

Cal Poly Entrepreneurship:  
The Journey of Innovative Culture at the University

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by

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## **Abstract**

Entrepreneurship is an essential part of the free enterprise system that the economies of most countries including the United States are based upon. For such a vital part of the economy entrepreneurship is surprisingly a lacking topic of focus at the university level. Research and development has seen steady growth at top American universities, but at a general level smaller universities have either not implemented an entrepreneurship concentration or not placed enough resources into developing a successful program. California Polytechnic University, San Luis Obispo stands out as a smaller public university that has cultivated an impactful entrepreneurship program, producing successful companies, innovators, and entrepreneurs. The paper seeks to explore the roots of the entrepreneurship concentration and program at Cal Poly. Research of various sources such as course catalogs, newspapers, and magazines along with interviews of the founders, early participants, and alum of the program indicate that an entrepreneurship ecosystem has always existed at Cal Poly. This made for the program to be easily fostered and developed into the accomplished program that it is today.

## University Entrepreneurship Introduction

The spirit of free enterprise and its counterpart, entrepreneurship, is a strong value within American society. Yet for such an important and valued aspect of the country's identity its development at the university level is neglected. Anne Colby, Thomas Ehrlich, and William Sullivan in their scholarly book, *Rethinking Undergraduate Business Education: Liberal Learning for the Profession* summarize, "entrepreneurship is not strongly represented in the curricula of most undergraduate business programs nor is it widespread in relevant areas in the arts and sciences."<sup>1</sup> There is an increasing awareness of this issue and universities such as Cal Poly are taking steps to address the need to cultivate and prepare entrepreneurs.

Chad Brooks, a *Business News Daily* senior writer, defines entrepreneurship as the "development of a business from the ground up - coming up with an idea and turning it into a profitable business."<sup>2</sup> In the context of the university, the entrepreneurship program and curriculum equips students to handle this "development of business." The Charles D. Close School of Entrepreneurship at Drexel University is the nation's first separate school of entrepreneurship formed in 2013. In its proposal, the university states that the process of entrepreneurship is already inherent within the education system, yet a formalized method is necessary to equip young entrepreneurs.<sup>3</sup> This formalized method includes a curriculum focused on enhancing the entrepreneur as an individual and equipping the entrepreneur with the skills and

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<sup>1</sup> Anne Colby, Thomas Ehrlich, Jonathan R. Dolle, and William M. Sullivan, *Rethinking Undergraduate Business Education: Liberal Learning for the Profession* (San Francisco, CA: Jossey-Bass, 2011), 141.

<sup>2</sup> Chad Brooks, "What is Entrepreneurship?" *Business News Daily*, January 2015, <http://www.businessnewsdaily.com/2642-entrepreneurship.html>, accessed 20 February 2016.

<sup>3</sup> Connor Forrest, "Drexel University Launches the First Stand-alone School of Entrepreneurship." *TechRepublic*, January 2015, <http://www.techrepublic.com/article/drexel-university-launches-the-first-stand-alone-school-of-entrepreneurship/>, accessed 20 February 2016.

knowledge that includes various topics such as venture capitalism, global entrepreneurship, ideation, and clean tech ventures.<sup>4</sup>

Cal Poly is a school dedicated to a “Learn By Doing” culture, one infused into the university’s identity as a polytechnic school.<sup>5</sup> This paper will primarily revolve around the Orfalea College of Business’s entrepreneurship concentration and the support that students receive from both the college and associated entrepreneurship clubs. The paper seeks to prove that Cal Poly’s successful entrepreneurship program and concentration stems not from government funding or a focus on achieving academic stature as most R&D universities do, but rather from the existent entrepreneurial spirit at the university founded in the “Learn By Doing” culture.

### **Comparative Literature**

Entrepreneurship is increasing in presence and prestige is increasing today. Arguments related to this recent success and growth are considered in this section. Cal Poly’s entrepreneurship program’s success and growth are both similar and different to these arguments points. Observations comparing and contrasting Cal Poly against the comparative literature are addressed in the conclusion section.

Entrepreneurship at the national level has remained a steady interest of many Americans. The *2015 Kauffman Index: Startup Activity National Trends* report displays that in 2015 about 31% of the adult population created a new business per month equating to about 500,000 adults becoming entrepreneurs a month.<sup>6</sup> Over a 19 year span from 1996 to 2015 the percentage share

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<sup>4</sup> Ibid.

<sup>5</sup> Robert E. Kennedy, *Learn By Doing: Memoirs of a University President: A Personal Journey with the Seventh President of California Polytechnic State University* (San Luis Obispo: California Polytechnic State University, 2001) [Reserve Desk and Special Collections], 24.

<sup>6</sup> Robert W. Fairlie, *et. al.*, *2015 The Kauffman Index: Startup Activity National Trends* (Kansas City: The Ewing Marion Kauffman Foundation, 2015), 10.

of total entrepreneurs that are college graduates rose from 23.7% to 33%, but the fact is the vast majority of entrepreneurs are not college graduates.<sup>7</sup> Using the results of the Kauffman index, entrepreneurship seems to be growing at a steady monthly and yearly rate, but if approximately 66% of these entrepreneurs do not attend or graduate college how prepared are they? Or how necessary is a college background in entrepreneurship? Scott Shane, an economist and author of *The Illusions of Entrepreneurship*, states that “many studies show that better educated entrepreneurs (college educated) have greater access to external capital, lower business failure rates, greater business sales, and employment growth, and more profitable ventures.”<sup>8</sup> Shane also goes on to state in an earlier argument focusing on the effects of entrepreneurship education, that a comparison of entrepreneurs who received training in the form of entrepreneurship classes did not score much better than fellow entrepreneurs who received no formal training in terms of business metrics.<sup>9</sup> Scott’s observations and studies display formal entrepreneurship training outside the college experience offers little added benefit. In fact the curriculum, though useful, is not what makes a successful entrepreneur. Instead, it is the hands on culture in college, the networking opportunities, and the financial backing of colleges that makes the university entrepreneurship valuable.

Mariana Mazzucato, a former professor in the Economics of Innovation at the Open University and currently the RM Phillips Chair in Science and Technology Policy at the University of Sussex, argues that the majority of entrepreneurship backing and support comes

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<sup>7</sup> Fairlie, 15.

<sup>8</sup> Nick Leiber, “Entrepreneurs Do Better With College – Studies,” *Bloomberg Businessweek*, June 2014, <http://www.sfgate.com/technology/article/Entrepreneurs-do-better-with-college-studies-4094677.php>, accessed 20 February 2016.

<sup>9</sup> Scott Shane, “Does Entrepreneurship Education Make People Better Entrepreneurs?” *Small Business Trends*, September 2010, <http://smallbiztrends.com/2010/09/does-entrepreneurship-education-make-people-better-entrepreneurs-2.html>, accessed 20 February 2016.

from centralized governments.<sup>10</sup> In her pamphlet, *The Entrepreneurial State*, she states that the majority of innovations and entrepreneurial activity are funded by centralized governments rather than private or angel investors: “none of these technological revolutions would have occurred without the leading role of the state. It is without admitting that in many cases, it has in fact been the state, not the private sector that has had the vision for strategic change.”<sup>11</sup> These innovations backed by the state include the technological advances, bio-medical achievements, and development of successful Silicon Valley companies over the past two decades.<sup>12</sup> The United States has often been torn between what degrees both the state and federal government should be involved in the economy. Capitalism takes on the idea of Adam Smith’s laissez faire policy, but when it comes to funding of entrepreneurship especially at the university level the public seems to see no issue. Since 2000 the federal government has consistently been the major source of resource and development funding at universities and colleges. In 2000 federal funding hovered just above a 50% share of total funding and reached an all-time high in 2005 at 64%.<sup>13</sup> The National Science Foundation Survey of Research and Development Expenditures reports that as late as 2011 R&D university expenses totaled \$65.1 billion and \$40.8 billion of the total was funded by the federal government.<sup>14</sup> Despite the steady increase in funding and the agreement of its importance and influence in R&D progress statistics show that the United States has actually fallen behind other countries in government-funded university research. A report by the Information Technology & Innovation Foundation displays that from 2000 to 2008 the United States ranked 22 out of 30 countries in university research funding and business-funded

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<sup>10</sup> Mariana Mazzucato, *The Entrepreneurial State*, (London: Demos, 2011), 14.

<sup>11</sup> *Ibid.*, 20.

<sup>12</sup> *Ibid.*, 19.

<sup>13</sup> Ronda Britt, “Federal Government is Largest Source of University R&D Funding in S&E; Share Drops in FY 2008.” N.p.

<sup>14</sup> Ronda Britt, “Universities Report Highest-Ever R&D Spending of \$65 Billion in FY 2011.” 1-2.

university research.<sup>15</sup> The impact and influence that funding has on innovation and the economy, as laid out by Mariana Mazzucato, is being noticed by governments globally. The increased investment over the past few decades, primarily by the government but also private investors, has led to changes among the university landscape with increased interest and focus on entrepreneurship curriculums and program.

As referenced earlier in the introduction, professors, researchers, and senior scholar Thomas Ehrlich, Jonathan R. Dolle, William Sullivan, and Anne Colby respectively; summarize entrepreneurship at the university level as simply lacking.<sup>16</sup> They state that most business schools recognized the importance of learning about entrepreneurship, but few offered opportunities for students to prepare for a career of innovation and entrepreneurship.<sup>17</sup> This gap between recognition of needs and the follow up to meet those needs has several reasons. These reasons had to do more with administrative decisions and reasoning. As indicated in earlier sections there is significant interest in the field of entrepreneurship, but many business educators doubt that new graduates would not be experienced enough to become successful entrepreneurs. Thus Colby found that they did not include entrepreneurship programs in order to “discourage unrealistic and risky aspirations.”<sup>18</sup> Another reason behind the lack of learning opportunities in this field is that there are not enough experienced faculty teaching entrepreneurship courses as a specialization.<sup>19</sup> This lack of “tenure track faculty” in the field stems from the stigma that entrepreneurship is not an academic discipline. When compared to academic disciplines such as

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<sup>15</sup> Robert Atkinson and Luke A. Stewart. “University Research Funding: The United States is Behind and Falling.” *The Information Technology & Innovation Foundation*, May 2011, 1-2.

<sup>16</sup> Anne Colby, et al. *Rethinking Undergraduate Business Education: Liberal Learning for the Profession*, (San Francisco, CA: Jossey-Bass, 2011), 141.

<sup>17</sup> *Ibid.*

<sup>18</sup> *Ibid.*, 144.

<sup>19</sup> *Ibid.*, 145.

engineering, medicine, and law entrepreneurship is not as established and have the prestige that society links to higher education learning.

In their scholarly analysis of entrepreneurship programs titled, *Building University 21<sup>st</sup> Century Entrepreneurship Programs that Empower and Transform*, Michael H. Morris and Donald Kuratko claim that entrepreneurship at the university level is growing and trending. They state that “over these past four decades, entrepreneurship has grown faster than virtually any other area of intellectual pursuit.”<sup>20</sup> Although the quote by Morris and Kuratko state four decades it is not a contradiction of Colby and fellow researchers, but merely confirms that though the field is growing it is still not at the level of other academic disciplines. In order to push the field to a sustainable level on par with other academic disciplines, universities have structured the entrepreneurship field into programs, institutes, centers, departments, and schools.<sup>21</sup> The goals of these new entrepreneurship endeavors are to raise money and push out innovative ideas and products in order to achieve academic stature, leadership, and correct governance.<sup>22</sup> Overall the trend at the university level is that though entrepreneurship is a growing field being offered at universities it is still lacking when compared to other academic disciplines. Achieving additional prestige and stature are important to universities and if entrepreneurship can prove that can it add value in these categories it may find more welcoming homes in the future.

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<sup>20</sup> Michael H. Morris and Donald F. Kuratko, “Building University 21st Century Entrepreneurship Programs that Empower and Transform,” In *Advances in the Study of Entrepreneurship, Innovation & Economic Growth: Innovative Pathways for University Entrepreneurship in the 21st Century* 24, ed. Sherry Hoskinson and Donald Kuratko, (Bingley, UK: Emerald Group Publishing Limited, 2014), 3.

<sup>21</sup> *Ibid.*, 4.

<sup>22</sup> *Ibid.*

## Cal Poly Entrepreneurship

Traditionally known as an agricultural and engineering school Cal Poly began looking to expand academically.<sup>23</sup> The College of Business at Cal Poly, today known as the Orfalea College of Business, began as a business program within the Social Sciences School in 1959.<sup>24</sup> The program was an initial success and saw its student enrollment, faculty, and staff population increase over the next two decades. In 1976 the program reached a high of 1,500 students with 62 faculty members and a new dean.<sup>25</sup> Due to the rapid growth and popularity of the business administration program and degree the program was reorganized into the School of Business. The school expanded its offerings beyond the general business program to include concentrations in accounting, finance, human resource management, economics management, productions operations management, and information systems management.<sup>26</sup> The concentrations within the school were focused on management, preparing students to take jobs and roles associated with leading and managing projects.

The concentrations that the newly accredited school of business offered were management based. The culture of the university academically revolved around a “Learn By Doing” motto and business students looked to expand beyond their management focus. Before entrepreneurship was a concentration at the school business students found ways to work with other majors in design, production, and innovating. An Orfalea College of Business Pamphlet in 2004 highlights this culture of “Learn By Doing” and collaboration within the school through the examples of three companies that began out of Cal Poly; Left Coast Enterprises, Guayaki Yerba

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<sup>23</sup> Cal Poly: The First Hundred Years (San Luis Obispo: Robert E. Kennedy Library, California Polytechnic State University, 2001) [Reserve Desk and Special Collections], 22.

<sup>24</sup> “Background - Cal Poly School of Business,” *SAM: Twenty-Second Annual Business Seminar 1988*, San Luis Obispo: Cal Poly Student Chapter Society for Advancement of Management and Cal Poly School of Business, 1988.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid.

Mate, and Dove Lighting Systems Inc.<sup>27</sup> Each of these companies were founded by Cal Poly students of various majors such as computer science and engineering, but each was similar in which business students formed the other half of the partnerships. Beginning in 2001 entrepreneurship became an increased focus of the school as a new strategic theme to “define a distinctive niche in the world of business educations that fits Cal Poly’s ‘polytechnic’ character.”<sup>28</sup> The school, relatively new compared to other colleges at Cal Poly, started to align their mission with Cal Poly’s by justifying this new strategic theme as one that would “exemplify Cal Poly’s ‘Learn By Doing’ philosophy.”<sup>29</sup> Perhaps due to the culture of the university and the natural interest of the students the College of Business realized the readiness for a hands on entrepreneurship concentration to compliment the managerial focus of the school.

The entrepreneurship concentration officially appeared for the first time on the 2005-2007 course catalog.<sup>30</sup> The planning however behind the concentration began before with the encouragement and work of a collective group of individuals, Dean Christie, Professor John York, and Professor Lou Tornatzky. Just before 2004 the school recognized that although there were many students and groups interested in innovation and entrepreneurship the university and college of business offered no formal backbone to the culture. Dean Christie capitalized on this interest and culture by encouraging the embedding of entrepreneurship into the established business curriculum.<sup>31</sup> The entrepreneurship concentration began as the “Entrepreneurship and Small Business Concentration” in 2005 offering a total of eleven courses.<sup>32</sup> The introduction began a transition of a poignant, but aimless culture into a successful, focused program. Progress

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<sup>27</sup> “Alive and Well in OCOB Alums: The Entrepreneurial Spirit,” *Poly Biz News*, San Luis Obispo: The Orfalea College of Business, 2004.

<sup>28</sup> “The Orfalea College of Business Through History,” *Cal Poly Magazine*, Fall 2001, 33.

<sup>29</sup> *Ibid.*, 32.

<sup>30</sup> Academic Affairs, “The 2005-2007 Cal Poly Catalog.” Course Catalog. 2005-2007, Course Catalogs. Digital Commons @ Cal Poly, San Luis Obispo, 164.

<sup>31</sup> James Valdez, interview by David Karditzas, 24 February 2016.

<sup>32</sup> Academic Affairs, “The 2005-2007 Cal Poly Catalog, 164.”

was made within the concentration as more faculty were added such as Professor York in 2009<sup>33</sup> and broader courses offered. The 2013-2015 Cal Poly Catalog displays a clear and concise recognition of the program simply known as the “Entrepreneurship Concentration”, now consisting of nineteen course offerings.<sup>34</sup>

The entrepreneurship concentration offered a formal methodology for business students to study key entrepreneurship concepts and gain hands on experience collaborating with innovators. Before the concentration, an ecosystem previously existed to offer hands on experience and resources to students beyond the college of business. 2001 proved to be a key year at Cal Poly as the Sun Campus Incubator and Cal Poly Entrepreneurs Club were both initiated.<sup>35</sup> Both the Incubator program and the Entrepreneurs Club introduced successful entrepreneurs, and prepared student teams to present at the business competitions and pitches such as the first Ray Scherr Business Plan Competition.<sup>36</sup> Jake Disraeli, a 2013 Cal Poly business and entrepreneurship concentration alum and former innovation coordinator at the Cal Poly Center for Innovation and Entrepreneurship, describes these early beginnings as an ecosystem that has evolved, but always existed at the university.<sup>37</sup> This early natural ecosystem was a reference point for the entrepreneurship spirit and culture existent at Cal Poly, but offered a loose if not unorganized path towards innovation development.

Professor Jonathan York and Professor Lou Tornatzky began the process of creating an entrepreneurship program for students built to last. Both with decades of professional and educational experience and a myriad of connections and resources, co-founded the Center for

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<sup>33</sup> Jonathan York, interview by David Karditzas, 1 March 2016.

<sup>34</sup> Academic Affairs, “Catalog 2013-2015,” Course Catalog, 2013-2015, Cal Poly Catalog, San Luis Obispo, 173.

<sup>35</sup> “The Orfalea College of Business Through History,” 32.

<sup>36</sup> Ibid.

<sup>37</sup> Jake Disraeli, interview by David Karditzas, 24 February 2016.

Innovation and Entrepreneurship in 2010.<sup>38</sup> The journey to the CIE, the entrepreneurship capstone program at Cal Poly, began a year earlier for Professor York as he guided and advised the newly formed Cal Poly Entrepreneur club in 2009.<sup>39</sup> The club was student run, but lacked resources and strong support. To meet the existent demand and needs the CIE was founded. The CIE became an umbrella of sorts as it “cultivated a continuum of resources for students of all disciplines, including pitch competitions; the Hatchery; the SLO Hothouse Accelerator; and Silicon Valley Entrepreneurs.”<sup>40</sup> The CIE and its umbrella programs focus on providing the space, resources, and people necessary for Cal Poly entrepreneurs to succeed. Today, the programs are continuously expanding both in prestige and physically. The SLO Hothouse recently has sought long term space within the San Luis Obispo community for both innovation development and residential purposes.<sup>41</sup> The CIE as of January 2016 has also reached thirty seven official companies applying for the Hatchery program, a record number of applicants for the CIE startup program.<sup>42</sup> This trend of expansion and growth over the past five years provides a glimpse into the ecosystem and culture already existent at the university. It simply needed further fostering to bloom.

Funding sources at the Orfalea College of Business leading up to the introduction of the entrepreneurship concentration changed drastically. The university’s label was moved from a “state funded institution” to a “state assisted institution” in 1997.<sup>43</sup> This shift was more than a title difference and pushed the university and its colleges to draw their resources from new

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<sup>38</sup> Kathleen E. Finken, “Provost’s Leadership Award for Partnership in Philanthropy Recipients: 2015 Awardee – Dr. Jonathan York,” (N.d.) <http://provost.calpoly.edu/PLAPIP-past-awardees>, accessed 25 February 2016.

<sup>39</sup> “Cal Poly Entrepreneurs,” (N.d.) <http://cie.calpoly.edu/learn/cal-poly-entrepreneurs/>, accessed 23 February 2016.

<sup>40</sup> Finken.

<sup>41</sup> “Jon, “SLO Hothouse Seeks New Location to Expand,” *Mustang News*, 5 May 2014, News.

<sup>42</sup> Lexi McCoy, “CIE Accepts Record Number of Entrepreneurs,” *Mustang News*, 22 January 2016. News.

<sup>43</sup> “Centennial Campaign Progresses Toward Fundraising Goal,” *Poly Biz News*, San Luis Obispo: The Orfalea College of Business, 2004.

sources. Specifically, the college of business ramped up its funding through endowments as seen in the table below.

<b>Endowment Comparison Between 1997 and 2004</b>	
<b>Year:</b>	<b>Endowment Value:</b>
1997 (6/30/1997)	\$171,184.61
2004 (1/31/04)	\$18,504,818.57

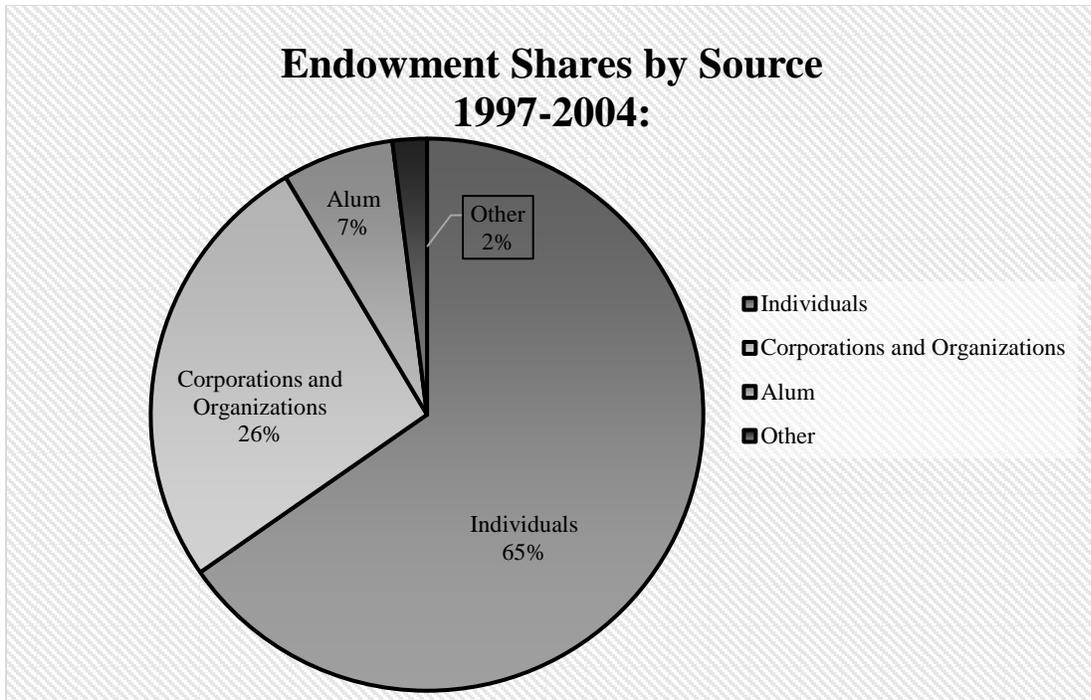
*\*Table created from previous data for purpose of paper.*<sup>44</sup>

The brief comparison between the 1997 and 2004 displays exponential growth in a relative short span. This growth is summarized by the 2004 *Poly Biz News* article, “Centennial Campaign Progresses Toward Fundraising Goal,” as tremendous and nearing the \$30 million goal set earlier in the new century. The result was a total of \$24,166,245 raised in gifts and pledges between the six and half year span from 1997 to 2004.<sup>45</sup> The endowments were broken down further by *Poly Biz News* to display that a majority of new funding came from individuals and private investors.

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<sup>44</sup> Ibid.

<sup>45</sup> Ibid.



*Chart created from previous data for purpose of paper.*<sup>46</sup>

The rise of endowment funding in such a relative short time span indicates the awareness of the university and the college of business of the importance of non-government funding sources. The entrepreneurship concentration introduced immediately after the 2004 fiscal year was a direct beneficiary of this endowment growth. Lou Tornatzky and John York continued these funding efforts by raising private funds for the CIE and various other entrepreneurship support programs.<sup>47</sup> Although endowments at the college exponentially grew the funding received correlating to the introduction of entrepreneurship in 2005 logically does not make sense. Compared to universities that are nationally known as research and development programs the \$30 million raised pales in contrast to the hundreds of millions of dollars universities such as Stanford, Washington University, and MIT receive from the federal government.<sup>48</sup> The fact that despite the shift in title and funding from the state the college decided to introduce the

<sup>46</sup> Ibid.

<sup>47</sup> York interview.

<sup>48</sup> Ronda Britt, "Universities Report Highest-Ever R&D Spending of \$65 Billion in FY 2011." 1-2.

entrepreneurship concentration displays the confidence and support in the culture, benefits, and potential success of the program. The endowment growth has certainly helped support the college's programs and provides in the place of the federal and state government funding that other research universities receive.

Professor James Valdez, an Industrial Technology professor and entrepreneurship instructor at Cal Poly, states that one of the benefits of an entrepreneurship program is that it is “self-serving.”<sup>49</sup> “Self-serving” as the college pours in to students now and in the future receives a return on investment in the form of either financial donations or program support, both leading to increased program prestige. Although the financial aspect apparent it is the program support of alumni that has been of the most immediate impact on the concentration and program. An example is Jesse Dundon, a 2007 Cal Poly Industrial Technology graduate and co-founder and CEO of Hathway, who as a recent “Forbes 30 under 30” recipient focused on providing opportunities for students to work on innovating concepts in close proximity with the company.<sup>50</sup> Dave Becker, another “Forbes 30 under 30” recipient, adds to the prestige of the entrepreneurship program beyond the concentration with the success of Inpress, a health care device provider, developed within the CIE and the Hothouse accelerator program.<sup>51</sup> The recent successes of the new entrepreneurship concentration and program's alumni have created a full circle in which the beginnings of a prestigious and successful program are being built. The success is due to the culture of Cal Poly and the ecosystem built around the motto of “Learn By Doing.” Students, faculty, and supporters have embraced the program these last ten years, made the most of every situation, and focused on building the program up from the ground.

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<sup>49</sup> Valdez interview.

<sup>50</sup> Julie Lynem, “SLO's Hathway, Amid Breakneck Growth, Holds on to Startup Culture,” *The Tribune*, 9 April 2015, Business.

<sup>51</sup> \_\_\_\_\_, “2 Cal Poly Grads Make Forbes 30 Under 30 List.” *The Tribune*, 20 January 2015, Business.

## University Entrepreneurship Conclusion

Cal Poly entrepreneurship is a collection of both formal institutionalization and programs that collaborate closely with each other, students, and faculty. Entrepreneurship has always existed at Cal Poly within the student body, an ecosystem of innovation and creative pursuits. As indicated by the Kauffman index the field of innovation and entrepreneurship is popular and growing amongst all spectrums of the population within the United States. The ecosystem represents this natural interest that many share, and Cal Poly students desires to create a program to support their endeavors. What stands out is its emergence both in terms of where it draws its resources from as well as the goals of the concentration and program.

In contrast to Mariana Mazzucato's argument that entrepreneurship and innovation are mainly results of a central government's investments, Cal Poly's College of Business and the entrepreneurship programs within derive their resources mainly from private endowments and sponsorships. Although these two are at opposite ends of each other it is true that both can coexist. Larger, established research driven universities receive the bulk of government funding as indicated by the Universities R&D reports by Ronda Britt.<sup>52</sup> Smaller universities like Cal Poly coexist as a "bigger fish in a smaller pond"<sup>53</sup> by capitalizing on local resources and cultivating a self-serving program. Though resources come from a different source than typical R&D universities, the success of the Cal Poly entrepreneurship program proves that there are multiple ways to fund and establish a sustainable program.

In building a strong formal curricular system, the College of Business brought in experienced educators such as Professors Jonathan York and Professor Lou Tornatzky. The focus was not to build a strong academic discipline, which Michael Morris and Donald Kurakto

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<sup>52</sup> Britt, "Universities Report Highest-Ever R&D Spending of \$65 Billion in FY 2011." 1-2.

<sup>53</sup> Valdez interview.

allude to<sup>54</sup>, but a successful program that would complement and drive the already existent culture at Cal Poly. Professor York and Professor Tornatzky and their umbrella system, the Center for Innovation and Entrepreneurship, developed a system that embraces the “Learn By Doing” process rather than just focusing on a curricular strategy.

Cal Poly entrepreneurship has evolved over the past decade, but always revolved around the student ecosystem and culture of the university. This natural ecosystem of innovation made the university and the College of Business ripe ten years ago for an entrepreneurship discipline and program. Different in funding sources, academic goals, Cal Poly proves that different can be successful if the key ingredients of innovation, drive, and students are there.

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<sup>54</sup> Morris.

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