



Executive Summary

The **Economic Contribution** *of*

Chabot-Las Positas Community College District
State of California

Economic Growth Analysis
Investment Analysis

emsi

June 2011





Socioeconomic Impact Study

STUDY HIGHLIGHTS

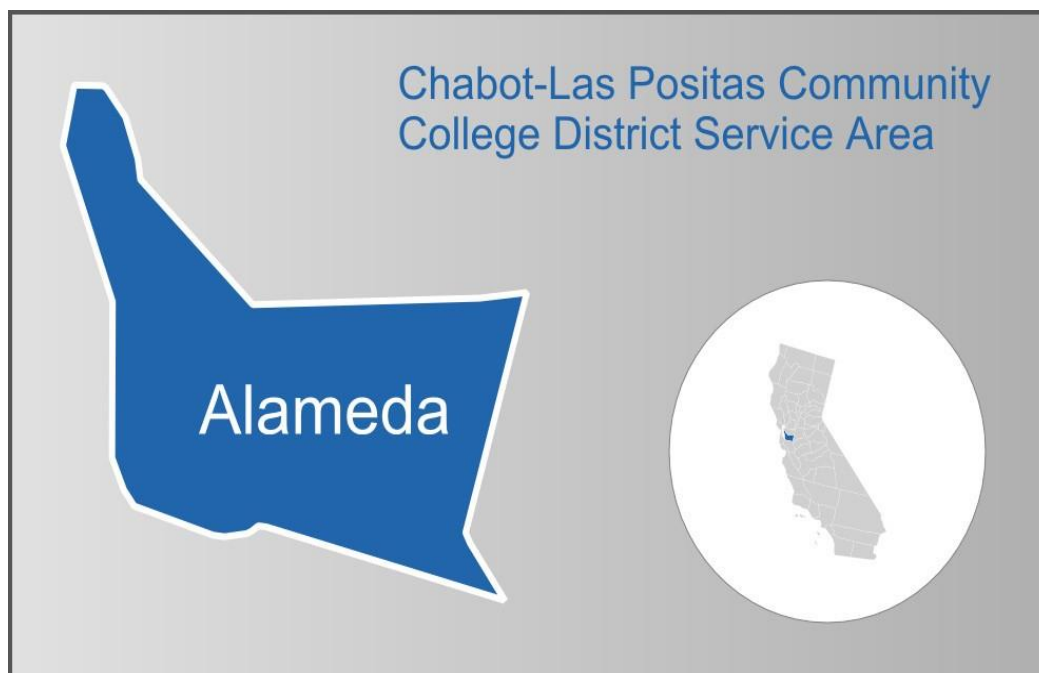
INVESTMENT ANALYSIS

- For every dollar students invest in CLPCCD, they receive a cumulative **\$4.70** in higher future income (discounted) over the course of their working careers.
- California benefits from improved health and reduced welfare, unemployment, and crime, saving the public some **\$4.4 million** per year.
- Taxpayers see a rate of return of **4.1%** on their investment in CLPCCD.

ECONOMIC GROWTH ANALYSIS

- The net added income generated by CLPCCD operations (**\$104 million**) and the spending of non-local students (**\$10.3 million**) contributes a total of **\$114.3 million** in income to the CLPCCD Service Area economy each year.
- The accumulated credits achieved by former CLPCCD students over the past 30 years translate to **\$394.5 million** in added regional income each year due to the higher earnings of students and increased output of businesses.

CLPCCD SERVICE AREA MAP



Executive Summary

INTRODUCTION

How do the CLPCCD Service Area economy and the state of California benefit from the presence of Chabot-Las Positas Community College District (CLPCCD)?

In this study, EMSI applies a comprehensive model designed to quantify the economic benefits of community and technical colleges and translate these into common sense benefit/cost and investment terms. The study includes two major analyses:

1. **Investment Analysis:** Treats education funding as an investment, calculating all measurable returns and comparing them to costs, from the

perspectives of students, taxpayers, and society as a whole.

2. **Economic Growth Analysis:** Measures added income in the region due to district operations, student spending, and the accumulated skills of past and present students still in the workforce.

The economic impact model has been field-tested to generate more than 900 studies for community, technical, and further education colleges in the US, Canada, the UK, and Australia. To see the full documentation of the study, please contact the district.

THE RESULTS

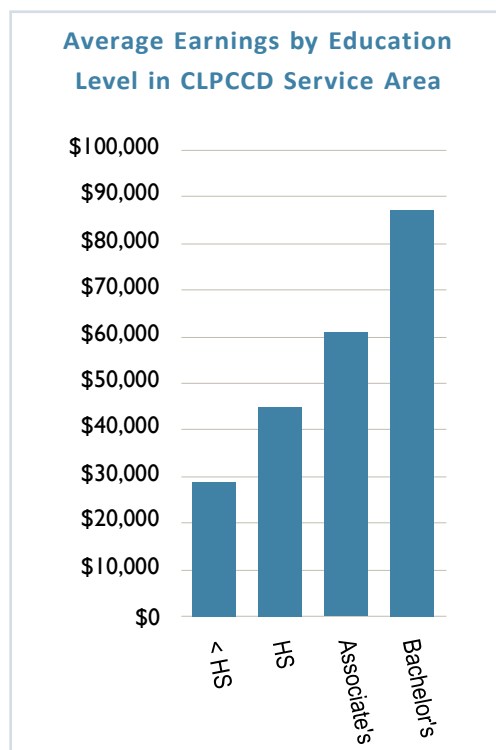
Investment Analysis

Student Perspective

Benefits of higher education are most obvious from the student perspective: students sacrifice current earnings (as well as money to pay for tuition) in return for a lifetime of higher income. Compared to someone with a high school diploma, associate's degree graduates earn \$15,900 more per year, on average, over the course of a working lifetime (undiscounted).

From an investment standpoint, CLPCCD students enjoy a 15.9% rate of return on their investments of time and money. This compares favorably with returns on other investments, e.g., long-term return on stocks and bonds.

The corresponding benefit/cost ratio is 4.7, i.e., for every dollar students invest in CLPCCD education, they receive a cumulative of \$4.70 in higher future income over their working careers. This is a real return that accounts for any discounting that occurs during the entire period. The payback period is 9.1 years.



CLPCCD INVESTMENT ANALYSIS AT A GLANCE

Stakeholder	Rate of Return	Benefit/Cost	Payback (Years)
Student perspective	15.9%	4.7	9.1
Social perspective	NA	12.3	NA
Taxpayer perspective	4.1%	1.2	21.6

Social Perspective

From the perspective of society as a whole, the benefits of education accrue to different publics. For example, CLPCCD students expand the state’s economic base through their higher incomes, while the businesses that employ them also become more productive through the students’ added skills. These benefits, together with the associated ripple effects, contribute an estimated \$92.8 million in taxable income to the California economy each year.

As they achieve higher levels of education, CLPCCD students are also less likely to smoke or abuse alcohol, draw welfare or unemployment benefits, or commit crimes. This translates into associated dollar savings (i.e., avoided costs) to the public equal to approximately \$4.4 million annually. These are benefits that are incidental to the operations of CLPCCD and accrue for years into the future, for as long as students remain active in the workforce.

weigh them against the \$115 million that state and local taxpayers spent in FY 2008-09 to support the district. Following this procedure, it is estimated that CLPCCD provides a benefit/cost ratio of 12.3, i.e. every dollar of state and local tax money invested in the district today yields a cumulative of \$12.30 in benefits that accrue to all California residents, in terms of added taxable income and avoided social costs.

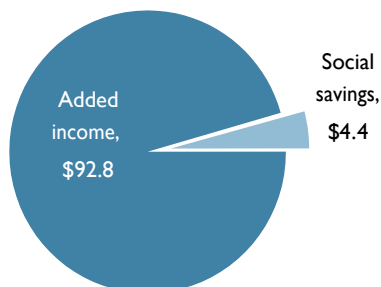
Taxpayer Perspective

Under the taxpayer perspective, only benefits that accrue to state and local governments are counted, namely, increased tax collections and reduced government expenditures. For example, in place of increased income, the taxpayer perspective includes only the increased state and local tax receipts from those higher incomes. Similarly, in place of overall crime, welfare, unemployment and health savings, the taxpayer perspective includes only those that translate to actual reductions in state and local government expenditures.

Note here that government often undertakes activities wanted by the public, but which may be unprofitable in the marketplace. This means that positive economic returns are generally not expected from government investments. From the taxpayer perspective, therefore, even a small positive return (a benefit/cost ratio equal to or greater than 1, or a rate of return equal to or greater than the 3% discount rate used in the taxpayer investment analysis) would be a favorable outcome.

For CLPCCD, the results indicate positive returns: a rate of return of 4.1% and a benefit/cost ratio of 1.2 (every dollar of state or local tax money invested in CLPCCD today returns \$1.20).

Annual Benefits to California Public Due To CLPCCD Students (\$ Millions)



To compare benefits to costs, we project benefits into the future, discount them back to the present, and

Economic Growth Analysis

CLPCCD affects the local economy in three ways: (1) through its local purchases, including wages paid to faculty and staff; (2) through the spending of students who come from outside the region; and (3) through the increase in the skill base of the local workforce. These effects break down as follows:

District Operations Effect

CLPCCD creates income through the earnings of its faculty and staff, as well as through its own operating and capital expenditures. Adjusting for taxes and other monies withdrawn from the local economy in support of CLPCCD, it is estimated that the CLPCCD Service Area economy receives a net of \$104 million in added labor and non-labor income due to CLPCCD operations each year.

Student Spending Effect

Students from outside the region spend money for room and board, transportation, entertainment, and other miscellaneous personal expenses. These expenditures create jobs and incomes for local businesses. The spending of CLPCCD’s non-local students generates

approximately \$10.3 million in added income in the CLPCCD Service Area economy each year.

Student Productivity Effect

Every year students leave CLPCCD and join or rejoin the regional workforce. Their added skills translate to higher income and a more robust CLPCCD Service Area economy. Based on CLPCCD’s historical enrollment and credit production over the past 30-year period, it is estimated that the accumulated contribution of CLPCCD instruction received by former students (both completers and non-completers) annually adds some \$394.5 million in income to the CLPCCD Service Area.

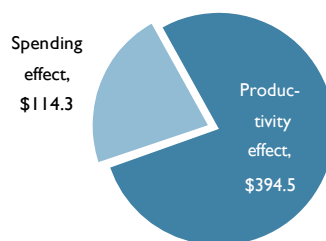
Total Effect

Altogether, the average annual added income due to the activities of CLPCCD and its former students equals \$508.9 million. This is approximately equal to 0.6% of the total CLPCCD Service Area economy.

CLPCCD ECONOMIC IMPACT ANALYSIS AT A GLANCE

Added Income	
<i>District operation effect</i>	\$104,044,000
<i>Student spending effect</i>	\$10,301,000
Total spending effect	\$114,345,000
<i>Student productivity effect</i>	\$394,543,000
GRAND TOTAL	\$508,889,000

Total Added Income in CLPCCD Service Area Due to CLPCCD (\$ Millions)



CONCLUSION

The results of this study demonstrate that CLPCCD is a sound investment from multiple perspectives. The district enriches the lives of students and increases their lifetime incomes. It benefits taxpayers by generating

increased tax revenues from an enlarged economy and reducing the demand for taxpayer-supported social services. Finally, it contributes to the vitality of both the local and state economies.



ABOUT THE STUDY

This report summarizes the results from “The Economic Contributions of Chabot-Las Positas Community College District” detailing the role that the district plays in promoting economic development, enhancing students’ careers, and improving quality of life. Data sources include, but are not limited to, 2008-09 academic and financial reports from the district, industry and employment data from the U.S. Bureau of Labor Statistics, earnings and demographic data from the U.S. Census Bureau, and a variety of studies and surveys relating education to social behavior.

Contact Us:

EMSI
1187 Alturas Dr.
Moscow, ID 83843
(866) 999-3674
www.economicmodeling.com



INVESTMENT REPORT FOR Economic Modeling

Overview Fact Sheet

Chabot-Las Positas Community College District plays a significant role in the local economy and is a sound investment from multiple perspectives. Students benefit from improved lifestyles and increased earnings. Taxpayers benefit from a larger economy and lower social costs. Finally, the community as a whole benefits from increased job and investment opportunities, higher business revenues, greater availability of public funds, and an eased tax burden.

INVESTMENT ANALYSIS

Student Perspective

- CLPCCD served **37,740** credit students and **300** non-credit students in the 2008-09 reporting year.
- Education increases lifetime income. The average income at the career midpoint of someone with an associate's degree in the CLPCCD Service Area is **\$60,900**, **35%** more than a student with a high school diploma.

Students enjoy a **15.9%** rate of return on their investment in CLPCCD.

- Throughout his or her working career, the average CLPCCD student's discounted lifetime income increases by **\$4.70** for every dollar invested in CLPCCD.
- Students enjoy an attractive **15.9%** average rate of return on their CLPCCD educational investment, recovering all costs (including tuition, fees, and forgone wages) in 9.1 years.

Social Perspective

- Higher earnings of CLPCCD students and associated increases in state income expand the tax base in California by about **\$92.8 million** each year.
- California will see avoided social costs amounting to **\$4.4 million** per year due to CLPCCD students, including savings associated with improved health, reduced crime, and reduced welfare and unemployment.

Taxpayer Perspective

- State and local governments allocated approximately **\$115 million** in support of CLPCCD in FY 2008-09.
- For every dollar of this support, taxpayers see a cumulative return of **\$1.20** over the course of students' working careers (in the form of higher tax receipts and avoided costs).

- State and local governments see a rate of return of **4.1%** on their support for CLPCCD. This return compares very favorably with private sector rates of return on similar long-term investments.

ECONOMIC GROWTH ANALYSIS

District Operations Effect

- The CLPCCD Service Area economy annually receives roughly **\$104 million** in income due to CLPCCD operations. This is a conservative figure adjusted to account for monies that leave the economy or are withdrawn from the economy in support of the district.

Added income attributable to the accumulation of CLPCCD skills amounts to **\$394.5 million** each year.

Student Spending Effect

- CLPCCD estimates that approximately **28%** of its students come from outside the region, bringing with them monies that would not have otherwise entered the local economy.
- The expenditures of CLPCCD's non-local students generate roughly **\$10.3 million** in added income in the CLPCCD Service Area each year.

Productivity Effect

- The current CLPCCD Service Area economy embodies an estimated **2.5 million** credits that have accumulated over the past 30-year period as thousands of former CLPCCD students (completers and non-completers) enter the workforce year after year.
- CLPCCD skills translate to higher earnings for students and increased output of businesses. The added income attributable to the accumulation of CLPCCD credits in the workforce amounts to around **\$394.5 million** each year.

College Overview Fact Sheet

As a district, Chabot-Las Positas Community College District (CLPCCD) plays a significant role in the local economy and is a sound investment from multiple perspectives. It is also important to see how the colleges within the district contribute to the value provided to students, taxpayers, and the community. Investment and economic growth benefits for Chabot College (CC) and Las Positas College (LPC) are described below.

INVESTMENT ANALYSIS

- Student Perspective:** CC served **24,034** students and LPC served **14,006** students in the 2008-09 reporting year. These students enjoy high average rates of return on their educational investment, recovering all costs (including tuition and forgone wages) and experiencing an increased income for every dollar invested.

STUDENT PERSPECTIVE			
	CC	LPC	CLPCCD
ROI	18.8%	14.1%	15.9%
Benefit/Cost	6.1	4.2	4.7
Payback (Years)	8.0	10.1	9.1

- Social Perspective:** Higher earnings of CC students expand the California tax base each year. California's annual social costs will also be reduced each year as a result of improved health and reduced crime, welfare, and unemployment.

SOCIAL PERSPECTIVE			
	CC	LPC	CLPCCD
Added Income	\$44.1 mil	\$48.7 mil	\$92.8 mil
Social Savings	\$2.3 mil	\$2.1 mil	\$4.4 mil
Benefit/Cost	7.8	14.6	12.6

- Taxpayer Perspective:** State and local governments allocated funds to CC and LPC in FY 2008-09, for which they received a rate of return.

TAXPAYER PERSPECTIVE			
	CC	LPC	CLPCCD
Taxpayer Allocation	\$73 mil	\$42 mil	\$115 mil
ROI	1.6%	5.0%	4.2%

ECONOMIC GROWTH ANALYSIS

- College Operations Effect:** CC spent **\$66.8 million** and LPC **\$39.4 million** on salaries and wages in FY 2008-09. These operational expenditures, combined with indirect effects, contribute annual additional income to the CC and LPC Service Area economies. This is a conservative figure adjusted to account for monies that leave or are withdrawn from the economy in support of the college.

- Student Spending Effect:** **29%** of CC students and **27%** of LPC students come from outside the region, bringing with them monies that would not have otherwise entered the local economy. The money these students spend generates added income to the service area economies each year.

- Productivity Effect:** The skills students receive from CC and LPC lead to higher earnings for students and increased output for their employers. As current students enter the labor market, credits and skills are added to the regional economy. Over the past 30-year period, approximately **1.1 million** credits and **838 thousand** credits have accumulated in the CC and LPC Service Area economies, respectively. Additional income is generated due to the accumulation of these credits.

CC, LPC, AND CLPCCD ECONOMIC IMPACT ANALYSIS (\$ Thousands)

	CC	LPC	CLPCCD
College Operations Effect	\$65,573	\$38,471	\$104,044
Student Spending Effect	\$6,678	\$3,623	\$10,301
Productivity Effect	\$209,749	\$183,909	\$393,658
Total Effect	\$282,000	\$226,003	\$508,003

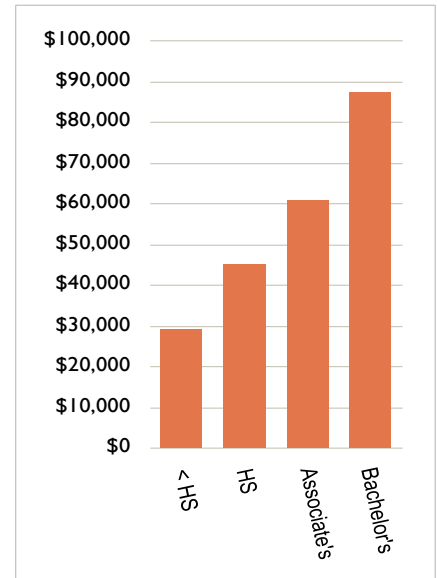
Student Perspective

EDUCATION WILL PAY YOU BACK—FOR A LIFETIME



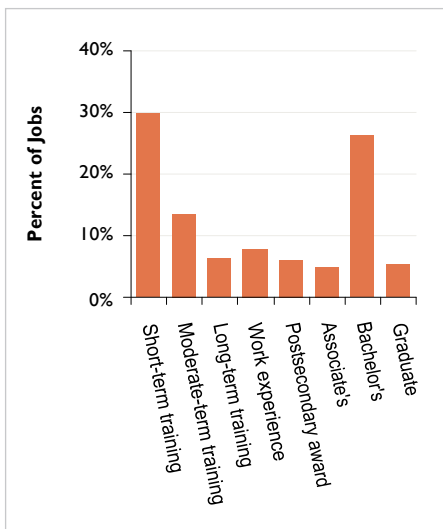
- Students enjoy an attractive 15.9% rate of return on their CLPCCD educational investment.
- Over the course of his or her working career, the average CLPCCD student's lifetime earnings will increase \$4.70 for every dollar invested in their CLPCCD education (in the form of tuition, fees, and forgone earnings).
- The average annual income of the typical associate's degree graduate in the CLPCCD Service Area at the midpoint of his or her career is \$60,900, 35% more than someone with a high school diploma.
- Over the course of a working lifetime, associate's degree graduates in the CLPCCD Service Area earn \$588,300 more than someone with a high school diploma (undiscounted).

Average Earnings in CLPCCD Service Area



EDUCATION IS YOUR TICKET TO A BETTER JOB

Projected 2020 Jobs in CLPCCD Service Area by Skill Level



- By 2020 it is anticipated that there will be about 263,900 new and replacement jobs available in the CLPCCD Service Area.
- About 36% of these jobs will require an education level equal to an associate's degree or greater.
- Another 6% of available jobs in 2020 will require some kind of post-secondary certificate or vocational award.



Taxpayer Perspective

CLPCCD LEVERAGES TAXPAYER DOLLARS

- An estimated 95% of CLPCCD students remain in California and contribute to economic growth. Students who enter the workforce expand the tax base by generating higher earnings and reducing social costs.
- Higher student earnings and associated increases in property income generate about \$9.1 million in added tax revenue each year.
- State and local governments will save approximately \$477,600 in avoided social costs each year, including savings associated with improved health, lower costs of law enforcement, and fewer welfare claimants.



CLPCCD GENERATES A RETURN ON PUBLIC INVESTMENT



- State and local governments allocated about \$115 million in support of CLPCCD in FY 2008-09.
- For every dollar appropriated by state and local governments to CLPCCD, taxpayers will see a return with a cumulative added value of \$1.20 in the form of higher tax revenues and avoided social costs.
- State and local governments will receive a rate of return of 4.1% on their investments in CLPCCD.

Social Perspective

CLPCCD INCREASES STATE INCOME

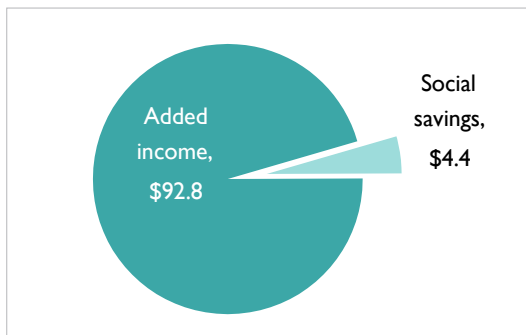


- The activities of CLPCCD’s 2008-09 student body will generate about \$56.6 million in labor income in the state economy each year.
- Once CLPCCD’s current students become active in the workforce, they will promote business output, raise consumer spending, and increase property income in the state. All of this contributes an additional \$36.2 million in taxable income each year.
- Altogether, higher student income and associated effects on business productivity add \$92.8 million in income annually to the state economy.

CLPCCD REDUCES SOCIAL COSTS

- Education is statistically correlated with improved lifestyle behaviors, including reduced incidences of absenteeism, alcohol abuse, and smoking, lower probability of committing crime, and fewer welfare and unemployment claims.

Annual Benefits to the California Public Due to CLPCCD (\$ Millions)



- It is estimated that CLPCCD’s 2008-09 student population will generate social savings to the California public equal to \$4.4 million a year.
- These savings accrue to all state and local residents—students, homeowners, businesses, and taxpayers.



Social & Taxpayer Perspectives

State and local taxpayers earn a 4.1% rate of return on their investment in Chabot-Las Positas Community College District.

CLPCCD adds more money to the state treasury than it takes out. Not only does the district pull its own weight, but it also effectively subsidizes other sectors funded by the taxpayers. Absent CLPCCD, taxes would actually have to be raised in order to maintain services in all other sectors at their current levels. The return on investment is considered from two taxpayer perspectives: social and taxpayer.

SOCIAL PERSPECTIVE

The social perspective adds up all benefits attributable to CLPCCD, regardless of recipient, and compares the total to the original investment made. This is called the “benefit/cost ratio.” If the ratio is less than 1.0, the investment is not worthwhile; if it is greater, the investment is considered sound.

For example, a transportation authority might justify a new road by showing that savings in travel time and vehicle expenses accrued by thousands of drivers exceed the project’s cost. Public parks are justified by showing that recreation, scenic, and other values enjoyed by park users exceed the cost of park infrastructure, operation, and the net value of the park’s land and resources not used for other purposes. So the social perspective counts all benefits, not just those that accrue back to state or local government.

Benefits generated by CLPCCD also accrue to different groups. Students benefit from higher incomes, employers benefit from increased worker productivity, and the public at large benefits from an expanded economic base. The public also enjoys a variety of external social benefits, such as reduced crime, lower welfare and unemployment, improved health, and less absenteeism from work. All of these are tallied up and compared to the investment made by state and local governments, or the taxpayers. A social perspective benefit/cost ratio greater than 1.0 is a minimal indicator of a worthwhile public investment. *Counting benefits and costs in this way, CLPCCD’s benefit/cost ratio is 12.3. In other words, the cumulative added value attached to each dollar invested will have a present value of \$12.30 by the end of the students’ working career.*

TAXPAYER PERSPECTIVE

The taxpayer investment perspective counts only benefits that can be entered into the books of state and local governments. For example, educated workers earn more

and thus pay more taxes. Furthermore, because state and local governments bear part of the cost of crime, their budgets benefit from education’s crime-reducing effect, and the same is true for other benefits of an educated populace. The bottom line: state and local governments receive returns from their support of CLPCCD in the form of increased tax revenue and savings associated with avoided social costs.

Worthwhile public projects often generate negative taxpayer perspective returns, because the role of government is to provide services that the public wants but that the business sector may find unprofitable. Considerable funds are spent on public parks, for example, yet they yield little or no direct return. From a taxpayer perspective, returns are negative, though the park is justified by the benefits tracked under the social perspective. But unlike most government endeavors, funding for CLPCCD generates strong results from *both* the social and taxpayer perspectives. Economists generally assume a 3% discount rate in analyzing government investments, assuming that governments can obtain unsecured loans at a rate of 3% or receive a 3% return on any excess funds, if they were invested. *Since CLPCCD’s taxpayer rate of return of 4.1% is greater than 3%, state and local governments actually make money on the investment.* By funding the district, therefore, other recipients of state and local funding are actually subsidized through the revenues generated by the district.

Comparison of CLPCCD’s Rate of Return to the Discount Rate



Business Perspective

CLPCCD RAISES CONSUMER SPENDING

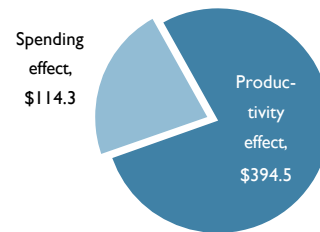


- CLPCCD employed 597 full-time and 262 part-time faculty and staff in the 2008-09 reporting year, with an annual payroll of \$106.2 million.
- In addition to payroll, CLPCCD spent \$66.6 million in FY 2008-09 for supplies and services, of which an estimated 43% was spent in the CLPCCD Service Area.
- CLPCCD estimates that approximately 28% of its students come from outside the CLPCCD Service Area. Non-local students who settle in the region spend money at local businesses for food, transportation, and other personal expenses.

CLPCCD GENERATES NEW INCOME

- The net added income generated by CLPCCD operations (\$104 million) and the spending of non-local students (\$10.3 million) contributes a total of \$114.3 million in income to the CLPCCD Service Area economy each year.
- The increased productivity of workers due to the accumulation of past and present CLPCCD skills in the CLPCCD Service Area workforce creates approximately \$394.5 million in added income each year.

Added Income in CLPCCD Service Area Due to CLPCCD (\$ Millions)



CLPCCD CREATES A SKILLED WORKFORCE

- CLPCCD activities encourage new business, assist existing business, and create long-term economic growth. The district enhances worker skills and provides customized training to local business and industry.
- An estimated 2.5 million CLPCCD credits have accumulated in the CLPCCD Service Area workforce over the past 30-year period as former CLPCCD students (completers and non-completers) enter the regional workforce each year.

Projected 2020 Jobs by Skill Level in CLPCCD Service Area (%)

