated a rule, which was approved by the SEC, that requires that NASDAQ-listed companies 1) by 2022 to provide a diversity matrix of its board and provide diversity disclosures annually going forward; 2) by 2023 to include at least one board member who is diverse, defined by NASDAQ as identifying as non-male or belonging to an underrepresented group; and 3) by 2025 to include at least two board members who are either non-male or belong to an underrepresented group.\(^{132}\) These governance solutions have a significant benefit, as they do not implicate the internal affairs doctrine. Because these requirements are being promulgated by private organizations like NASDAQ or other stock exchanges, the limit to state power in the internal affairs doctrine would not apply.

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Similar recommendations are being put forward by Glass Lewis, ISS, and other proxy advisory firms beginning in the 2022 proxy season, most of which will recommend voting against a nominations and governance committee chair where a board has less than two diverse board members. Most of these recommendations are said to only apply to companies on the Russell 3000 index or the S&P 1500 index, with potentially lesser requirements for smaller companies. Such an arrangement admittedly limits the applicability of the requirements to a large chunk of companies in the United States but may still be effective.

Effectiveness of the Solution

Much like the California solution, it is still difficult to determine whether the solutions put forward by NASDAQ and proxy advisory firms have been impactful, considering how recently they have been adopted. While they do not raise the same legal and constitutional questions as California’s laws, there are still potential issues. Much of the criticism revolves around the potential of gender and racially diverse boards potentially reducing shareholder value, and some initial reports offered in wake of California’s initial attempt at board

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133 See GLASS LEWIS, GLASS LEWIS 2022 POLICY GUIDELINES 40, 40–41 (2022); see also ISS, UNITED STATES PROXY VOTING GUIDELINES BENCHMARK POLICY RECOMMENDATIONS 11, 11–12 (2021).
134 Id.
diversity caused a mean drop in firm value of $328.31 million\textsuperscript{136} for firms that are “named and shamed” by the law. However, much of the criticism of these solutions revolves around whether the aim of a company should even be diversity, not whether the solutions themselves are effective in bringing about more diversity within firms. As noted previously, with the small bit of data drawn from California’s enactment of SB 826, board membership for women nearly doubled within a year.\textsuperscript{137}

**Ditch the Pitch**

Many of the issues surrounding diversity in the technology industry appear to start at the beginning of the company’s lifecycle. For example, a study in 2021 noted that only 2% of software startups included a female founder.\textsuperscript{138} Additionally, other researchers have observed similarly disproportionately smaller representation among other historically underrepresented groups.\textsuperscript{139} In venture capital, there are similarly large diversity discrepancies for participants in the VC process. For example, LatinX and Black individuals make up nearly


20% of the U.S. workforce, but only about 4% of those work in VC. Further, women only make up about 7% of individuals in VC. Such a demographic breakdown appears to also bleed into the distribution of funding, with only 1% of all VC funding going toward individuals who are not white men.

The pitch process is one potential contributor to such large discrepancies in fund allocation. Researchers have observed that male entrepreneurs were “60% more likely to achieve pitch competition success than were female entrepreneurs.” The researchers conducted a second experiment where each study participant watched a voiced-over pitch with either a randomly assigned male or female narrator and found that “68.33% of participants . . . chose to fund the ventures pitched by a male voice and only 31.67% of participants . . . chose to fund the ventures pitched by a female voice.” While the research did not expand beyond gender differences, racial bias could similarly play a large role in which ventures get financed. Thus, another potential solution could be for VC firms to get rid of the pitch process entirely and employ a more data-driven approach to selecting which ventures to invest in during the sourcing process, which would likely not only benefit diverse founders and founding teams but also benefit the VC firm by reducing potentially biased decision making.

140 See Id. at 44–47.
141 Id. at 12.
Ditching the pitch process and its accompanying increase in founder diversity also has financial benefits for VC firms as well, with benefits from the formation of a fund to subsequent exits. For example, a study by McKinsey found that above-average company profitability is up to 36% more likely for racially and ethnically diverse teams and 25% more likely for gender-diverse teams. Additionally, another study found that ethnically diverse founding teams tend to “deliver 30% better returns on positive exits than did all-white” founding teams, which is not a small difference.

With this increased profitability of portfolio companies and better exits, VC firms who deploy more capital to diverse founders would likely have an advantage in raising funds and pitching themselves to LPs. With consistently higher returns than peers who are not deploying capital to diverse founders, there would likely be a significant advantage to those VC firms.

**Effectiveness of the Solution**

As this is a theoretical solution, there is not much hard data about this solution’s effectiveness in bringing about broader diversity in Silicon Slopes. However, some recent research has found that firms who do not employ a pitch stage in the VC process “invest in eight to twelve times more women than

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average.”146 It’s presumable that the same could be said about eliminating racial or other biases that are also at play in the VC process. Furthermore, firms that are led by individuals from historically underrepresented groups in the technology industry would likely do a better job ensuring that they are pulling from and hiring a diverse group of employees, which is the underlying logic of the previous solutions requiring more diverse board membership.

**Application of Private-Ordered Solutions in the Silicon Slopes**

Both private-ordered solutions could be implemented within Silicon Slopes and could likely be done by getting Utah-based venture capital firms on board with the solution, although that would not necessarily be an entirely effective solution, as many Silicon Slopes startups receive funding from outside of the state.

It is difficult to say how to best get VC firms on board with the solutions, as almost all VC firms are privately owned, and any state-ordered solution would run into the same issues discussed above. More than anything, it would likely have to be a grassroots effort from those in the market, either from LPs demanding additional ESG—especially diversity-focused investments—or something similar. It would have to start somewhere, either through institutions like Silicon Slopes organization or simply founders or VC firms caring more about gender and racial representation.

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Based on the trends found in the discussion of creating a universal ESG reporting standard, it appears that this grassroots effort is already in effect, with more LPs demanding ESG-focused investments and allocating their resources in that manner.\(^{147}\) With the integration of SASB into IFRS and broader social trends, it’s likely that the effects of this will only be more acute. This in turn would mean that any VC firm that would like to raise funds or desired a competitive edge in raising funds would need to be not only aware of ESG issues but actively placing more capital into ESG-focused investments.

III. RECOMMENDATIONS AND CONCLUSION

A. Recommendations

Likely the best solution to Silicon Slopes’ diversity problems is a combination of state-and private-ordered solutions. As stated previously, any state-ordered solutions carry with them significant potential legal challenges and it is unclear whether the current state-ordered solutions in California and elsewhere will survive the current legal challenges they face. Despite this, other regulatory options do exist for governments to further diversity efforts. The state-ordered solution would not look like California’s, as the political tendencies of the state of Utah, which tend to be fairly hands-off in intracompany affairs, would further limit the reality of a state-ordered solution being implemented in the first place, let alone enforced with enough vigor to lead to lasting increases in diversity within Silicon Slopes.

\(^{147}\) McCahery et al., \textit{supra} note 123, at 27.
Likely the best state-ordered solution would be for members of the Silicon Slopes as well as state and federal leaders to advocate for uniformity in ESG reporting and standards, with the SEC adopting a similar relationship with SASB that IASB has formed. The current regime has led to confusion on the part of investors and, in some cases, seems to have inhibited the central motives of ESG: bringing about environmental and social good.

Standardizing reporting standards will benefit both investors seeking out ESG investment opportunities as well as founders seeking to further social and environmental good. The increase in capital flowing into ESG-focused funds and investments would then further incentivize founders to increase diversity of founding teams and could help alleviate Silicon Slopes’ diversity problem.

Of the potential private-ordered solutions, the most likely success would likely come from a grassroots overhaul of the venture capital market. While it does seem promising to have similar initiatives instituted by private actors including NASDAQ, it is difficult to see how much of an impact they could have on the Silicon Slopes market itself. Yes, many of the largest technology companies in the state are either trading on NASDAQ or are working to adhere to either Glass Lewis’ or ISS’ proxy recommendations, and must, therefore, increase their board diversity and provide disclosures. However, those solutions do not appear to be getting at the source of the problem: what is happening at the incipience of the company. Further, it is unlikely that simply a

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148 See generally GLASS LEWIS, supra note 133; see generally ISS, supra note 121.
disclosure regime—or one that requires one or two board members from traditionally underrepresented groups—will bring lasting gains in diversity and inclusion, as these do not seem to be getting at the root causes of the diversity issues.

Because of this, the recommendation would be for VC firms to act first and do their part to ensure portfolio companies are grown with diversity and inclusion in mind. These firms should do their best to implement diversity initiatives within their own sphere of influence. Radical changes like ditching the pitch or implementing some sort of blind initial pitch could potentially move the needle in garnering greater representation in the technology industry. While such radical innovations may be difficult to implement, the benefits to VC firms, founders, and surrounding communities could be significant, as evidenced by recent research conducted by McKinsey and others demonstrating the benefits to financial performance where diversity is emphasized.149

B. Conclusion

The state of Utah is increasingly becoming an economic powerhouse with Silicon Slopes at its heart. From its humble beginnings with DARPA at the University of Utah150 to the most recent investment of $11 billion by Texas Instruments,151 Silicon Slopes has been involved with some of the most significant innovations throughout the history of the technology industry in the

149 SUNDIATU DIXON-FYLE ET AL., supra note 144.
150 See Markoff, supra note 24.
151 See Texas Instruments selects Lehi, Utah, for its next 300-millimeter semiconductor wafer fab, TEX. INSTRUMENTS (Feb. 15, 2023).
United States. It has an opportunity to be on the forefront of the next phase of the technology industry—one that is more inclusive to individuals from all walks of life.

While the current issues regarding diversity and inclusion in the Silicon Slopes are daunting, Silicon Slopes and the state of Utah can be equal to the task by implementing solutions such as a radical revamping of the pitch process as well as working on standardizing ESG reporting frameworks and standards. The solutions may not have an immediate or direct impact but over the long run would likely lead to gains in diversity and inclusion in the Silicon Slopes. In time, the makeup of Silicon Slopes may better approximate the demographics of the vibrant communities encompassed within the market, and Silicon Slopes cannot only elevate itself but those around it as well.