



UNIVERSITY OF
WINCHESTER

THE ECONOMIC VALUE OF THE *UNIVERSITY OF WINCHESTER*



The University of Winchester creates value in many ways. The University is committed to putting students on the path to success and plays a key role in helping them increase their employability and achieve their individual potential. With a vast range of courses the University's provision enables students to acquire qualifications and develop the skills they need in order to have a fulfilling and prosperous career. The University also provides an excellent environment for students to meet new people and make friends, while participation in University courses improves the students' self-confidence and promotes their mental health. All of these social and employment-related benefits have a positive influence on the health and well-being of individuals.

However, the benefits of the University of Winchester consists of more than solely influencing the lives of students. The University's provision

supports a range of employment sectors in its service region, defined as Hampshire and Isle of Wight. This provision supplies employers with the skilled workers they need to make their businesses more productive. The expenditure of the University of Winchester, along with the spending of its staff and students further supports the regional economy through the output and employment generated by regional suppliers.

In this report we aim to assess the economic benefits of the University of Winchester on the regional community. The fact that learning makes a difference on the regional economy is well known, but comparatively little research has been done to quantify the monetary value of the impacts. Some of the more recent studies include Walker's (2013)¹ analysis of the impact of university degrees on

1 Ian Walker et al, 'The Impact of University Degrees on the Lifecycle of Earnings: Some Further Analysis' (Department for Business, Innovation and Skills, BIS Research Paper Number 112: London, August 2013).

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lifetime earnings potential. Although the approaches used in this and other similar studies vary, they all contribute valuable information to the growing body of evidence that proves the value of investing in education.

This study focuses on the economic impacts created by the University of Winchester on the regional business community in the region. Regional economic impact analysis focuses on a single time period and does not project impacts into the future, nor does it factor in costs incurred by stakeholders. To derive results, we rely on a specialised input-output (IO) model to calculate the additional income created in the region's economy as a result of the increased consumer spending generated by the University of Winchester and the added skills of its students. Results of the regional economic impact analysis are measured in terms of the added income created by the

following three impacts: 1) impact of University expenditure, 2) impact of student expenditure, and 3) impact of the skills acquired by students still active in the region's workforce.

Data and assumptions used in the study are based on several sources, including the 2014-15 financial and student reports from the University of Winchester, industry and employment data from Nomis official labour market statistics, earnings data from the Higher Education Statistics Agency (HESA), demographic and earnings data from the Office for National Statistics (ONS), and Emsi's input-output model. The study applies a conservative methodology and follows standard practice using only the most recognised indicators of economic impact. For more information on the data used to derive the results, we encourage our readers to contact the University for full documentation of the study.

OVERVIEW OF UNIVERSITY OF WINCHESTER'S ECONOMIC IMPACT ON THE REGIONAL BUSINESS COMMUNITY

£42.1 MILLION	ADDED INCOME CREATED BY UNIVERSITY EXPENDITURE
£20.8 MILLION	ADDED INCOME CREATED BY STUDENT EXPENDITURES
£203.7 MILLION	ADDED INCOME CREATED BY ALUMNI
£266.6 MILLION	TOTAL INCOME CREATED IN THE REGIONAL ECONOMY
0.8%	% OF TOTAL OUTPUT OF THE REGIONAL ECONOMY
9,934	TOTAL OUTPUT AS NUMBER OF AVERAGE WAGE JOBS



The results of this study show that the University of Winchester creates significant positive benefits on Hampshire & Isle of Wight's economy. Using a regional economic impact analysis, we calculate the benefits to each of these groups. Key findings are as follows:

IMPACT OF UNIVERSITY

- The University of Winchester employed **748** full-time equivalent faculty and support staff in 2014-15. Staff costs amounted to **£31.5 million** much of which was spent in the region to purchase groceries, clothing, and other household goods and services.
- The University is itself a buyer of goods and services and spent **£26.4 million** to support its operations in 2014-15. This expenditure further benefited many regional suppliers in the region.
- The net impact of staff and University expenditures in the region comes to approximately **£42.1 million** in added income in the regional economy each year. This is equivalent to supporting **1,569** average wage jobs.

- University of Winchester students who relocate to the region from outside of the area spend money at regional shops to buy books and supplies, purchase groceries, rent accommodation, pay for transport, attend sporting events, etc. In addition, a number of students would have left the area if not for the existence of the University of Winchester.
- The expenditure of the University of Winchester's non-

local students annually adds approximately **£20.8 million** in income, or **774** average wage jobs, to the region's economy.

- An estimated 38% of the University of Winchester's students stay in the region. upon exiting the University. Their enhanced skills and abilities bolster the output of regional employers, leading to higher regional income and a more robust economy.
- The accumulated impact of former University of Winchester students who are currently employed in the regional workforce amounts to **£203.7 million** in added income in the region's economy each year. This is equivalent to supporting **7,591** average wage jobs.

- Altogether, the economic impact of the University of Winchester to the business community in the region is **£266.6 million** each year.
- Total added income created by the University and its students and visitors is equal to **0.8%** of the total economic output of the region and represents roughly **9,934** average wage jobs.



The University of Winchester generates a wide array of benefits. The regional business community benefits from increased consumer spending and higher skill levels in the workforce. In this study, the University of Winchester investigates the benefits it creates to the regional business community.

The University of Winchester promotes economic growth in the region in a variety of ways. The University is an employer and a buyer of goods and services, and is both a primary source of education to regional residents and a supplier of trained workers to regional industry.

In this section we examine the economic impacts of the University of Winchester on the regional business community through the increased consumer spending and enhanced business productivity generated by the University and its students. The impacts reflect the economic relationships among the region's industries and are calculated using Emsi's proprietary input-output (IO) model. The model places particular reference on how much each industry purchases from every other industry by using NUTS3 (county and unitary authority level) area data from the Office for National Statistics' (ONS) Supply and Use Tables (SUTs), as well as regional and national industry jobs totals and national sales-to-jobs ratios. The results are then expressed in terms of income (as opposed to sales) in order to present a more accurate picture of the University's actual

impacts by accounting for monies that leave the economy.

The following pages present the results of the analysis broken down according to the following three impacts: 1) impact of University expenditure, 2) impact of student expenditure, and 3) impact of the added skills of University of Winchester alumni who are still employed in the regional workforce.

Impact of University Expenditure

The University of Winchester is an important employer in the region, providing jobs for a wide range of staff across a number of occupations. In 2014-15, the University employed 748 full-time equivalent faculty and support staff. Of these, approximately 78% residents in the region. Total staff costs at the University of Winchester in 2014-15 amounted to £31.5 million, which became part of the region's overall income. Staff expenditure on groceries, eating out, clothing, and other household costs also helped support regional shops and businesses.

In addition to its staff, the University of Winchester is itself a large-scale buyer of goods and services. In 2014-15, the University spent £26.4 million to support its operations. Much of this expenditure benefited regional suppliers in the region, creating a multiplier effect that generated additional employment and income throughout the regional economy.

The impact of the University of Winchester’s payroll and purchases is subdivided into the following two main effects: the direct effect and the indirect effect. The direct effect comprises the University’s payroll and employee benefits, less monies paid to individuals working outside the region. The indirect effect refers to the additional income created in the economy as the University of Winchester employees and suppliers spend money in the region to purchase even more supplies and services.

To calculate the indirect effect, we remove any expenditures that occur outside of the region and map the remainder to the 19 top-level industry sectors of the IO model. We then run the data through the model’s multiplier matrix to estimate how the spending of the University and staff affects the output of other industries in the area. Finally, we convert the sales figures to income by means of value added-to-sales ratios, also provided by the IO model. Table 6 shows the results, a total of £45.4 million in gross impacts attributable to the direct effect of staff costs plus the indirect effect that occurs as the University and its staff spend money in the region.

One adjustment must be made to the gross impact before deriving the net impact of University expenditure. The University of Winchester received an estimated 14.6% of funding from local sources in the region, whether from local residents (in the form of tuition fees) or from other private and public sources located in the region. Given this phenomenon, a portion of the income that the University creates in the region’s economy is offset by the income that it withdraws from the economy. As such, not all of the impacts generated by the University of Winchester and its staff can be considered new monies brought to the region.

To determine the ‘net’ impact of the University

of Winchester payroll and purchases, we take the estimated portion of funding that originated from local sources and convert it to spending. We then bridge the spending figures to the individual sectors of the IO model, calculate the multiplier effect, and convert the amounts to income. The result, equal to £3.3 million, allows us to see what income would have been created in the region anyway, even if the University of Winchester did not exist.

Subtracting the £3.3 million in alternative uses of funds from the £45.4 million in gross impacts yields a net impact of £42.1 million in added income in the regional economy. This value appears in the bottom row of Table 6 and is equivalent to 1,569 average wage jobs.

TABLE 6. Impact of University expenditure (£ thousands)

	TOTAL
Total income in the region	£35,400,602
Direct effect	£24,500
Indirect effect	£20,929
Gross total impact	£45,429
Alternative use of funds adjustment	-£3,324
Net total	£42,105

Source: Emsi.

Impact of Student Expenditure

Students who relocate to the region spend money at regional shops to buy books and supplies, purchase groceries, rent accommodation, pay for transport, attend sporting events, and so on. The expenditures of the University of Winchester’s non-local students support regional suppliers and create multiplier effects, thereby generating income and a need for further jobs. In addition, a number of in-region students would have left the area for other education opportunities if not for the existence of the University of Winchester.

In order to calculate the multiplier effects of out-of-region students, we begin by estimating their gross expenditure in 2014-15, a total of £38 million. Note that we exclude the expenses of in-commuters since they spend little in the region compared to those who live in the region. We then calculate the

direct effect by mapping the £38 million in sales to the industry sectors in the IO model, adjusting them to account for leakage, and converting them to income by applying value added-to-sales ratios.

The indirect effect comprises the additional income created as the businesses that benefit from the University of Winchester’s non-local students also spend money in the region. We derive this effect by running the same £38 million in sales (net of leakage) through the multiplier matrix and applying value added-to-sales ratios from the IO model to convert the results to income.

Summing together the direct and indirect effect, we estimate that the spending of University of Winchester’s out-of-region and retained students annually adds approximately £20.8 million in income to the the region's economy. Since we are capturing the impacts of only those students who relocate to the region (thereby injecting new monies into the regional economy), we do not have to adjust for the alternative use of funds as we did for the University expenditures in the previous section. All of the results leading to this impact are presented in Table 7. The £20.8 million in added income is also equivalent to 774 average wage jobs.

TABLE 7. Impact of Student Expenditures (£ thousands), 2014-2015

	TOTAL
Total income in the region	£35,400,602
Direct effect	£15,073
Indirect effect	£5,695
Total impact	£20,769

Source: Emsi.

Alumni Impact

The University of Winchester’s strong focus on workforce development manifests itself at all levels of the University’s provision. In addition to delivering specific training and consultancy solutions to businesses, the University maintains close links with regional employers in order to

target the type of employee training that best meets their growth strategies. Further, the University of Winchester’s vocational learning programmes and apprenticeships allow employers and the University to work together to develop industry-specific training schemes that benefit both the students and employers. All of these services provide valuable resources to businesses and help develop the skills of the existing the region labour force.

Employee training and development is just one way that employers benefit from the presence of the University of Winchester. By aligning its provision with key employment sectors in the region, the University of Winchester helps produce the skilled workers that are needed to support the region labour market.

An estimated 38% of the University of Winchester students stay in the region and are more productive because of the quality education they invested in at the University. Over time, the skills of former the University of Winchester students accumulate, steadily increasing the training level and experience of the region's workforce. As the skills embodied by former students stockpile, a chain reaction occurs in which higher student incomes generate additional rounds of consumer spending, while new

FIGURE 1. Unemployment rate and average annual earnings by education level received by individuals in the region at the mid-point of their career

skills and training translate to increased business output and higher property income, causing still more consumer purchases and regional multiplier effects. The sum of all these direct and indirect

effects comprises the total impact of the added skills from alumni in the region's economy.

Assigning a monetary value to the added skills acquired by alumni that are still active in the region's workforce requires data on the historical enrolments and corresponding achievement levels of the University of Winchester students over the past 15-year-period. Credits are used to determine the achievement levels of the University of Winchester students, and serve as a proxy for the level of skills students contribute to the regional workforce. Using these data in conjunction with the wage differentials from Figure 1, we can determine the total amount of higher earnings associated with the educational achievements of past and present students. We then convert this to value added using the ratios supplied by the IO model. The result, equal to £136 million, appears in Table 9 and represents the accumulated direct effect of the added skills acquired by students whom the University of Winchester has served over the last 15 years.

To calculate the indirect effect, the model allocates increases in regional income to specific industrial sectors and augments these to account for both demand-side and supply-side multiplier effects. Demand-side effects refer to the increased demand for consumer goods and services as the higher incomes of skilled workers and their employers are spent in the regional economy. Supply-side effects occur through a process of 'agglomeration,' whereby growth becomes to some degree self-perpetuating. The presence of one industry, for example, attracts other industries that use the first industry's outputs as inputs, which produces subsequent rounds of industry growth, and so on. Both demand-side and supply-side effects are calculated using the multiplier matrix and value-added to sales ratios provided by the regional IO model.

Altogether, the accumulated impact of the University of Winchester alumni who are currently employed in the regional workforce amounts to £203.7 million, the sum of £136 million in direct

TABLE 9. Alumni Impact (£ thousands), 2014-15

	TOTAL
Total income in the region	£35,400,602
Direct effect	£135,938
Indirect effect	£67,801
Total impact	£203,739

Source: Emsi.

effects and £67.8 million in indirect effects. These results appear in Table 9 and are equivalent to supporting 7,591 average wage jobs.

Total Impact on Regional Economy

Altogether, the results of this study show that the economic impact of the University of Winchester to the regional business community in the region is approximately £266.6 million each year. This is equal to around 0.8% of the region's total economy and represents roughly 9,934 average wage jobs.

These results demonstrate several important points. First, the University of Winchester promotes regional economic growth through its own operations spending, through the spending of its non-local and retained students, through the spending of its non-local visitors, and through the increase in productivity as former the University of Winchester students remain active in the regional workforce. Second, the impact of added skills in the regional workforce is by far the largest and most important impact of the University of Winchester, stemming from higher incomes of students and their employers. And third, regional income in the region would be substantially lower without the educational activities of the University of Winchester.



The results of this study demonstrate that the University of Winchester creates value from multiple perspectives. The University addresses the needs of employers by providing them with staff development opportunities and supplying the workforce with qualified, trained workers. Regional businesses benefit from the patronage of the University of Winchester and the expenditure of the University's staff and students.

The most important value that the University of Winchester creates, however, is the impact it has on its students. The experiences that students receive at the University have the power to shape the rest of their lives and put them on the path to becoming happy and productive members of their communities. This, after all, is the University's mission, and for as long as it continues to deliver excellence to students, all other stakeholder groups will see the positive impacts of learning in their lives too.

REGIONAL ECONOMIC IMPACT ANALYSIS

BENEFITS TO REGIONAL BUSINESS COMMUNITY

£42.1	Added income created by University expenditure (£ millions)
£20.8	Added income created by student expenditures (£ millions)
£203.7	Added income created by alumni (£ millions)
£266.6	Total income created in the regional economy (£ millions)
0.8%	% of total output of the regional economy
9,934	Total output as number of average wage jobs

About Emsi Economic Modelling Specialists International (Emsi) provides employment data and economic analysis via web tools and custom reports. The company has also produced more than 1,300 comprehensive impact analyses for colleges and universities in the UK, US, Canada, and Australia. Founded in 2000, Emsi is located in Moscow, Idaho with branch offices in the UK, and it serves education, economic, and workforce development institutions and organisations. Visit our website at www.economicmodelling.co.uk for more information.