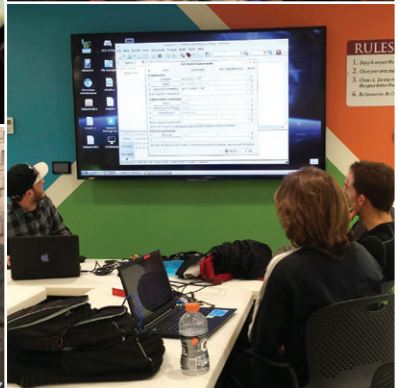
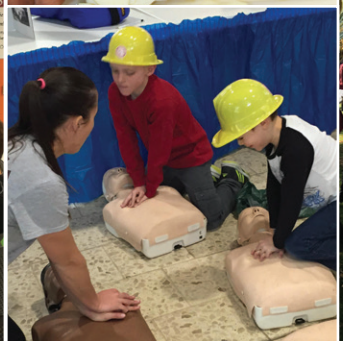
COLORADO MESA UNIVERSITY

REGIONAL IMPACT STUDY

2017





9,481
Total student enrollment
(Preliminary Fall 2016)

78.1%
Full-time

85.3%
In-state students

27.7%
From under-represented groups

55%
From western Colorado's 14 counties

45%
From elsewhere in Colorado/ out-of-state/out-of-country

87%
CMU seniors who rated their overall experience as "Excellent" or "Good"

84%
Rocky Mountain Public Peers* who rated their overall experience as "Excellent" or "Good"

*CO School of Mines, Dixie State Univ, Metropolitan State Univ of Denver, Montana State Univ - Billings, Montana State Univ - Havre, Southern Utah Univ, Univ of CO Boulder, Univ of CO - CO Springs, Univ of CO - Denver, Univ of Montana, Univ of Utah, Utah Valley Univ, Weber State Univ

Source: National Survey of Student Engagement, 2016

Note: Data based on Academic Year 2015-16 unless noted otherwise.

$75.6 million
Financial aid awarded

947
Number of students in AY 2015-16 awarded MavScholars Academic Merit Scholarships

1,842
Number of degrees and certificates awarded in Academic Year 2015–16

Most popular majors:
Business Administration
Biological Sciences
Criminal Justice
Kinesiology
Nursing
Psychology

Only Colorado public institution offering awards from technical certificates through the doctoral degree

NCAA, Division II, Varsity Sports:
Baseball (M); basketball (M, W); beach volleyball (W); cheerleading (M, W); cross-country (M, W); football (M); golf (M, W); lacrosse (M, W); soccer (M, W); softball (W); swimming and diving (M, W); tennis (M, W); track and field (M, W); volleyball (W); and wrestling (M)

87.5%
Proportion of classes with fewer than 40 students

46%
Proportion of classes with fewer than 20 students

72.6%
Percentage of student credit hours taught by full-time faculty

87.9%
Percentage of student credit hours taught by full-time faculty and staff

Tomlinson Library
190,784 books
79,755 e-books
218,253 journals
101 journal databases
465,011 government documents
57 million+ items through Prospector and Mobius

2,518
Beds available in residence halls

Institution Accreditation:
Higher Learning Commission

Programs with accreditation and/or approval by their respective professional organizations:
Athletic Training, Emergency Medical Services, Mechanical Engineering Technology (candidate status), Music, Nursing, Peace Officer Standards and Training (POST), Radiologic Technology, Social Work (candidate status), Teacher Education, Transportation Services

3,279
Computer workstations

850
Wireless access spots

297
Technology-enhanced classrooms

Facilities Certifications for Environmentally-sustainable Construction and/or Renovations:
LEED Gold - Dominguez Hall and Wubben-Science addition; Three Green Globes - Houston Hall, Tomlinson Library; Two Green Globes - Escalante Hall

COLORADO MESA UNIVERSITY

Regional Impact Study 2017

by
Carol Futhey
Provost, Colorado Mesa University

This publication is an update of the study, *Achieving a Higher Degree of Leadership in Western Colorado*, by Carol Futhey, Colorado Mesa University (then Mesa State College), Grand Junction, Colorado (2004). The original publication and the updates focusing on the institution's regional impact, are available online at **coloradomesa.edu/president/impactstudy**.

Acknowledgments
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800.982.6372 (toll free) • 970.248.1020
1100 North Avenue • Grand Junction, CO 81501-3122
coloradomesa.edu

Introduction

Colorado Mesa University (CMU) is a regional public institution, part of a sector of higher education that enrolls more students than research universities and community colleges. CMU is geographically accessible across the country and offers a wide range of academic degrees, majors, and technical programs. CMU frequently serves a significant number of middle- and low-income students as well as those who are first generation to college and has pricing that is among the most affordable levels of tuition and fees. Regional public institutions like CMU often are major employers in their communities, help stabilize regional economies particularly during an economic downturn and serve as social and cultural centers that improve the communities' quality of life. Yet the financial situation of regional public institutions is very challenging as state funding has declined significantly over the past decade to the point that two-thirds of the cost to attend college is now borne by students and their families.

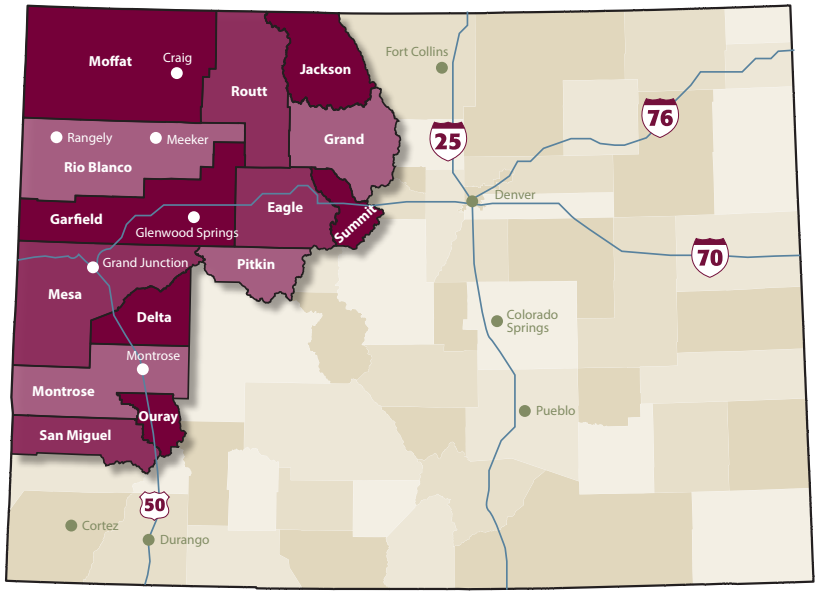
Since regional public institutions typically do not have large endowments from which to draw funds and they place greater emphasis on faculty teaching rather than on competition for external research support, partnerships with local and regional businesses and agencies play a key role in the ability of these institutions to advance their missions. This is particularly true of Colorado Mesa University. CMU continues to be a responsive, nimble, and creative collaborator with a wide range of external private and public partners who, together, have leveraged resources in ways that have benefited both the University and its partners. These relationships have contributed to CMU's capacity to update existing academic and technical programs and add new ones, offer student internships and other applied learning opportunities, seek solutions to regional problems, support regional economic development and, most importantly, educate an informed citizenry and prepare a skilled workforce.

Colorado Mesa University in 2016

In Fall 2016, CMU enrolled nearly 9,500 students, building on a 91-year tradition of being the primary provider of higher education to residents of Colorado's West Slope. Approximately 55% of CMU undergraduates come from one of the 14 statutorily-defined counties comprising CMU's service region,[1] an area that spans nearly 30,000 square miles or approximately 30% of the State of Colorado (Figure 1). In Fiscal Year (FY) 2015-16, the University awarded 1,842 degrees and certificates, a 63.7% increase over the number of awards made five years earlier. Those completions are essential to meeting the state's human capital and workforce needs.

Among Colorado's 12 public four-year higher education institutions,[2] Colorado Mesa has a distinctive role and mission. At its core, CMU's goal is to raise the educational attainment of western Coloradans at all degree levels. Its focus is primarily at the baccalaureate level with an expanding set of graduate programs. Workforce training also is offered through CMU's two-year division, Western Colorado Community College (WCCC). Both campuses are in Grand Junction, with

Figure 1: Map of Colorado Mesa University Service Region



[1] The service region for CMU includes the following counties: Delta, Eagle, Garfield, Grand, Jackson, Mesa, Moffat, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Miguel and Summit. Western Colorado Community College's service region is a subset of that group: Delta, Mesa, Montrose, Ouray and San Miguel Counties.

[2] CMU has a statutory four-year role and mission, as well as for two-year transfer and vocational education and graduate programming. Source: Colorado Revised Statutes § 23-53-101.

51% of CMU's alumni remain in the region, increasing the educational level of the workforce and attracting new businesses to the region.

selected programs and courses also available at CMU's Montrose Campus and through its Office of Distance Education.

Approximately 14,100 (or 51%) of the University's 27,750 alumni live in the 14-county western Colorado region served by CMU. The largest share of that total – approximately 10,700 graduates – are found in Mesa County and another 1,000 in Montrose County. An additional 9,100 graduates reside elsewhere in Colorado. With so many CMU graduates remaining in the region, they increase the educational level of the workforce, which is attractive to new businesses being recruited to the region.

Finally, CMU's students, faculty and staff members have created long-lasting partnerships with community-based organizations through volunteer efforts. For Fiscal Year 2015-16, CMU estimated its community service was valued at more than $1.8 million,[3] an amount not reflected in the calculations for this study.

What follows is a view of Colorado Mesa University from the perspective of its relationships with a variety of partners across western Colorado and has two broad components. It begins by examining some of the many contributions that the University makes while engaging with its partners. Not only does CMU gain from the arrangements but the relationships also enhance the region's quality of life and serve as an attraction for businesses. As an employer and purchaser of goods and services, CMU's economic impact is more obvious and more readily quantifiable. That regional connection is the basis of the report's second section.

63.7%
Increase in the number of awards made five years earlier

14,100
CMU alumni live in western Colorado

$1.8 million
Estimated value of volunteer services by students, faculty and staff in FY 2015–16

Progress through Partnerships

CMU has partnered with numerous state, local, and regional businesses, nonprofits, government agencies and private donors. In this section of the report, the relationships are grouped into four broad categories by which the University engages with its partners. First, the institution is an active supporter of the region's economic development efforts. Second, faculty members bring their expertise, not only to the education of CMU students, but also apply their knowledge to projects across the West Slope. Third, many of CMU's academic and technical programs offer the preparation needed for the region's 21st century workforce and fourth, an extensively renovated campus is a facility shared with many organizations and individuals beyond the University's students, faculty and staff. While examples of each are presented, the list is merely a sampling of the productive collaborations. In short, the partnerships are beneficial and crucial to the mutual progress of Colorado Mesa University and Colorado's West Slope.

Promoting Economic Development

The goal of economic development is to improve the economic well-being and quality of life for a region's residents by creating and/or retaining jobs, increasing revenues and growing the tax base. A key component to encourage companies to make a capital investment in a region is the availability of an educated and skilled workforce. In that context, Colorado Mesa University and Western Colorado Community College make a significant contribution to the recruitment package for the West Slope. Thus, for economic development efforts to effectively achieve their goals, they often require partnerships with universities.

Rural Jump-Start Program

CMU has been an active member of Grand Junction Economic Partnership (GJEP), the region's official economic development agency for the recruitment and retention of businesses in the Grand Valley. Among the most significant recent accomplishments of this collaboration has been the Rural Jump-Start program, whose goal is to make the region more competitive

[3] Downloaded on November 28, 2016 from http://www.independentsector.org/programs/research/volunteer_time.html.

in attracting permanent, high-paying jobs to the region. Representatives from CMU were instrumental in conceptualizing the program and leading lobbying efforts that culminated in the 2015 passage of the Rural Jump-Start Act[4] to assist economically-distressed areas like Mesa and Montrose counties. To date, seven new companies have established operations in Mesa County that range from agricultural production to geo-spatial mapping to chemical analytics with nearly a dozen students landing internships and two securing full-time employment with these new companies.

Maverick Innovation Center

As a complement to this initiative, Colorado Mesa opened the Maverick Innovation Center in Fall 2015 to encourage and develop creativity and encourage entrepreneurial thinking in CMU students. Among the resources available to University students, faculty and staff are workshops, an annual student business plan competition, support for an "entrepreneur in residence" mentoring program as well as space, technology, equipment, and supplies. CMU also offers courses and a certificate program in Entrepreneurship and co-sponsors Entrepreneurship Day each spring. By developing the next generation of innovators, CMU contributes to the region's attractiveness to potential new businesses.

Campus Expansion

In the mid 1980's, the campus found itself landlocked and unable to grow. The City of Grand Junction and Mesa County committed $300,000 per year to assist the University in buying homes to enable the campus to grow within an area bounded by Orchard and North Avenues and Seventh and 12th Streets. After a decade, both entities doubled their commitment to $600,000 annually which continues to this day. Supporting campus expansion has benefited the city by enabling CMU to serve as an economic anchor and stimulant to revitalizing the surrounding Grand Junction neighborhoods.

A similar, more recent, agreement began in 2014 between the University and the City of Montrose and Montrose County. Patterned after the main campus relationship, both the city and the county support the CMU-Montrose Campus through funding for scholarships and capital construction. The collaboration with these agencies led to closing a half-block of South Cascade Street, thereby expanding student support spaces and creating a campus mall.

A ceremonial groundbreaking was held September 6, 2016 at 1410 N. Seventh Street for CMU's newest academic building which will house CMU's engineering programs and the John McConnell Math & Science Center.

Engineering Programs

An academic program that is especially attractive in recruiting business and industry in many communities is Engineering. An expensive program to implement, CMU has partnered since 2008 with the University of Colorado Boulder (CU Boulder) to deliver a baccalaureate-level program in mechanical engineering, and, in 2016, the partnership expanded to include civil engineering. The degrees are conferred by CU Boulder but all coursework can be completed in Grand Junction. Thus far, 64 students have completed the blended CMU/CU Boulder Engineering Program. Graduates are expected to successfully pass the Fundamentals of Engineering (FE) Exam, a national test of the minimum student capabilities and knowledge an engineering graduate should have at the time of program completion. Pass rates on the FE exam for partnership students have been favorable. This success is due, in part, to the significant laboratory and project components required in each of the partnership courses. Because students must demonstrate both the discipline's knowledge and its applications, program graduates are more competitive with potential employers.

The instructional partnership in engineering has led to other regional connections. The Industry Advisory Council, representing 16 Grand Junction industries, provides feedback for program improvements, hires graduates, teaches courses as needed and ensures comparability and coordination between the Boulder and Grand Junction programs. Yet another relationship is the Rural Engineering Education Program (REEP) which promotes preparation of K-12 students for study

[4] Through its Economic Development Commission, the Colorado Office of Economic Development and International Trade must approve company applications to the Jumpstart Program. Legislation specifies that qualifying businesses cannot compete with existing operations, but rather must offer a product or service not already available in the region, create at least five new jobs, and partner with a higher education institution. They are exempt from paying state income taxes for four years and receive refunds on sales and use taxes on specific purchases if used exclusively in the tax-friendly zone. Employees of those businesses also are entitled to an income tax credit of all of their wages for the four-year period. Local communities can offer additional tax incentives.

in science, technology, engineering and mathematics (STEM) disciplines. REEP is supported by multiple organizations, with funding from private gifts through CU Boulder, work-study students from CMU's Teacher Education program and staff supervision from the John McConnell Math & Science Center. Elementary and middle school students participate in on-site, after-school and summer programs in STEM fields.

Greater Grand Junction Sports Commission

The Greater Grand Junction Sports Commission is a collaborative effort among Colorado Mesa University, the City of Grand Junction, Mesa County, the City of Fruita, and the Town of Palisade. Its purpose is to promote sport tourism by enhancing current sporting events and attracting new ones that capitalize on the region's assets. Events with which the commission has been involved include the Special Olympics Colorado Summer Games, Colorado Master's Swim Association Short Track State Championships, the Rim Rock Marathon, and the USA Cycling Collegiate and the Para Road national championships.

The torch was lit to open the Special Olympics Colorado Summer Games at Colorado Mesa University. More than 1,000 athletes participated in the event managed by the Greater Grand Junction Sports Commission.

Building a Future Workforce with 21st Century Knowledge and Skills

One of the most challenging University responsibilities is preparing students to be successful for their initial employment and their entire career. Numerous studies document that, regardless of major or degree level, graduates need to develop skills in thinking critically, evaluating information, applying their knowledge to real-world scenarios, working in a team, making ethical choices and communicating in writing and orally. Experiential learning is an important component of an undergraduate education at Colorado Mesa that helps students develop these skills. The opportunities for CMU students to combine practical experience with academic learning are quite diverse and can take several forms, including participation in undergraduate research, student teaching, internships, capstone projects and service learning. Many of these options come about through CMU's relationships with its partners.

Colorado Mesa University offers a variety of majors in some of the key fields and subfields that will drive economic growth and/or policy discussions in upcoming years. Among them are Biochemistry, Computer Science, Emerging Business Markets, Sustainability, Applied Mathematics (under development), and Watershed Science, along with the Engineering programs delivered with CU Boulder. Additionally, students may select from seven foreign languages to study - French, German, Greek, Italian, Japanese, Latin, and Spanish. In sum, these and many other programs and courses ensure that graduates are prepared for the challenges of a fast-changing economy as part of developing the human capital of western Colorado.

Graduates from some academic and technical programs are particularly critical to the future of rural western Colorado communities. The West Slope is a region of small communities spread across a vast area, each with needs in healthcare, education, law enforcement, and business sectors. Because of the challenge of attracting employees in some of these high-demand careers, CMU adopted a "grow your own" philosophy in academic programs, wherever possible, to attract students from the region who intend to return to their home communities after graduation and address employment needs there. This scenario is perhaps best illustrated by four areas of study: Nursing, Public Safety, Teacher Education and Career and Technical Education.

Nursing and Allied Health

The nation-wide shortage of nurses is particularly acute in rural areas like western Colorado. During the past decade, Colorado Mesa University and area healthcare providers, such as St. Mary's Medical Center, Community, Montrose Memorial, and Delta County Memorial hospitals, have collaborated to significantly expand the University's offerings in nursing from a one-year certificate program to the clinical doctorate. Area agencies, such as the Colorado Health Foundation and the San Juan Healthcare Foundation, have also offered additional financial support, expertise, time and facilities to offset part of the cost of implementing the nursing programs at the master's and doctoral levels.

This shared support has led to a substantial number of awards over the past decade — 265 practical nursing certificates, 368 Associate of Applied Science/ Registered Nurse degrees (AAS/RN) and 748 Bachelor of Science in Nursing degrees. CMU added a two-year nursing program in Montrose in 2006 and 157 students

CMU Health Sciences students train with St. Mary's Medical Center and other regional healthcare providers. Here, they gather at St. Mary's helipad.

(included in the above total) have earned an AAS/RN degree at that campus to date.

Equally noteworthy is the fact that for all undergraduate programs, the pass rate for the past five years on the National Council Licensure Exam (NCLEX) has averaged 86%. Most of these nurses have entered the workforce in one of the West Slope's hospitals, increasing the availability of medical care in these rural areas.

The greatest emphasis has been on preparing nurses at various degree levels. CMU and WCCC also have been active in expanding other health sciences programs recently that include Health Information Technology Systems, Medical Laboratory Technician, Medical Office Assistant, Paramedic, Radiologic Technology and Surgical Technology.

Law Enforcement

The Western Colorado Peace Officers Academy came about in 2006 through the efforts of CMU, WCCC, the Grand Junction Police Department, the Mesa County Sheriff's Office and the 21st Judicial District Attorney's Office. The academy is certified by the state and prepares students to pass the Colorado Peace Officer Standards and Training (POST) examination. Placement of the academy's graduates has not been limited to the 14 western Colorado counties making up CMU's service region but extends to positions across the State. Additionally, the academy now has relationships with numerous other West Slope law enforcement agencies.

Fall 2016 graduates of the Western Colorado Peace Officers Academy. The program is administered by Western Colorado Community College.

The impact and the success of this coordinated effort is reflected in the following: 332 students have completed the training, with 95% either employed in law enforcement or continuing their education; 99.4% of those who have taken the state exam have passed, usually on their first attempt.

Education

To assist students in the transition from high school to college, Colorado Mesa has developed partnerships with local school districts. In partnership with Mesa County Valley School District 51, for example, CMU developed the Alpine Bank Student of the Month program which recognizes outstanding middle- and high school students monthly. Each is awarded a $500 scholarship if they enroll at CMU. So far, 1,872 students have received awards. In conjunction with Grand Junction High School, CMU initiated RISE, a college prep course designed for students who might not otherwise pursue higher education. At CMU's Montrose Campus, the Montrose County School District is expanding concurrent enrollment opportunities for students in partnership with WCCC in career and technical education. The partners are exploring additional program needs at Montrose and Olathe High Schools.

CMU has joined with both school boards to provide financial assistance to teachers pursuing graduate coursework in their teaching fields. The University awards scholarships to teachers who deliver courses to students enrolled concurrently for high school and college credit. Another illustration of university/school district connections is through the Center for Teacher Education as a result of Mathematics and Science Partnership Grants from the Colorado Department of Education. Two districts are grant partners: Mesa County Valley School District 51 and Garfield District 16 in Rifle. Each is a multi-year grant in excess of one million dollars.

Career and Technical Education (CTE)

Through an arrangement between Western Colorado Community College and Mesa County Valley School District 51, career and technical education is available to college and high school students. The relationship is overseen by the Grand Valley Board of Cooperative Educational Services (GVBOCES) and prepares students for entry directly into the workforce in a variety of specialized fields that range from Electric Linework to Manufacturing Technology, Nurse Aide,

Culinary Arts, Transportation Services, and Computer Networking. Among the newer programs now available are Aviation Technology and Viticulture and Enology.

Applying Expertise to Regional Issues

The collective professional knowledge of faculty members at Colorado Mesa University and Western Colorado Community College is a resource that serves western Colorado through a mix of group and individual efforts. Faculty members are employees of the institution and residents of the region's communities so they frequently invest their expertise and time regionally.

The Redifer Institute

This institute works closely with local, state and federal governments and stakeholders to strengthen public policy through data collection and analysis. Four units – the Ruth Powell Hutchins Water Center, the Natural Resource Center, the Center for Unconventional Energy, and the Social Research Center – support the institute's work. The applied research conducted through these centers provides a way for the University's expertise to have a positive impact on some of the region's most pressing problems.

- Ruth Powell Hutchins Water Center
  This center coordinates research, delivers education and facilitates dialogue on issues facing communities in the Upper Colorado River Basin. The Center brings experts to the Grand Valley each year for events such as the Upper Colorado River Basin Water Forum to promote proactive thinking about potential solutions to future water challenges.

- Natural Resource Center
  Through this center, a number of public lands projects contribute to an understanding of how the economic and community benefits of the public lands can be expanded in western Colorado. Recent projects include recreation and community engagement planning for the Grand Junction and Royal Gorge field offices of the Bureau of Land Management and the Grand Staircase-Escalante National Monument. The Natural Resource Center has also recently worked with Mesa County and Mesa County Valley School District 51 to involve more children in outdoor activities.

- Unconventional Energy Center
  Managing a $3.2 million endowment funded primarily by the University and the Mesa County Federal Mineral Lease District, the energy center invests annual proceeds in applied research and workforce development initiatives that have a regional and/or statewide impact. Partnerships include collaborating with Garfield County to host the Fourth Annual Energy Symposium to exchange of ideas about how to responsibly develop natural resources across Colorado. A partnership with the Grand Junction Economic Partnership resulted in the white paper "Piceance to the Pacific Rim," which became the basis for the region to coalesce behind the Jordan Cove liquefied natural gas export terminal project.

Tom Hutchins attended the naming of the Ruth Powell Hutchins Water Center. The center performs and supports research, education, outreach and discussion regarding water issues.

- Social Research Center
  The Social Research Center is the institute's newest partnership and involves the Center for Opinion Research at Franklin & Marshall College and Rocky Mountain PBS. The center conducted its inaugural Colorado Mesa University-Rocky Mountain PBS statewide political poll in September 2016 and plans a "State of Western Colorado" poll that examines the region's social, political, cultural and economic conditions in early 2017.

Joint Appointments

Another way partnerships facilitate sharing expertise is through hiring employees who are shared by the University and other local organizations. These appointments are an attractive recruiting tool. Examples include the Grand Junction Symphony Orchestra where the principal oboist also holds a faculty position in CMU's Music Department. Additionally, the conductor teaches coursework in music theory and some full-time faculty hold principal chairs in the symphony. The University's Mass Communication program shares an appointment with Rocky Mountain PBS, a producer/correspondent-in-residence who teaches and provides students with story opportunities to create content for Rocky Mountain PBS and its affiliates. Another example is the joint hire of a paleontologist by the Museum of the West and CMU's Geosciences Program who teaches a course and offers summer internships for CMU students in addition to responsibilities for the museum.

CMU's hockey team raised $10,000 for St. Mary's Cancer Survivorship Program at their Pink the Rink event.

Individual Faculty Activities

CMU faculty members engage with leaders across the West Slope through a variety of interactions and collaborations. As referenced earlier, businesses and agencies often provide opportunities for students to apply their learning and community leaders frequently serve in an advisory capacity for curriculum development and review. Similarly, faculty members bring their expertise to a diversity of contributions and conversations. The ways in which faculty members volunteer their expertise span a wide range of activities that include making presentations to K-12 students , serving on boards of public companies and nonprofit agencies, mentoring high school students, participating as parent representatives on school committees and serving as judges in competitions.

Sharing Facilities

Higher education campuses are a mix of general purpose spaces that can be used for a variety of activities and specialized spaces designed for a singular use, such as science labs, painting studios and clinical labs. Both types of spaces represent significant investments by the University, just as facilities built by other organizations do. When multiple users can share in use and expense of the same spaces, the pooling of these resources is a more efficient and cost effective use of space and resources and can free up funds for investing in a wider range of facilities than could otherwise be built. This section summarizes how CMU and some of its partners have leveraged their investments for the benefit of the partners and the community.

Lincoln Park

Four other entities manage and financially contribute to Lincoln Park along with Colorado Mesa University – the City of Grand Junction, Mesa County, the Alpine Bank Junior College World Series and Mesa County Valley School District 51. Additionally, CMU makes many of its athletic facilities available to the School District at no cost, including the swimming pool; softball, soccer and lacrosse fields; and the basketball and volleyball courts. CMU recently paid for the track renovation at Grand Junction High School for use by area schools.

Downtown Art Galley

In 2014, Colorado Mesa partnered with the Grand Junction Downtown Development Authority (DDA) to share the cost of renovating a space on Colorado Avenue that became CMU's art gallery, 437CO. While a part of the building is occupied by DDA offices, the gallery space is home to exhibits and presentations by CMU and visiting artists and has supported CMU's participation in the community-wide, "gallery hopping" First Friday event.

KRMJ

Thanks to a $400,000 grant, RMPBS equipped the local PBS station located on the CMU campus, KRMJ, with high-definition, digital equipment that enables students to learn video production in a state-of-the-art studio and control room. In addition to using the equipment for producing material for distribution through Rocky Mountain PBS, the studio also is available to elementary school students who write and present their own newscasts, with CMU students staffing the cameras and control room.

Engineering Building

The newest facility partnership is the engineering building that will serve as the home to the Mechanical and Civil Engineering Programs co-delivered by CMU and CU Boulder as well as the John McConnell Math & Science Center. The 68,700 square-foot building will include engineering labs, classrooms and project spaces for use by University students and the center will have space to offer a wide range of STEM-related activities for K-12 students.

Students at the John McConnell Math & Science Center conducted an experiment at the engineering building groundbreaking.

Contributing to the Regional Economy of Western Colorado

The second part of this report focuses on the estimated impact of Colorado Mesa University on the region's economy by describing the components of the model used in the estimation. As will be shown in this section, most of the University's and individuals' spending was done locally, so when various expenditure estimates were limited to western Colorado and direct spending was coupled with the effects of indirect spending, CMU's estimated economic impact in FY 2015-16 was $447.5 million. Further, an estimated 2,892 regional jobs came about due to CMU's spending.

Model Overview and Methodology

The calculations for estimating the economic impact of Colorado Mesa University on western Colorado are based on a short-term approach examining the impact on local economic activity from the presence of an institution. Economic impact is " … 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."[5] The model for estimating the economic impact of Colorado Mesa University during FY 2015-16 relies heavily on one developed by the American Council on Education by Caffrey and Isaacs.[6] The model examines CMU's direct spending in five categories and then applies a multiplier to calculate indirect spending, thereby producing an estimated total economic impact.[7]

Direct Expenditure Categories

The Caffrey and Isaacs model examines five expenditure categories – the University's purchase of goods and services, employees' salaries, students' spending as well as that by visitors, and capital construction. Thus it encompasses the institution's non-payroll spending on everything from furniture to utilities to computers to food service to research lab equipment. CMU's employee contribution is analyzed in terms of its payroll, while the student component accounts for that sector's purchases in a separate category. Visitor spending is based on campus visits of many types along with athletic competitions, while capital expenditures reflect major campus construction and renovation projects as well as investments in technology.

DIRECT EXPENDITURE CATEGORIES

- College Expenditures
- Employee Salary/ Wage Expenditures
- Student Expenditures
- Visitor Expenditures
- Capital Expenditures

College Expenditures

To determine the University's spending in 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. The estimate is based on the myriad products and services that Colorado Mesa purchases from the surrounding region ranging from furniture to

Table 1: Colorado Mesa University Expenditures in Colorado, FY 2015-16

Goods and Services Purchased (excluding construction)	Amount	Percent
In Western Colorado	$33,899,057	80.5%
Elsewhere in Colorado	$8,218,717	19.5%
Total	**$42,117,774**	

[5] 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.

[6] John Caffrey and Herbert Isaacs, Estimating the Impact of a College or University on the Local Economy, Washington: American Council on Education, 1971.

[7] The limitations of the estimates should be noted. They do not measure the economic contributions of organizations associated with CMU, such as the Alumni Association and the CMU Foundation; the economic impact of faculty and staff earnings from private consulting and intellectual property nor that of faculty and staff expertise used by businesses and organizations; volunteer activities; and other collateral economic activities. CMU offers health care benefits and insurance for faculty and staff, and these insurance plans help bolster the local health care community. The study also excludes the economic contributions by alumni living anywhere in Colorado who, when they enter the job market, earn salaries well above those of high school graduates. With these exclusions in mind, the economic impact of Colorado Mesa reported in this study understates its overall financial effect.

Table 2: Colorado Mesa University Employee Salaries, Taxes, and Benefits, FY 2015-16

Wages	Total
Gross Wages	**$43,102,255**
Federal and State Taxes	$5,404,390
Benefits	$7,085,433
Other Adjustments	$386,663
Net Wages	**$30,225,769**
Less 10% non-local spending	$3,022,577
Estimated Total Employee Local Spending	**$27,203,192**

office supplies to utilities. Total in-state expenditures for FY 2015-16 exceeded $42.1 million (Table 1). Further analysis documented that more than $33.9 million, or 80.5%, of the amount spent on goods and services stayed in western Colorado, while most of the balance was spent elsewhere in the state.

Employee Salary/Wage Expenditures

For this category, all monies budgeted for salaries and wages for all University offices and auxiliary accounts — $43.1 million — were reviewed to calculate employee salary/wage expenditure dollar amounts (Table 2). The total takes into account items purchased by CMU employees, from food to housing to entertainment to education to transportation. Employees contributed approximately $5.4 million in federal and state taxes, which represented 12.5% of the total payroll, and benefits — including retirement, medical insurance, and life insurance — that amounted to another 16.4% of the total. Once taxes and benefits were deducted, net wages amounted to approximately $30.2 million.

This calculation assumes that CMU employees spend most of their net income in the area's economy, given the University's location in western Colorado. The Bureau of Labor Statistics' Consumer Expenditure Survey reports that housing and transportation are the two largest areas of consumer expenditures, and this direct spending multiplies through the economy. Thus it is appropriate to assume that there is little dollar leakage out of the region. Some activities, such as vacations and entertainment, however, are examples of dollars that might leave the regional economy, so the model assumes that 10% adequately accounts for leakage out of the region. This results in an estimated $27.2 million in employee disposable income that was added to the western Colorado economy.

Student Expenditures

Spending by CMU students represents the single largest component of the University's economic impact. Because a significant share of the institution's students is from western Colorado, this model assumes most of their spending stays in the local economy. To calculate student spending, a mean monthly expenditure was determined by the CMU Financial Aid Office for purchases such as room, board, personal expenses, transportation, and entertainment. This produced an average expenditure of $1,498 per month while enrolled during FY 2015-16. No distinction was made between on-campus and off-campus students.

Table 3 presents the amount of student expenditures estimated to stay in the regional economy, based

Table 3: Estimated Colorado Mesa University Student Spending, FY 2015-16

Term	Student Enrollment	Term Length (in months)	Average Student Monthly Expense	Total
Fall 2015 Enrollment	9,448	4	$1,498	$56,612,416
Spring 2016 Enrollment (including January Term)	8,872	5	$1,498	$66,451,280
Summer 2016 Enrollment	1,954	1	$1,498	$2,927,092
Estimated Annual Student Spending				**$125,990,788**
Less 10% non-local spending				$12,599,079
Estimated Total Student Local Spending				**$113,391,709**

Table 4: Colorado Mesa University Estimated Visitor Expenditures, FY 2015-16

Visitors	Per Diem	Amount
Visitors from Western Colorado 311,278 visitors	$51/day	$15,875,177
Visitors from outside Western Colorado 153,316 visitors	$140/day	$21,464,243
Estimated Total Visitor Spending Locally		**$37,339,420**

on the assumption that 90% of the total remained in western Colorado. At that rate, students infused approximately $113.4 million into the local economy for items that include groceries, entertainment, and transportation. This amount is in addition to their spending at CMU for tuition, goods, or other services. While many of these students have chosen to forego earnings during their college years, the payback on their educational investment is financially worthwhile.[8]

Visitor Expenditures

Spending by visitors to Colorado Mesa contributes to the vitality of the local economy. This component of the model is based on CMU's draw of a significant number of individuals to Grand Junction to participate in a highly varied mix of activities. Families visit the campus for admissions visits, orientations, and graduations. Other visitors come for conferences, while many attend athletic events and arts and music performances. 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, nearly 12,000 individuals attended the University's Music and Theatre Programs and more than 71,000 fans attended athletic events as part of an estimated visitor total of nearly 464,600 individuals. Assuming that 33% of the visitors — or approximately 153,000 individuals — came to the campus from outside the region, and spent at least the daily average of $140 for at least one day,[9] while the remaining 67% spent the estimated per diem for meals, shopping, and transportation, the estimated value to the regional economy from visitors is $37.3 million (Table 4).

Capital Expenditures

CMU has been a major participant in the redevelopment and revitalization of the Grand Junction neighborhoods adjacent to the campus. The University's acquisition of older properties has been important to the expansion of its footprint, making way in recent years for new residence halls, academic buildings, other campus life activities, and outreach programs, thereby enabling the institution to fulfill its mission. This component of the model varies significantly from year to year since capital expenditures are dependent on the availability of funding for construction. Because of that variability, these expenditures typically are separated from all other University spending. That said, these investments not only create and sustain jobs in the region during construction periods, but their multiplier effects reach manufacturers, suppliers, and retailers throughout the region and the state.

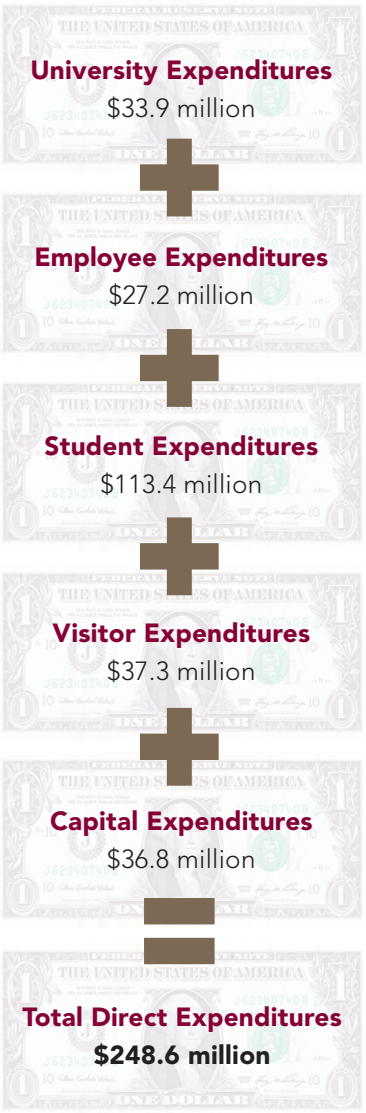
Table 5: Colorado Mesa University Capital Expenditures in Colorado, FY 2015-16

Project	Expenditure	Percent Spent Locally
Expenditures in Western Colorado	$36,801,160	88.0%
Expenditures elsewhere in Colorado	$5,040,327	12.0%
Total	**$41,841,487**	

[8] It should be noted that the above estimate of student spending excludes other ways that Colorado Mesa students affect the local economy. Approximately 45% of Colorado Mesa students come to the University from outside the region, thereby bringing money into western Colorado.

[9] An estimated standard destination per diem within the continental U.S. of $140 ($89 for lodging and $51 for meals and incidental expenses) was obtained from the U.S. General Services Administration. Source: http://www.gsa.gov/portal/category/100120. Downloaded November 28, 2016.

Figure 2: Summary of Colorado Mesa University Estimated Direct Expenditures, FY 2015–16



During FY 2015-16, CMU initiated, continued, and/or completed an extensive series of projects that resulted in this expenditure category exceeding $41.8 million (Table 5). The funds were spent on construction projects — such as the expansion and renovation of Tomlinson Library — in addition to spending on residence halls; technology upgrades for classrooms, labs, and the TV studio; parking; and controlled maintenance. Of that amount, the proportion spent locally averaged 88% though the proportion differed from project to project due to the University's emphasis on buying within the region. Adjusting for a 10% leakage from the West Slope, total dollars spent in the regional economy on capital projects for the last year approximated $36.8 million.

Direct Expenditures Summary

By combining the five expenditure categories, Colorado Mesa University infused over $248.6 million directly into the regional economy in FY 2015-16 (Table 6 and Figure 2). The largest proportion of that year's spending was associated with students enrolled at Colorado Mesa University (45.6%), with the balance spread relatively evenly across the remaining four expenditure categories. To more accurately reflect the total economic contribution of Colorado Mesa on western Colorado, however, indirect expenditures also must be considered and are discussed in the next section.

Multiplier Effects

A multiplier captures the relationship between the dollars 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 so dollars, "grow" as they circulate through the economy. For example, the ripple effect of the wages paid to Colorado Mesa University 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 in this study by their exclusion.

The multiplier effect magnifies the economic impact of the initial Colorado Mesa 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 Colorado Mesa 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.

Table 6: Estimated Economic Impact of Colorado Mesa University by Expenditure Category, FY 2015-16

Expenditure Category	Direct Impact	Multiplier (indirect impact)	Total Impact	Percent of Total
College	$33,899,057	1.8	$61,018,302	13.6%
Employees	$27,203,192	1.8	$48,965,746	10.9%
Students	$113,391,709	1.8	$204,105,076	45.6%
Visitors	$37,339,420	1.8	$67,210,956	15.0%
Capital	$36,801,160	1.8	$66,242,088	14.8%
Total	**$248,634,538**	**1.8**	**$447,542,168**	**100.0%**

Generally speaking, higher education studies that include multipliers reflect that the re-spending factor varies widely. For this study, a multiplier of 1.8 was chosen, one which is conservative compared with many other studies.[10] Applying this multiplier to the University's direct expenditures, the total addition to the FY 2015-16 economy was estimated to be $447.5 million due to the presence of Colorado Mesa University (Table 6 and Figure 3). Put differently, without the spending by CMU — including its faculty, staff, students, visitors, and all others affected by what the University does — the income flowing to western Colorado would be $447.5 million less each year.

The money CMU spends 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 University and their accompanying spending. Last year there were 2,066 people who owed their jobs to the existence of CMU. Second, non-payroll regional expenditures create other jobs for workers who supply the goods and services to Colorado Mesa. A labor multiplier estimates the number of jobs created by the influx of Colorado Mesa's spending into the surrounding community. Again, when other impact studies were reviewed, a range of labor multipliers were found. Using a conservative labor multiplier of 1.4 to estimate the additional number of jobs due to Colorado Mesa expenditures, an approximately 2,892 full- and part-time jobs are estimated.

Figure 3: Estimated Impact of Colorado University's Direct and Indirect Spending, FY 2015–16

$447.5 million
total direct and indirect spending in the regional economy by CMU

826
additional jobs created due to regional spending by CMU

2,066
people employed by CMU

Concluding Comments

Colorado Mesa University's primary mission is to serve western Colorado by delivering excellent teaching, applying scholarly activity to the region's challenges and reaching out to residents to help them lead more productive lives. Without its many partners, CMU's ability to deliver the quality educational experience it does, in addition to sharing expertise and cultural opportunities with agencies, organizations, and individuals, would be seriously compromised. As documented in the first section of this study, the numerous arrangements between CMU and a host of public and private partners have yielded a collective progress benefiting numerous businesses, households, nonprofits, and local governments in western Colorado. The University's most significant contribution is to educate graduates who are prepared and competitive for employment in the ever-changing work environment they will enter in the 21st century. Additionally, the institution shares in the leadership for the region's economic development, makes its expertise available to a wide range of audiences and has facilities that are used by individuals and groups beyond the campus community.

The University's most significant contribution is to educate graduates who are prepared for employment.

It is equally well-documented that CMU has a profound impact on the economy of western Colorado. This study estimates that in FY 2015-16, CMU was responsible for spending more than $248.6 million directly in the regional economy; when indirect spending is considered, the total exceeds $447.5 million. Further, there were approximately 826 additional jobs beyond the 2,066 employed by Colorado Mesa University due to the institution's spending in the region. Because this study used a conservative approach in its calculations and multipliers to estimate the total economic impact of CMU, some other community contributions are not included, such as the value of volunteerism to the region. As a result, it is highly likely that the economic impact of Colorado Mesa University is greater than the total estimated in this study.

[10] A major criticism of economic impact studies that are produced internally is the temptation to inflate numbers, use larger multipliers than appropriate, and thus overstate the impact of an institution on its surrounding region. Source: 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.

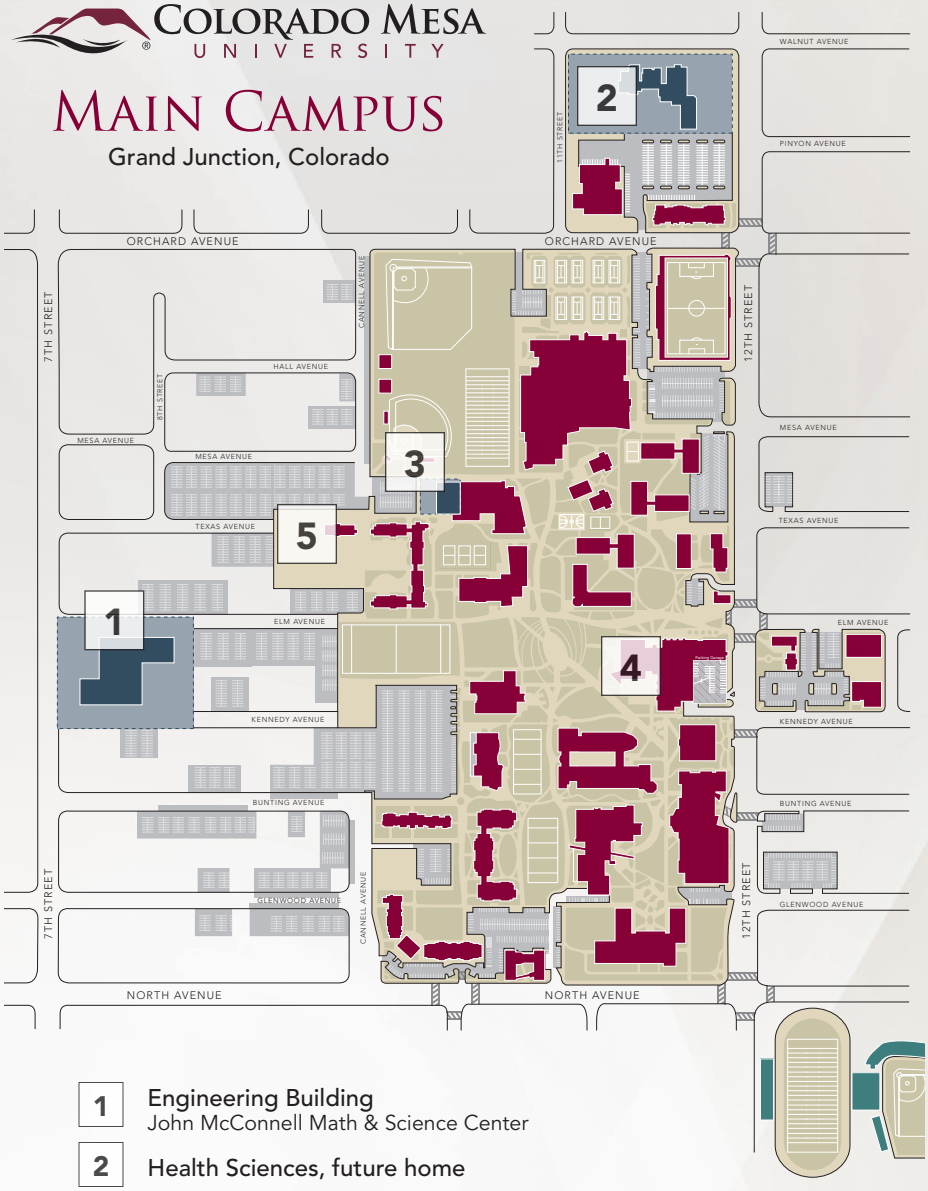
PHOTOS ON FRONT COVER:

1. The Alpine Bank Student of the Month program recognizes excellent middle and high school students monthly. Each is awarded a $500 scholarship if they enroll at CMU, and to date, 1,872 students have received an award.
2. Maverick Center
3. Colorado Mesa University collaborates with the Greater Grand Junction Sports Commission to promote and attract sport tourism, such as the Rim Rock Marathon, that capitalize on the region's assets.
4. Students meet with donors to thank them for scholarships.
5. The John McConnell Math & Science Center will share space and offer STEM-related activities for K-12 students in the new engineering building in Fall 2017.
6. See #4
7. Mesa County Commissioner John Justman at a press conference announcing a grant from the state to assist Mesa County students who live on campus.
8. The first graduates in CMU's doctoral program for Nurse Practitioners.
9. University Center
10. Governor John Hickenlooper visits CMU to sign the Rural Jump-Start Act, which CMU officials helped create and pass.
11. Elementary students at the Spacetacular event in the University Center spoke with NASA astronaut Scott Kelly while he was aboard the International Space Station.
12. Culinary students from WCCC placed first in the American Culinary Federation Colorado Student Team Competition.
13. The renovated John Tomlinson Library re-opened January 2016.
14. The Ruth Powell Hutchins Water Center dedication was attended by Hutchins' sons, Tad and Will.
15. The CMU cycling center was named Chamberlin Cycling Center in recognition of his support from local architect Ed Chamberlin.
16. The Maverick Innovation Center promotes and supports entrepreneural spirit in CMU students.
17. CMU and WCCC host a variety of summer camps for local children.
18. CMU's marching band performs en route to Stocker Stadium, a facility CMU helps to manage and financially support. CMU makes many of its athletic facilities available to the School District at no cost.

COLORADO MESA UNIVERSITY

MAIN CAMPUS

Grand Junction, Colorado



1	Engineering Building John McConnell Math & Science Center
2	Health Sciences, future home
3	Maverick Pavilion (expanded)
4	University Center (dining services remodeled Fall 2016)
5	Wingate Hall (opened Fall 2016)