



CREATING OPPORTUNITY

**THE ECONOMIC VALUE OF COLLAB GROUP COLLEGES**





## INTRODUCTION

Collab Group colleges (CG colleges) create value in many ways. The colleges are committed to putting learners on the path to success and play a key role in helping them increase their employability and achieve their individual potential. CG colleges have a vast range of courses and apprenticeships, the colleges' provision enables learners to acquire qualifications and develop the skills they need in order to have a fulfilling and prosperous career. The colleges also provide an excellent environment for learners to meet new people and make friends, while participation in the colleges' courses improves the learners' 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 CG colleges consists of so much more than solely influencing the lives of learners. The colleges' provision supports a range of employment sectors in the UK. This provision supplies employers with the skilled workers they need to make their businesses more productive. The expenditure of CG colleges, along with the spending of their staff and learners, further supports the economy through the output and employment generated by local suppliers. Lastly, and just as importantly, the economic impact of CG colleges extends as far as the Exchequer in terms of increased tax receipts and decreased public sector costs.

The approach in this study is twofold. We begin with a standard investment analysis to determine how the investments in CG colleges will perform for a given investor over time. The investors in this case are learners, society, and taxpayers, all of whom pay a certain amount in costs to support the learning activities at CG colleges. The learners' investment consists of their direct outlays, such as those for tuition fees and books, plus the opportunity cost of spending time learning opposed to earning income through employment. Society invests in learning by forgoing the services that it would have received had government not funded the colleges and the business output that it would have enjoyed had learners been employed instead of learning. Taxpayers contribute their investment through government funding via organisations such as the Skills Funding Agency. In return for these investments, learners receive a lifetime of higher earnings, society benefits from an expanded tax base and a reduced demand for social services, and taxpayers benefit from higher tax receipts and avoided public sector costs. Results of the investment analysis for learners, society, and taxpayers are displayed in the following three ways: 1) net present value of benefits, 2) rate of return, and 3) benefit/cost ratio.

*The Collab Group is a forward thinking membership organisation which represents 35 leading Colleges and College Groups who collaborate, at a local and national level, with a wide range of stakeholders in the development of sustainable professional and technical skills to enable a transformation of the productive capacity of the UK economy.*

The second component of the study focuses on the economic impacts created by CG colleges on the local business community in the UK. Economic impact analysis is distinct from investment analysis in that it 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 UK's economy as a result of the increased consumer spending and added skills generated by CG colleges and their learners. Results of the economic impact analysis are measured in terms of the added income created by the following three impacts: 1) impact of staff and college expenditure, 2) impact of learner expenditure, and 3) impact of the skills acquired by learners still active in the UK's workforce.

*This study shows through an investment analysis and impact analysis that CG colleges serve as a profitable investment for learners, taxpayers, wider society, and the business community in the UK. The colleges create and maintain a skilled workforce that enables businesses to be competitive in the global economy.*

## WARWICKSHIRE COLLEGE GROUP APPRENTICE IS FLYING HIGH

Collab Group colleges are leading the way in providing great quality apprenticeships. A fantastic example of this is Warwickshire College Group's Alex Chance who was named Coventry & Warwickshire Apprentice of the Year 2016. Alex won the Administration, Accounting and Finance Category at an award ceremony held at Coventry Cathedral on 10 November.

Alex, an operations/customer service apprentice at Take Flight Aviation, was one of 16 category finalists at the inaugural awards, sponsored by Warwickshire County Council, Coventry City Council and the Coventry & Warwickshire LEP amongst others.

The twenty-year-old, who recently gained a NVQ Level 3 Certificate in Customer Service with the Warwickshire College Group, also recently managed to gain his Private Pilot Licence (PPL) and Night Rating whilst being an apprentice.

Alex, who has dreamed of being a pilot since he was a boy, said: "I have really enjoyed being the apprentice at Take Flight Aviation; taking an apprenticeship has been a real option to help develop my career. I have been able to gain invaluable experience and on-the-job training whilst working in a real-life commercial environment. It's opened up my mind to all the other job opportunities in aviation that I hadn't considered before.

The high flyer leaves the company after 18 months in December and will be departing long-haul to the Southern Hemisphere for a spot of travelling and working around Australia. Following on from which he hopes to pursue his dream of a career in aviation.





## STUDY HIGHLIGHTS: INVESTMENT ANALYSIS

Students, taxpayers, and society as a whole invest money into CG colleges. The investment analysis shows the return these stakeholders can expect to receive over the working lifetime of CG colleges' 2014-15 learners. Below we weigh the benefits and costs for each stakeholder to see the return for their investment in the CG colleges.

**Learners will generate £13.6 billion in increased earnings over their working lives.** Learners paid £315.8 million in tuition fees and books and supplies. Learners would have generated £3.4 billion in earnings had they been working instead of learning.

**£3.70**

Returned for every pound invested by learners in 2014-15.

**14.6%**

Annual Rate of Return

**Society will receive £35.4 billion over the course of the learners' working lives.** This is from an expanded tax base reduced crime, lower unemployment, and increased health and well-being. Society invested £7.9 billion in CG colleges in 2014-15.

**£4.50**

Returned for every pound invested by society in 2014-15.

**19.1%**

Annual Rate of Return

**The education provided by the colleges to learners will generate £5.2 billion in benefits to taxpayers.** Reduced demand for government-funded social services will add another £896.4 million in benefit to taxpayers. Taxpayers in the UK paid £1.2 billion to support the operations of CG colleges in 2014-15.

**£5.30**

Returned for every pound taxpayers invested in 2014-15.

**22.3%**

Annual Rate of Return



## STUDY HIGHLIGHTS: ECONOMIC IMPACT ANALYSIS

The impact analysis shows the amount of income generated by the colleges operations, international learners, and the accumulation of the colleges alumni's higher earnings. Impact analysis captures the direct effects along with the effect of additional rounds of spending.

**The colleges employed 26,438 faculty and staff in 2014-15.** They spent £971.3 million on payroll with an additional £579.7 million to support the colleges operations. The spending by staff and the colleges comprises the total impact of the colleges operations.

**The colleges attracted 7,895 international learners.** They spent money on books and supplies, groceries, rent accommodation, transportation, etc. Each international learner spends approximately £4,900 on products and services.

**The colleges have millions of alumni throughout the UK.** The colleges alumni and their associated higher income and output resulting from the education provided by the colleges comprised the impact of added workforce skills.

**The colleges in total support 1.2 million jobs in the UK.** The total impact is the combination of the colleges operations, international learners, and alumni impacts. This impact is equivalent to 2.1% of the UK's economy.

**£1.6  
BILLION**

COLLEGE OPERATIONS IMPACT

**£32.6  
MILLION**

INTERNATIONAL LEARNER IMPACT

**£31.6  
BILLION**

ALUMNI SKILLS IMPACT

**£33.2  
BILLION**

INCOME SUPPORTED IN THE UK



# INVESTMENT ANALYSIS

We know that Collab Group Colleges make a big impact within their local communities, but who stands to benefit from their activities?

## BENEFITS TO LEARNERS

In 2014-15, CG colleges served 577,091 unique learners across various qualifications and levels. The bulk of the colleges' provision was at Level 2, comprising 38% of all enrolments, followed by Level 3, which comprised 27% of all enrolments.

In order to go to the colleges and depending on their level of funding, learners at CG colleges pay money to cover the cost of tuition fees and purchase books and supplies. All learners also forgo earnings that they would have generated had they been working instead of learning. Together these two cost factors comprise the learners' total investment in their education at CG colleges, equal to £3.7 billion in 2014-15 (the sum of £315.8 million in tuition fees, books, and supplies and £3.4 billion in forgone earnings). This translates to an average cost of £6,368 per learner.

In return for the costs of education, learners receive a stream of higher future earnings that continues to grow throughout their working lives. The

*Collab Group colleges generate a wide array of benefits. Learners benefit from higher lifetime earnings, society and taxpayers benefit from an expanded tax base and avoided social costs, and the local business community benefits from increased consumer spending and higher skill levels in the workforce.*

**FIGURE 1. UNEMPLOYMENT RATE AND AVERAGE ANNUAL EARNINGS BY EDUCATION LEVEL RECEIVED BY INDIVIDUALS IN THE UK AT THE MIDPOINT OF THEIR CAREER**



*Moving from a level two to three qualification will earn a learner £3,052 more per year, approximately £106,831 over their lifetime undiscounted.*

average Level 3 achiever from CG colleges will see an increase in earnings of £3,052 each year compared to someone with Level 2 qualifications. This amounts to approximately £106,831 in higher earnings over a working lifetime. Employment prospects also increase, so unemployment levels decrease as learners gain higher education levels.



*CG colleges learners earn an average annual rate of return of 14.6%.*

The present value of the higher future earnings that accrue to learners yields a cumulative sum of £13.6 billion, costs are equal to £3.7 billion, which includes tuition fees, books and supplies, and the opportunity cost of time. By dividing the £13.6 billion in benefits by the £3.7 billion in costs, we derive a benefit-cost ratio of 3.7. This means that, for every £1 learners invest at CG colleges in the form of tuition fees and forgone earnings, they will receive a cumulative £3.70 in higher future earnings over the course of their working life.



*For every pound invested by learners they will receive £3.70 over their working lives.*

The rate of return is perhaps the most recognised indicator of investment effectiveness. CG colleges learners earn an average annual rate of return of 14.6% on their investment of time and money. This is an impressive return compared, for example, to the less than 2.7% return per annum that can be expected from saving money in today's Individual Savings Accounts (ISAs).

## **BENEFITS TO SOCIETY**

From the perspective of society, the social value created by CG colleges takes on two forms. The first and largest component is the added income created

## **ENGINEERING SUCCESS AT NORTH EAST COLLEGE SCOTLAND**

A keen sportsperson, Jayney Duthie (21) left school after her sixth year with a clear aim. She joined the Sports Science degree course at RGU and enjoyed the course for two years before, sadly, an accident stopped her in her tracks. She said, "My injury left me unable to continue the course so I had to re-think about what to do next. Engineering had always been a second choice, so I applied to Fraserburgh and was accepted on the HNC."



While completing her HNC in Mechanical Engineering, Jayney decided that getting some work experience would benefit her and approached Macduff Ship Design, a naval architect/ship design marine consultancy for the commercial and fishing vessel sector to see if they could help her.

They offered her one day a week work experience and, during the summer break, extended her hours. At the end of her HND, Jayney was delighted when they offered her a permanent job as a Marine Draughtsman. She continues, "The job is really interesting working with different companies from all over the world to design bespoke boats.

"I had a great time at College and may return to study part time at some point but in the meantime, I am really happy working here."

in the UK. Learners earn more as well as businesses because the enhanced skills of learners make capital more productive (i.e., buildings, machinery, and everything else). This in turn raises profits and other business property income throughout the national economy. Together, increases in earnings and business output stimulate corresponding increases in value added, thereby raising prosperity in the UK and expanding the tax base for society as a whole.



*The education provided by CG colleges will save society £4.1 billion in health, crime, and unemployment costs.*

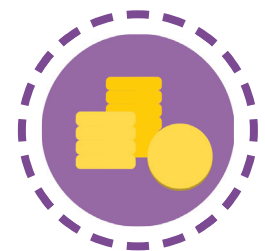
The social value of CG colleges also consists of the savings that accrue to society through the improved lifestyles of learners. Learning is statistically correlated with a variety of life changes that generate social savings in three main categories: 1) health, 2) crime, and 3) unemployment. Health savings include avoided medical costs associated with smoking, obesity, and mental disorders. Crime savings consist of reduced security expenditure and insurance administration, lower victim costs, and reduced Criminal Justice System expenditures. Unemployment savings comprise the reduced demand for income assistance and Jobseeker's Allowance benefits.



*Society will earn an average annual rate of return of 19.1% for their investment in CG colleges.*

The present value of the added income and social savings that occur in the UK over the working lifetime of CG colleges learners amounts to a present value of £31.5 billion. Social savings amount to £4.1 billion, the sum of health, crime, and unemployment savings in the UK. Altogether, the total social value of CG colleges is £35.4 billion.

Costs to society break down into two main categories, direct outlays and opportunity costs. Direct outlays simply refer to operating and non-operating revenues of CG colleges, equal to £1.5 billion in 2014-15. Opportunity costs refer to the loss of earnings and output that would have been generated in the UK economy had learners chosen to work full-time rather than learning. Opportunity costs also include the government services that would have been undertaken had taxes been collected on the incomes that learners forgo. Together direct outlays and opportunity costs equal £7.9 billion in costs to society during the reporting year.



*Every pound invested by society will return £4.50 over the learners working lives.*

In return for the £7.9 billion that society invests in CG colleges, it receives a net gain (in present value terms) of £27.5 billion. The associated benefit-cost ratio is 4.5 for every £1 spent, and the average return on investment is 19.1% annually.

## **BENEFITS TO TAXPAYERS**

Benefits and costs under the taxpayer perspective only look at the monetary gains and losses that accrue to the public sector as a result of CG colleges. Learners earn more, which means they make higher income tax payments and National Insurance contributions. The portion of their higher earnings that learners spend also leads to higher value added tax (VAT) receipts. Further, as employers increase their output and make more purchases for supplies and services, they benefit the Exchequer through their higher corporation tax and VAT payments. Altogether, the present value of the added tax receipts that accrues to taxpayers amounts to £5.2 billion.



*The education provided by CG colleges will return £6.1 billion to taxpayers in the form of added taxes and savings.*

A portion of the social savings enjoyed by society also accrues strictly to taxpayers. As learners become more employable, the demand for Jobseekers' Allowance benefits reduces. Learners put less of a demand on the National



Health Service (NHS) for medical treatment as a result of their improved health habits. Further, the reduced probability that learners will commit criminal offences leads to a reduced demand on the Criminal Justice System for law enforcement services. Over the course of the students working lives this amounts to present value of £6.1 billion.

By comparing taxpayer costs to the £6.1 billion in benefits and the £1.2 billion in taxpayer costs, we derive a benefit/cost ratio of 5.3. This means that for every £1 of public money invested in CG colleges, taxpayers receive a cumulative value of £5.30 over the course of the learners' working lives. This translates to a 22.3% annual return on investment to taxpayers for their support of CG colleges, again a solid investment that compares favourably with other long-term investments in both the private and public sectors.



*Taxpayers average annual rate of return will be 22.3% for their investment in CG colleges.*



*For every pound invested by taxpayers they will receive £5.30 over the learners working lives.*

## COLLABORATION WITH EMPLOYERS AT BLACKPOOL AND THE FYLDE COLLEGE

Collab Group colleges excel at providing high quality technical and professional education in collaboration with a wide range of national and local employers. A great example of this is Blackpool and The Fylde College which received the prestigious Queen's Anniversary Prize for Further and Higher Education on 25 February 2016. The elite award recognised the College's innovative work in the field of higher technical and professional education in partnership with employers.

Blackpool and The Fylde College joined a distinguished list of universities and colleges to be recognised with a Queen's Anniversary Prize for the creation of a bespoke undergraduate trainee scheme. The scheme, created in 2007, delivered Project Management training for a number of leading businesses both regionally and nationally, including Rolls Royce and BAE.



Bev Robinson, Principal of Blackpool and The Fylde College, said: "We are delighted and extremely proud to be awarded the Queen's Anniversary Prize. It's a significant achievement which reinforces our reputation as an outstanding provider of training and education. The award is testament to the hard work and dedication from the lecturing team and students themselves".

BAE Systems is one of the industry partners that co-created the programme. Bernard Kellett, of BAE Systems Military Air & Information, said the development of its Project Control Foundation Scheme (PCFS) had been the result of a partnership with the College.

He said: "Our partnership with Blackpool and The Fylde College has helped produce a pipeline of talented people; many now have leading positions throughout our company." "The curriculum for the degree was developed in a spirit of partnership, with the College designing the topics with industry requirements in the forefront of their mind." "Now we are working alongside them to develop the next iteration of the project management degrees to be offered, ensuring our people are ready to lead our business in the future."

# ECONOMIC IMPACT ANALYSIS

In this section we examine the economic impacts of CG colleges on the business community through the increased consumer spending and enhanced business productivity generated by the colleges and their learners.

## IMPACT OF STAFF AND COLLEGE EXPENDITURE

The colleges are important employers in the UK, providing jobs for a wide range of staff across a number of occupations. In 2014-15, the colleges employed 26,438 full-time and part-time staff with total staff costs at CG colleges in 2014-15 amounting to £971.3 million. Staff expenditure on groceries, eating out, clothing, and other household costs also helped support local shops and businesses. The colleges are large-scale buyers of goods and services. In 2014-15, the colleges spent £579.7 million to support their operations.

The monies paid to staff and their subsequent spending contribute to the direct and indirect effect of CG colleges, the colleges spending to support their operation further adds to the indirect effect of the colleges. A total of £2.6 billion in gross impacts attributable to the direct effect of staff costs plus the indirect effect that occurs as the colleges and their staff spend money in the UK.

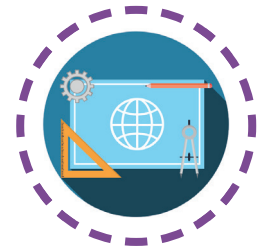
Not all of the impacts generated by CG colleges and their staff can be considered new monies brought to the UK, as the money could have been spent elsewhere. We take the estimated portion of funding that originated from local sources then calculate the multiplier effect. The result, equal to £1 billion, allows us to see what income would have been created in the UK anyway, even if CG colleges did not exist. Subtracting the £1 billion in alternative uses of funds from the £2.6 billion in gross impacts yields a net impact of £1.6 billion in added income in the UK economy.

## IMPACT OF INTERNATIONAL LEARNER EXPENDITURE

Learners who relocate to the UK to attend CG colleges spend money at local shops to buy books and supplies, purchase groceries, rent accommodation, pay for transport, attend sporting events, and so on. The expenditures of international learners attending CG colleges supports local suppliers and creates



*CG colleges had 26,438 full-time and part-time staff and a payroll of £971.3 million in 2014-15.*



*CG colleges spent an additional £579.7 million to support the colleges' operations in 2014-15.*



*CG colleges impact from staff and college expenditure was £1.6 billion equivalent to 60 thousand average wage jobs.*

multiplier effects, thereby generating income and a need for further jobs.

In order to calculate the multiplier effects of international learners, we begin by estimating their gross expenditure in 2014-15, a total of £34.1 million. We then calculate the direct effect by mapping the £34.1 million in sales to the industry sectors in the IO model and convert 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 colleges' international learners also spend money in the UK. We derive this effect by running the same £34.1 million in sales through the multiplier matrix and applying value added-to-sales ratios from the IO model to convert the results to income.

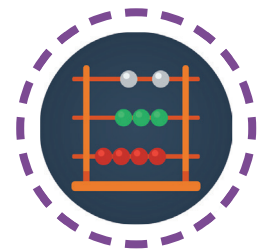
Summing together the direct and indirect effect, we estimate that the spending of international learners attending CG colleges annually adds approximately £32.6 million in income to the UK's economy.



*CG colleges had 7,895 international students in 2014-15, each spending approximately £4,900.*



*The total impact of international learners was £32.6 million equal to 1,244 jobs in 2014-15.*

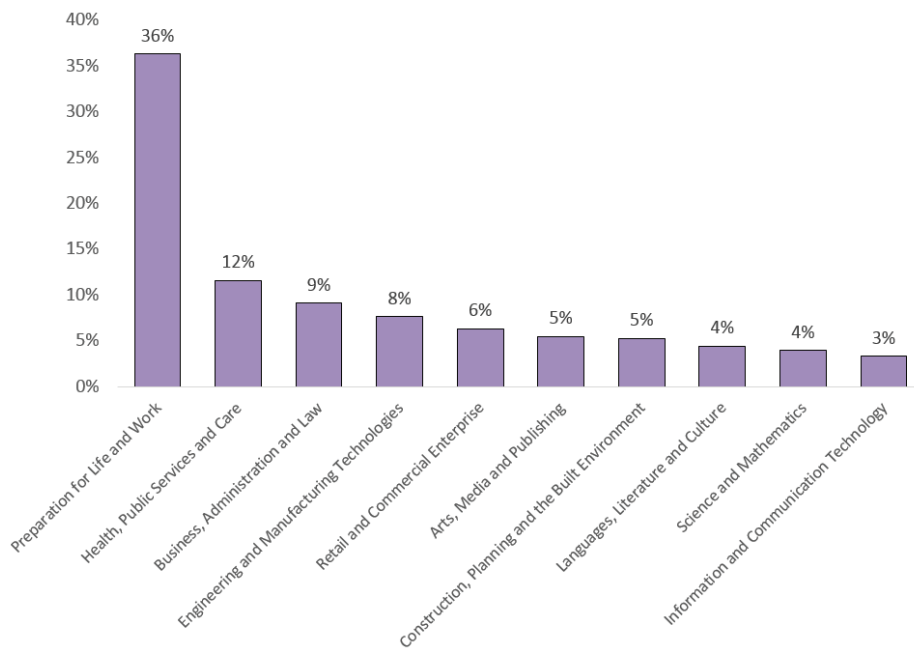


*CG colleges support the economy by producing skilled graduates in subjects such as Health, Engineering and Construction.*



*CG colleges have served millions of learners throughout their history.*

**FIGURE 2. TOP TEN ENROLMENTS BY SUBJECT SECTOR AREA AT CG COLLEGES IN 2014-15**



**IMPACT OF ADDED WORKFORCE SKILLS**

The strong focus of CG colleges on workforce development manifests itself at all levels of the colleges' provision. In addition to delivering specific training and consultancy solutions to businesses, the colleges maintain close links with local employers in order to target the type of employee training that best meets their growth strategies. The colleges' vocational learning programmes and apprenticeships allow employers and the colleges to work together to develop industry-specific training schemes that benefit learners and employers.

Employee training and development is just one way that employers benefit from the presence of CG colleges. By aligning their provision with key employment sectors in the UK, CG colleges helps produce the skilled workers that are needed to support the UK labour market. The most instructional activity occurs in Preparation for Life and Work (36%), followed by Health, Public Services and Care (12%) and Business, Administration and Law (9%).

Over time, the skills of former CG colleges learners accumulate, steadily increasing the training level and experience of the UK's workforce. As the skills embodied by former learners stockpile, a chain reaction occurs in which higher learner incomes generate additional rounds of consumer spending, while new skills and training translate to increased business output and higher property income, causing still more consumer purchases and multiplier effects.

Assigning a monetary value to the added skills acquired by learners that are still active in the UK's workforce requires data on the historical enrolments and corresponding achievement levels of CG colleges learners over the past 15-year-period. The result, equal to £10.5 billion, represents the accumulated direct effect of the added skills acquired by learners whom CG colleges have served over the last 15 years.

To calculate the indirect effect, the model allocates increases in 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 local economy. Supply-side effects occur as 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.

Altogether, the accumulated impact of former CG colleges learners who are currently employed in the UK's workforce amounts to £31.6 billion, the sum of £10.5 billion in direct effects and £21.1 billion in indirect effects.



*The effect of CG colleges on learners is profound. Learners earn more, businesses are more productive, and there is more consumer spending in the UK.*



*In 2014-15 the impact of former learners increased income stemming from their education at the colleges was £31.6 billion.*

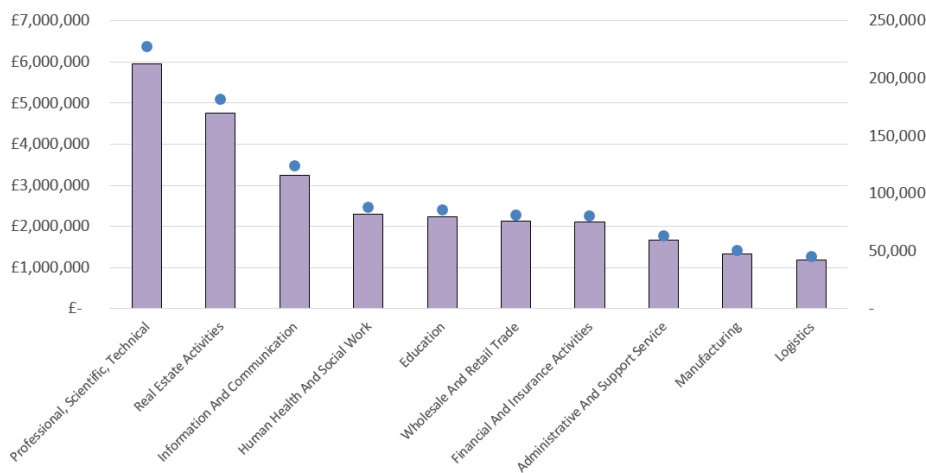


*The total impact of CG colleges in 2014-15 is £33.2 billion, equivalent to nearly 1.3 million jobs and 2.1% of the UK's economy.*



*The colleges impact many different industries in the UK such as Professional, Scientific, and Technical Activities.*

**FIGURE 3. TOTAL CG COLLEGES IMPACT BY INDUSTRY SECTOR IN 2014-15, ADDED INCOME (THOUSANDS) AND JOBS SUPPORTED**



### TOTAL IMPACT ON UK'S ECONOMY

Altogether, the results of this study show that the economic impact of CG colleges to the business community in the UK is approximately £33.2 billion each year. This is equal to around 2.1% of the UK's total economy and represents roughly 1,269,200 average wage jobs.

# CONCLUSION

The colleges address the needs of employers by providing them with staff development opportunities and supplying the workforce with qualified, trained workers. Local businesses benefit from the patronage of CG colleges and the expenditure of college staff and learners. The colleges also indirectly benefit taxpayers by generating increased tax receipts and reducing the demand for public sector services.

The most important value that CG colleges create, however, is the impact they have on their learners.

*The experiences that learners receive at the colleges 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 colleges' mission, and for as long as they continue to deliver excellence to learners, all other stakeholder groups will see the positive impacts of learning in their lives too.

## ECONOMIC IMPACT ANALYSIS

### BENEFITS TO THE UK'S BUSINESS COMMUNITY

<b>£1,582,980</b>	Added income created by staff and college expenditure (£ thousands)
<b>£32,550</b>	Added income created by expenditure of international learners (£ thousands)
<b>£31,607,040</b>	Added income created by added skills (£ thousands)
<b>£33,222,570</b>	Total income created in the UK's economy (£ thousands)
<b>2.1%</b>	% of total output of the UK's economy
<b>1,269,200</b>	Total output as number of average wage jobs

## INVESTMENT ANALYSIS

### BENEFITS TO LEARNERS

<b>£13.6 BILLION</b>	Present value of higher future earnings over working life (£ thousands)
<b>14.6%</b>	Rate of return
<b>3.7</b>	Benefit/cost ratio

### BENEFITS TO SOCIETY

<b>£35.4 BILLION</b>	Present value of added income and social externalities (£ thousands)
<b>19.1%</b>	Rate of return
<b>4.5</b>	Benefit/cost ratio

### BENEFITS TO TAXPAYERS

<b>£6.1 BILLION</b>	Present value of added tax receipts and avoided costs (£ thousands)
<b>22.3%</b>	Rate of return
<b>5.3</b>	Benefit/cost ratio

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