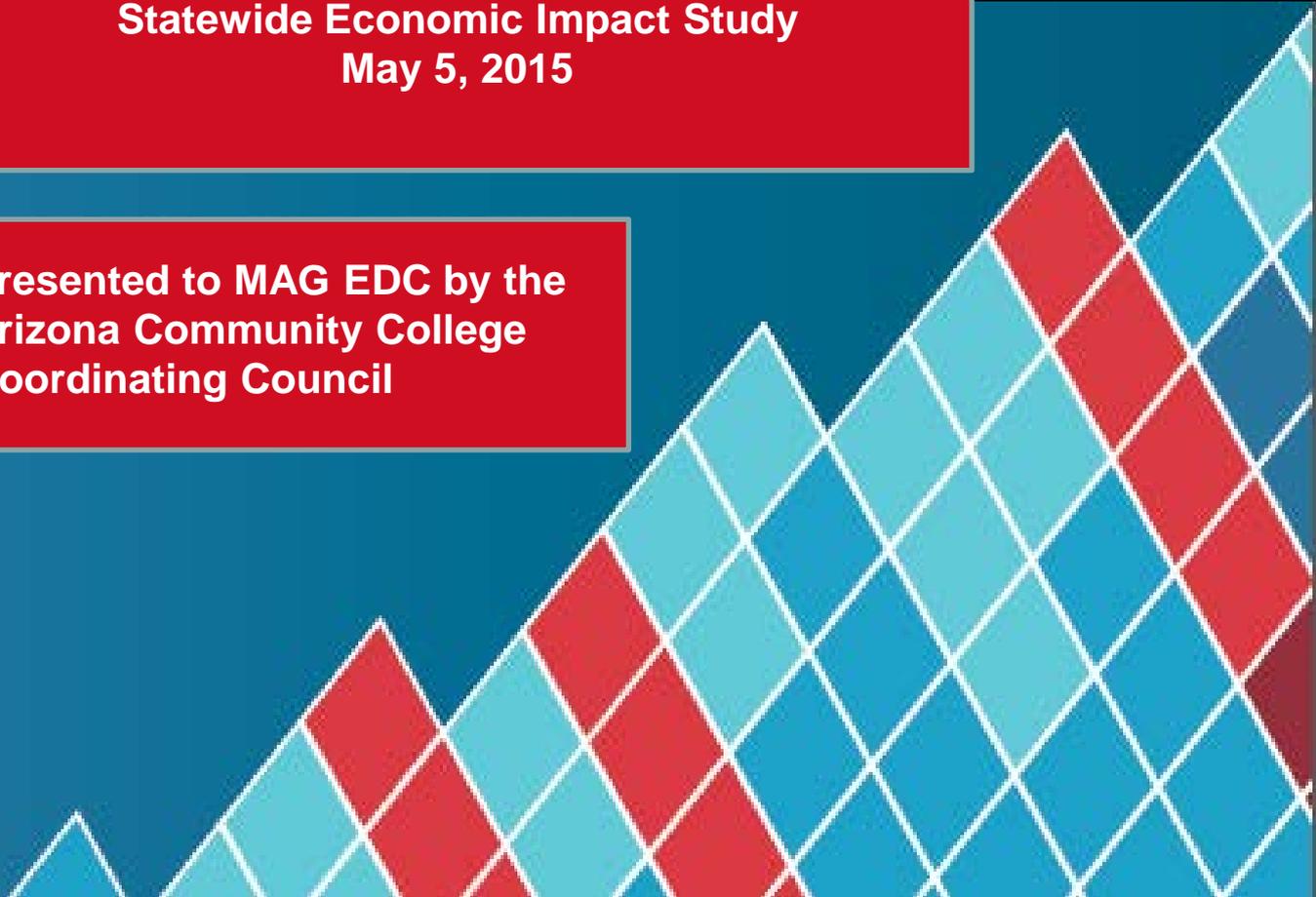


Demonstrating the Value of Arizona Community Colleges

Statewide Economic Impact Study

May 5, 2015

**Presented to MAG EDC by the
Arizona Community College
Coordinating Council**



First-of-its-Kind **Statewide Economic Impact Study** **Demonstrating Value of Arizona's Community** **Colleges**

\$14.5 billion - Amount each year Arizona's Community Colleges contribute to our state's economy –nearly **6% of Arizona's GSP**

Profound discovery – Arizona's Community Colleges are on the same level of prestigious economic impact as aerospace, defense and manufacturing

Not surprising, Arizona's Community Colleges are **creating wealthier, healthier and safer communities** filled with **successful students** and **less burden on taxpayers** – and now we have the data to prove it.

This epic new study proves how Arizona's Community Colleges create:

- **New & higher lifetime incomes**
- **Local jobs**
- **A skilled workforce**
- **An expanded economic base**
- **Our quality of life**



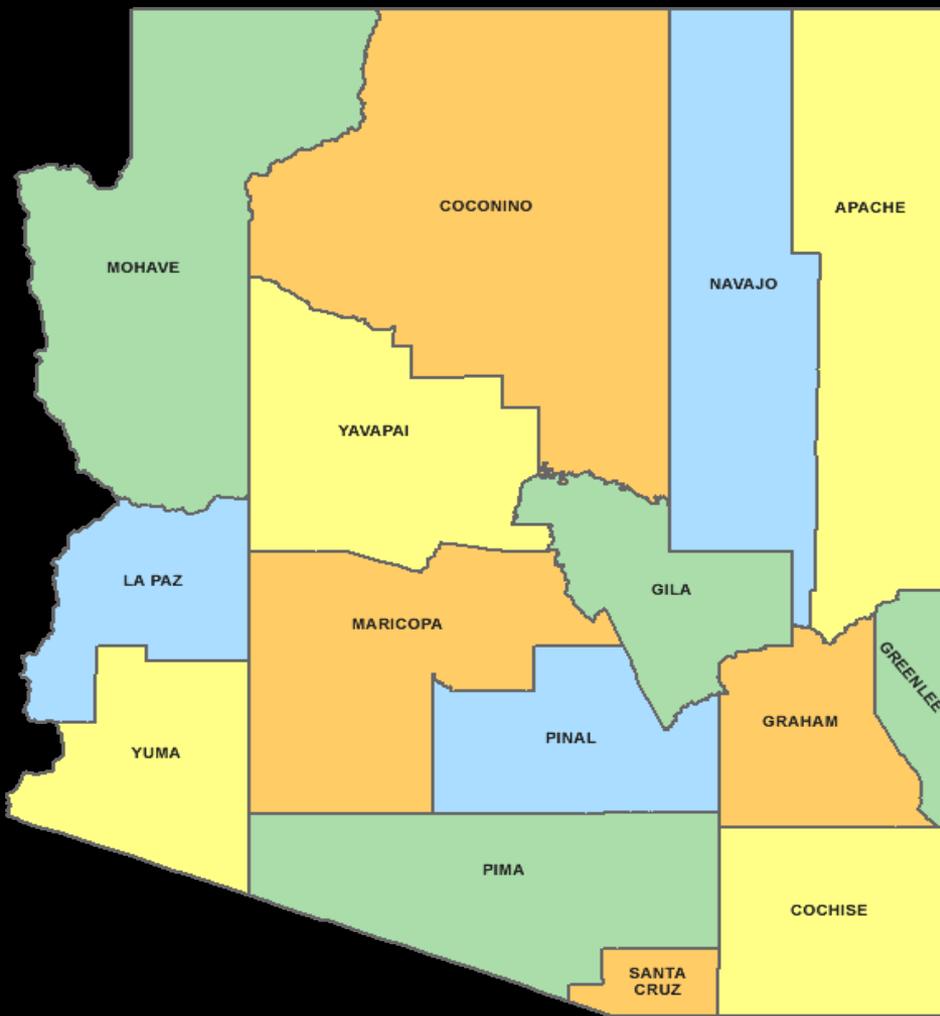
And equally as important – more than 90% of those who attend Arizona's Community Colleges stay in Arizona and contribute to our state's prosperity and quality of life.



Study Sponsored by the Arizona Community College Coordinating Council

Mission of the Council

- **To ensure broad access to high-quality education and training for all Arizonans.**
- **To improve the retention of learners through their education or training goals.**
- **To significantly improve goal attainment, transfer, and degree/certificate completion.**



Copyright © 2008 All Rights Reserved

Led by Arizona's Community College District Leaders

Arizona Community College Coordinating Council

**Arizona Western College
Dr. Glenn Mayle**

**Central Arizona College
Dr. Doris Helmich**

**Cochise College
Dr. J.D. Rottweiler**

**Coconino Community College
Dr. Leah L. Bornstein**

**Eastern Arizona College
Mark Bryce, J.D.**

**Maricopa Community Colleges
Dr. Rufus Glasper**

**Mohave Community College
Dr. Michael Kearns**

**Northland Pioneer College
Dr. Jeanne Swarhout**

**Pima Community College
Dr. Lee Lambert**

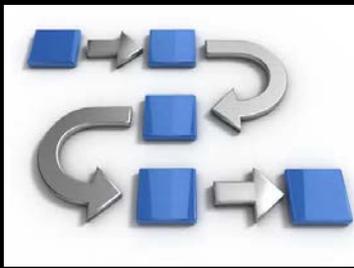
**Yavapai College
Dr. Penelope H. Wills**

**Jack Lunsford, President/CEO
Arizona Community College Coordinating Council**

Who Are Arizona's Community Colleges?

Annually, we are:

- **375,000 Students**
- **40,000 Degrees & Certificates Awarded**
- **10,000 Students Transfer to Public Universities**



Study Author; Methodology

Economic Modeling Specialists International (EMSi):

- ✓ Arizona study – 2014; National study – 2012
- ✓ 1,200+ higher education EIS in four countries since 2000
- ✓ Data and assumptions:
 - latest academic and financial reports from IPEDS
 - Industry/employment data from Bureau of Labor Statistics/Census
 - EMSi's Social Accounting Matrix (SAM) model, and a variety of studies and surveys relating education to social behavior
- ✓ The study applies a conservative methodology and follows standard practice using only the most recognized indicators of economic impact and investment effectiveness

Impact of America's community colleges on U.S. Economy 2012

<http://www.economicmodeling.com/national-impact-study/>

Impact of Arizona's Community Colleges on our state's economy FY14

\$14.5 billion in total economic impact:

- ✓ **\$1.2 billion in payroll and operational expenses** of Arizona's Community Colleges.
- ✓ **\$300 million from out-of-state students spending and tuition.**
- ✓ **\$13 billion** from our alumni in higher skilled jobs, adding income to Arizona's economy.

5.6% of Arizona's Gross State Product



**How does this compare with
other Arizona sectors?**



Arizona's Community Colleges have profound impact on our state's economy

Economic Impact of Arizona Community Colleges (FY13-14) in Comparison with Two Other Major Industry Sectors in Arizona

(Other sector data from Arizona Commerce Authority)

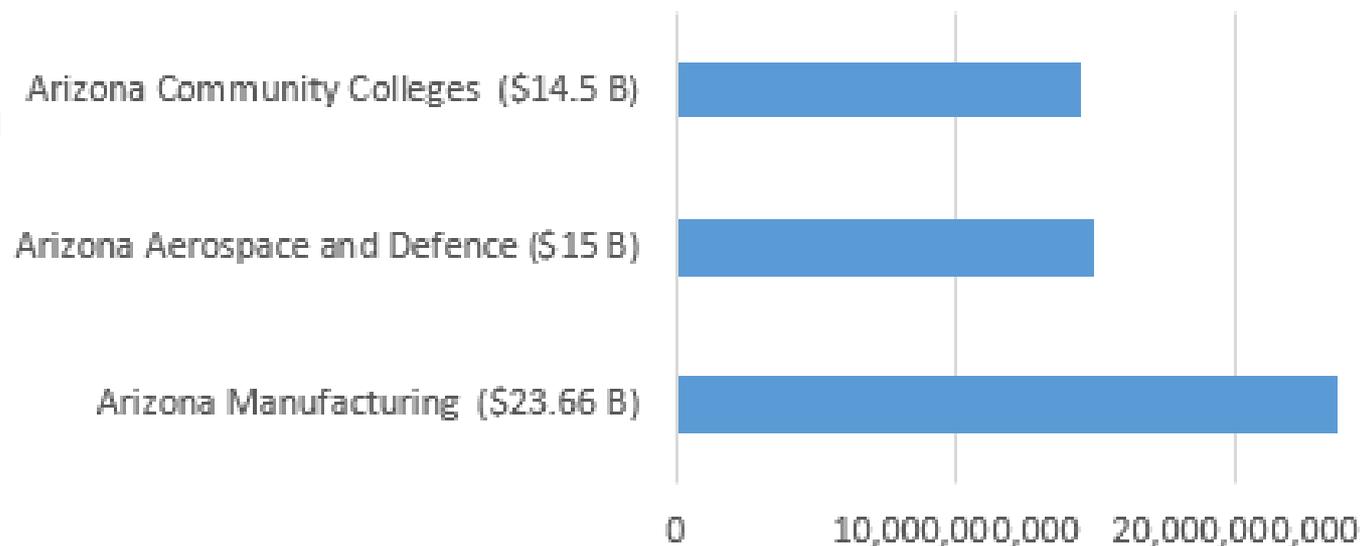


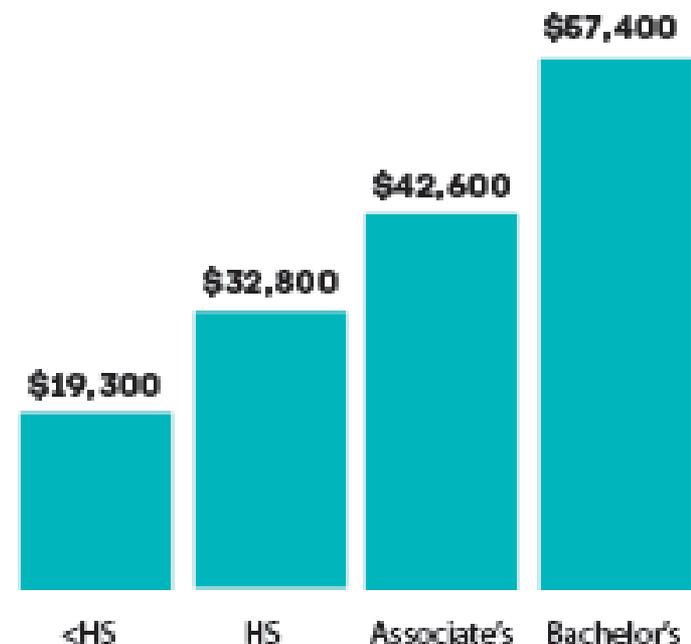
Table 1.7: Expected income in Arizona at the midpoint of individual's working career by education level

Education level	Income	Difference
Less than high school	\$19,300	n/a
High school or equivalent	\$32,800	\$13,500
Associate's degree	\$42,600	\$9,800
Bachelor's degree	\$57,400	\$14,800

Source: EMSI complete employment data.

**Arizona's
Community Colleges
have a profound
impact
on Arizona's
students – our future
work force**

**ANNUAL INCOME BY EDUCATION
LEVEL AT CAREER MIDPOINT IN
ARIZONA**



DEMONSTRATING THE VALUE OF

Arizona Community Colleges

*Analysis of the economic impact and
return on investment of education*

FY 2013-14

Study components

ECONOMIC IMPACT

*on local business
community*

RETURN ON INVESTMENT

*to students, society,
and taxpayers*

ECONOMIC IMPACT ANALYSIS

Measures

impact of **COLLEGE OPERATIONS**

impact of **STUDENT SPENDING**

impact of **ALUMNI**

ECONOMIC IMPACT ANALYSIS

Approach

- Calculate **initial sales** generated in region
- Derive sales created by **multiplier effects**
- Convert results to **income**

impact of **COLLEGE OPERATIONS**

INITIAL EFFECT

College payroll

MULTIPLIER EFFECT

Income created by the
spending of the colleges
and their employees

\$1.2 billion

impact of **STUDENT SPENDING**

INITIAL EFFECT

Income created by the
spending of out-of-region
students

MULTIPLIER EFFECT

Income created by the
spending of businesses
patronized by students

\$300.0 million

INITIAL EFFECT

Higher wages of former students + increased output of businesses

MULTIPLIER EFFECT

Income created by the spending of students and businesses

\$13.0 billion

ECONOMIC IMPACT ANALYSIS

Results

Impact of college operations	\$1.2 billion
Impact of student spending	\$300.0 million
Impact of alumni	\$13.0 billion
Total impact	\$14.5 billion

INVESTMENT ANALYSIS

Measures

STUDENT *perspective*

SOCIAL *perspective*

TAXPAYER *perspective*

INVESTMENT ANALYSIS

Approach

- Calculate **benefits and costs** to stakeholders
- Derive the **future benefits stream**
- **Discount results** to current-year dollars
- Determine **net present value, benefit-cost ratio, and rate of return**

Benefits = Student
incremental earnings
over their lifetime

Costs = Tuition and fees
+ books and supplies
+ forgone time, money,
and earnings

Present value of benefits

\$11 billion

Present value of costs

\$2.3 billion

Net present value (benefits minus costs)

\$8.8 billion

Benefit-cost ratio (benefits divided by costs)

4.9

Rate of return

19.2%

Benefits = Expanded economic base + savings related to improved health, reduced crime, and reduced unemployment

Costs = All college expenditures and all student expenditures and costs

Present value of benefits

\$39.2 billion

Present value of costs

\$3.4 billion

Net present value (benefits minus costs)

\$35.8 billion

Benefit-cost ratio (benefits divided by costs)

11.2

Benefits = Added tax revenues + reduced demand for government services

Costs = All state & local public money received

Present value of benefits

\$3.1 billion

Present value of costs

\$843.1 million

Net present value (benefits minus costs)

\$2.2 billion

Benefit-cost ratio (benefits divided by costs)

3.6

Rate of return

9.7%

DEMONSTRATING THE VALUE OF

Maricopa County Community College District

*Analysis of the economic impact and
return on investment of education*

FY 2013-14

Study components

ECONOMIC IMPACT

*on local business
community*

RETURN ON INVESTMENT

*to students, society,
and taxpayers*

ECONOMIC IMPACT ANALYSIS

Measures

impact of **DISTRICT OPERATIONS**

impact of **STUDENT SPENDING**

impact of **ALUMNI**

ECONOMIC IMPACT ANALYSIS

Approach

- Calculate **initial sales** generated in region
- Derive sales created by **multiplier effects**
- Convert results to **income**

impact of **DISTRICT OPERATIONS**

INITIAL EFFECT

District payroll

MULTIPLIER EFFECT

Income created by the
spending of the district and
its employees

\$732.4 million

impact of **STUDENT SPENDING**

INITIAL EFFECT

Income created by the
spending of out-of-region
students

MULTIPLIER EFFECT

Income created by the
spending of businesses
patronized by students

\$240.6 million

INITIAL EFFECT

Higher wages of former
students + increased output
of businesses

MULTIPLIER EFFECT

Income created by the
spending of students and
businesses

\$6.3 billion

ECONOMIC IMPACT ANALYSIS

Results

Impact of district operations	\$732.4 million
Impact of student spending	\$240.6 million
Impact of alumni	\$6.3 billion
Total impact	\$7.3 billion

INVESTMENT ANALYSIS

Measures

STUDENT *perspective*

SOCIAL *perspective*

TAXPAYER *perspective*

INVESTMENT ANALYSIS

Approach

Calculate **benefits and costs** to stakeholders

Derive the **future benefits stream**

Discount results to current-year dollars

Determine **net present value,**
benefit-cost ratio, and **rate of return**

Benefits = Greater job opportunities + higher lifetime income

Costs = Tuition and fees + books and supplies + forgone time, money, and earnings

\$6.0 billion

\$1.4 billion

\$4.6 billion

4.2

16.6%

Benefits = Expanded economic base + savings related to improved health, reduced crime, and reduced unemployment

Costs = All district expenditures and all student expenditures and costs

\$26.0 billion

\$2.1 billion

\$23.9 billion

12.1

Benefits = Added tax revenues + reduced demand for government services

Costs = State and local government funding

\$2.0 billion

\$499 million

\$1.5 billion

4.0

10.3%

UNDERSTANDING THE RESULTS

Arizona Community Colleges

- Create **new income** in the region
- Support **local jobs**
- Sustain a **skilled workforce**
- Increase students' **lifetime income**
- Expand the state's **economic base**
- Improve **quality of life**

**THE RESULTS OF THIS STUDY
WERE PREPARED BY**



**FOR A COPY OF THE REPORT,
CONTACT THE ARIZONA COMMUNITY COLLEGE
COORDINATING COUNCIL**

WWW.ARIZONACOMMUNITYCOLLEGES.ORG

Demonstrating the Value of Arizona Community Colleges

Statewide Economic Impact Study

May 5, 2015

**Presented to MAG EDC by the
Arizona Community College
Coordinating Council
THANK YOU!**

