

# MESA STATE COLLEGE

GRAND JUNCTION, COLORADO ►►



## REGIONAL ECONOMIC IMPACT 2011

**MESA**  
S T A T E  
C O L L E G E

A photograph of a student with long brown hair and sunglasses, wearing a black shirt, sitting on a green lawn. She is leaning against a large tree trunk on the left and holding a white folder or book. The background shows a campus with other trees and a building under a blue sky with some clouds. The image is used as a background for the top half of the page.

## MESA STATE COLLEGE AT A GLANCE

► **Total Student Enrollment (Fall 2010 preliminary): 8,131**

In-state students: 88.4%

Full-time students: 74.7%

Students from underrepresented groups: 18%

Undergraduate students: 98.9%

Students from Western Colorado's 14 counties: 68.7%

Students living on campus: 19.2%

Students enrolled in one or more courses via distance format: 21.6%

► **Student-Faculty Ratio: 22:1**

► **Total Majors Offered by Level: 72**

Master's: 2

Baccalaureate: 31

Associate: 17

Certificate: 22

► **Number of Degrees and Certificates Awarded  
(FY 2009 - 10): 1,096**

Master's: 48 (4.4%)

Baccalaureate: 614 (56.0%)

Associate - transfer: 54 (4.9%)

Associate - technical: 120 (10.9%)

Technical Certificate: 260 (23.7%)

► **Mesa State College Faculty (Fall 2010):**

Full-time academic and technical faculty: 222

► **Number of Fulbright Scholar Awards: 10**

► **NCAA, Division II, Varsity Sports:**

Baseball (M), Basketball (M, W), Cross-country (W), Football (M),

Golf (M,W), Indoor and Outdoor Track and Field (W),

Lacrosse, (M, W), Soccer (M, W), Softball (W), Swimming and

Diving (M,W), Tennis (M,W), Volleyball (W) and Wrestling (M)

► **Ranking of Mesa State as Regional Employer: 3<sup>rd</sup>**

► **Financial Aid Awarded (AY 2009 - 10): \$50.2 million**

► **Accreditation: Higher Learning Commission  
of the North Central Association**



# REGIONAL ECONOMIC IMPACT 2011

by

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Vice President for Academic Affairs

This publication is an update of the study *Achieving a Higher Degree of Leadership in Western Colorado*, Mesa State College, Grand Junction, Colorado (2004). The original publication, and the updates focusing on Mesa State College's regional economic impact, are available online at [mesastate.edu/president/impactstudy](http://mesastate.edu/president/impactstudy).

## **Acknowledgments**

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## Introduction

What if the State of Colorado could lure a business that employs 1,500 full- and part-time individuals? And what if that business generated nearly \$900,000 in state revenues and had an estimated economic impact of \$317 million? And what if that business could act as an economic stimulus for advancing a region as well as contribute to improving the quality of life for its residents? And what if that business yielded an economic impact of approximately \$10.80 for each dollar invested by the State of Colorado? Most taxpayers and investors would agree that investing in that business would be an excellent use of resources. These data are but a few of the elements that describe Mesa State College (MSC), leading one to question: what would Western Colorado be like if the College were not here?

## Mesa State College in 2010

Mesa State is one of 12 public four-year higher education institutions in Colorado offering an array of undergraduate programs, and limited graduate degrees in the professional fields of business and education. Advanced degrees in nursing currently are in the approval process. Mesa State provides excellent academic programs that have a major impact on Western Colorado's economic development, largely through its diverse mix of 72 programs.<sup>1</sup> Career and technical training is available through MSC's two-year division — Western Colorado Community College — and selected programs are also available at the Montrose Campus of Mesa State. Enrolling 8,131 students in Fall 2010, MSC has been the primary provider of education to the residents of Colorado's Western Slope for 85 years. Two out of every three undergraduates come from one of the 14 statutorily-assigned counties which span across approximately 30% of Colorado (Figure 1).<sup>2</sup>

Since its founding in 1925, the College has prepared students to become leaders in their communities and increasingly is the first choice of students pursuing a college education. The percentage of Western Colorado residents who have four-year or higher degrees has increased dramatically in recent decades — from 20.8 % of those age 25 and older in 1980 to 29.1 % in 2000 — and Mesa State has been an important contributor to that increase. Between Fall 2005 and 2009, the College's head count grew 23%, ranking it among the fastest-growing Colorado public four-year institutions during this period. In Academic Year (AY) 2009 - 10, the College awarded nearly 1,100 degrees and certificates. In 2010, Mesa State was listed in Forbes Magazine's "Top 600 Colleges in America" based on student ratings.<sup>3</sup>

With an economic impact of nearly \$317 million in Fiscal Year (FY) 2009 - 10, this level of activity reflects a 120% increase over that for FY 2003 - 04 (Table 1).

**Table 1 : Changes in Estimated Economic Impact of Mesa State College, Fiscal Years 2003 - 04 through 2009 - 10**

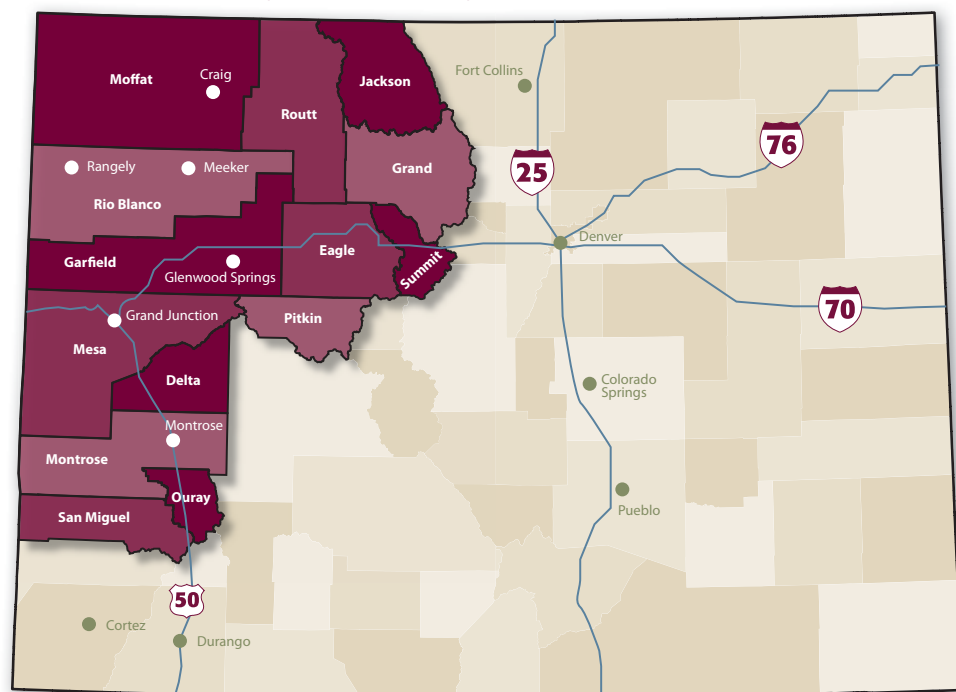
Fiscal Year	Estimated Economic Impact
2003 - 04	\$144,209,049
2005 - 06	\$190,962,113
2007 - 08	\$225,587,773
2009 - 10	\$317,010,199

<sup>1</sup> As of August 2010, Mesa State College and Western Colorado Community College collectively offered 72 programs of study at the following levels: master's (2), baccalaureate (31), associate (17) and technical certificate (22).

<sup>2</sup> Mesa State's service region includes the following counties: Delta, Eagle, Garfield, Grand, Jackson, Mesa, Moffat, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Miguel and Summit. The service region for Western Colorado Community College is a subset of that group: Delta, Mesa, Montrose, Ouray and San Miguel counties.

<sup>3</sup> [http://www.forbes.com/list/2010/94/best-colleges-10\\_Americas-Best-College\\_Rank.html?partner=shine](http://www.forbes.com/list/2010/94/best-colleges-10_Americas-Best-College_Rank.html?partner=shine)

**Figure 1: Mesa State College's Service Region**



## Colorado

Mesa State is the third largest employer in the region, with 1,508 employees,<sup>4</sup> and has a total yearly payroll of more than \$31.8 million. Its expenditures for goods and services in the 14-county region totaled \$15 million for FY 2009 - 10, and over the past five years, Mesa State has completed a \$188 million construction and infrastructure improvement plan, with the College's buildings and land valued at \$239 million.

### Developing Human Capital for Western Colorado

Mesa State College's impact on the region is not limited to employment or expenditures, and thinking about the College strictly in economic terms ignores its core mission and the myriad educational contributions to the region and State's human capital. Additionally, Mesa State College is an active participant in a wide-range of activities and programs that have a significant impact on the surrounding region's educational, social, and cultural environment. Though often subtle, it is clear that there are a great many contributions made by Mesa State to the quality of life experienced by the residents of Western Colorado.

A campus brings together people to share, expand, and apply knowledge. In addition to students, MSC employs faculty and staff and attracts alumni and visitors for varied long- and short-term purposes. As the following illustrates, the College contributes significantly to the region's and State's human capital:

- MSC is uniquely positioned within Colorado public higher education to offer the Bachelor of Applied Science degree in five fields,<sup>5</sup> enabling students to complete a

<sup>4</sup> Mesa State College ranks as the third largest employer in the Grand Valley. According to the Grand Junction Economic Partnership, Mesa County School District #51 has 3,000 employees while St. Mary's Hospital and Medical Center employees 2,068 employees.

<sup>5</sup> The Bachelor of Applied Science is awarded in the fields of Business, Computer Information Systems, Hospitality Management, Public Administration/Public Safety, and Radiologic Technology.



Mesa State College now offers seven programs that are fully available via online/distance delivery formats, making enrollment more convenient and flexible.

baccalaureate degree by building on the technical core of an Associate of Applied Science degree. MSC's faculty members have also structured eight curricular sequences into career ladders,<sup>6</sup> whereby students can complete a credential at a specific level and then either continue to the next higher degree or move into the workforce and complete another degree at a later date. Regardless of the order of enrollment and employment, credit hours fully articulate up to the next level of degree.

- ▶ The College has expanded high demand programs, particularly in employment sectors that face critical shortages due to baby boomer retirements:
  - awarded 536 nursing degrees (at the certificate, associate, and baccalaureate levels) since AY 2005 - 06. Of the three most recent graduating classes, more than two-thirds are working in Colorado or working on another degree;
  - recommended 425 teachers for elementary, secondary, or K-12 education licensure over the past five years, with approximately half working in Colorado or enrolled in another degree program; and
  - prepared 125 graduates of the Peace Officer Standards and Training (POST) Academy over the past three years, of which 99% passed the Colorado Peace Officer Standards and Training Certification Examination.
- ▶ Graduate programs are expanding particularly for practicing professionals. The most recent proposals have been designed for the Master of Science in Nursing and the Doctor of Nursing Practice, and as of this writing, both programs are in the final stages of approval. These programs join MSC's masters' degrees in business and education and bring added research opportunities that focus on needs specific to Western Colorado.
- ▶ The College now has seven programs that are fully available via distance delivery formats, making it more convenient and/or flexible for students to enroll. Additionally, faculty members offer approximately 130 class sections each semester that do not require a student to come to any of Mesa State's campuses.
- ▶ The quality of MSC's programs contributes to an educated labor force that will enjoy a higher standard of living and earn significantly higher incomes. Further, a high quality labor pool is critical for a region's economic development, often serving as a catalyst for attracting new businesses.
- ▶ According to the College Board, the lifetime earning potential of each of the College's 614 bachelor's degree graduates in AY 2009 - 10 is estimated to be 66% more during a 40-year working life than the typical high school graduate earns over the same period.<sup>7</sup> These dollars circulate throughout the State's economy providing revenue for Colorado.

Finally, an educated citizenry lowers social costs. College graduates report better overall health, make fewer claims on public social services, and have greater civic participation than those with a high school diploma or less. It is well-documented that college graduates experience lower rates of unemployment, incarceration, and poverty.

## Partnerships

Mesa State, quite simply, has demonstrated a strong commitment to advancing the region, added educational value to its graduates, and delivered significant economic returns to the region and the State of Colorado. Program development is challenging in the current economic

<sup>6</sup> Career ladders have been developed in Business, Computer Information Systems, Construction Technology/Management, Criminal Justice, Graphic Design, Nursing, Public Administration/Public Safety, and Radiologic Technology.

<sup>7</sup> Sandy Baum, Jennifer Ma, and Kathleen Payea, *Education Pays 2010, The Benefits of Higher Education for Individuals and Society*, Washington, D.C., p. 12.

climate, especially when coupled with the College's vast, complex geography and changing demography. Mesa State, nonetheless, continues to design professional and technical programs to support Colorado's businesses and services and extend its partnerships with other offices and agencies to best leverage public and private resources. Mesa State has collaborated with numerous partners to support economic development in the region. For example:

- ▶ A Math Science Partnership Grant is funded by the U.S. Department of Education (through the Colorado Department of Education) and focuses on preparing middle school math and science teachers to receive highly qualified status through a variety of graduate level courses and professional development. Participating school districts include Mesa County, Montrose, Garfield, and West End.
- ▶ For the past two summers, Mesa State and Western Colorado Community College have partnered with El Pomar's Northwest Regional Council, Colorado Mountain College, and Colorado Northwestern Community College to offer summer camps for middle school youth with a focus on energy, math, and science. These camps provide hands-on activities in science, technology, engineering, and mathematics (STEM) and expose middle school students to college campuses.
- ▶ For more than ten years, Mesa State has partnered with the Grand Junction Field Office of the Bureau of Land Management through a federal assistance agreement, enabling students to work on various agency projects that apply Geographic Information Systems and science skills learned in the classroom.
- ▶ Through a grant with the National Park Service, Mesa State is working on a research project with the Colorado National Monument (CNM) to determine the age-class structures of pinyon pine and juniper populations in the old-growth woodlands in the Monument. Studies show that there have been no major landscape-scale fires for many centuries in the CNM, that junipers 600 years or older are fairly common, and that some are more than 1,000 years old.
- ▶ Listening to Business is a program that annually surveys the opinions and perceptions of businesses to identify trends, opportunities, and issues, thereby increasing the success of local businesses by better aligning community resources. Partners include Mesa County, City of Grand Junction, City of Fruita, Garfield County, Moffat County, City of Craig, and El Pomar Northwest Regional Council (Region 9).
- ▶ MSC faculty and students are assisting Bureau of Land Management field offices in Grand Junction and Montrose with a variety of surveys including recreational management plans.
- ▶ Through a grant from the Colorado Department of Natural Resources' Division of Reclamation, Mining, and Safety, faculty members have been working on the Uravan Mine Restoration Project. This project is part of a consortium of state and federal agencies to reclaim and safeguard abandoned, historical mine areas to benefit terrestrial and water resources and optimize riparian habitat along the San Miguel River's Eagle Basin.

## Alumni

Of Mesa State's nearly 25,000 alumni, 41.7% live in the 14-county Western Colorado region. Not surprisingly, the largest share of that total (7,800) are found in Mesa County, with an additional 5,600 individuals residing elsewhere in Colorado. The fact that many MSC graduates remain



Partnerships have led to the creation of summer camps for middle school students that provide hands-on activities in science, technology, engineering and mathematics.





In 2009, Mesa State College garnered the highest federal recognition a college or university can receive for its commitment to volunteering, service learning, and civic engagement.

in the region improves the quality of life and the educational level of the workforce, attracting new and vital businesses, which leads to expansion of the local economy.

## Volunteerism

For 2010, Mesa State reported 2,674 students engaged in community service and provided 314,326 hours of service — valued at \$6.7 million — with a special focus on youth from disadvantaged circumstances. Volunteer projects ranged from tax assistance to health fairs to community assessment surveys to middle school student camps. Additionally, MSC's faculty and staff members served as volunteers in community-based organizations, and in many instances, they played a major leadership role within these institutions. The economic value of the hours spent in these endeavors is not included in this study.

In honor of these efforts, the College was named in 2009, for the fourth year, to the President's Higher Education Community Service Honor Roll — the highest federal recognition a college or university can receive for its commitment to volunteering, service learning, and civic engagement. The Honor Roll is sponsored by the Corporation for National and Community Service, in collaboration with the U.S. Department of Education, Department of Housing and Urban Development, Campus Compact, and the American Council on Education. The criteria for honoree selection include scope and innovation of service projects, percentage of student participation in service activities, incentives for service, and the extent to which the school offers academic service-learning courses. This is the first time that the College was included in the category of Honor Roll with Distinction.

## Contributing to the Regional Economy of Western Colorado

### Model Overview and Methodology

This section describes the economic impact of Mesa State College on Western Colorado using a short-term approach that examines the impact on local economic activity from the presence of an institution. Beck and Elliot define economic impact as, "... the difference between existing economic activity in a region given the presence of the institution and the level that would have been present if the institution did not exist."<sup>8</sup> This study considers the economic impact of Mesa State College FY 2009 - 10, and relies heavily on the American Council on Education model developed by Caffrey and Isaacs.<sup>9</sup> The model examines MSC's direct spending in five expenditure categories — the College, employees, students, visitors, and capital — and encompasses College non-payroll spending on everything from furniture to utilities to computers to food service to research lab equipment. MSC's employee contribution is analyzed in terms of MSC's payroll, while the student component accounts for that sector's spending on a full-time equivalent basis. Visitor spending relies most heavily on campus visits related to events in the College Center and athletic competitions, while capital expenditures reflect major campus building and renovation projects.

The model then applies a multiplier to calculate indirect spending, thereby producing an estimated total economic impact of the College. In the case of Mesa State College, its estimated impact on the regional economy for FY 2009 - 10 was \$176.1 million. When both direct and indirect, or re-spending, is taken into account by the application of the economic

<sup>8</sup> Roger Beck and Donald Elliott, "Economic Impact Study of Regional Public Colleges and Universities," *Growth and Change*, Spring 1995, Volume 26, Issue 2, p. 245.

<sup>9</sup> John Caffrey and Herbert Isaacs, *Estimating the Impact of a College or University on the Local Economy*, Washington: American Council on Education, 1971.



multiplier, the estimate expands to \$317 million worth of economic activity associated with Mesa State. Thus the College clearly creates a significant economic benefit to the businesses, households, and local governments in Western Colorado.

Last, a few comments about the limitations of the calculations should be noted. The estimated impact does not measure the economic contributions of organizations associated with Mesa State, such as the Alumni Association and the MSC Foundation; the economic impact of faculty and staff earnings from private consulting and intellectual property; the economic impact of faculty and staff expertise used by businesses and organizations; and other collateral economic activities. Mesa State also offers health care benefits and insurance for faculty and staff, and these insurance plans help bolster the local health care community by providing financial support for services. This spending is not included in any calculations.

This study also excludes the economic contributions by alumni to Western Colorado as well as the impact of Mesa State graduates residing elsewhere in the state. MSC graduates enter the job market, receiving earnings well above those of high school graduates. Even higher returns accrue to those with masters, doctorate, and professional degrees. Thus the most important long-term economic benefit not reflected in this report is the increased human capital provided by the higher education institutions. With these exclusions in mind, the economic impact of Mesa State reported in this study understates its overall financial effect.

## Direct Expenditure Categories

### College Expenditures

The myriad products and services that Mesa State purchases from the surrounding region ranges from furniture to office supplies to utilities. In order to determine the College's spending on the surrounding region, budgets for all departments and auxiliary accounts were analyzed and then adjusted to exclude out-of-state companies without a regional presence. Total Colorado expenditures for FY 2009 - 10 exceeded \$20 million (Table 2). Further analysis documented that nearly \$15.1 million, or 75.3%, of the purchased goods and services stayed in Western Colorado, while an additional \$4.9 million of the total was spent elsewhere in the state.

**Table 2 : Mesa State College Expenditures in Colorado, FY 2009 - 10**

Goods and Services Purchases	Amount	Percent
In Western Colorado	\$15,092,975	75.3%
Elsewhere in Colorado	\$4,957,067	24.7%
<b>Total</b>	<b>\$20,050,042</b>	

### Employee Salary/Wage Expenditures

This category of expenditures includes items purchased by MSC employees from food to housing payments to entertainment to education and transportation. To determine employee salary/wage expenditure dollar amounts, all monies budgeted for salaries and wages — \$28.7 million — for all College departments and auxiliary accounts were reviewed (Table 3). Federal and state taxes represented 11.6% of the total, and benefits — including retirement, medical insurance, and life insurance — amounted to another 17.5% of the total. Once taxes and benefits were deducted, net wages amounted to approximately \$20.4 million.

**Table 3 : Estimated Mesa State Employee Salaries, Taxes and Benefits, FY 2009 - 10**

<b>Gross Wages</b>	<b>\$28,729,015</b>
Less Federal and State Taxes	\$3,321,471
Less Benefits	\$5,031,885
<b>Net Wages</b>	<b>\$20,375,659</b>
Less 10% non-local spending	\$2,037,566
<b>Estimated Total Employee Local Spending</b>	<b>\$18,338,093</b>

In light of the College's location in Western Colorado, it is an appropriate assumption that employees of Mesa State contribute most of their income after taxes into the area economy. The Bureau of Labor Statistics' Consumer Expenditure Survey reports that housing and transportation are the two largest areas of consumer expenditures, and it was assumed that there was little dollar leakage out of the region. Some activities, such as vacations and entertainment, however, are examples of dollars that may leave the local economy. Given Mesa State's location, it is assumed that ten percent adequately accounts for leakage out of the region, resulting in an estimate of \$18.3 million in employee disposable income that was added to the Western Colorado economy. Most of that income was spent in local private businesses, and these direct expenditures multiply through the economy as described in a later section of this report.

### Student Expenditures

Mesa State students add significant dollars to the economy, and most of their spending stays in the local economy. To calculate student spending, a mean monthly expenditure was determined by the MSC Financial Aid Office for purchases such as room, board, personal expenses, transportation, and entertainment. This produced an average expenditure of \$1,449 per month while enrolled during FY 2009 - 10. Note that student headcount was adjusted to a full-time equivalent to allow for part-time enrollments, and no distinction was made between on-campus and off-campus students. Like that for employee spending, the study assumed that 90% of these dollars remained in the local economy, as shown in Table 4. At that rate, students infused approximately \$85.7 million into the local economy.

**Table 4 : Estimated Mesa State College Student Spending, FY 2009 - 10**

<b>Term</b>	<b>Term Full-time Equivalent Enrollment</b>	<b>Term Length (in months)</b>	<b>Average Student Monthly Expense</b>	<b>Total</b>
Fall 2009 Enrollment	7,078	4	\$1,449	\$41,024,088
Spring 2010 Enrollment (including January Term)	7,150	5	\$1,449	\$51,801,750
Summer 2010 Enrollment	1,666	1	\$1,449	\$2,414,034
<b>Estimated Annual Student Spending</b>				<b>\$95,239,872</b>
Less 10% non-local spending				\$9,523,987
<b>Estimated Total Student Local Spending</b>				<b>\$85,715,885</b>

Last of all, it should be noted that the above estimate of student spending excludes other ways that Mesa State students affect the local economy. Approximately 10% of Mesa State students come to the College from outside the region, thereby bringing money into Western Colorado. Additionally, students leave the College with increased knowledge and skills that enhance their subsequent employability and spending levels. While many of these students have chosen to forego earnings during their college years, the payback on their educational investment is financially worthwhile.

Visitor Expenditures

Mesa State College attracts a significant number of individuals to Grand Junction each year to attend or participate in a wide range of events. In so doing, these visitors — frequently from communities outside Grand Junction — purchase food, entertainment, lodging, and fuel. Because these dollars are out-of-area dollars, they are “new” dollars to the community and increase overall economic activity.

Based on estimates from academic, student, and athletic departments for the past year, an estimated 14,250 individuals attended the College’s music and theatre programs and 55,668 fans attended athletic events. Table 5 offers an expanded listing of MSC activities and their estimated attendance, but excludes informal campus visits such as prospective students and their families.

An estimated standard destination per diem within the continental U.S. of \$137 (\$86 for lodging and \$51 for meals and incidental expenses) was obtained from the U.S. General Services Administration.<sup>10</sup> Assuming that 25% of the visitors identified in Table 5 — or approximately 24,000 individuals — came to the campus from outside the region, and spent at least the daily average of \$137 for at least one day while the remaining 75% spent the estimated amount for meals (thereby excluding lodging for that segment), the estimated value to the regional economy is \$6.9 million.

Table 5 : Mesa State College Estimated Visitors by Activity, FY 2009 - 10

Activity	Estimated Visitors
Tomlinson Library	17,000
Moss Performing Arts Center	14,251
College Center	[Facility unavailable in FY 2009 - 10]
Athletics	55,668
Graduation	8,500
Total	95,419

Capital Expenditures

Because capital expenditures vary annually due to their dependency on the availability of funding for construction, they are typically separated from all other College expenditures. During FY 2009 - 10, the College initiated, continued, and/or completed an extensive series of projects that resulted in this expenditure category being unusually high (Table 6). More than \$71.6 million was spent on construction projects, technology upgrades for classrooms and labs, parking, and controlled maintenance. Of that amount, the proportion spent locally differed from project to project. Table 6 shows that local contractors and vendors were awarded 90+% of the

10 [http://www.independentsector.org/programs/research/volunteer\\_time.html](http://www.independentsector.org/programs/research/volunteer_time.html)

**Table 6 : Mesa State College Capital Expenditures, FY 2009 - 10**

<b>Project</b>	<b>Expenditure</b>	<b>Percent Spent Locally</b>	<b>Amount Spent Locally</b>
Site Improvements	\$1,588,967	80.2%	\$1,273,952
Campus Planning	\$332,213	100.0%	\$332,213
North Avenue Housing	\$5,230,117	62.1%	\$3,248,958
Poma Project	\$1,049,171	98.7%	\$1,035,280
Brownson Arena Upgrades	\$413,305	74.9%	\$309,524
Housing Plumbing Upgrades	\$443,434	78.4%	\$347,626
North Avenue Improvements	\$16,252	96.9%	\$15,752
College Center Renovation	\$17,063,839	69.1%	\$11,795,254
Poma Phase II	\$453,189	98.6%	\$446,731
Moss Performing Arts Center Remodel - Dance	\$638,939	98.8%	\$631,010
Moss Performing Arts Center Remodel - Theater	\$1,102,939	99.6%	\$1,098,491
Bike Shop Tenant Improvements	\$1,813	100.0%	\$1,813
East Pedestrian Mall	\$79,491	54.5%	\$43,310
College Center Parking Structure	\$5,672,220	77.1%	\$4,371,091
North Mall	\$75,666	15.5%	\$11,730
Houston Hall Remodel	\$233,720	1.4%	\$3,296
Bunting Ave Student Housing	\$677,103	4.0%	\$26,832
Elliott Tennis Pavilion	\$2,800	100.0%	\$2,800
Fine Arts Screen Wall	\$6,156	93.8%	\$5,776
Controlled Maintenance	\$192,404	11.3%	\$21,719
Library Reroof	\$168,263	0.0%	\$0
Library Generator Flood	\$9,408	40.7%	\$3,830
Campus Fire Alarm Network	\$452,548	100.0%	\$452,548
Temporary Dining Facility	\$31,763	74.0%	\$23,507
Maverick Pavilion Remodel	\$707	0.0%	\$0
Academic Classroom Building	\$26,279	100.0%	\$26,279
Elm Hall Remodel	\$17,171	89.6%	\$15,387
Development Center - Day Care Remodel	\$956,179	98.1%	\$937,673
Wubben Hall Expansion	\$13,335,257	72.6%	\$9,675,646
Grand Mesa Drill Field	\$45,525	28.1%	\$12,775
Solar Initiative	\$137,106	0.0%	\$0
12th Street Improvements	\$703,981	45.1%	\$317,243



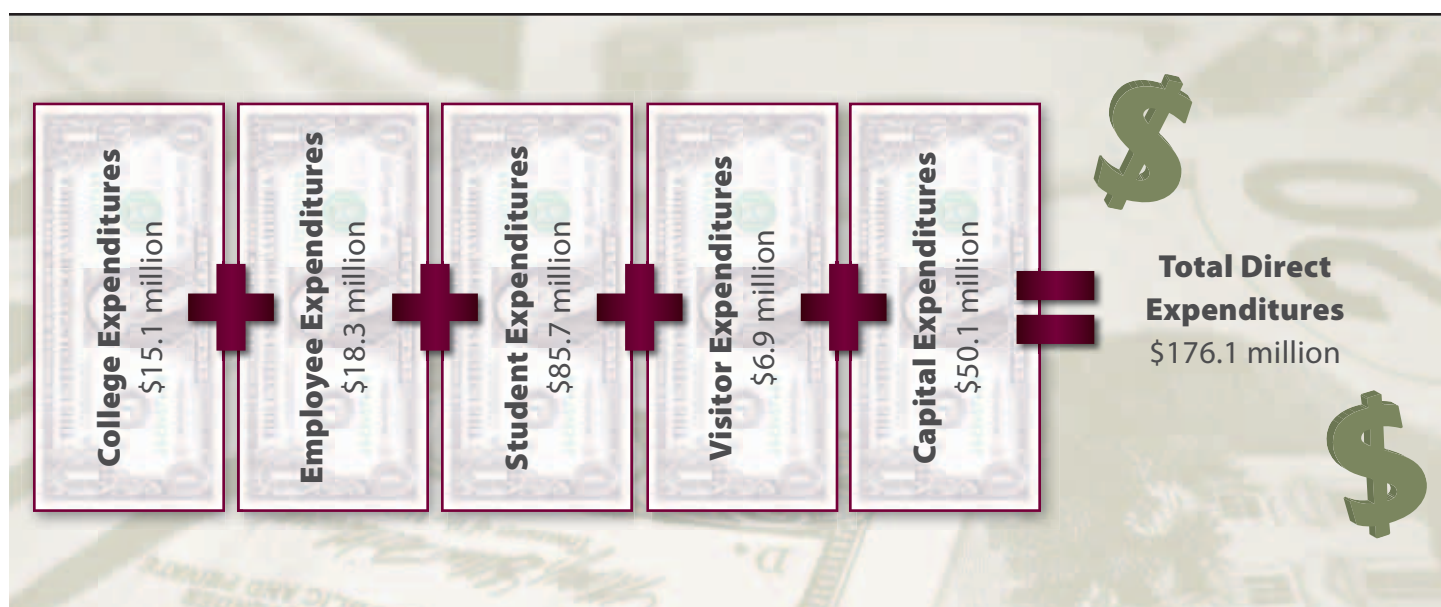
**Table 6 : Mesa State College Capital Expenditures, FY 2009 - 10 (continued)**

Project	Expenditure	Percent Spent Locally	Amount Spent Locally
Saunders Field House	\$18,503,928	68.1%	\$12,603,018
College Place Mall	\$82,992	30.4%	\$25,229
Campus Geothermal Loop	\$321,328	0.1%	\$170
South Campus Loop	\$205,029	69.2%	\$141,847
North IT Corridor	\$117,504	100.0%	\$117,504
Geothermal Loop	\$385,053	74.9%	\$288,366
Residence Hall Improvements & Repairs	\$699,849	24.8%	\$173,341
Parking	\$214,426	100.0%	\$214,426
<b>Total</b>	<b>\$71,688,035</b>	<b>69.8%</b>	<b>\$50,051,947</b>

expenditures for 15 of the 41 projects; at least 70% or more of the spending was local for 23 of the projects. Total dollars spent in the regional economy on capital projects for the last year approximated \$50.1 million, or 69.8% of all capital spending.

### Direct Expenditures Summary

By combining the five expenditure categories, Mesa State College infused over \$176.1 million directly to the regional economy in FY 2009 - 10 (Figure 2). Nearly half of that year's spending is associated with students attending Mesa State (48.7%), while an additional 28.4% of the expenditures are associated with capital projects. To more accurately reflect the total economic contribution of Mesa State on Western Colorado, however, indirect expenditures also must be considered and are discussed in the next section.

**Figure 2: Summary of Mesa State College Direct Expenditures, FY 2009 - 10**

## Output Multiplier Effect

A multiplier captures the relationship between the dollar spent by one individual that then becomes the income of another person to be spent. The initial dollar, since it is being “re-spent,” has a greater impact on the economy than just the original dollar, and hence, dollars “grow” as they circulate through the economy. For example, the ripple effect the wages paid to Mesa State faculty and staff members is the employees’ “re-spending” on housing, food, clothing, entertainment, etc. The remainder of the earnings is withheld from the local economy in the form of savings, taxes and spending on goods and services outside the region, adjusted for here by their exclusion.

The multiplier effect magnifies the economic impact of the initial Mesa State expenditures, with a large multiplier indicating a greater regional economic impact than a smaller one. Similarly, the revenues generated by area businesses from supplying goods and services to Mesa State are paid out in wages and material purchases, which in turn are spent on living costs. In theory, this process continues through several rounds of activity with diminishing increments at each stage. This study, however, was limited to the secondary effects of spending.

Generally speaking, higher education studies that include multipliers reflect that the responding factor varies rather widely as shown in Table 7. For this study, a multiplier of 1.8 was chosen, one which is conservative compared to many other studies. Applying this multiplier to the College’s direct expenditures, the total addition to the economy was estimated to be \$317 million due to the presence of Mesa State College (Table 8). Put differently, without the spending by Mesa State College — including its faculty, staff, students, visitors, and all others affected by what MSC does — the income flow to Western Colorado would be \$317 million less each year.

**Table 7 : Output Multipliers Used in Selected Higher Education Economic Impact Studies**

Institution	Multiplier
University of Massachusetts	2.40
Central Connecticut State University	2.30
Southern Illinois University - Edwardsville	1.96
Sam Houston State University	1.70
West Virginia University - Parkersburg	1.65
Depauw University	1.43

**Table 8 : Economic Impact of Mesa State College by Expenditure Category, FY 2009 - 10**

Expenditure Category	Direct Impact	Multiplier (indirect impact)	Total Impact	Percent of Total
College	\$15,092,975	1.8	\$27,167,355	8.6%
Employees	\$18,338,093	1.8	\$33,008,567	10.4%
Students	\$85,715,885	1.8	\$154,288,593	48.7%
Visitors	\$6,917,878	1.8	\$12,452,180	3.9%
Capital	\$50,051,947	1.8	\$90,093,505	28.4%
<b>Total</b>	<b>\$176,116,778</b>	<b>1.8</b>	<b>\$317,010,200</b>	<b>100.0%</b>

## Labor Multiplier Effect

The money spent by Mesa State on goods and services generates jobs in Western Colorado in several ways. First is the direct employment of faculty, staff, and students in positions at the College and their accompanying spending. Last year, there were 1,508 people who owed their jobs to the existence of the College. Second, non-payroll, regional expenditures create other jobs for workers who supply the goods and services to Mesa State.

A labor multiplier estimates the number of jobs created by the influx of Mesa State's spending into the surrounding community. Again, when other impact studies were reviewed, differing labor multipliers were found (Table 9). Using a conservative labor multiplier of 1.4 to estimate the additional number of jobs due to Mesa State expenditures results in an additional 2,111 full- and part-time jobs.

**Table 9 : Employment Multipliers Used in Selected Higher Education Economic Impact Studies**

Institution	Multiplier
University of Massachusetts	1.98
University of Colorado	1.80
Montana State University	1.67
Tarleton State University	1.53
University of Waterloo	1.34

## Concluding Comments

This study estimates that in FY 2009 - 10, Mesa State College was responsible for adding more than \$176.1 million directly to the regional economy; when indirect spending is considered, the total exceeds \$317 million. Additionally, there were approximately 603 jobs beyond those at Mesa State resulting from the \$176.1 million in direct spending by the College. One of the major criticisms of economic impact studies that are created in-house is the temptation to inflate numbers, use larger multipliers and thus overstate the impact of the institution on the surrounding community.<sup>11</sup> This study has used a very conservative approach in its calculations and multipliers to estimate the total economic impact of the College. Consequently, it is highly likely that the economic impact of Mesa State College is actually somewhat greater than the estimated \$317 million.



Direct expenditures, including more than \$71.6 million spent on construction projects, technology upgrades and controlled maintenance, fuel the economy.

<sup>11</sup> Roger Beck and Donald Elliott, "Economic Impact Study of Regional Public Colleges and Universities," *Growth and Change*, Spring 1995, Volume 26, Issue 2, page 245.



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