

# Economics Group

## Special Commentary

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# Stanford vs. Oregon: Silicon Valley vs. Silicon Forest

## Week 4 Brings a Big Matchup in the Pac-12 North

Our weekly mash-up of football and economics moves west this week, where the 20<sup>th</sup>-ranked Oregon Ducks host the 7<sup>th</sup>-ranked Stanford Cardinal. Highly consequential matchups between Stanford and Oregon have become fairly frequent since the Pac-12 split into two divisions. The two teams finished at the top of the Pac-12 North every year from 2011 through 2015. Some of the more momentous games include the 6<sup>th</sup>-ranked Ducks' 2011 53-30 rout of the 3<sup>rd</sup>-ranked Cardinal and 14<sup>th</sup>-ranked Stanford's 17-14 overtime win over the number 1-ranked Ducks in 2012. The 2013 game was another thriller, with the 6<sup>th</sup>-ranked Cardinal besting the number 2-ranked Ducks 26-20. The past two seasons have been less consequential. Stanford won handily this past year 49-7.

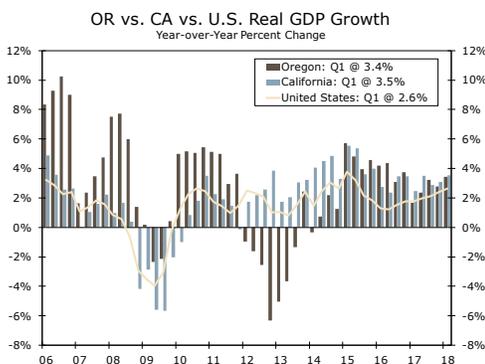
**Stanford and Oregon finished at the top of the Pac-12 North Division every year from 2011 to 2015.**

Saturday night marks the 82<sup>nd</sup> meeting between the two schools, which Stanford leads 48-32-1. Stanford began playing football in 1891 and appeared in the inaugural Rose Bowl in 1902, where they were trounced by Michigan 49-0. California and the West were less populous back then and the pool of prospective athletes was considerably thinner than in the Midwest and the Northeast, where most of the era's top-ranked programs heralded from. Stanford achieved its first real success in the 1920s, when legendary coach Glen 'Pop' Warner came over from Pittsburgh. Stanford won its first national title, going undefeated and tying Alabama in the 1927 Rose Bowl. Stanford also finished 10-0 in 1940 and defeated Nebraska 21-13 in the 1941 Rose Bowl.

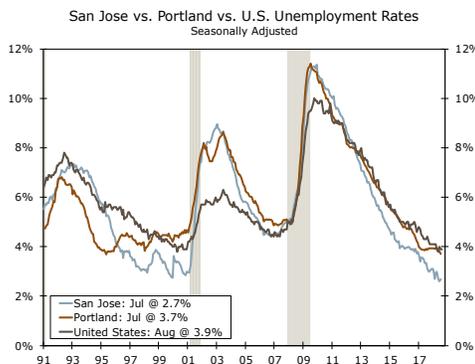
Stanford is the highest ranked academic institution with a Football Bowl Subdivision (FBS) program, according to the U.S. News and World Report. Other highly ranked academic institutions with FBS football programs include Duke, arch-rival California and Northwestern. Even the team's name is a bit of a brain teaser. Stanford sports teams have gone by the name Cardinal since 1981 and are one of only 12 athletic programs that do not have a plural mascot name. Cardinal refers to the official school color that was adopted by a student assembly back in 1891. The color became ingrained as the official color when Stanford defeated California in the inaugural 'Big Game' in 1892 and the newspapers heralded "Cardinal Triumphs O'er Blue and Gold".<sup>1</sup>

**Stanford is the highest ranked academic school with an FBS program.**

**Figure 1**



**Figure 2**



Source: U.S. Department of Commerce, U.S. Department of Labor and Wells Fargo Securities

<sup>1</sup> [On Campus](#). Stanford Athletic Department. April 17, 2013.



**Stanford built one of the first entrepreneurial ecosystems centered around a research university.**

Stanford’s academic and research prowess has played a big part in the success of the local economy in Palo Alto and Silicon Valley. Stanford pioneered the model of building an entrepreneurial ecosystem around a major research institution. University founder Leland Stanford saw that it was essential that California and the West build its own industrial base. Stanford’s engineering school developed courses around emerging technologies, such as electronics and integrated circuits, soon after their invention that encouraged further innovation and helped spawn thousands of startups.

Students were encouraged to collaborate with the private sector. Stanford also established one of the first university-owned Research Parks. This nexus of highly educated students, leading edge businesses and top notch research facilities quickly developed into one of the most efficient ecosystems for developing rapidly growing companies in just about every technology field. William Hewlett and David Packard were some of the earliest beneficiaries and the school even helped find the garage where they developed Hewlett-Packard. Stanford also set the table for the birth of the semiconductor industry and helped launch Intel, LSI Logic and AMD; introduced the tools that led to some of the biggest innovations at Apple and Sun Microsystems; and helped refine Internet search in ways that were instrumental to the development of Google.

All of this innovation paved the way for enormous growth that has continued to this day. The latest GDP by Metro area data show that the San Jose area, which includes Santa Clara County and Palo Alto, grew faster than any other major metropolitan area, with real GDP rising 7.6% in 2017. Nonfarm employment growth has risen to 3.1% over the past year and the unemployment rate has fallen to 2.7%. The downside to all this growth is that traffic congestion has worsened and property values have sky-rocketed, making homes in Palo Alto and Silicon Valley in general some of the most expensive in the nation.

Oregon has its own rich history in the development of the modern tech sector, with its focus on communications, tech hardware and measurement devices. Tektronix and Electro Scientific Industries were two of the area’s earliest pioneers, but growth really took off after Intel set up operations outside of Portland in 1974 and grew to become the region’s largest private employer. The infusion of capital and highly educated workers helped elevate the region’s tech sector, which is a major center for silicon wafer manufacturing, semiconductor design and display technologies.

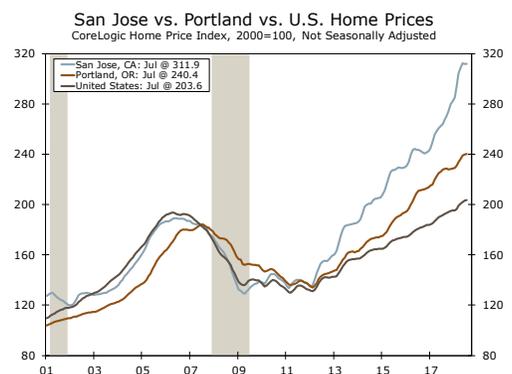
**Portland and Eugene have impressive tech sectors in their own right.**

The University of Oregon is located in Eugene, which is 112 miles south of Portland at the southern tip of the Willamette Valley. The local economy is largely built around the university, healthcare and the outdoors. Nike was started in Eugene but has since relocated to the Portland area. Although not part of the Silicon Forest, Eugene is the heart of the Silicon Shire region, which is home to more than 400 tech firms, many of which are small startups in fields ranging from software development to computer gaming and mobile communications. The growth in the tech sector has made the Oregon economy one of the most vibrant in the nation, with GDP rising 3.4% over the past year and the unemployment rate falling to 3.9%.

**Figure 3**



**Figure 4**



Source: U.S. Department of Commerce, CoreLogic and Wells Fargo Securities

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