

Study on the General Impact of the College of Micronesia- FSM on the Federated States of Micronesia

EXECUTIVE SUMMARY

Preface

COM-FSM creates value in many ways -- both in the lives of its students and in the national economy. This study investigates the economic impacts of COM-FSM on the national community it serves and the benefits it generates in return for the investments made by its key stakeholder groups— students, taxpayers, and society.

Results reflect data within Fiscal Years (FY) 2013-17. Economic impact analyses measure the contributions to the national economy and the state economies. Results are measured in terms of added expenditures and value added in the form of money flows. The return on investment to students, taxpayers, and society is part of the analysis.

Methodology¹

Broadly speaking, studies claiming to estimate economic impacts generally fall into three categories: studies estimating contributions, gross regional products, or true economic impacts. The EMSI/ACCT economic impact model² used in this analysis was especially designed for the Association of Community College Trustees by Economic Modeling Specialists International (EMSI) to measure the impact metric for educational institutions. It includes a contributions analysis, an impact analysis, and a measure of direct economic impacts.

Contributions Analysis

The most common type of economic activity study is a contributions analysis. Contributions analysis is a descriptive approach that tracks the gross economic activity of the given industry or firm as the dollars cycle through a region's economy. The contributions analysis looks at the actual regional data and the current linkages that exist within the economy. Its focus is on the impact of organizational spending.

Workforce Impact Analysis is the narrowest of all economic activity analyses. A true impact is defined as "the net change to the economic base of a region that would not otherwise be there without the industry or firm under analysis." An educational institution increases the productivity of the local economy by producing workers, making the firms hiring those workers more efficient and enjoying higher output and profitability. As such, the impacts associated with educational institutions should rightly include the increased output of graduates into the workforce. This productivity is measured in terms of wages paid (earnings) of graduates within the local economy.

Direct Economic Effects are changes in local business activity occurring as a direct consequence of public or private business decisions, or public policies and programs. These may occur as a result of various factors, each of which is analyzed differently. For COM-FSM the most meaningful measures of direct economic impact are Capital Expenditures for Facility Investment.

¹ Philip Watson, Joshua Wilson, Dawn Thilmany, and Susan Winter, "Determining Economic Contributions and Impacts: What is the difference and why do we care," *Journal of Regional Analysis & Policy* (Vol. 37, #2).

² Kjell Christophersen, Tim Nadreau, and Aaron Olanie, "The Rights and Wrongs of Economic Impact Analysis for Colleges and Universities," Economic Modeling Specialists International (EMSI).

Phase I – Contributions Analysis

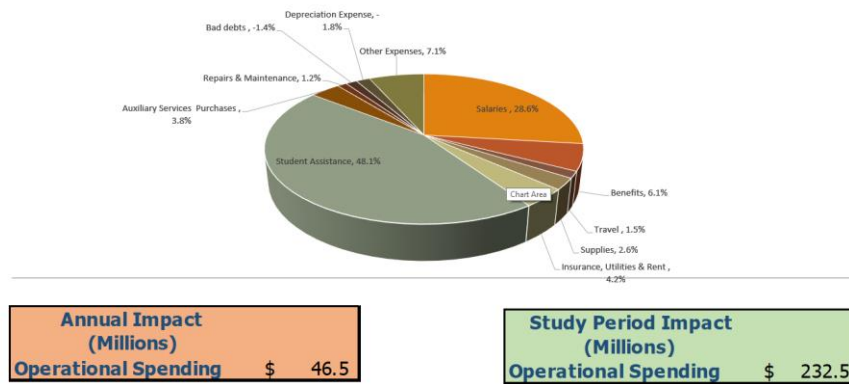
COM-FSM promotes economic growth in the COM-FSM service area in a variety of ways. The college is a buyer of goods and services, an employer, and its students' benefit local businesses. In Addition, COM-FSM is a primary source of education to the COM-FSM Service Area residents and a supplier of trained workers to the COM-FSM service area industries. An Operations Spending Analysis determines the added net income generated in the region as a result of the institution's its purchases of supplies and services, its payroll, and student expenditures.

COM-FSM is an important employer in the COM-FSM service area. Taking FY 2013-14 as a baseline illustration year, the college employed 735 full-time and part-time faculty and staff. Of these, 93% lived in the COM-FSM service area. Total payroll at COM-FSM was \$30.1 million, much of which was spent in the region for household expenses, groceries, rent, dining out, clothing, and other living expenses.

COM-FSM is itself a large-scale buyer of goods and services. In FY 2013-14 the college spent \$29.3 million to cover its expenses for facilities, professional services, and supplies.

COM-FSM added \$33.5 million in added income to the region during this illustrative year as a result of its day-to-day operations. This figure represents the college's payroll, the multiplier effects generated by the spending of the college and its employees, and a downward adjustment to account for funding that the college received from state and local sources.

COM-FSM REVENUES HAVE A \$46.5 MILLION IMPACT ON THE FSM ECONOMY



- The Economic Impact of COM-FSM using the Operational Spending Method is approximately \$46.5 million annually.
- Each dollar of COM-FSM operational expenditure returns an impact of \$1.65 to the FSM economy.
- Tuition and Pell Grant revenues account for over two-thirds (68%) of COM-FSM revenues – a figure of paramount importance in planning for the 2023 Compact deadline.
- Pell Grants and Other Student Assistance comprise nearly half (48.3%) of the impact of Operational Spending on the FSM economy.
- Salaries and Benefits comprise over one-third (34.8%) of the impact of Operational Spending on the FSM economy.
- Pell Grants, Student Assistance, and Salaries & Benefits have the highest dollar-to-dollar return to the economy as measured by the Operational Spending Approach.

Phase II – Impact Analysis of Alumni

This measure tallies the impact of the alumni’s earnings and productivity in the regional workforce.

The education and training that COM-FSM provides for regional residents results in its greatest societal impact. Since the college was established, students have studied at COM-FSM and entered the regional workforce with new skills. Today, thousands of former students are employed in the COM-FSM service area.

The tool used to measure this impact is called “Net Impact Analysis.” It is a more focused methodology than the Operational Spending Model shown in Phase I. This model also provides a metric applicable only to educational institutions which allows the measurement of the net value of the *increased productivity in the regional workforce* as students (as graduates and employees) enter into the FSM economy.

Net Impact of New Graduate Earnings Per Sector (2013-2017)

Summary of Graduates 2013-2017							
Academic Program	Chuuk	Kosrae	National	Pohnpei	Yap	Grand Total	Total Contribution
Agriculture	0	18	37	83	17	155	\$ 946,602
Arts & Humanities	1	6	360	2	5	374	\$ 4,771,508
Building	0	0	0	3	0	3	\$ 58,449
Business	24	0	204	46	0	274	\$ 3,151,895
Construction	0	0	2	68	0	70	\$ 1,091,103
Education	121	18	501	3	52	695	\$ 8,487,832
Electronics	0	25	0	58	7	90	\$ 1,443,495
Health-Nursing	0	0	15	0	0	15	\$ 183,632
Hospitality & Tourism	0	0	4	31	2	37	\$ 820,856
ICT	1	3	126	54	12	196	\$ 3,552,842
Mechanical	0	0	0	6	0	6	\$ 113,380
Marine Science	0	0	51	0	0	51	\$ 924,464
Public Health	4	0	116	1	13	134	\$ 2,332,281
Grand Total	151	70	1416	355	108	2100	\$ 27,878,338.19

Annual Impact (Millions)		Study Period Impact (Millions)
Employment of Graduates \$ 5.6		Employment of Graduates \$ 27.8

Net Impact Analysis Method Findings

- **Annual contribution of earnings** of new COM-FSM graduates to the FSM economy is approximately \$5.6M annually and over \$27.8M for the five (5) year period of the study.
- **The average annual salaries** earned by recent graduates is \$8772.
- COM - FSM **graduates in the Education sector** represent a greater proportion of total earnings (33%) than any other degree program
- **Each dollar** earned in COM-FSM graduates’ wages returns an **impact of \$1.90 to the FSM economy.**

Phase III -- Capital Expenditures for Facilities Investments

This model also measures *Direct Economic Effects* -- changes in local business activity occurring as a direct consequence of public or private investment in infrastructure and capacity. For COM-FSM the most meaningful measure of direct economic impact is capital investment in new facilities using Infrastructure Development Plan (IDP) and other public funds.

Investment analysis is the process of evaluating total costs and measuring these against total benefits to determine whether or not a proposed venture will be profitable. If benefits outweigh costs, then the investment is worthwhile. If costs outweigh benefits, then the investment will lose money and is considered unprofitable. This section of the study considers COM-FSM's planned *future* investments of IDP funds on capital infrastructure. The period of IDP expenditures include FY 2019 - FY 2023 as presented in the three phases of the IDP plan.

PLANNED COM-FSM INFRASTRUCTURE SPENDING WILL HAVE A \$66.9 MILLION IMPACT ON THE FSM ECONOMY

Phase 1	
States/Jurisdiction	Funding Amt.
Chuuk	\$ 16.7
Kosrae	\$ 8.2
National	\$ 11.4
Pohnpei	\$ 6.9
Yap	\$ 4.6
Grand Total	\$ 47.8

Phases 2 & 3	
States/Jurisdiction	Funding Amt.
Chuuk	\$ 4.0
Kosrae	\$ 3.5
National	\$ 2.1
Pohnpei	\$ 6.0
Yap	\$ 9.5
Grand Total	\$ 25.1

Annual Impact (Millions)	
Capital Expenditures	\$ 22.3

Annual Impact (Millions)	
Capital Expenditures	\$ 5.0

Future Period (Millions)	
Capital Expenditures	\$ 66.9

Future Period (Millions)	
Capital Expenditures	\$ 25.1

Facilities Construction Impact Analysis Findings

- The impact of planned **Phase I facilities infrastructure spending** on the FSM economy is approximately \$22.3M annually and 66.9M for the 5-year period of the study (although expenditures cover only 3 years of the 5).
- **The Phase II and Phase III facilities infrastructure spending impact** on the FSM economy would be approximately 35.1M for an extended 5-year period.
- Each dollar spent on facilities infrastructure returns an **impact of \$1.40 to the FSM economy**.

Total Impact

The EMSI/ACCT model is designed to accurately articulate the economic value of higher education institutions. In this context, the model's designers suggest that this impact study methodology has advantages over other economic impact study methodologies when analyzing higher education institutions. The key difference is that the impacts are net measures (operational spending, employment of graduates, and capital expenditures) which are cumulative. They can be presented collectively to represent the full range of economic impacts of a higher education institution.

Readers of this executive summary are reminded that in the economic realm, money flows freely in an economy such as the FSM's. The portions of the money retained within the regional FSM economy are what such studies measure. The measure includes the direct effects of economic activity and the additional value added portion of revenue that is kept in the economy by local expenditures.

Using these measures, COM-FSM expenditures, new graduates' earning, and capital outlays and their added values can be fairly stated to impact the FSM economy by approximately \$75 million annually. Over the five (5) year period of this study that impact exceeds \$327 million.

TOTAL IMPACT ON THE FSM ECONOMY FOR THE STUDY PERIOD EXCEEDS \$327 MILLION

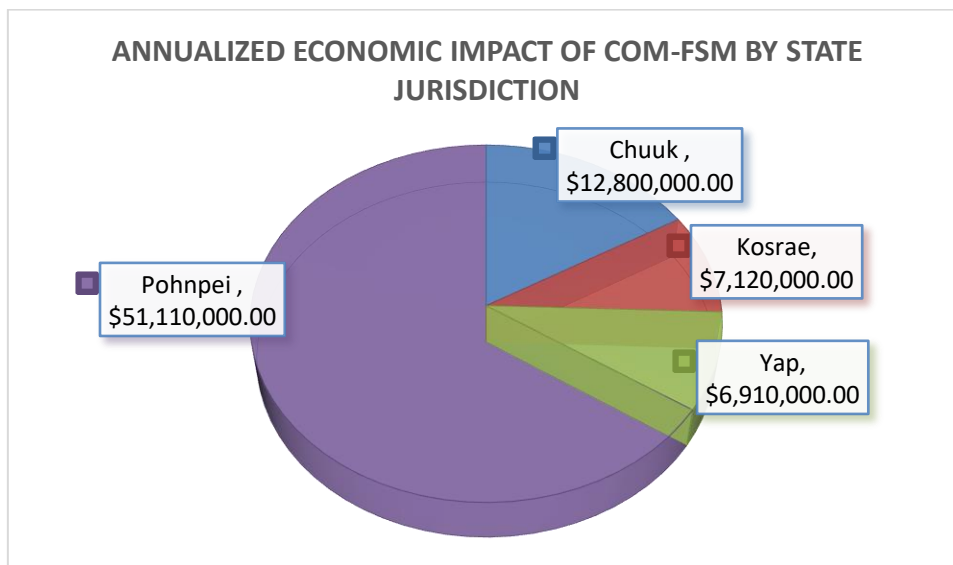
Annual Impact (Millions)		
Operational Spending	\$	46.5
Employment of Graduate	\$	5.6
Capital Expenditures	\$	22.3
	\$	74.4

Study Period Impact (Millions)		
Operational Spending	\$	232.5
Employment of Graduate	\$	27.8
Capital Expenditures	\$	66.9
	\$	327.2

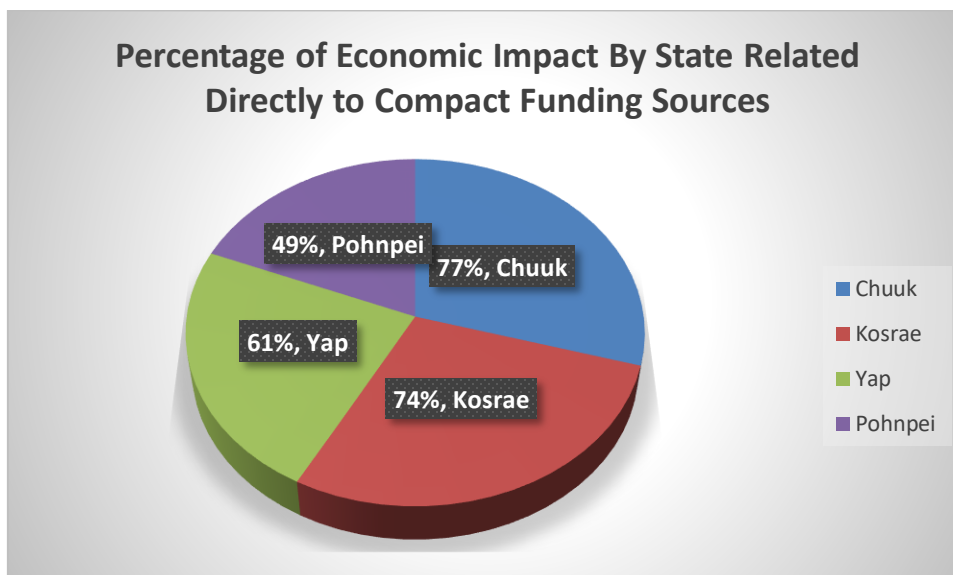
Impact of FSM State Jurisdictions

This study presents aggregate data for COM-FSM across the nation. It also recognizes that the economic impact of the college is not uniform across the four (4) states of the FSM as measured by the aggregated economic impacts of operational spending, employment of graduates, and capital expenditures for each state.

The primary determinant for operational spending in each state is campus size (enrollment) due to the impact of student spending and faculty/staff salaries. For employment of graduates the two major determinants are program mix: 1) programs with higher wage/salary graduates and 2) size of graduating classes within programs. The primary determinant for capital expenditures in each state is IDP.



Two sources of external funding related to the Compact for Free Association -- Pell Grant access and IDP funding -- account for 60% of the economic impact of COM-FSM on the national economy. The proportion of these two funding sources varies significantly among the states.



Impact of State Jurisdictions Findings

- Two sources of external **funding related to the Compact for Free Association** -- Pell Grant access and IDP funding – account for 60% of the economic impact of COM-FSM on the national economy, but in some states it is disproportionately greater.
- **Education program graduates** remain the largest single contributor to the economic impact of graduates in all states *except Kosrae*.
- **States with a higher percentage of technical fields** (Building, Construction, Mechanical, & Electronic trades, plus ICT, and Hospitality) have higher entry level wages & salaries. Thus graduates in those fields disproportionately raise the economic impact factor.

Summary

This study investigates the economic impacts created by COM-FSM on the national community it serves for Fiscal Years (FY) 2013-17. It uses an economic impact analysis method pioneered by EMSI and ACCT which measures the economic impact of educational institutions. It includes a contributions analysis, a workforce impact analysis, and a measure of direct economic impacts. **In the aggregate COM-FSM expenditures, new graduates' earnings, and capital outlays and their added values can be fairly stated to impact the FSM economy by approximately \$75 million annually. Over the five (5) year period of this study that impact exceeds \$327 million.**

Highlights of the study's findings include:

- 1) **The Economic Impact of COM-FSM Operational Spending** is approximately \$46.5 million annually and \$232 million for the period of the study.
 - Each dollar of COM-FSM operational expenditure returns an impact of \$1.65 to the FSM economy.
- 2) **Pell Grants, Student Assistance, and Employee Salaries & Benefits** have the highest dollar-to-dollar return to the economy as measured by the Operational Spending Approach.
 - **Tuition and Pell Grant revenues account for over two-thirds (68%) of COM-FSM revenues – a figure of paramount importance in planning for the 2023 Compact deadline.**
 - **Pell Grants** and other student assistance comprise nearly half (48.3%) of the impact of Operational Spending on the FSM economy.
 - **Salaries and Benefits** comprise over one-third (34.8%) of the impact of Operational Spending on the FSM economy.
 - **Education graduates** remain the largest single contributor to the economic impact of graduates in all states *except Kosrae*.
- 3) **The annual Net Impact Annual of earnings** of new COM-FSM graduates on the COM-FSM economy using is approximately \$5.6M annually and over \$27.8M for the period of the study.
 - **The average annual salaries** earned by recent graduates is \$8772.
 - **COM - FSM Graduates in the Education sector** contribute a greater proportion of total earnings (33%) than any other degree program
 - Each dollar earned in COM-FSM graduates' wages returns an **impact of \$1.90 to the FSM economy.**
 - **Employment sectors with a higher percentage of technical fields** (Building, Construction, Mechanical, & Electronic trades, plus ICT, and Hospitality) have higher entry level wages & salaries. Thus graduates in those fields disproportionately raise the economic impact factor.

- 4) The impact of planned **Phase I facilities infrastructure spending** to the FSM economy is approximately \$22.3M annually and 66.9M for a 5-year period of the study.
- **The Phase II facilities infrastructure spending** impact on the FSM economy would be approximately \$35.1M for an extended 5-year period.
 - Each dollar spent on facilities infrastructure returns an **impact of \$1.40 to the FSM economy**.
- 5) Two sources of external **funding related to the Compact for Free Association** -- Pell Grant access and IDP funding – account for 60% of the economic impact of COM-FSM on the national economy, but in some states it is disproportionately greater.

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