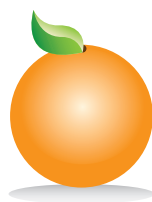


The Socioeconomic Benefits Generated by Orange County's Community Colleges



2012

Prepared for



**Orange County Community Colleges
Legislative Task Force**

Advocates for Orange County's Community College Students

Created by



**ORANGE COUNTY
BUSINESS COUNCIL**

The Leading Voice of Business

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The purpose of this report is to analyze, assess and quantify the measurable and wide-reaching socioeconomic impacts of community colleges in Orange County. This report was commissioned by the Orange County Community Colleges Legislative Task Force which is comprised of trustees, chancellors, community representatives and public affairs directors from all four community college districts: North Orange County Community College District, Coast Community College District, South Orange County Community College District, and Rancho Santiago Community College District. This study measures benefits to students, taxpayers, the local economy, the business community and the community as a whole. The Orange County Community Colleges Legislative Task Force advocates for more than 300,000 community college students in Orange County who invest in their futures at community colleges.

The successful completion of this report is largely due to the excellent leadership, guidance, and contributions of key representatives from Orange County's four community college districts. Our sincere gratitude and appreciation goes to the four district chancellors and following leaders who provided valuable guidance, input, data and expertise:

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Kai Stearns Moore, District Director, Public and Governmental Affairs

North Orange County Community College District

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Dr. Andrew Jones, Chancellor

Dr. Martha Parham, District Director, Public Affairs, Marketing, and Government Relations

Coast Community College District

Coastline Community College • Golden West College • Orange Coast College

Mr. Gary Poertner, Chancellor

Tere Fluegeman, District Director, Public Affairs and Government Relations

South Orange County Community College District

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Nga Pham, Director of Research

Rancho Santiago Community College District

Santa Ana College • Santiago Canyon College

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Any errors in the report are the responsibility of the authors, rather than any of the above-mentioned institutions or individuals.

Orange County's
community colleges
propel local
economic growth,
provide key benefits
to taxpayers and
create pathways
to prosperity for
students.

Executive Summary

Orange County's community colleges are an integral economic engine vital to the well-being of the region and state. Even as the economic situation and the state budget shortfall has led to drastic cutbacks in spending and services, the colleges have continued to touch every aspect of life in Orange County, enriching the lives and earning power of students and driving the economy forward.

According to the Orange County Business Council's (OCBC) study, *The Socioeconomic Benefits Generated by Orange County's Community Colleges*, these academic institutions provide benefits to their communities, taxpayers, and students that far exceed their operational costs.

The study demonstrates that Orange County's community colleges leverage taxpayer dollars, generate a return on investment, increase students' earning potential, and play a significant role in fueling the state and local economies.

OCBC's study also reveals significant regional economic benefits beyond what students gain individually from their education. If the colleges did not exist, taxes would have to be raised to compensate for the contributions the colleges make in economic, quality-of-life, and social benefits.



Orange County's community colleges **maximize the impact of every taxpayer dollar**. Due to the education students receive, the workforce benefits from newly skilled **college-trained workers who earn more than their non-college educated counterparts**. Consequently, their employers are more profitable through the services they render to their employers, resulting in a **return on investment** for property owners, **increased regional tax revenues**, and **increased labor and non-labor incomes**.

Investment and Economic Growth Benefits

From an investment perspective, both Orange County community college students and taxpayers are winners:

- Graduates with Associate in Arts (AA) degrees earn over \$11,000 more per year and nearly \$387,000 more during a working lifetime than workers with high school diplomas, and almost \$20,000 more annually than workers without a high school diploma.
- Students receive a 17.4% return on their investment of time and money, well above the current less than 1% of standard bank savings accounts or 8% to 10% long-term average of U.S. stocks and bonds.
- Taxpayers receive a 14.7% return on their investment, well above the 4% normally received from government organizations. This return indicates that community colleges generate a significant surplus in the economy, which funds other state and local programs.
- Taxpayers realize a return on investment of \$4.78 for every dollar appropriated by state and local governments.

From a regional economic growth perspective, Orange County's community colleges account for over \$9 billion in combined economic activity, higher earnings, increased spending, and public benefits:

- Community colleges operate 11 facilities, making them the fourth largest employer in the county.
- Community colleges directly employ over 8,500 faculty and staff. The total effect of their operations is the employment of 14,766 individuals.
- Operations enhance the regional economy by over \$1.6 billion annually.
- Construction programs will generate approximately \$2 billion in regional economic impact over the next 10 years.

Community Colleges Significantly Benefit Students' Future Career Earning Potential

The total impact that instruction has on student earnings over a 35-year career is estimated to be over \$24 billion, with a net present value of almost \$9 billion.

Orange County community colleges graduate thousands of students annually who transfer to the University of California and California State University systems, and other public and private educational institutions.

Additionally, over 41,000 students take career technical education (CTE) courses to prepare them for Orange County's immediate workforce needs as nurses, firefighters, police officers, and emergency medical technicians (EMT's).

The economic impacts and return on investment of the colleges prove that they are worthy investments for state policymakers. The data demonstrate that the return on investment to students surpasses any other chosen career investment-making pathway. Furthermore, the assets taxpayers entrust to state and local governments for capitalization at the colleges are returned over and above the budgeted expenses through increased income, personal and business tax receipts, and social welfare savings. If state funding appropriations ceased, those economic benefits would be threatened and the colleges would be forced to consider—as they are now doing—increases in local fees and taxes to ensure continuity.

Student and Community Benefits by Credit Hour

For students, annual average income, after taxes, increases at least \$70 for each credit hour of instruction.

For communities, annual income and quality-of-life improvements increase at least \$135 for each credit hour of instruction.



The social benefits to the state as a result of the education that the colleges provide are noteworthy. These benefits consist of **reductions in state spending on social/protective services because college attendees become more productive, healthier citizens.** The indicators of these benefits are improvement in workplace health, crime mitigation, and welfare/unemployment savings.

Quality of Life Benefits

Research that demonstrates a correlation between higher education and quality-of-life benefits, applied to Orange County community college districts, shows an annual savings of nearly \$70 million in avoided costs:

- Students' improved health and lifestyle habits save about \$27 million through lower absenteeism from work, reduced smoking, and reduced alcohol abuse.
- Lower crime among students saves approximately \$30 million through fewer incarcerations, less negative impact on productivity due to incarcerations, and fewer costs incurred by crime victims.
- Lower incidences of welfare and unemployment save \$12 million.

College Profile Information

In fiscal year 2011—2012, the base year of the study, Orange County's community college districts represented:

- Nine community colleges, and one school of continuing education
- Student enrollment totaling 301,689
- 8,554 faculty and staff
- Payrolls totaling \$628.6 million
- Budgets totaling \$957.2 million
- Private funding sources totaling approximately 10% of budgets (student tuition and fees, contract revenues, interest payments, and other)
- Public funding sources totaling approximately 90% of budgets (local taxes, state aid, and federal grants)

Communities Served

North Orange County Community College District serves Anaheim, Brea, Buena Park, Cypress, Fullerton, Garden Grove, La Habra, La Habra Heights, La Mirada, La Palma, Los Alamitos, Orange, Placentia, Rossmore, Seal Beach, Stanton, Whittier, and Yorba Linda.

Coast Community College District serves Costa Mesa, Fountain Valley, Garden Grove, Huntington Beach, Midway City, Newport Beach, Seal Beach, and Westminster.

South Orange County Community College District serves Aliso Viejo, Capistrano Beach, Coto de Caza, Dana Point, Dove Canyon, East Santa Ana, Emerald Bay, Foothill Ranch, Irvine, Laguna Beach, Laguna Hills, Laguna Niguel, Lake Forest, Laguna Woods, Ladera Ranch, Las Flores, Mission Viejo, Portola Hills, Rancho Santa Margarita, San Clemente, San Juan Capistrano, Trabuco Canyon, Trabuco Highlands, and Tustin.

Rancho Santiago Community College District serves Anaheim Hills, Garden Grove, Irvine, Orange, Santa Ana, Tustin, and Villa Park.

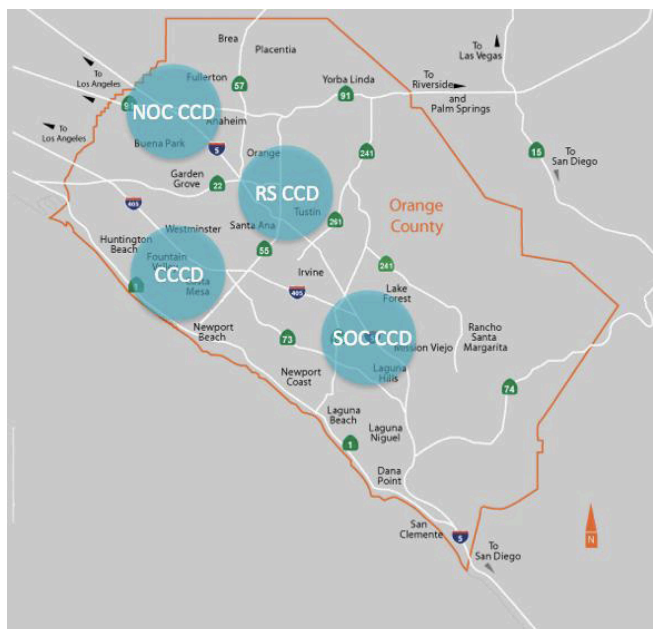
(District boundaries run through communities that are served by more than one district.)

North Orange County Community College District
1830 West Romney Drive, Anaheim, CA 92801
714-808-4500
www.nocccd.edu

South Orange County Community College District
28000 Marguerite Parkway, Mission Viejo, CA 92692
949-582-4920
www.socccd.edu

Coast Community College District
1370 Adams Avenue, Costa Mesa, CA 92626
714-438-4600
www.cccd.edu

Rancho Santiago Community College District
2323 North Broadway, Santa Ana, CA 92706
714-480-7300
www.rscgd.edu



SECTION 1:

Community Colleges Generate Substantial Value and Keep Orange County Competitive

A well-designed, well-funded community college infrastructure anchors the Orange County economy and secures a high quality of life.

Investment in community colleges is vital to Orange County's future productivity, competitiveness, and economic well-being.



**Orange County's
community colleges
serve a large,
diverse and
economically
vibrant county, and
play a key role in
helping Orange County
recover from the
Great Recession.**

Orange County's community colleges are valuable education, training, and economic development assets that pay many significant dividends to the region through social and economic benefits to the communities they serve. Investments in community colleges drive Orange County's long-term success and economic prosperity by creating jobs and ensuring an educated and economically competitive workforce.

The reputation and performance of Orange County's four community college districts place them among the top echelon of districts in the state and nation. They provide educational and economic development opportunities that are considered among the finest in the world.

With a diverse population of over three million residents, Orange County is the sixth largest county in America, with more residents than 20 U.S. states. Based upon a highly skilled, educated civilian labor force of 1.6 million workers, Orange County has built a diverse, competitive, robust economy with superior levels of economic output and employment opportunities well distributed among many industry sectors. To demonstrate the county's success as an economic engine, today many more workers commute from Los Angeles County—and every surrounding county—to Orange County workplaces than the other way around. Orange County is no longer a bedroom community of Los Angeles!

The success story of Orange County's rapid, post-World War II growth is mirrored by the development of the Orange County community college system—both have grown from humble beginnings to world-class leaders in stature and performance. As Orange County has grown into an economic powerhouse, acclaimed for its vibrant economy and world-class companies, so too has its community college infrastructure become vital to the economic growth of the region.

Orange County's resilient economy is now leading Southern California to recover from the worst economic downturn since the Great Depression. Just as Orange County's community colleges have mirrored the county's rapid growth, they also are playing a key role in the region's economic recovery. While California as a whole struggles to rebound, Orange County remains an attractive place for businesses to thrive because of its innovative spirit, high quality of life, skilled workforce, and appealing geographic location—assets that the region's community colleges have helped develop.

Creating economic development opportunities for Orange County and responding to the education and workforce needs of the local business community are key parts of the community colleges' core mission. The colleges have proven especially nimble during economic crisis, helping Orange County recover more quickly than most other regions in California.

Despite devastating job losses and widespread economic hardship, Orange County's community colleges have risen to the challenge and played a key role to prepare the Orange County workforce for future job growth and long-term prosperity. Even as the economic situation and the state budget shortfall has led to drastic cutbacks in spending and services, community colleges have continued to implement strategic planning and efficiencies that touch every aspect of Orange County life.

While many regions and industry segments are still struggling to recover, Orange County has been better able to survive the recession than surrounding counties (and the state overall) because of its diverse economy, competitive business environment, skilled workforce, and job growth in new and innovative emerging industries. As Orange County’s economic recovery strengthened in 2011—2012, Orange County’s community colleges supported and strengthened the region’s economic and job creation engine. To remain on the pathway to recovery, now more than ever, Orange County must diligently keep pace with—and even jump ahead of—constantly shifting economic trends, and capitalize on its unique, innovative culture. Community colleges have the flexibility and culture of innovation to rapidly respond to changes in workplace market needs with new education and training programs.

Innovative, Affordable, “Lean and Mean” Higher Education Institutions Responsive to the Needs of Business

Now, while the need and demand for Orange County’s community colleges are greater than ever, the colleges are being asked to do more with less. Despite the state budget crisis and continued funding cutbacks, Orange County’s community colleges continue to contribute significant positive impacts.

The Great Recession presented substantial challenges for the community colleges to overcome, but also created a variety of new opportunities for increasing economic activity and employment.

Orange County’s community colleges have adapted to new economic realities by:

- Becoming more competitive through a “lean and mean” community college system that continues to successfully develop new programs and innovative policies.
- Identifying emerging growth industries—such as high-tech/information technology and international trade—that provide much-needed economic growth and job creation. Community colleges have responded quickly with innovative programs to address these critical needs.
- Adapting to shifting trends by producing new “workplace ready” graduates and upgrading the skills, abilities, and knowledge of those already in the workforce, or those who are out of work.

Community colleges have provided Orange County with the critical education and workforce training tools necessary to successfully adapt to constantly shifting demographic and economic landscapes.

Background and Goals of the Report

This study examines Orange County’s four community college districts as a system and discusses their collective benefits to local communities and the region. The goal of this report is to provide the community with a fuller understanding of the economic impacts generated by the colleges both in their service region and in the state. This study’s approach is entirely data driven, analyzing the economic impacts, job creation aspects, and social benefits of Orange County’s community colleges in the greater community of Orange County, Southern California, and the State of California. As a result, this study will serve as a valuable decision-making tool for the community college districts’ boards of trustees, chancellors, executive leadership, and staff, as well as the general Orange County community and business stakeholders.

This report broadly analyzes the economic impacts and returns on investment attributable to Orange County's community colleges and examines the colleges' rates of return, local job creation and income formation, returns to the community, present values of future annual benefits, long-term impacts on student earning power, and other regional economic benefits.

The goals of the report include:

- To provide the community with a fuller understanding of the economic impacts generated by the colleges both in their service region and in the state; and,
- To analyze the relative contributions the colleges make to students' achievement potential, and regional labor and non-labor income.

The methods and analysis include estimation of the following:

- Student body profile with socioeconomic characteristics
- The increase in wages associated with students attending the colleges
- The direct, indirect, induced and total impact of investments on the local and regional economy
- A thorough economic impact analysis through an input-output analysis utilizing the IMPLAN economic modeling systems to identify economic multipliers of industries impacted by investments into the colleges
- Overall regional and local economic and socioeconomic benefits associated with the colleges

The survey area of this study is defined as the four community college districts that make up the Orange County Community Colleges Service Area (colleges): North Orange County Community College District (NOCCCD), Coast Community College District (CCCD), South Orange County Community College District (SOCCCD), and Rancho Santiago Community College District (RSCCD). These districts encompass all of Orange County.

Findings and Results

The colleges afford a broad spectrum of benefits and positive impacts to the greater Orange County community, ranging from direct impacts to multiplier effects that ripple throughout the Orange County economy. The most pronounced direct indicator is the higher incomes of students. The colleges return on investment is measured in both present and future perspectives.

The findings of the colleges' relative contribution to students' achievement potential and regional labor and non-labor income clearly demonstrate that the colleges are a wise investment for students and serve as a major engine of economic growth for Orange County and Southern California. Investments in the colleges create significant economic benefits and advantages. Data show that the colleges' impact on the state and local economy is generated through annual operating and capital expenditures, as well as contributions to creating a better workforce. Additionally, a key induced/total indicator is the societal cost savings, also known as avoided costs, associated with reduced welfare and unemployment, improved health, and reduced crime.

Therefore, Orange County's community colleges help fuel the local, regional, and state economy; leverage taxpayer dollars; generate advantageous returns on investments; and, significantly increase students' earning potential. This research found at least five major benefactors of the value created by Orange County's community colleges:

- Orange County Students
- Orange County Taxpayers
- The Orange County Economy
- The Orange County Business Community
- The Orange County Community as a Whole

Together, these perspectives provide a better understanding of the true impact of Orange County's community colleges. This report will explore each of the values that these academic institutions generate. To spotlight the beneficial education and economic impacts attributable to Orange County's community colleges, the next section of this report provides an overview of the study's results and highlights some of the key findings from the perspective of each major benefactor.

Community College Benefits to Orange County Students

Students attend Orange County's community colleges for several reasons:



Community colleges significantly enrich students' lives and future career earning potential. They provide high-quality, affordable educational opportunities and are bargains when compared with the powerful, positive impact they have on students' future earning potential. Community colleges significantly increase lifetime incomes by preparing students for:

- Immediate entry into high-quality job opportunities such as nursing, public safety, and technology; and,
- Entry into four-year colleges and universities.

Students who complete programs will be prepared for success in business, industry, careers, and all future educational endeavors.

The cost of attending a public university in California has risen to many times that of attending community colleges. For example, the average annual fees and tuition at the respective state institutions of higher education are approximately:

Community Colleges	\$864
California State University	\$5,472
University of California	\$12,192

Private universities are significantly higher still, with undergraduate tuitions in the range of \$35,000—\$50,000 per year.

These numbers show how community colleges are affordable choices for higher education. Orange County community colleges transfer a significant number of students to the University of California system, California State University system, and other public and private educational institutions.

Highlights

17.4%

Community college students enjoy a **17.4% return on their education investment** of time and money attending community colleges, and will **recover all costs**, including wages foregone while attending college, in approximately seven years.

\$387,000

Graduates with Associate's degrees **earn over \$11,000 more per year** and nearly \$387,000 more during a working lifetime than workers with high school diplomas, and **more than \$20,000 more annually** than workers without a high school diploma.

\$24 Billion

The total impact of community college instruction on all future student earnings is estimated to be over **\$24 billion**, with a **net present value of almost \$9 billion**.

\$70

For students, annual average income (after taxes) increases roughly **\$70 for each credit hour of instruction**.

\$8.48

Student career lifetime earnings as a result of being educated at the colleges will improve by **\$8.48 for every dollar paid to the colleges**.

Community College Benefits to Orange County Taxpayers

From an investment perspective, taxpayers are winners as well as students. Orange County's community colleges are a wise investment for Orange County taxpayers, yielding impressive returns on investment. Investment in community colleges generate economic growth, produce tax revenues, and save money on social costs—providing benefits to their communities, taxpayers, and students that far exceed their operational costs.



OCBC's study also reveals **significant regional economic benefits** beyond what students gain individually from their education. If the colleges did not exist, **taxes would have to be raised** to compensate for the colleges' contributions in **economic, quality-of-life, and social benefits to their communities.**

Orange County community colleges effectively manage taxpayer resources and provide significant high-quality returns on investments and beneficial economic impacts through mutually beneficial partnerships with the community, business, and industry.

Orange County's community colleges maximize the impact of every taxpayer dollar. The workforce and general economy benefit from additional newly skilled, college-trained workers who earn more than their non-college educated counterparts. Consequently, the businesses and entities that employ these graduates become more profitable through the services these college-trained workers render, resulting in a return on investment for property owners, increased regional tax revenues, and increased labor and non-labor incomes.

The colleges' economic impacts and returns on investment verify that they are a worthy investment and a wise use of resources. The data demonstrate that the return on investment to students surpasses any other chosen career investment-making pathway. Furthermore, the assets taxpayers entrust to state and local governments for capitalization at the colleges are returned over and above the budgeted expenses through increased income, personal and business tax receipts, and social welfare savings. As a result of community college spending and investment, city and county budgets benefit from significant positive increases in property tax, sales tax, and other tax revenues due to increased economic activity. If state appropriations ceased, those economic benefits would be threatened, and the community colleges would be forced to consider, as they already have, increases in local fees and taxes to ensure continuity.

Highlights

\$1.85 Billion

The present value of increased **state and local tax revenue** as a result of community college operations is **\$1.85 billion**.

Social Benefit

College participation benefits taxpayers and the fiscal balance of the state through significantly **increased tax revenues and reduced expenditures on welfare and prisons**, leading to savings that can be reinvested in other areas.

14.7%

Taxpayers receive a **14.7% return on their investment**, well above the 4% normally received from government organizations. This return indicates that community colleges generate a **significant surplus in the economy**, which funds other state and local programs.

\$4.78

Taxpayers will see a **return on investment of \$4.78** for every dollar appropriated by state and local governments.

\$17

For every dollar invested in community colleges, the **public at large will receive \$17 back** during the next 35-year period.

Community College Benefits to the Orange County Economy

Orange County's community colleges play an integral role in driving the overall regional economy forward. They serve as an economic engine vital to the well-being of the county, region, and state by providing cost-effective, innovative educational programs and services that are responsive to the needs of local students and communities.

For the last five years, Orange County's unemployment rate has been consistently lower than that of the state and nation and is among the lowest in California—evidence that the workforce system is delivering positive results and successfully meeting the needs of Orange County businesses. A particularly good example of a program crucial to Orange County's economic success, which directly benefits Orange County employers, is career technical education (CTE). Orange County's community colleges have a long legacy of serving economic and workforce needs through CTE, serving both younger and older students, those currently in the workforce and those returning to school.

Another primary mission of community colleges is to advance economic growth and global competitiveness through education, training, and services that contribute to continuous workforce improvement.

Highlights

\$9 Billion

From a regional economic growth perspective, the value of Orange County's community colleges account for nearly **\$9 billion in combined economic activity**, higher earnings, increased spending, and public benefits.

14,766

Including multiplier effects, the total annual effect of community college operations is the **employment of 14,766 individuals**.

\$1.6 Billion

Operations **enhance the regional economy** by over **\$1.6 billion** annually.

\$2 Billion

Community college **construction programs will generate approximately \$2 billion** in regional economic growth impact over the next 10 years and directly **create over 6,300 jobs**.

8,500

Community colleges are the county's fourth largest employer, directly **employing over 8,500 faculty and staff** in 11 facilities.

12,000

Including multiplier effects, the total effect of community college construction budgets will be the **employment of over 12,000 individuals**.

Community College Benefits to the Orange County Business Community

Orange County's community colleges are a vital resource and partner for the Orange County business community. They enjoy a long history of collaborating with business to foster job training, economic growth, and job creation through innovative, custom-tailored education and training programs. Community colleges work closely with local companies to develop customized training to meet the business community's need for a deep and highly qualified talent pool with the skills and education necessary to succeed in the 21st-century global economy.

A significant number of students at community colleges are employed while attending classes, unlike other institutions of higher learning. Most of these graduates will remain in Orange County after completing their education, thereby contributing to the local economy over the long-term as productive, skilled members of the workforce.

Orange County's business community benefits significantly from a well-educated, well-prepared workforce with the skills, abilities, and knowledge to compete in the 21st-century global economy because of the training provided by community colleges.

Highlights

CTE

Community colleges are particularly adept at meeting the workforce needs of Orange County businesses and play a key role in **Career Technical Education** by offering:

- Expanded opportunities in **STEM-related fields** (science, technology, engineering, and math); and
- **Job training in high demand occupations** such as public safety, nursing and other health-related careers, and information technology.

Size and Scale

Through the sheer size, scale, and scope of educating over 300,000 students annually, **Orange County's community colleges serve more students than all other Orange County higher education institutions combined.**

The larger institutions considered in this finding include California State University Fullerton (36,156 students), University of California, Irvine (25,750 students), and Chapman University (6,881 students).

301,689

Student enrollment in Orange County's community colleges total 301,689, and many of these individuals are currently in the local workforce or eventually will be.

Community College Benefits to the Orange County Community

Finally, in addition to benefitting students, taxpayers, business, and the overall economy, Orange County's community colleges serve the greater Orange County community and its residents in numerous other beneficial ways, such as increasing quality of life and improving the positive impacts of social benefits.



Also noteworthy are the **social benefits** to the state as a result of community college education. These benefits consist of **reductions in state spending on social/protective services** because college attendees become more **productive, healthier citizens**. The indicators of these benefits are improvement in **workplace health, crime mitigation, and welfare/unemployment savings**.

Community colleges play an essential role in planning and implementing education, workforce training, and economic development programs to match the county's shifting population trends—a necessary function for Orange County's long-term economic success and prosperity. With a diverse community and workforce, Orange County needs English language proficiency programs and initiatives to increase educational attainment across all levels (K-12, community college, university) to build a well-educated, high-wage workforce.

Community colleges serve the Orange County community by offering accessible and affordable educational opportunities. Orange County residents earn Associate's degrees, vocational certificates and transfer education, as well as developmental instruction and a broad array of specialized training. In addition to the education and job training perspective this report focuses on, community colleges serve the community through a comprehensive range of programs, services, and activities fundamental to maintaining a healthy region, including:

- Provision of remedial instruction;
- Instruction in English as a second language;
- Adult noncredit instruction;
- Support services that help students succeed at the postsecondary level; and
- Community services courses and programs.

Highlights

\$135

For Orange County communities, annual income and quality-of-life improvements increase about **\$135 for each credit hour of instruction.**

Public Safety

Community colleges are the primary education institutions that **prepare individuals to enter public safety occupations** as nurses, firefighters, police officers, and EMTs who benefit each and every Orange County resident and business.

Veterans

Orange County's community colleges serve a significant number of **active military and returning veterans** by providing them with the education and support they need to complete their education and **successfully enter the civilian workforce.**

\$70 Million

Orange County and the State of California benefit from community colleges through **improved health and reduced welfare**; lower unemployment and crime; and **public savings of almost \$70 million** in avoided costs:

- Students' **improved health and lifestyle habits save about \$27 million** through lower absenteeism from work, reduced smoking, and reduced alcohol abuse.
- **Lower incidences of welfare and unemployment save \$12 million.**
- **Lower crime among college educated individuals saves approximately \$30 million** through fewer incarcerations, less negative impact on productivity due to incarcerations, and fewer costs incurred by crime victims.

SECTION 2:

Profile of Orange County's Community Colleges: Serving a Large, Growing, Diverse and Economically Vibrant County

Orange County maintains four of the top districts statewide, which are considered to be among the finest in the nation.

Community colleges provide affordable higher education that is directly linked to economic benefits and quality of life improvements for over 300,000 students per year, far more than all other Orange County higher education institutions combined.



Community colleges are vital threads in the fabric of Orange County, the third largest county in California and the sixth largest in the United States, with a population of over 3 million, and a world-class economy of nearly 1.5 million jobs.

The North Orange County, Coast, South Orange County, and Rancho Santiago Community College Districts are taxpayer-funded institutions governed by elected boards of trustees and administered by district chief executives, the chancellors. The colleges provide students with rigorous academic classes to prepare them to:

- Transfer to a four-year college or university;
- Undertake a career-oriented degree in a specialized field;
- Strengthen basic skills; or,
- Retrain for existing jobs or participate in non-credited programs.

Orange County's community colleges offer a comprehensive range of educational activities encompassing transfer education, career technical education, basic skills development, adult education, community education, and a variety of economic development programs and services.

For almost a century, the colleges have helped generations of Orange County families achieve their educational and career goals. Through 11 distinct facilities throughout the county they educate over 300,000 students annually and collectively are the county's fourth largest employer. The colleges serve as an important public sector partner to the business community. They contribute to the economy through the economic commerce they generate from campus operations and the highly skilled students they produce for the workforce.

As Orange County recovers from the most significant economic downturn since the Great Depression, community colleges are leading the way by providing an affordable option for obtaining degrees or career technical certificates, improving basic skills, or retraining workers for a changing job market. Community colleges have also become the first stop for a growing population of returning veterans.

Although the state budget shortfall has led to dramatic cutbacks in spending and services, Orange County's community colleges excel in serving the community. The colleges have amongst the highest transfer rates in California. The colleges continue to develop technological venues to serve today's students more efficiently. Community college leaders take responsibility for sound fiscal management, student success, and innovation while balancing the many priorities of the community.

Orange County Community College Highlights

8,554

The colleges employed **8,554 faculty and staff**

15-14-10

The most **prevalent degree pathways** include humanities (15%), social sciences (14%), and mathematics (10%).

301,689

Total Orange County community college student **population in 2011—2012 was 301,689.**

20-24

The largest age group for the past decade has been **students 20- to 24-years-old.**

50-50

The student population is almost **evenly divided by gender.**

85%

Local and state revenues account for **85% of colleges' budgets.**

20,629

The colleges awarded **20,629 Associate's degrees, certificates and awards in 2011—2012.**

Demographic Profile of Orange County Community College Students

Profile of Current Enrollment >> A total of 301,689 students were enrolled in Orange County's community colleges in 2011—2012, which is an unduplicated number that accounts for credit and non-credit Full-Time Enrolled Student (FTES) in the Summer 2011, Fall 2011, and Spring 2012 terms.

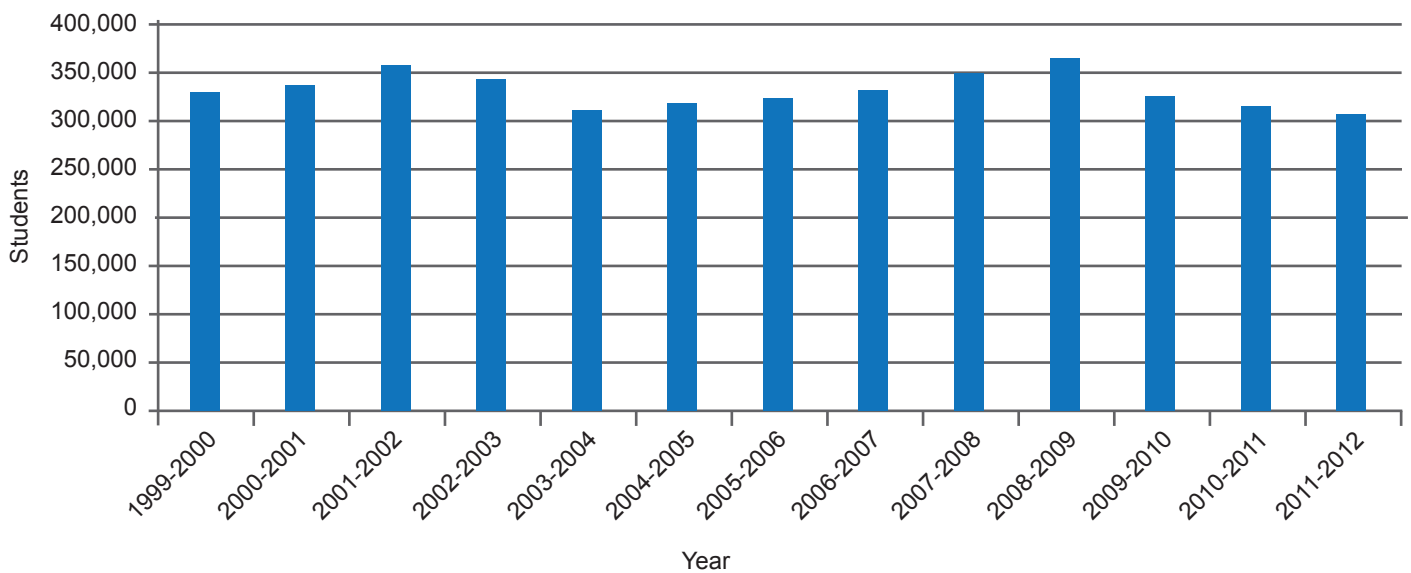
Student Total Enrollment, 2011—2012

	OC Total	CCCD	NOCCCD	RSCCD	SOCCCD
Total Enrollment	301,689	63,056	70,171	106,249	62,213

Source: California Community College Chancellor's Office, Data Mart

Enrollment at Orange County's community colleges was approximately 328,000 students at the beginning of 1999—2000, grew to 354,000 in 2001—2002, then declined for two years before an upswing over five years brought a peak of 362,000 in 2008—2009. Since then, enrollment has trended down for the past three years to the 2011—2012 enrollment total of 301,689, the lowest level since 1996—1997. The steady decline in enrollment since 2009 is a trend seen in almost all community college districts statewide. This decline in enrollment can be attributed to drastic cuts in funding that have necessitated reduced course offerings and number of students served.

Total Orange County Community College Student Enrollment, 2000—2012



Source: California Community College Chancellor's Office, Data Mart

Two factors have affected community college enrollment trends in the last decade:

- Deep economic slowdowns/recessions in 2000—2002 and 2007—2010; and,
- Concurrent state budget shortfalls, including funding reductions to colleges' operations and upward student fee adjustments.

Curtailment in state funding to the colleges has been passed on as “workload reductions,” that is, base funding per FTES is reduced. For example, RSCCD has seen funding per FTES drop from a high of \$34,310 per FTES in 2008—2009 to \$29,055 per FTES in 2011—2012. Furthermore, beginning in 2002, enrollment fees (tuition) were adjusted repeatedly. Per-unit fees more than doubled from \$11 in 2002 to \$26 in 2004. Then in 2005, per-unit fees dropped to \$20, then increased again to \$46 per unit as of 2012.

Continuing students make up the majority of the community college population, and the fall 2011 enrollment total reflects similar data across the three terms that make up the 2011—2012 academic year. In the fall 2011, 52% of those enrolled were continuing students, followed by first-time students at 17%. Comprising a smaller portion of the population are returning students (10%); first-time transfer students (9%); and special admits (1%) who are still enrolled in K-12 education programs. In general, over the past four years, the number of continuing students has been increasing, while the number of first-time students has been decreasing.



Community College Student Enrollment Status, Orange County, Fall 2011

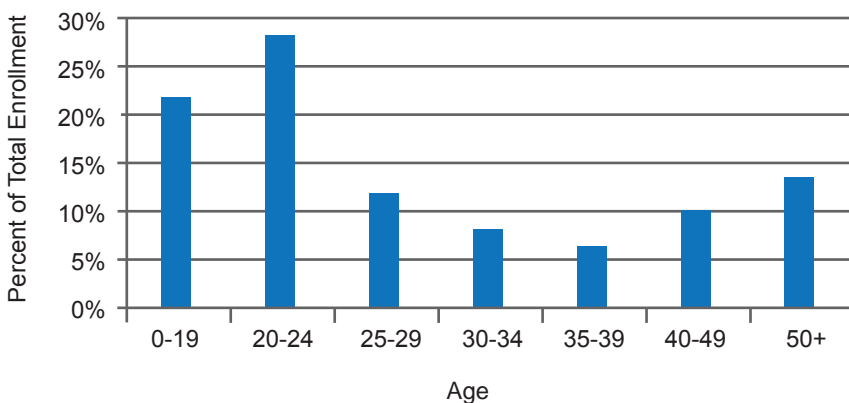
	Percent of Total Enrollment
Continuing Students	52%
First-time Student	17%
First-time Transfer Student	9%
Returning Student	10%
Special Admit Student	1%
Unreported	11%

Source: California Community College Chancellor's Office, Data Mart

Age Profile of Community College Students

For the past decade, the largest age group among community college students has been 20- to 24-year-olds (29%). Following close behind are students age 19 or younger (22%) and then, interestingly, those 50 and over (14%), likely reflecting a surge in unemployed workers returning to college to upgrade skills. The rest of the student population consists of those ages 25—29 (12%); ages 40—49 (10%); ages 30—34 (8%); and ages 35—39 (6%).

Student Total Enrollment by Age Group, 2011—2012



Source: California Community College Chancellor's Office, Data Mart

Gender Profile of Community College Students



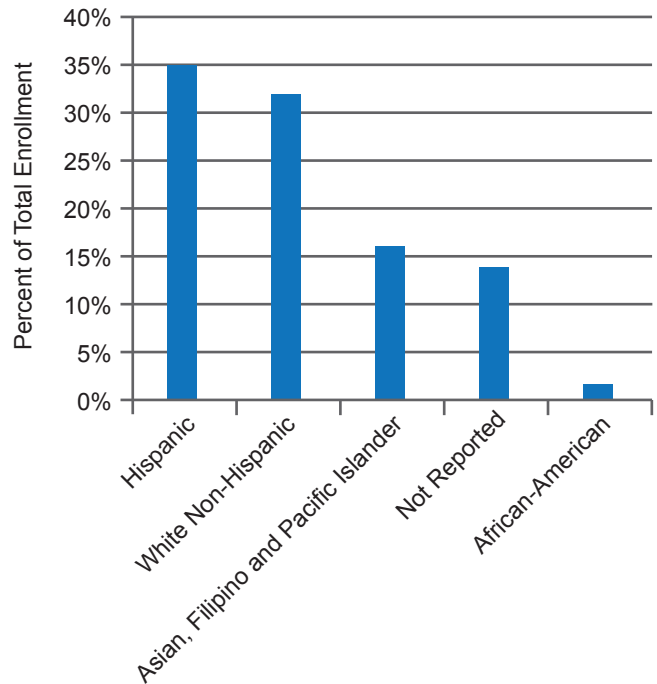
Orange County’s community college enrollment is currently evenly split **between females and males**. Over the past decade, however, the **percentage of female students has typically been higher than that of males**. In spring 2003, the percentage of female students reached its peak of 53.9% while the percentage of male students reached its lowest value at 46.1%.

Profile of Community College Ethnicity

Orange County’s diverse population finds a representative reflection in the diverse student population at community colleges, with students self-identifying as Hispanic (35%), White (32%), and Asian/Filipino/Pacific Islander (16%). Hispanic enrollment has been trending positively in recent years.



Student Total Enrollment by Ethnic Group, 2011—2012



Source: California Community College Chancellor's Office, Data Mart

Student Enrollment by Academic Program Type

Community colleges offer a rich diversity of academic program opportunities, with the most popular program types consisting of humanities, social sciences, and mathematics. Recently, the colleges have concentrated on producing increased numbers of graduates in science, technology, engineering, and mathematics, commonly referred to as STEM programs. The professions that emanate from STEM are in high demand regionally. Mathematics, biological sciences, and engineering/industrial technologies are the STEM course areas with the most students enrolled, respectively.

Orange County Community Colleges Student Enrollment by Program Type, Fall 2011

Academic Program	Percent
Humanities (Letters)	15%
Social Sciences	14%
Mathematics	10%
Education	8%
Public and Protective Services	6%
Business and Management	6%
Interdisciplinary Studies	5%
Psychology	4%
Physical Sciences	4%
Fine and Applied Arts	4%
Biological Sciences	4%
Engineering and Industrial Technologies	3%
Family and Consumer Sciences	3%
Information Technology	3%
Foreign Language	3%
Health	3%
Media and Communications	2%
Law	< 1%
Commercial Services	< 1%
Architecture and Related Technologies	< 1%
Environmental Sciences and Technologies	< 1%
Agriculture and Natural Resources	< 1%
Library Science	< 1%

Recently, the colleges have concentrated on producing increased numbers of graduates in STEM (science, technology, engineering and mathematics), professions that are in high demand regionally.

Source: California Community College Chancellor's Office, Data Mart

Profile of Community College Degrees, Certificates and Awards

Orange County's community colleges annually award a prolific number of Associate's degrees, certificates and awards, which demonstrates the sheer size and scope of their impact on the regional post-secondary system. In 2011—2012, 20,629 students received Associate's degrees, certificates or awards. The overall rate has increased steadily over time, even adjusting slightly downward as financial resources have declined.

Associate's Degrees, Certificates and Awards Issued by Orange County Community Colleges

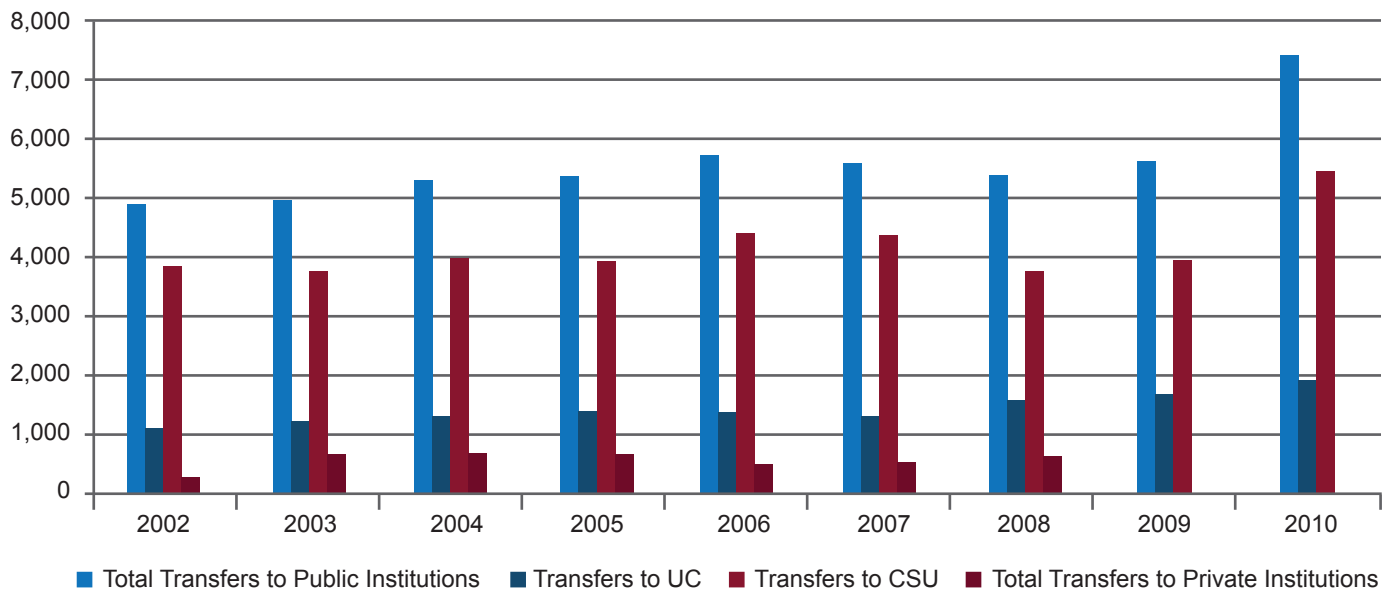
Year	NOCCCD	CCCD	SOCCCD	RSCCD	OC Total
2001—02	2,035	3,067	1,783	1,748	8,633
2006—07	2,236	6,285	1,691	2,939	11,366
2011—12	3,519	5,548	4,178	7,384	20,629

Source: California Community College Chancellor's Office, Data Mart

Profile of Community College Student Transfers

Many community college students transfer to the University of California and California State University systems, other public institutions of higher education, and private universities. In 2010, the latest year for which transfer data is available, a total of 5,444 Orange County community college students transferred to California State University schools and 1,915 students transferred to University of California institutions, both of which are the highest numbers this decade. Unfortunately, data on community college transfers to private universities is not available for the last two years, but typically ranges from 500—700 transfers.

Total Orange County Community College Student Enrollment, 2002—2010



Source: California Postsecondary Education Commission, OCBC analysis

Summary



This brief profile demonstrates the considerable **scale and scope of Orange County’s community college system**, as well as the **diversity of the student body** age, ethnicity, and enrollment status. Community colleges offer a rich and varied portfolio of educational, academic, occupational, and career pathways to Orange County students, and **graduate and transfer** an impressive number of students to the University of California and California State University systems.

SECTION 3:

Orange County's Community Colleges Drive Economic Growth and Job Creation

Orange County's community colleges' operations enhance the regional economy by over \$1.2 billion annually, directly employing more than 8,300 individuals and accounting for over 12,000 jobs including multiplier effects.

For every dollar invested from the colleges' operations, almost two dollars will be circulated back into Orange County's economy.

Community college construction programs will generate an additional \$2 billion in regional economic growth impact over the next ten years, directly creating over 6,300 jobs with a total employment effect of over 12,000.



Community Colleges Positively Impact the Local, Regional and State Economy

The operations and capital investment of Orange County's community colleges play an important role in facilitating economic growth and vitality in the region. Additional positive impacts attributable to community colleges such as increased student earning potential and quantifiable social benefits will be explored in subsequent sections. The following analysis shows how community colleges positively impact the local, regional, and state economy in significant ways through their operations and construction budgets. From the professor leading a class discussion to the workers building brick and mortar libraries, community colleges touch every facet of the Orange County economy.

The IMPLAN Model

This report used the IMPLAN model to thoroughly analyze the impacts of community college operation budgets and capital investment spending on the Orange County economy.

IMPLAN quantifies distinct direct, indirect, induced, and total income benefits in terms of increased economic activity, job creation, value added to the Orange County economy, and tax generation.

The IMPLAN Version 3 modeling system is a sophisticated, widely used input-output and econometric model used to estimate economic impacts in the public and private sectors.

Using classic input-output analysis in combination with regional specific social accounting matrices and multiplier models, IMPLAN provides a highly accurate and adaptable model. The IMPLAN database contains county, state, zip code, and federal economic statistics specialized by region, rather than estimated from national averages, and therefore, is a highly effective means to measure the economic impacts of activities and investments made in a regional or local economy.

Using social accounting matrixes (SAM), the IMPLAN model displays the movement of capital through business transactions—as well as other specific changes—taking place in a regional economy. Thus, the IMPLAN model traditionally has been used to measure prospective legislation and economic impacts by various private and public sectors across the United States.

Within the framework of the SAMs format is the use of the predictive multiplier model employed in most economic impact studies. The use of multipliers is a quantitative method for measuring the secondary effects from a change in the economy. For example, an employment multiplier of 1.4 would show that for every 10 jobs created within a particular industry, four more jobs would be added from other industries. Purchases for the final creation of a product are what propel this model. The firms that create products within an industry must purchase goods, materials, and services from other industries to support their operations. These supportive industries, in turn, must make purchases from other industries as well. This creates a cycle that propels the multiplier model.

The IMPLAN model used for this study is based on data specific to Orange County and includes the 440 different industries within the region. One of the benefits of this modeling system is the way the SAMs account for “non-market” transactions—deals that consider taxes and unemployment benefits. IMPLAN’s ability to look at all parts of a local economy allows for a more comprehensive depiction of the true economic impacts of community college operations and spending.

IMPLAN’s regional economic modeling allows the determination of the full impact of community college operations, including:

- **Direct jobs:** those faculty, staff, and administration employees directly employed at the community colleges and districts, or those jobs directly tied to the design and construction of facilities in the case of the section on economic impacts of community college construction investments.
- **Indirect jobs:** those created when the colleges, districts, and construction companies buy professional services, supplies, equipment and goods and services from other firms to complete their work.
- **Induced jobs:** those created when college and district employees—and construction workers in the case of district construction budgets—spend their earnings on goods and services in the general economy to support themselves and their families.

This study measured each tier of these activities. The amounts of money going directly into district and college operations and construction budgets are the beginning point. Economic impact models such as IMPLAN can then determine the extent to which that direct spending and employment will set off the rounds of indirect and induced spending and related job creation.

Economic Impacts of Community College Operations on Orange County

The total economic impact of community college operations on Orange County is estimated to be over \$1.6 billion. Most of the expenditures go directly to compensation for faculty and staff. For every dollar invested from college operations, almost two dollars will be circulated back into the economy.

The impact the colleges have through their operations is via the expenditures they make to pay staff, run their physical plants, and the multiplier effects that ripple throughout the surrounding areas and communities. For community colleges, this usually takes the form of paid wages and purchases of materials needed for their operations. To understand the economic impacts of the colleges’ operational budgets, it is important to understand how they influence the economy through direct, indirect, induced, and total effects.

Total Economic Impact Due to Community College Operations Budgets, 2011—2012

Impact Type	Output
Direct Effect	\$903,202,977
Indirect Effect	\$73,801,463
Induced Effect	\$630,274,554
Total Effect	\$1,607,278,995

Source: IMPLAN

Direct Effect >> The direct effect measures production expenditures made by the colleges as a result of funding their operational needs. For example, this measure calculates the effect of payments to employees and the subsequent effect of the employees' wages to purchase goods and services in the community. The payroll coefficient for each budget affects the direct effect solely and not the indirect effect, which is notable because a majority of the operational budgets of a college district go to payroll; the range of payroll expenditures to employees was 75%—85% of the budget for Orange County's four districts.

Indirect Effect >> At the same time, the indirect effect shows the outcome of the colleges' spending on all things outside of their industry, such as buying materials and services from other local industries to support the colleges' operations. The indirect effect of an operating budget is the remainder of the budget not spent on payroll. This explains why the indirect effect is much smaller than the direct effect in the case of community colleges.

Induced Effect >> In addition to the direct and indirect effects, the IMPLAN model takes into account the positive effects of income and spending as they ripple throughout the Orange County economy. The induced effect represents money that has recirculated through household spending patterns to cause greater economic activity, for example. Through purchases of consumer goods and services in the Orange County economy by community college employees (direct effect).

Total Effect >> The total effect is calculated by adding up all the results from the direct, indirect and induced effects. This model provides estimates for each individual effect (employment, income, and taxes) generated for Orange County from state investments appropriated to the colleges.

Value Added >> Value added is the difference between the total output and the cost of its intermediate inputs. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). Value added consists of employee compensation, taxes on production and imports less subsidies, and gross operating surplus.

The colleges *value added* contribution is demonstrative. As a *total effect*, it has a positive impact of over \$1.25 billion on the economy. Approximately two-thirds of this, \$795 million, is a *direct effect*.

Value Added Due to Community College Operations Budget, 2011—2012

Impact Type	Value Added
Direct Effect	\$794,930,747
Indirect Effect	\$46,551,904
Induced Effect	\$410,752,307
Total Effect	\$1,252,234,958

Source: IMPLAN

Employment Added Due to Community College Operations Budget, 2011—2012

Impact Type	Employment
Direct Effect	9,831
Indirect Effect	470
Induced Effect	4,465
Total Effect	14,766

Source: IMPLAN

Employment Added >> Due to their operations, the colleges have a direct effect of 9,831 jobs. In turn through *indirect and induced effects*, the colleges create another 4,935 jobs in the local economy. The total effect of the colleges' operations is the employment of 14,766 individuals.

Labor Income Added Due to Community College Operations Budgets, 2011—2012

Labor Income Added >> The *direct effect* of the colleges’ spending on local labor income generation is about \$675 million. The *indirect and induced effects* account for almost \$255 million. It can be reasonably assumed that the colleges’ operations have a *total* annual impact of over \$930 million on the economy.

Impact Type	Labor Income
Direct Effect	\$675,835,942
Indirect Effect	\$28,806,401
Induced Effect	\$226,111,371
Total Effect	\$930,753,715

Source: IMPLAN

Economic Impacts of Community College Capital Spending on Orange County

Another way community colleges positively impact the local and regional economies is through expenditures made toward capital improvement projects. These are projects financed for the development of new facilities, and general infrastructure improvements on the campuses.

The indicators that most strongly affect the impacts of district construction budgets are architectural, engineering, telecommunications, monetary authorities, wholesale trade business, real estate businesses, and legal services. As with the colleges’ operations analysis, IMPLAN data was used. Below are the IMPLAN multipliers for the construction industry for Orange County. The construction multipliers were chosen because the capital outlay portion of the district budget is used for construction. The construction budget for the four districts over 10 years totaled \$1,120,671,873.

IMPLAN Construction Multipliers

Direct Effect Multiplier	1
Indirect Effect Multiplier	0.262312
Induced Effect Multiplier	0.536418
Total Effect Multiplier	1.798729
Type I Multiplier	1.262312
Type SAM Multiplier	1.798729

Source: IMPLAN

Construction Expenditure Outputs >> Assuming that the aggregate 10 year construction budget for all four districts was \$1,120,671,873, and taking into account that the total effect multiplier is 1.798729, the total output of the construction expenditures for all of the colleges’ capital improvement projects is just over \$2 billion dollars, providing an average impact of approximately \$200 million per year in economic impact throughout Orange County. For every dollar invested into community college capital improvement projects, approximately \$1.80 will be circulated back into the economy. This would provide an output of revenue into the economy every year that is almost 80% greater than the amount just spent directly on construction.

Construction Expenditure Outputs Due to Community College Construction Budgets

Impact Type	Output
Direct Effect	\$1,120,671,873
Indirect Effect	\$293,965,680
Induced Effect	\$601,148,547
Total Effect	\$2,015,786,100

Source: IMPLAN

Employment Added >> Construction investments at the colleges will create 12,070 jobs. Almost half of these jobs will be construction-related, directly tied to the actual construction projects and related support services. Additional jobs will be created as a result of increased wages and spending throughout the overall Orange County economy.

Employment Added Due to Community College Construction Budgets

Impact Type	Employment
Direct Effect	6,343
Indirect Effect	1,670
Induced Effect	4,057
Total Effect	12,070

Source: IMPLAN

Labor Income Added >> Labor income created as a *direct effect* of the colleges is almost \$516 million. Another \$320 million is due to *indirect and induced effects*, for a total effect of \$837.6 million.

Annual Earnings Due to Community College Construction Budgets

Impact Type	Labor Income
Direct Effect	\$516,900,922
Indirect Effect	\$116,742,622
Induced Effect	\$203,975,842
Total Effect	\$837,619,386

Source: IMPLAN

Value Added >> Capital improvement projects also generate a significant portion of value added effect on the local economy. They deliver a *total effect* of over \$1.1 billion over 10 years with around \$539.2 million (47%) coming from *indirect and induced effects*.

Annual Earnings Due to Community College Construction Budgets

Impact Type	Value Added
Direct Effect	\$608,959,170
Indirect Effect	\$168,437,326
Induced Effect	\$370,837,656
Total Effect	\$1,148,234,152

Source: IMPLAN

SECTION 4: **Orange County's Community Colleges Significantly Benefit Students' Future Earning Potential and Generate Positive Returns for Taxpayers**

Community colleges help Orange County students significantly increase their earning potential by more than \$11,000 per year or nearly \$387,000 over a lifetime.

Students receive a 17.4% return on their investment of time and money in the form of significant future career earnings.

Orange County businesses receive additional economic and productivity gains from having a well-educated and skilled workforce—labor market skills, abilities, and expertise created by the colleges.



Higher Student Earnings—Understanding the “College Premium”

A community college education leads to substantially higher earnings over a student’s lifetime, and benefits like employer-paid health insurance.

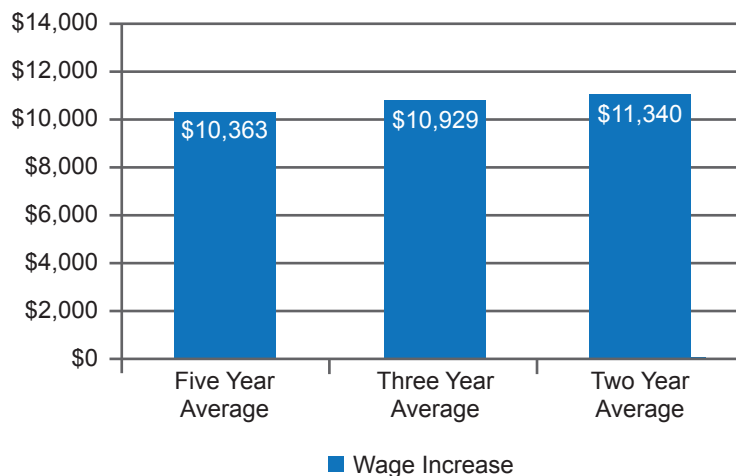
In the 2012 book *The New Geography of Jobs*, Dr. Enrico Moretti, a labor economist at the University of California, Berkeley, outlined recent trends in the effect of education on students’ future earning potential. Salary levels for those with less than a high school education and those with just a high school diploma are lower than they were in 1980. In contrast, the wages of those who attend college have increased significantly, a trend called the “college premium.” In 1980, the “college premium” was relatively small, but has grown every year and is now more than double the 1980 level. The difference is even higher when other aspects of compensation are accounted for, as workers with college educations tend to have better employer-paid health insurance and more generous pension contributions.

Research and data demonstrate such a trend regarding the earnings impacts created by community colleges. A community college education leads to substantially higher earnings over an individual’s lifetime. The time and financial resources spent on community colleges are a prudent investment for prospective students. Those who receive a post-secondary education garner significant life-long advantages, including significantly higher earnings.

Clustering around the \$40,000 level for the last five reported years, the 2010 median income of students with an Associate’s degree was \$39,094, or 33% more than their peers with high school diplomas or GEDs. This calculation does not take into account the value created by community colleges when students transfer to the University of California, California State University, or private institutions, and therefore, enjoy significantly higher lifetime earning potential.

Over the span of the last two years, the average increase in wages for those with an Associate’s degree compared with high school graduates was \$11,340, or a 41% increase. Three- and five-year averages demonstrate income gains of \$10,929 and \$10,363, respectively, for community college graduates, representing increases of 38% and 35%. These results demonstrate the increasingly greater value placed on an Associate’s degree over time, a trend that will most likely continue. This positive wage differential attributable to an Associate’s degree translates to nearly \$387,000 over a typical individual’s lifetime work career.

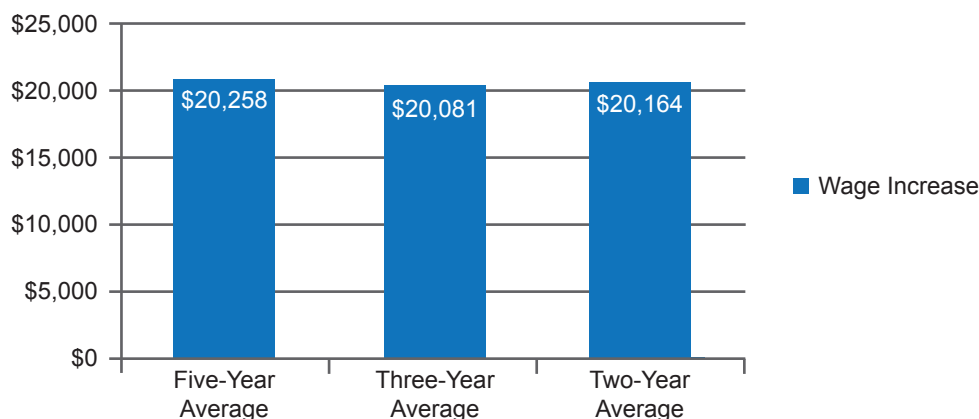
Difference in Average Annual Salary—High School Degree Compared with an Associate’s Degree, 2005—2010



Source: California Community College Chancellor’s Office, Data Mart

Another way to measure the income-producing value of a community college degree is to look at the increased earning potential of students with an Associate’s degree compared with the earning potential of individuals without a high school diploma. In 2010, the difference in annual wage between these two types of individuals was approximately \$20,000, an increase of over 100%. Using a two-year average, this increase in annual wage was \$20,164, or a 106% increase as compared with those with no high school diploma. The average over the three- and five-year periods showed increases of \$20,081 and \$20,258, both increases of more than 100%, a clear demonstration of the value that community colleges create both in the lives of students and in the overall Orange County economy.

Difference in Average Annual Salary—No High School Diploma Compared with an Associate’s Degree, 2005—2010



The cumulative positive effect of increased earnings on the Orange County economy, as well as the net present value of income benefits, will be examined later in this section; but it is sufficient to say that the increased income potential created by community colleges reverberates throughout the economy, maximizing the impact of every taxpayer dollar. These institutions help students increase their earning power, and consequently, the businesses and entities that employ them also become more productive and profitable. Consumer and business expenditures increase, triggering positive ripples throughout the Orange County economy.

These positive earnings effects can be measured as changes in regional income growth. The significant economic benefits that students receive because of a college education take the form of increased career earnings for individuals, but also as large increases in regional income. The cumulative impact of Orange County’s community colleges on earnings over an estimated career span of 35-years is almost \$25 billion, with a net present value of almost \$9 billion. In addition, the colleges’ total annual monetary costs for educating students is just \$712 million—an expense remarkably less than the value of its benefits. When student time/costs are included, the total costs are just over \$2.9 billion, still much less than all the combined direct and indirect rewards.

The rate of return (RR) on investments to students from the colleges confirms the effective service they provide to the community. Over the course of a career, 17.4% of a student’s investment of time and money is returned. Students will fully recover their education costs in approximately seven years.

Summary of Investment Analysis Results

Rate of Return, Student Perspective	17.4%
Benefit/Cost Ratio, Student Perspective	14.2%
Payback Period, Student Perspective (years)	7

Source: IMPLAN

Vocational/Career Technical Education Prepares Students for In-Demand Job Opportunities

Vocational/career technical education (CTE) programs are designed to prepare students with the knowledge, capabilities, and drive to immediately enter the workforce and serve the core needs of Orange County businesses. CTE programs make up a significant portion of the student course offerings at all four Orange County community college districts, with total Orange County enrollment of over 41,000 students. While the individual colleges are distinctive in their specific CTE course offerings and provide students with a menu of specialized and tailor-made options, the most popular CTE programs countywide are:

Business and Management	17%
Public and Protective Services	12%
Engineering and Industrial Technologies	11%
Health	10%
Information Technology (IT)	9%

Investment Analysis—Present Value of Future Community College Taxpayer Benefits

For every dollar appropriated by state and local governments, taxpayers will see a return on investment of \$4.78 and an overall return on investment of 14.7%.

Taxpayer Benefits >> The economic impacts and return on investment of the colleges verify that they are a worthy investment for state policymakers, taxpayers, and the general public. Furthermore, the assets taxpayers entrust to state and local governments for capitalization at the colleges are returned over and above the budgeted expenses through increased income, personal and business tax receipts, and social welfare savings. If state funding ceased, those economic benefits would be threatened and the colleges would be forced to consider, as they already have, increases in local fees and taxes to ensure continuity. The colleges are a public investment that returns more to the taxpayers than they cost. Community colleges not only pay for themselves, but also provide ancillary financial benefits that help support other government programs.

The colleges maximize the impact of every taxpayer dollar. As taxpayers bear roughly 85% of all colleges' costs, it is important to know what benefits will be received in return for their investment. This analysis demonstrates how a community college education translates into increased state and local government revenues in the form of tax receipts. Spending by the colleges creates economic growth in the form of income. Consequently, this equates to increased incomes in the form of wages, salaries, business profits, property values and housing/commercial rents. The colleges also generate higher federal, state, and local taxes receipts.

The present value of increased tax receipts because of the colleges' operations is more than \$1.8 billion. For every dollar appropriated by state and local governments, taxpayers will see a return on investment of \$4.78.

The return to taxpayers arising from community colleges is quite considerable. State and local governments will receive a 14.7% rate of return. In addition, all appropriations will be recovered in just over eight years through elevated tax receipts, not taking into account additional social cost savings.

Summary of Investment Analysis Results

Rate of Return, Taxpayer Perspective	14.7%
Benefit/Cost Ratio, Taxpayer Perspective	9.1
Payback Period, Taxpayer Perspective (years)	8

Source: IMPLAN, OCBC analysis



For every dollar appropriated by state and local governments, taxpayers will see a **return on investment of \$4.78** and an **overall return on investment of 14.7%**. If state funding appropriations ceased, economic benefits would be threatened and the colleges would be forced to consider, as they already have, **increases in local fees and taxes** to ensure continuity. The colleges are a public investment that **returns more to the taxpayers than they cost**. Community colleges not only pay for themselves, but also provide **ancillary financial benefits that help support other government programs**.

SECTION 5:

Community Colleges Create Quantifiable Social Benefits Savings to Orange County and the State Budget

Community colleges create quality-of-life and social benefits that enrich local communities and the region.

Quantifiable quality-of-life and social benefits produce savings of almost \$70 million annually in avoided costs.



Social benefit savings attributable to community colleges result in college attendees that are more engaged, healthy, and productive citizens.

The quality-of-life and social benefits attributable to Orange County’s community colleges are noteworthy and consist of a broad set of interrelated social benefits that are crucial, but often overlooked. These benefits provide the foundation for a fit, strong economy that functions efficiently. While the quantifiable cost savings are outlined below, the importance of these positive, important contributions to the overall health of the Orange County region and local communities go well beyond just cost savings, and therefore, cannot be underestimated.

Social benefit savings attributable to community colleges are briefly outlined below, consisting of reductions in state spending on social/protective services, as college attendees become more engaged, healthy, productive citizens. The indicators of these benefits are improvements in workplace health, crime mitigation, and welfare and unemployment savings, creating savings of over \$69.5 million per year.

Increased Workplace Health

For every day a worker is absent, the employer must incur the lost value because of the lack of full productivity that day, including all health/payroll benefits, such as sick-time compensation and matching healthcare costs. In this regard, absenteeism drops from 4.8 days for high school graduates to 3.5 days for those with an Associate’s degree. Annual public savings due to workplace absentee and medical costs reduction are approximately \$7 million and \$20.1 million, respectively. These results demonstrate the significant beneficial impacts that community colleges provide to employers and the general public.

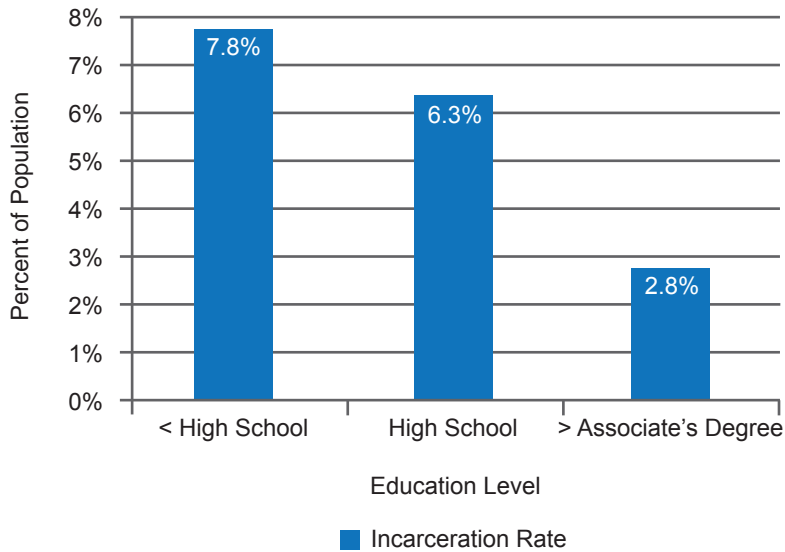
Reduced Absenteeism, Smoking, and Alcohol Habits

Education Level	Absenteeism		Smoking		Alcohol Abuse	
	Days	%/Year	Average	Reduction	Average	Reduction
Less than High School	6.1	2.3%	25.4%	N/A	9.0%	N/A
High School Graduate	4.8	1.8%	22.8%	10.2%	8.4%	6.6%
Associate’s Degree	3.5	1.3%	12.3%	26.2%	6.2%	8.9%

Source: OCBC Analysis of U.S. Census, American Community Survey, and EMSI data

Crime Mitigation

Incidence of Incarceration by Educational Level

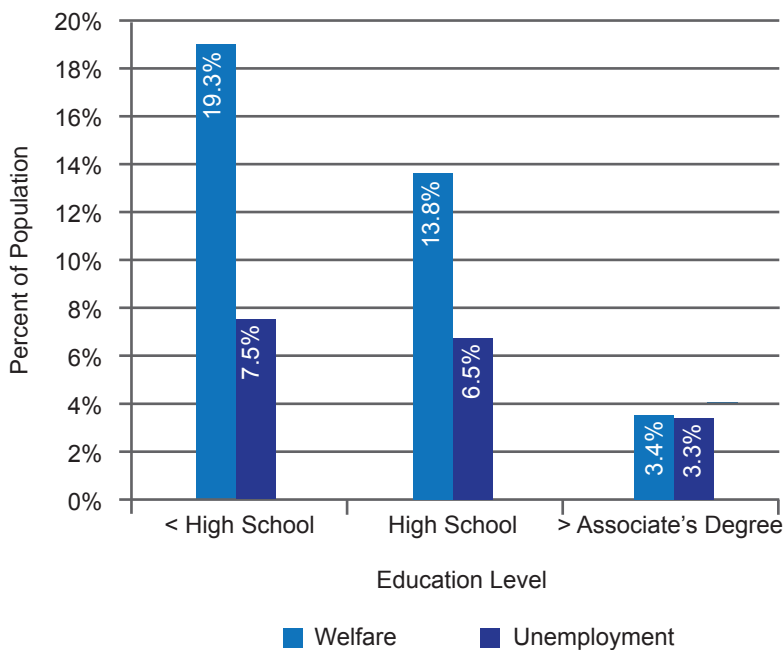


Incidents of incarceration are reduced dramatically from 7.8% for those with no high school diploma to just 2.8% for Associate's degree achievers. Annual public savings due to crime reduction directly attributable to the positive impact of Orange County's community colleges is estimated at \$30.4 million annually.

Source: OCBC Analysis of U.S. Census, American Community Survey, EMSI Data

Welfare and Unemployment Savings

Welfare and Unemployment



Because community college graduates have better occupational and wage opportunities, the state experiences approximately \$12.1 million in estimated welfare and unemployment savings annually. Comparing welfare and unemployment rates by education level, respective rates drop precipitously from 19.3%/7.5% for those individuals lacking a high school diploma to 13.8%/6.5% for high school graduates and ultimately down to 3.4% and 3.3% for those with an Associate's degree. These numbers exhibit the undeniable impact that higher education has on an individual's workforce productivity.

Source: OCBC Analysis of U.S. Census, American Community Survey, EMSI Data

Poverty rates also decrease substantially with higher levels of educational attainment. In 2010, 22.7% of those without high school diplomas were living at the poverty line as opposed to only 7.3% of those with some college or an Associate’s degree.

Orange County Poverty Rate, by Educational Attainment, 2005—2010

Orange County Poverty Rate for the Population 25+ for Whom Poverty Status Is Determined by Educational Attainment Level						
	2005	2006	2007	2008	2009	2010
Less than high school graduate	16.6%	15.4%	17.5%	18.6%	19.0%	22.7%
High school graduate (includes equivalency)	8.8%	9.3%	7.2%	8.7%	10.5%	11.5%
Some college or Associate’s degree	4.5%	6.1%	5.1%	5.5%	5.9%	7.3%
Bachelor’s degree or higher	6.4%	7.0%	6.6%	6.9%	3.9%	4.7%

Source: U.S. Census Bureau, American Community Survey

Concluding Thoughts on Orange County's Community Colleges:

Investing in Students
Investing in the Workforce
Investing in the Economy
Investing in Orange County's Future



Community colleges are the heart of the community and shape the economic future of Orange County. Their roots are among the strongest and most reliable of any Orange County public service entity.

As Orange County continues to recover from the Great Recession, community colleges are playing an important and growing role as a key investment in preserving and expanding the county's economic vitality. The contribution that the colleges have on the students they educate and the community at large is irrefutable. Orange County's community colleges are an integral economic engine in the county and region through their students who enter the workforce as well as their operations and capital construction programs that create economic growth. Clearly, community colleges not only play a key role in Orange County's economic success and students' career potential, they also provide an important societal foundation to families, neighborhoods, communities, and the region in quality-of-life and social benefits.

That is the reason they are called "community" colleges, because they directly affect hundreds of thousands of Orange County lives on a daily basis and indirectly touch hundreds of thousands more intangibly. They are the heart of the community and they shape the economic future of Orange County. Their roots are among the strongest and most reliable of any Orange County public service entity. They are the laboratories of educational innovation and have a remarkable capacity to quickly adjust to the needs of the market as industry continues to evolve and new sectors emerge. The colleges are steadfast partners with the business community and the diverse Orange County populations they serve.

This study's comprehensive approach reinforces the colleges' role as a key producer of Orange County's future workforce. The data show the unique impact community colleges have on public and private sector growth and even the specific training they provide for critical community occupations, such as nurses, firefighters, police officers, and EMTs. The funds colleges expended on operations, construction, and most important, on the students they educate, are wise investments that will continue to contribute to the county's economic development and prosperity far into the future.



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