

The Economic Impact of Middlebury College



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Executive Summary

- In 2011 Middlebury College reported an average annual employment of 1,376 individuals, not including student employment. Through the economic multiplier process, the operation of Middlebury College created an additional 607 jobs elsewhere in Addison County and an additional 437 jobs elsewhere in the state of Vermont. Therefore, we estimate the College supported a total of 2,420 jobs in all of Vermont in calendar year 2011.
- The College paid \$60.6 million in wages to its employees in 2011. We estimate the benefits package given these employees by the College was worth an additional \$19 million. Therefore the total compensation package offered to Middlebury College employees had a value of \$79.6 million.
- Through the economic multiplier process, in 2011 Middlebury College created an additional payroll of \$19.0 million elsewhere in Addison County and an additional payroll of \$17.3 million elsewhere in the state. The College therefore supported a total payroll of \$97.2 million throughout all of Vermont in 2011.
- Middlebury College impacts the local, regional, and state economy through its expenditures on employees (wages and benefits), day-to-day goods and services, capital construction projects, and through the spending of its students and campus visitors at area business. In 2011, these expenditures totaled approximately \$217 million.
- We estimate the economic activity of Middlebury College generated a total of \$10.7 million in tax revenues to the State of Vermont from all tax sources.

The Economic Impact of Middlebury College: 2011

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I. Purpose and Outline of this Report

Middlebury College has a long history in the State of Vermont. It was established in 1800 in the Town of Middlebury and has become one of the premier classic liberal arts colleges in the United States with an enrollment today of 2,450 students. While this remains the core mission of the College, it also offers graduate and specialized programs operating around the world.

The purpose of this report is to measure the economic impact the activities of Middlebury College have on the host Town of Middlebury, Addison County, and the rest of the state of Vermont. The full economic impact is measured by use of a state-of-the-art economic model of the regional and state economy as prepared by Regional Dynamics, Inc. (REDYN).

This report begins with a measure of the direct economic impact of Middlebury College. The direct economic impact of an institution is its spending for resources in the local economy. In the case of Middlebury College that spending is largely in the form of the wages, salaries, and benefits it pays to its faculty and staff. The other major direct impacts of the College include its spending on construction projects, its spending for the day-to-day operation of the College, and the spending of the College's students and visitors in the local economy.

This report then presents its estimate of the total economic impact of the College. The total economic impact includes the direct impact plus the indirect impact. The indirect impact (or multiplier impact) is in part where the wages of the College's employees are spent at local and regional businesses which support jobs and salaries at those businesses. The total impact is presented on Addison County and the state of Vermont as a whole. In addition, we discuss the economic impact of the College on the Town of Middlebury economy.

II. Direct Economic Impact of Middlebury College

The direct economic impact of Middlebury College is its expenditures for goods and services from the local and regional economy. This expenditure includes its payment of wages and benefits to its faculty and staff, its spending on construction projects, its spending for day-to-day operation of the College, and the spending of the College's students and visitors in the local economy. We present a measure of each category of spending below for calendar year 2011.

A. The Faculty and Staff of Middlebury College

In calendar year 2011 Middlebury College employed 1,376 faculty and staff at the Middlebury campus of which 1,043 were full time employees. In addition, the College employed nearly 650 students in a part time fashion. Because the impact of the student employment is small, we excluded it from this analysis so as to focus on the College's main economic impacts.

Total payroll at the College in 2011 was \$60,558,197.¹ The College offers its employees an excellent benefits package consisting of medical insurance (health, vision, and dental), several retirement plans, life and disability insurance, and other items. The cost to the College for these benefits was equal to 31.7% of the College's payroll (or \$19 million) in 2011.

B. Construction Spending

The Middlebury campus has undergone constant renovations and improvements over time. Over the last ten years (2002 to 2011) we were able to identify 26 major projects that cost more than \$196 million to complete. Over 40% of the spending on these projects was with Vermont-based general contractors, although nearly all projects used local contractors for major portions of the projects.

The seven major projects over \$10 million each were:

- Ross Commons (a residence hall with ancillary facilities) in 2002. Cost \$19,500,000
- Davis Family Library (the College's main library) in 2004. Cost \$43,000,000.

¹ This includes the wages and salaries paid to just Vermont-based personnel.

- Atwater Commons (a residence hall with ancillary facilities) in 2005. Cost \$32,600,00.
- Axinn Center (classrooms and offices) in 2008. Cost \$31,700,00.
- Proctor Hall renovation (dining hall and bookstore) in 2009. Cost \$10,600,000.
- Biomass heating plant addition in 2009. Cost \$11,900,000.
- Forest Hall (residence hall) in 2011. Cost \$10,500,000.

Over the next 5 to 10 years the College has identified fourteen construction projects that are currently planned to be completed at a cost estimated at just under \$110 million. This implies an annual future construction spending of approximately \$15 million, which is consistent with the past ten years.

C. Day-to-Day Activities of the College

The day-to-day operations of the College necessitate its spending for goods and services to keep the school functioning. These include utilities, office materials, meal preparations, etc. Most of these activities are carried out with regional suppliers in Vermont. In 2011, we estimate the pending for day-to-day operations equaled approximately \$113 million.²

D. Student Spending

Middlebury students make up a significant portion of the town's population when the College is in session (about 2,450 of the 8,496 residents in 2010). Thus, it is not surprising that the spending of these students is important to local and regional merchants. In order to estimate the magnitude of this spending, we surveyed the students with a questionnaire in the Spring 2012 semester. We asked about their spending in the Town of Middlebury and elsewhere in Vermont.

Our survey found that Middlebury College students spent more than \$5.8 million at businesses in Vermont during 2011. About 80% of all this spending, \$4.5 million, was transacted at businesses in the Town of Middlebury alone. The table below presents this spending by type of product or service.

² We use the operating expenses for FY11 for calendar year 2011. According to the consolidated financial statements of Middlebury College total operating expenses in FY11 were \$217,466,000. We estimate amortization at \$15 million and interest at \$13 million with salaries and benefits at \$79.5 million.

MIDDLEBURY COLLEGE Student Spending in 2011		
	<u>All Vermont</u>	<u>Middlebury</u>
Transportation	\$1,342,600	\$926,394
Restaurants	\$1,301,000	\$1,040,800
Food and beverages	\$1,190,700	\$1,035,900
Personal care	\$617,400	\$561,800
Entertainment	\$441,000	\$273,400
Clothing	\$396,900	\$265,900
Gifts	\$286,700	\$255,100
Electronics, books	\$132,300	\$79,380
Other	\$132,300	\$92,610
Total =	----- \$5,840,800	----- \$4,531,300

* normalized to an ongoing average

The top three categories of spending in Vermont and the Town were transportation (airline tickets, gasoline, etc.), restaurants and bars, and food and beverages (at supermarkets, convenience stores, etc.).

E. Visitor Spending

Middlebury College also impacts the regional economy through the spending of visitors to the campus. These visitors include people who come to see the enrolled students plus those who come as part of College events. These events include alumni events (reunions, homecoming, etc.), visits of prospective students often with their parents, athletic events, and for day-to-day College operations.

Based on the students survey and studies of the Vermont Department of Tourism and Marketing we estimate that visitors brought into the state by the students and activities of Middlebury College spent a total of \$3.9 million in 2011 in the regional economy, with approximately 80% of that in the Town of Middlebury itself.

MIDDLEBURY COLLEGE	
Visitor Spending in Vermont in 2011	
	<u>All Vermont</u>
Lodging	\$1,462,900
Restaurants	\$1,574,400
Shopping	\$902,800

Total =	\$3,940,100

We estimate that visitors added more than \$1.4 million to the revenues of lodging establishments in the greater Middlebury region. Reunion and Fall Family Weekend bring in approximately 2,000 people for each event. Homecoming brings in 750 visitors, the Winter graduation celebration more than 400 visitors and the main Spring Graduation over 1,000 visitors.

These visitors also bring in revenues to regional eating and drinking establishments. We estimate more than \$1.5 million was spent by the College's visitors at regional restaurants and bars. In addition, visitors shopped at local stores and spent approximately \$0.9 million in 2011.

F. Summary - Direct Expenditure of Middlebury College

Middlebury College impacts the local economy through its expenditures on employees (wages and benefits), capital construction projects, day-to-day goods and services, and through the spending of its students and visitors at area business. We estimate the total direct expenditure of the College in 2011 equaled approximately \$217.2 million.

MIDDLEBURY COLLEGE	
Total Direct Expenditure Impact in 2011	
Wages and benefits	\$79.6 million
Capital construction *	\$15.0 million
Day-to-day operations	\$112.9 million
Student spending	\$5.8 million
Visitor spending	\$3.9 million

Total =	\$217.2 million

* normalized to an ongoing average

III. Total Economic Impact of Middlebury College on Addison County

The total economic impact of Middlebury College on the Addison County economy includes the direct effect discussed in the previous section of this report plus the indirect or multiplier effect. This is where the spending of the College, its employees, its students and its visitors at area businesses leads to job and wage creation at those businesses. And this spending then ripples through the local economy creating additional jobs and payroll. For example, local construction workers and automobile dealers enjoy a large part of their businesses to servicing the needs of College faculty and staff. The same holds for workers at local restaurants and grocery stores who cater to College faculty, staff, students, and visitors.

In this section of the report, we present our estimate of the total economic impact of Middlebury College on the Addison County economy obtained by use of an economic model prepared by Regional Dynamics, Inc. (REDYN).

A. Jobs, Wages, and Disposable Income in Addison County

In 2011 Middlebury College's expenditure led to the creation of a total of 1,983 jobs in all of Addison County. This included the 1,376 jobs directly at the College plus 607 jobs elsewhere in the county created through the multiplier process. The nearby table shows the sectors where these jobs are located.

The largest number of indirect jobs were created in construction (though this actually includes the direct construction jobs associated with the College's construction itself). The second largest number of jobs created indirectly by Middlebury College was in health care and social assistance followed by retail jobs.

MIDDLEBURY COLLEGE	
Total Employment Impact in Addison County	
Middlebury College	1,376
Construction	99
Health care and social asst	85
Retail trade	79
Other private education	64
Accommodations/food services	44
Professional services	37
Manufacturing	34
Other	165

Total =	1,983

Note that in 2011, the total number of jobs at Addison County employers was 13,591. Middlebury College was, therefore, responsible for the creation of 13.6% of those jobs either directly or indirectly.

The College had a similar impact on the wages paid at employers in Addison County. The College was responsible for the creation of \$79.9 million in payrolls at all county employers. This includes the College's own payroll of \$60.6 million plus \$19.3 million created through the multiplier process.

The disposable income of Addison County residences was \$67.5 million higher in 2011 than it would had been without the presence of Middlebury College. A calculation of the disposable income is presented in the table here. The \$79.9 million in increased payrolls is reduced for Social Security payments and other taxes and for that portion of local payrolls earned by non-Addison County residents. That sum is then increased for dividend, interest, and rent earnings to yield the disposable income impact on the county.

MIDDLEBURY COLLEGE	
Disposable Income Impact in Addison County	
(In millions \$)	
Total wages and salaries	\$79.9
Less Social Security taxes	(\$9.1)
Less residence adjustment (net)	(\$14.0)
less other taxes	(\$7.3)
plus dividends, interest, rent	\$18.0

Disposable income	\$67.5

IV. Total Economic Impact of Middlebury College on the State of Vermont

The total economic impact of Middlebury College on the economy of the state of Vermont is more than that just on Addison County. The spending of the College, its employees, students, and visitors is not limited to Addison County alone but rather is felt throughout the state. In this section of the report, we present our estimate of the total economic impact of Middlebury College on the entire Vermont economy.

A. Jobs, Wages, and Disposable Income in Vermont

In 2011 Middlebury College's expenditure led to the creation of a total of 2,420 jobs in all of Vermont. This included the 1,983 jobs created in Addison County. Our analysis shows that another 437 jobs were created elsewhere in the state through the multiplier process. The nearby table below shows the sectors where all the jobs in the state created directly or indirectly by the College were located.

The largest number of jobs created through the multiplier process in the state were in health care and social assistance, followed by construction and retail trade.

MIDDLEBURY COLLEGE	
Total Employment Impact in Vermont	
Middlebury College	1,376
Construction	156
Health care and social asst	160
Retail trade	155
Other private education	78
Accommodations/food services	89
Professional services	60
Manufacturing	51
Other	295

Total =	2,420

The College had a similar impact on the wages paid at employers in the state. The College was responsible for the creation of \$97.2 million in payrolls at all state employers. This includes the College's own payroll of \$60.6 million plus \$36.6 million created through the multiplier process in Addison County and the rest of Vermont (\$19.3 million and \$17.3 million, respectively).

The disposable income of Vermont residents was \$98.0 million higher in 2011 than it would have been without the presence of Middlebury College. The calculation of the disposable income is presented in the table here. The \$97.2 million in increased payrolls is reduced for Social Security payments and other taxes and for that portion of local payrolls earned by non-Addison County resident. That sum is increased for dividend, interest, and rent earnings.

MIDDLEBURY COLLEGE	
Disposable Income Impact in Vermont	
(In millions \$)	
Total wages and salaries	\$97.2
Less Social Security taxes	(\$11.1)
Less residence adjustment (net)	(\$3.3)
less other taxes	(\$10.7)
plus dividends, interest, rent	\$25.8

Disposable income	\$98.0

B. State of Vermont Tax Revenues

All of the economic activity of Middlebury College, whether created directly at the College or indirectly through the multiplier process, leads to the generation of tax revenues for the State of Vermont. These revenues are from the statewide education property tax, the individual income tax, the general sales tax, and many other smaller sales taxes of the State. In 2011 the activity of Middlebury College led directly and indirectly to the generation of \$10.7 million in tax revenues for the State of Vermont.

MIDDLEBURY COLLEGE	
Total State Tax Revenue Impact in Vermont	
(in millions)	
Individual income taxes	\$2.9
Property (education) taxes	\$2.7
Selective sales taxes	\$2.5
General sales tax	\$1.5
Other taxes	\$1.1

Total =	\$10.7

The largest share of the tax revenues came from Vermont's individual income tax which generated \$2.9 million for the state treasury in 2011. The College's activity raised \$2.7 million from the statewide education property tax. Several statewide selective sales taxes (motor fuel, alcoholic beverages, tobacco, etc.) raised another \$2.5 million. The statewide general sales tax (6% in most towns today) raised \$1.5 million.

V. Economic Impact of Middlebury College on the Town of Middlebury

The direct economic impact of Middlebury College occurs within the Town of Middlebury. We will discuss the importance of the College to the Town's economy in this section. Much of the indirect impact of the College is also felt within the Town, however, we are unable to measure this as no reliable economic model exists that can provide such a measure at the town level. Therefore, we discuss just the direct impact of the College on the Town in this section of the report.

A. Jobs and Reliability of Employment in the Town of Middlebury

As reported above Middlebury College had 1,376 employees on its campus in Middlebury during 2011. Based on Vermont Department of Labor data, we estimate that all employers in Middlebury averaged just under 14,000 employees in 2011. This means that 10% or one of every ten jobs in the Town of Middlebury were at the College.

Not only is the College the largest employer in the Town, it is a very important source of steady employment for the local and regional economy. While employment at all Town of Middlebury employers fell from 7,622 to 6,938 during the recent severe recession (measured as 2007 to 2010), employment held steady (gained 0.2%) in the education and health care sector in the Town where the College's employment is recorded.

B. Wages and Income in the Town of Middlebury

Wages and salaries paid at Middlebury College in 2011 totaled \$60.6 million. Based on Vermont Department of Labor data we estimate that payrolls at all Middlebury employers equaled \$268 million in 2011. This means that 23% or nearly one of every four dollars earned at Town of Middlebury firms were earned at the College.

Just as the College was a steady source of jobs during the last economic recession, it was a steady source of wages to propel the local economy. While wages paid in the Town dropped 5.6% from 2007 to 2010, wages in the education and health sector increased 1.0%.

Finally, the adjusted gross income of all Middlebury residents in 2010 equaled \$163 million in 2010 according to the Vermont Department of Taxes. In 2011 the College paid \$27.5 million in wages to Middlebury residents (about 45% of the College's payroll went to Town residents). The College, therefore, accounts for at least 17% of the income of Middlebury residents.

C. Population and Student Spending

According to the 2010 Census, as of April 1, 2010 the population of the Town of Middlebury was 8,496. With an enrollment of 2,450 the College's students accounted for nearly 29% of the Town's population. Therefore, it is not surprising that the spending of the students is an important part of the Town's local retail and service sector. While not a large amount per student, total student spending in the town in 2011 is estimated at \$4.5 million. (See section II of this report.)

D. Visitor Spending and Lodging and Food Services in the Town of Middlebury

Finally, we estimated the spending of visitors to Middlebury College equaled \$3.9 million, of which approximately \$1.5 million each was on lodging and meals. The former was a significant share of the nearly \$6 million in annual spending recorded at the Town's inns and hotels in 2011. The latter was about 10% of all meals spending in the Town.

E. Summary

The College is a significant part of the economy of the Town of Middlebury. It is the largest employer in terms of numbers of employees and payroll in the Town. Nearly one in four dollars paid at local employers comes from the College. Clearly, the economy of the Town would be nowhere near the same as it is today without the College.

VI. Summary

Middlebury College is a major employer in Addison County as well as in of the State of Vermont. Its employment level of 1,376 people with a payroll of \$60.6 million (in 2011) guarantees that the College will have a major impact on the region's and state's economy. The College's enrollment today is approximately 2,450 students, with students from all fifty states and more than 70 countries. Because the vast majority of the College's nearly \$220 million in annual revenues comes from out-of-state sources (and endowment earnings), the College functions as an export industry in Vermont, injecting new dollars into the economy and contributing significantly to the state's economy.

In this report we estimated that Middlebury College was responsible for the creation of a total of 2,420 jobs throughout the state of Vermont with a combined payroll of \$97.2 million. In addition, the College's activity lead to the generation of \$10.7 million in taxes to Vermont's state government in 2011. The College is clearly an economic engine for the Town of Middlebury, Addison County, and the state of Vermont as a whole.