

Stanford University: Its History, Legacy, and Influence

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Table of Contents

Title Page.....	1
Table of Contents.....	2
Preface.....	3
Introduction.....	4
The Stanford Family History.....	4 - 8
Changes to Stanford University.....	8 - 10
The Rise of Silicon Valley.....	10 - 12
Stanford University Today.....	12 - 13
Stanford During the Recession.....	13 - 15
Conclusion.....	15
Works Cited.....	16 - 18

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Preface

Stanford University has a rich history. From the very beginning, with 559 students, to the modern day number of around 15,200 students. Stanford has had an impact on many lives, through its many schools. Whether training to become a doctor or nurse, or preparing to brave the business industry, Stanford has many schools to prepare its students for different professions.

Stanford University's campus is very large, 8,180 acres in all, which allows it to facilitate specific schools. If you are looking to prepare for a job in the medical field, Stanford has a school specifically designed for training students to become doctors nurses, surgeons and other people working in the medical industry. Although, it is not just healthcare that Stanford prepares students for, Stanford University also has many other schools on campus. For example the Graduate School of Business and the School of law are two of the seven schools specifically tailored to a single industry.

Celebrating over a hundred years of work, Stanford University first began as a memorial. Leland and Jane Stanford, the founders of the university, were looking for a way to preserve their fifteen year old son's memory. Leland Stanford, Jr. had died of Typhoid Fever while in Florence, Italy. Read on to find the results of those seeds planted by Mr. and Mrs. Stanford.

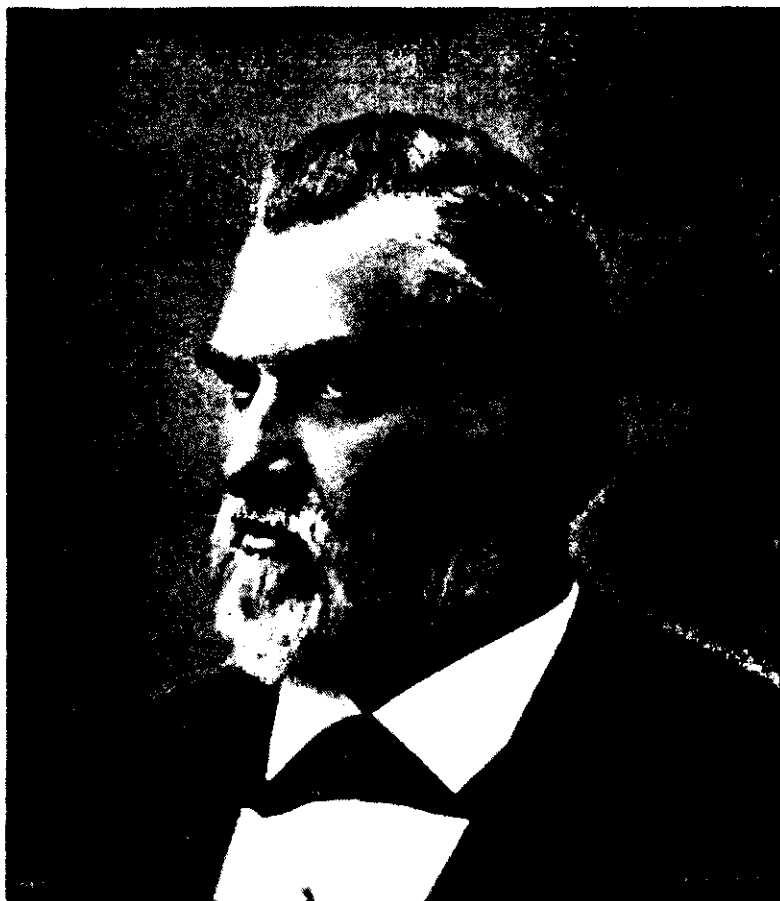
Introduction

What do you think of when you hear the name Stanford? Do you think of the world renowned university, or the man with an entrepreneurial spirit looking for a way to memorialize his son? When Stanford University was created, very few knew of its existence. As the school grew in reputation, an increasing number of people began to recognize the name. Let us begin with the Stanford family's story.

The Stanford Family History

Leland Stanford was born on March 9, 1824, in the town of Watervliet, New York. His parents, Josiah and Elizabeth Phillips Stanford, had seven other children. Stanford was tutored at home until 1839. He then attended Clinton Liberal Institute in Clinton, New York, and studied law at Cazenovia Seminary in Cazenovia, New York. To the right is a picture of him.

Jane Elizabeth Lathrop was born on August 25, 1828, to Dyer and Jane Ann Shields Lathrop, a Christian couple who lived in Albany, New York. Jane was the third of seven children. She, like many women during her time, was educated at home.



Leland Stanford
Leland Stanford

U.S. SENATOR, PRESIDENT OF EXECUTIVE COMMITTEE, STANFORD

Leland Stanford and Jane Lathrop were married on September 30, 1850. They moved to their first home in Port Washington, Wisconsin, where Leland established a law practice. Yet, in 1852, a fire destroyed Leland's office and library. Soon after, Leland departed for California, where his five brothers were. Jane's family insisted that she come home to them, and she complied. She spent the next three years caring for her sick father. Jane sorely missed Leland, and the separation took its toll on her. The other people of Albany called her a "deserted bride."

In June of 1855, Leland returned to Albany after hearing about his father-in-law's death. He and Jane settled on moving out to Sacramento, California. Later on, they were joined by her mother, sister, and three brothers. Leland ran for governor of California in 1861, and succeeded. He was governor of California for two years. 1861 was also the same year Leland became president of the Central Pacific Railroad. Leland was a part of the "Big Four," four different entrepreneurs that all owned a fourth of the railroad. After the railroads were completed, the Golden Spike was presented at Promontory, Utah. Leland was the man that drove the spike into the track.



Jane Stanford

At age 39, Jane gave birth to their first son on May 14, 1868. He was named Leland Dewitt Stanford, but preferred the name Leland Stanford, Jr. During the 1880s, the Stanford family toured Europe on two different occasions. Leland Stanford, Jr. went on this trip to gather artifacts for the museum he wished to open someday. Sadly, Leland Stanford, Jr., fell ill with

Typhoid Fever while in Florence, Italy. He died there, at age 15, after battling the illness for several weeks. Leland, Sr. and Jane were devastated, and began to seek out a way to memorialize him.

While this idea was brewing in their heads, San Francisco was booming, while nearby Palo Alto, the future site of the university, was mostly uninhabited. Wells Fargo was being established in San Francisco by Henry Wells and William Fargo. Palo Alto was most uninhabited, just waiting for someone to use the land. Earlier on, Leland had bought almost half of the land that would eventually become incorporated as Palo Alto.

The Stanford family began planning memorials for their son when they arrived back from Italy. They visited several universities on the East coast to gather ideas. On November 11, 1885, Leland and Jane signed the grant that would found the Leland Stanford Junior University. Over the next few years, Leland and Jane began to plan out several aspects of the soon-to-be university. Jane wanted to include a museum with the artifacts that Leland Stanford, Jr. had collected in Italy.

On October 1, 1891, Leland Stanford Junior University was opened, with a student body of 559 men and women, along with 15 faculty. David Starr Jordan was the first president of Stanford University. Out of the 15 faculty, six were professors. This included Dr. Andrew D. White, F. Stanford, Horace B. Gale, Professor Joseph Swain, and Douglass H. Campbell. When Stanford opened, it did not charge tuition. The university's motto, introduced by David Starr Jordan, became a German saying, "Die Luft der Freiheit weht." In English, this is translated as "The Wind of Freedom Blows."

In the year of 1893, on June 21, Leland Stanford died in his home in Palo Alto. His death plunged the university into disarray. The government challenged the ownership of the Stanford estate, which included the land on which Stanford was built. Jane Stanford personally ensured that the university would continue on. She used her salary of \$10,000 dollars per month to support the school through six hard years. During this time, the government sought early payment of loans made in the 1860s for the Central Pacific Railroad. In March of 1896, the United States Supreme Court rejected the government's claim on Leland Stanford's land.

Following the resolution of the ownership of the estate, the university built several new buildings, and additions to existing ones. Jane oversaw the building of new wings in the museum, making it the largest privately owned museum in the country at the time. Also built were a new library, gymnasium, and chemistry building. While she did focus mostly on buildings, Jane watched the enrollment as well. In May of 1899, she began to worry that too many women were attending, so she limited the number of female students to 500. The next year, Jane oversaw the creation of the university's first scholarship, because the university did not charge tuition until 1920. This scholarship, which was used to cover living expenses, was paid out of an account that had belonged to Leland, Jr.

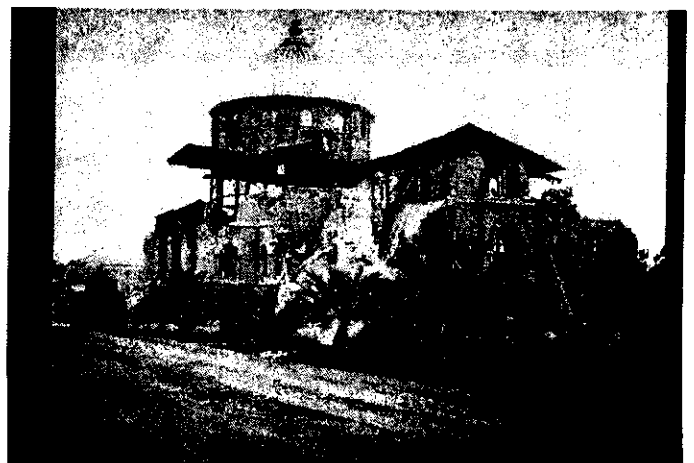
Jane began to seek out a quieter life in 1903, and sought to travel the world. She embarked on a trip to Australia, Asia, and the Middle East. In February of 1905, Jane prepared for a second world trip. She informed the Board of Trustees that she would be selling her jewelry, and that she would establish a "Jewel Fund." To this day, the fund continues to pay for hundreds of books and other materials for the usage of the faculty and students.

This trip was to be Jane's last. She died on February 28, 1905, in Honolulu, Hawaii. Why Jane died was a controversial issue. A month before, at her San Francisco home, Jane had consumed a glass of water with a bitter taste. Chemical test revealed trace amounts of Strychnine, which is a very toxic, colorless crystalline alkaloid. Weeks later, on the night of her death, Jane took a dose of bicarbonate of soda, a remedy which she frequently used as a cure. Witnesses reported that she declared she had been poisoned. Tests on the bottle also showed amounts of Strychnine. There were two autopsies done on her, but they yielded conflicting results. Her cause of death was never fully determined.

Stanford's president, David Starr Jordan, and trustee Timothy Hopkins, escorted Jane's body back to California. Her funeral was held in Memorial Church on March 24, 1905. She was laid to rest with her husband and son. Her will donated money to several charities and relatives, but her most memorable legacy was the university. The people at the university will always remember how she kept Stanford University alive through the time after Leland Stanford's death. Some of her jewelry and other items are still kept at the university.

Changes to Stanford University

In April of 1906, the Great San Francisco Earthquake struck. It caused extensive damage to the university. The men's dormitory was damaged, along with the South outer arcade, and many other areas around the quadrangle. It killed two people who on campus. One of these deaths was Otto Gerdes, a staff member, who realized the

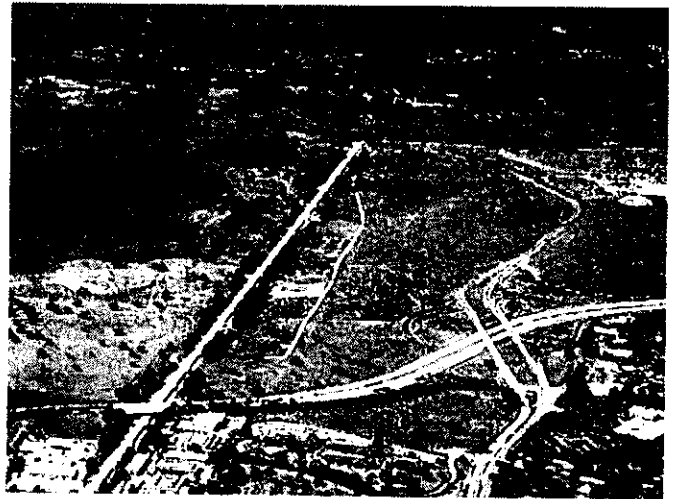


Stanford's Library in 1906

possibility of fire, and rushed back inside to turn off power and steam. He was crushed by falling debris as he exited. On April 19, the Stanford Mansion on Nob Hill went up in flames. Everything in the house was lost. Some of the structures were never rebuilt; others, like the church, would rise again. The university's graduation for that year was postponed until September.

In the years following, changes were made to Stanford University. Three different presidents, and those succeeding them, sought to improve Stanford University. Different schools were established, including the schools of law, medicine, and education. On August 1, 1913, John Casper Branner took the office as second president, Ray Lyman Wilbur following three years after him as the third. Enrollment of more than 500 female students was allowed in May of 1933. Stanford's 50th anniversary was celebrated in 1941.

In 1946, the Creative Writing Program was established by Wallace Stegner. The next year, 1947, the School of Mineral Sciences, now called Earth Sciences, was also established. The first broadcast of Stanford's own radio station KSU was transmitted on January 6 of that year. The following year, 1948, was the year that the Schools of Biological Sciences, Humanities and Physical Sciences, and Social Sciences merged to form the School of Humanities and Sciences.



Stanford Linear Accelerator

The Stanford Linear Accelerator Center was dedicated on September 9, 1967. The SLAC, later renamed the

SLAC National Accelerator Center, was designed for research. It was specified for experimental and theoretical research in elementary particle physics.

On October 17, 1989, the Loma Prieta Earthquake tore through the Bay Area. Unlike the 1906 earthquake, even with eight times as many students and faculty, there were no deaths. None of the major dormitories were destroyed, but many smaller complexes were destroyed or damaged. This resulted in the relocating of hundreds of students.

The day after the quake, an assessment of the damage was carried out. The older buildings were the buildings that took the most damage. The quake closed 26 buildings and restricted access to 34 others. Despite the damage, students and staff returned to work the day after. The university was only closed one day. Over the next decade, rebuilding would continue.

Two years after the quake, on September 28, Stanford celebrated its centennial year. Following a football game at 12:30 p.m., the students and staff partied in honor of the centennial. Two days later, a series of dances were held, including the Homecoming Parade, the Downtown Street Party, and the Dance on the Quad.

The Rise of Silicon Valley

Stanford has been behind the start of major companies for decades. In the 1930s, there were almost no jobs for the graduates, due to the great depression. Though there were no organized programs for creating jobs, the need for them motivated the Stanford faculty to help. Stanford played a big part in ushering in the Silicon Valley era. Professor Fredrick Terman was a major factor. He has been called the Father of Silicon Valley. He had been a student himself at Stanford, and received his PhD in 1924 from Massachusetts Institute of Technology.

William Hewlett and David Packard were both graduates from Stanford University. Packard, upon graduation, took a job at General Electric in New York. Hewlett stayed for a year of graduate study. Terman, now a professor at the university, began to encourage some of his promising students to create companies near the university. When the “resistance-tuned oscillator” was discovered, Terman suggested that Hewlett work on it. The oscillator had a few problems, which Hewlett worked out.

Lack of money was a problem, but Terman was able to get a \$1,000 grant for the project. In the autumn of 1938, Packard took a leave of absence from his job to return to Stanford. He was hired as a research assistant. Thus, Hewlett-Packard was formed. The company’s first large order came from Walt Disney Corporations. This order was to make the motion picture “Fantasia.” Today, Hewlett-Packard is one of the world’s top companies, employing more than 100,000 people worldwide, with a net revenue more than \$30 billion a year.

Yahoo! was another company influenced by Stanford University. What began as an idea grew into a hobby, and then a full-time passion. David Filo and Jerry Yang, two students at Stanford, began Yahoo!, first named “Jerry and David’s guide to the worldwide web,” to keep track of their personal interests on the internet. Filo and Yang said they selected the name because they like the word’s general definition, which comes from Gulliver’s Travels by Jonathan Swift. In 1994, they converted Yahoo! into a customized database to serve the needs of thousands of people. Yahoo! went public in April of 1996.

In the dot-com boom of 2000-2001, Yahoo! stocks rose to the highest they had ever been. During this boom, the news station CNBC reported that Yahoo! and eBay were discussing a 50/50 merger. This merger was never carried out, but they did enter into a marketing and

Google was created by Larry Page and Sergey Brin, both PhD students at Stanford University. They originally nicknamed the program “Back Rub,” since the system checked back links to determine the importance of a site. They eventually changed the name to Google, stemming from a misspelling of the word “googol,” meaning a one followed by one hundred zeros.



When it began, Google ran under the Stanford University website, taking the domain google.stanford.edu. Google.com was registered on September 15, 1997, and the company was incorporated on September 4, 1998, in a friend’s garage in Menlo Park. Google eventually outgrew that and two other locations, taking their headquarters at an office complex leased from Silicon Graphics at 1600 Amphitheater Parkway in Mountain View, California. Three years later, in 2001, Google would buy the property from SGI for \$319 million. By then, the word “Google” had found its way into everyday language, causing it to be included in the Merriam Webster Collegiate Dictionary and the Oxford English Dictionary. The definition is denoted as “to use the Google search engine to obtain information from the internet.” Google still continues to thrive today.

Stanford University Today

Since 2000, Stanford University has continued to flourish. From 1920, when tuition cost only \$120, to 2008, tuition costing \$36,030, Stanford has amassed a wealth of finances,

whether through donations or other tuition expenses. The biggest donation, given by The Hewlett Foundation, totaled at \$400 million. Student to teacher ratios have gravitated from 1:10 up to 1:20. Most often, the classrooms are smaller, averaging at one teacher to ten or eleven students.

Around 185,707 Stanford degree holders are still living, with 73,650 undergraduate alumni, 93,598 graduate alumni, and 18,459 dual-degree holders. These alumni can be found in 142 countries, 18 territories, and all 50 states, including the District of Columbia.

The first Nobel Peace Prize laureate of Stanford University was Physics Professor Felix Bloch, who received the acknowledgement on November 6, 1952 in physics. The next Nobel laureate was Kenneth J. Arrow, awarded the prize in 1972 for his contributions to the theories of general economic equilibrium and welfare. The latest winner was Richard E. Taylor, who was given the award along with Jerome I. Friedman and Henry W. Kendall "for their pioneering investigations concerning deep inelastic scattering of electrons on protons and bound neutrons, which have been of essential importance for the development of the quark model in particle physics." ("Nobel Laureate Richard E. Taylor")

Astronauts Eileen Collins, Mae Jemison, Bruce McCandless, Ellen Ochoa, and Sally Ride are all Stanford alumni. Warren Christopher, the U.S. Secretary of State and U.S. President Herbert Hoover were both alumni as well. The former California Governor Gray Davis was a Stanford graduate. There are many other alumni, some of which created the companies mentioned above.

Stanford During the Recession

Stanford is a world renown school, but what would make a college bound student choose there? There are many universities in California, but not all of them offer the same academic and athletic programs as Stanford. There are many benefits of going to Stanford, which I will discuss in this section.

Stanford had many schools on campus which allow them to educate students thoroughly in a specific industry. These schools include the Graduate School of Business, the School of Law, the School of Medicine, the School of Earth Sciences, the School of Humanities and Sciences, the School of Education, and the School of Engineering. Along with these schools, Stanford is involved in sports. They offer spots on basketball, football, baseball, soccer, and volleyball teams. The sports they offer that are not team sports are swimming and diving, track and field, and tennis.

From athletics back to academics, Stanford University has been forced to raise some undergraduate charges due to the recession. Leslie Hume, chair of the Board of Trustees, said that the economy was a major factor in the changing of the prices. They expect to increase undergraduate charges by 3.5% this following year. "In approving the tuition increase for 2010-2011, the Board of Trustees was mindful of the economic hardships facing many Stanford students and their families. We have tried both to moderate tuition increases and to ensure generous financial aid for those most in need," Hume said after the board's February 8 and 9 meeting.

Stanford is faring well against the downturn when compared to some of the others in the country. Although the tuition and other expenses is higher than the national average, the prices have been consistent throughout the past few years. The raises in price have only been

around \$1,500. Enrollment has actually grown when the years of 2006 - 2007 and 2007 - 2008 are compared.

The price of health care on campus is expected to stay where it is. The \$167 per quarter cost will remain there for the next year. The mandatory fee covers a variety of services at Vaden Health Center. Starting next year, students enrolled in the university's Cardinal Care Plan, a health insurance plan specifically designed for Stanford students, will be required to purchase coverage for the 12-month calendar year. In 2010-11, the premium cost of Cardinal Care will actually see a decrease of 4 percent in the price.

Financial aid is available at Stanford so that students who may not have the funds to attend college will be able to come to Stanford. This year, Stanford expects to provide around \$112 million in need-based aid. Students may also apply for Federal aid, for example the Federal Stafford, Perkins, and PLUS loans. Also available to help pay for tuition are student job opportunities. Stanford students may work on or off campus to earn money. Students may also apply for a Federal Work-study. This option allows students to work and use federal funds to pay for schooling, unlike a regular job where the wages are paid by the employer.

Conclusion

As you can see, Stanford University has a long history. Its influence in the surrounding culture is increasing. Stanford helped to usher in the Silicon Valley era, and continues to improve in technology, robotics and such. Whether in the history of Stanford, or where it is at today, we can see that Stanford University has left an impact on every generation, and continues to do so today.

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