

The economic impact of the University of Kent

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1. Introduction

1.1 The University of Kent is based in Canterbury on the South East Coast of England, with an additional campus in Medway as well as being the only UK University to have a campus in Brussels and a postgraduate centre in Paris. The University was granted its University Royal Charter in 1965. It has a strong international outlook with a proactive emphasis on building international links and business across Europe and with partners across the world. Its academic provision covers Humanities, Science, Social Science and Business and attracts students from across the globe.

1.2 This study presents a summary of key economic aspects of the University of Kent in the academic and financial year ending 2010 and of the University's impact on the South East region and the rest of the UK. The South East region in this case refers to the Government Office region.

1.3 The importance of universities to their regions is a matter of growing interest in the rest of the UK and internationally and a number of studies have highlighted the importance of universities as large businesses and the higher education sector as an industry.¹ This study also examines the University of Kent as a business; its importance to the South East region can be seen in the same way as any other major organisation in the area, providing employment and generating other economic activity. The value of the University to the City of Canterbury and to the wider Kent and Medway areas is also potentially significant in terms of longer term economic and social development. The University is one of the largest employers in the area and has a clear goal to work "to support growth and innovation in the business community within Kent, and at a national and international level."² However this present analysis is primarily focussed on the economic impact of the University as a business itself generating employment and output. The results of this study are a first step in the consideration of the overall impact of the University of Kent.

¹ See, for example, *Higher Education and the English Regions* Kelly, McLellan and McNicoll Universities UK 2010

² See the *Kent Institutional Plan 2009-12*

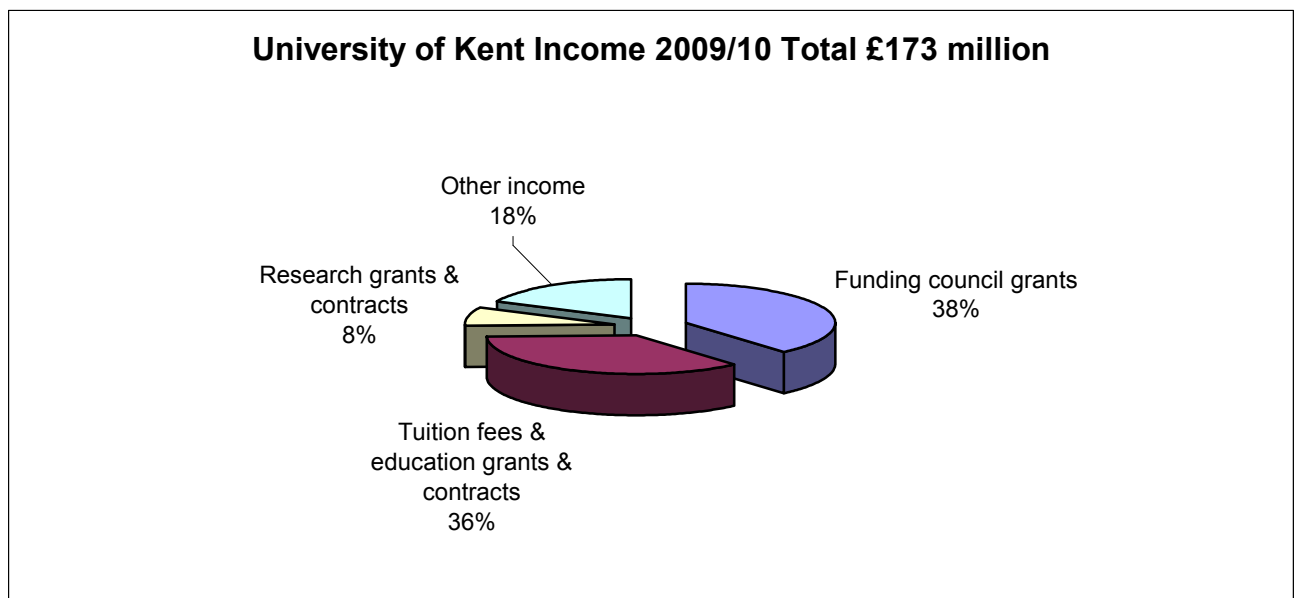
1.4 The study examined key economic features of the University in the academic and financial year 2009-2010, together with those aspects of its contribution to the economy that can be readily measured. Major economic characteristics of the University were examined, including its revenue, expenditure and employment. The study also included modelled analysis of the economic activity generated in other sectors of the economy through the secondary or 'knock-on' effects of the expenditure of the institution, its staff and students. The model used was the most up-to-date version of the *Universities UK economic impact modelling system*.³ A description of the methodology and data sources used is included as Appendix One. Overall this summary report presents an up-to-date examination of the quantifiable contribution of the University of Kent to the South East economy, as well as its impact on the rest of the UK.

2. Key Findings

2.1 Revenue

Figure 1: University Revenue

Sources



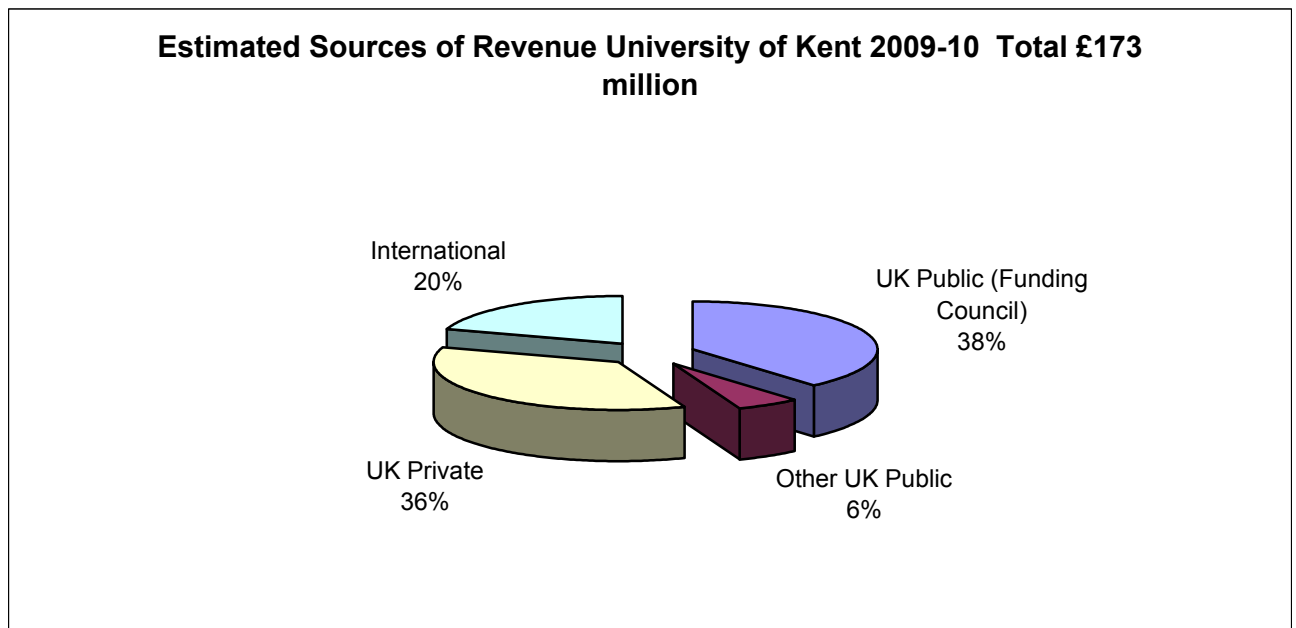
Source: University of Kent Finance Office and *HESA Resources in Higher Education Institutions 2009/10*

³ The Universities UK economic impact modelling system is a purpose-built system, designed for higher education institutions

- The University of Kent is a substantial business, with total revenue of £173 million in the study year. This was earned for a range of educational and related services. This is shown in Figure 1.
- While the largest part of the University's income (82%) can be seen as directly related to teaching and research (Funding Council grants, Tuition Fees and Research Income), it is worth highlighting that the University also earns income from a wide range of other sources, including, for example, income from residence and catering services, conferences and facility hire . While the UK public sector remains a significant funder, the University also attracts substantial funding from other sources, with the majority of its income - 56% - from private and international clients. This is shown in Figure 2 below.
- A total of 44% of university income is estimated as being derived from UK public sector sources. 38% is the baseline 'Core' Funding Council Income and represents entirely 'intra-sectoral' competition, with HEIs competing against each other for a slice of the Funding Council cake, which is largely formula driven. 'Other' public sector income makes up an estimated 6% of total university income. This type of revenue reflects a greater degree of competition, including 'inter-sectoral' competition. For example, as well as tuition fees paid by public sector agencies (including on behalf of students), it includes Research Council grants, where universities are competing against other universities and also where universities may have won the money for contracts against other private sector organisations (e.g. consultancy firms.) 'Other'public sector income will tend to be more volatile in nature.
- The significant proportion of private funding reflects the growing proportion of fees paid directly by individual students.

- Post the Browne Review and the changing student funding arrangements in England, with less direct tuition fee support coming from the Funding Councils, the future composition of the University's revenue base is likely to diversify further. Assuming the University will continue to attract broadly the same numbers and mix of students , there is likely to be an increase in the proportion of revenue from both 'other public sector' where other agencies pay tuition fees on behalf of students (eg through the loan system) and from 'private sector' sources where more students pay directly . There would be corresponding decrease in 'Funding Council' allocations.

Figure 2. University of Kent Revenue Sources.



Source: University of Kent Finance Office

2.2 Export earnings

- In line with its strong international presence and international activity, the University is a major export earner. The University's international revenue of £34.72 million⁴ together with the estimated off-campus

⁴ This figure for university international revenue was estimated by the University Finance Office and includes non EU fees, income from international research and consultancy together with other services to international customers including , for example, conference accommodation.

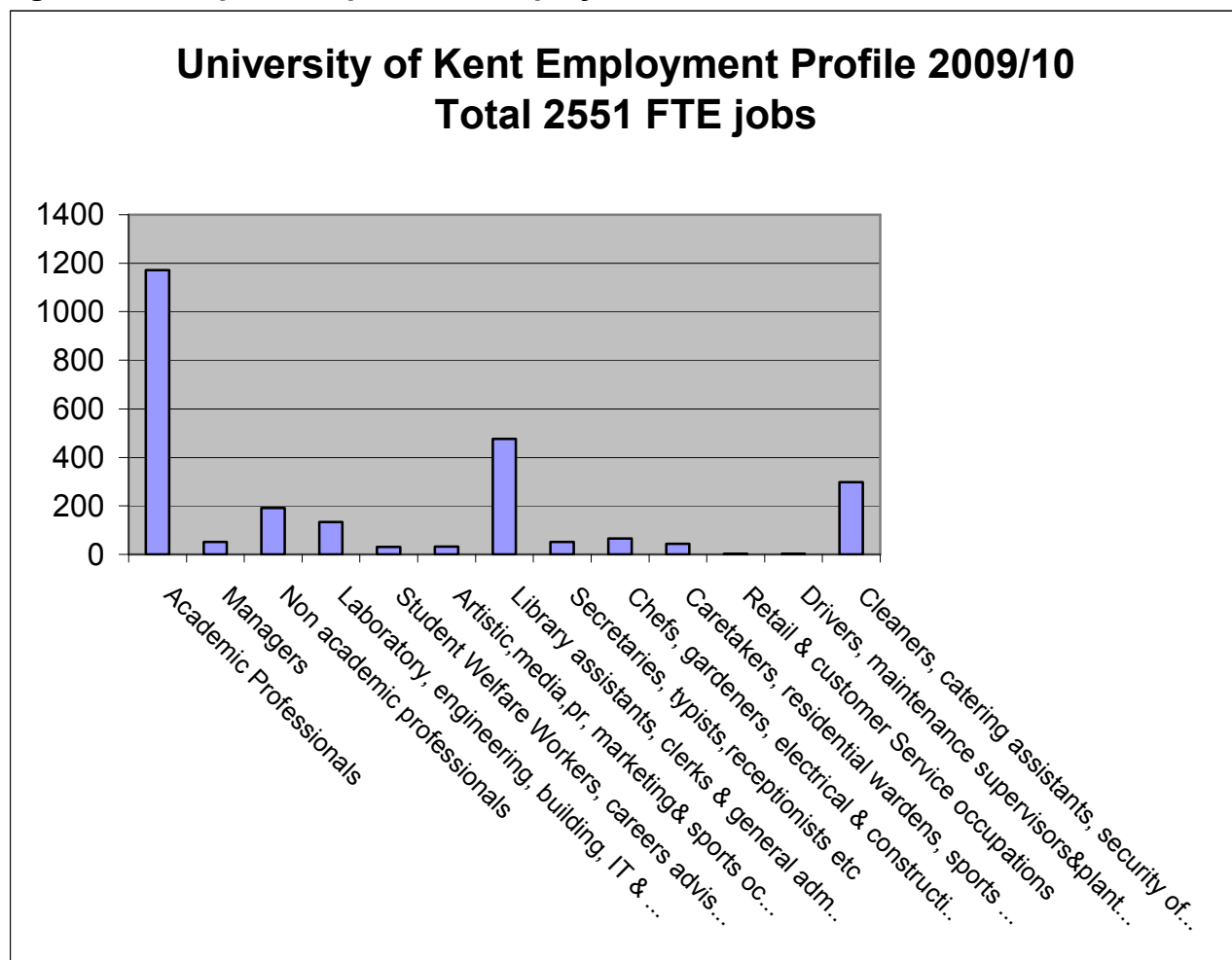
expenditure of international students (£30.42 million)⁵ represents a total of £65.14 million of export earnings. This is a significant contribution to the UK balance of trade.

2.3 Employment

- The University directly provided 2551 full time equivalent (FTE) jobs across a wide range of occupations. The occupational profile of University employment is shown in Figure 3. It may be noted that while academic professions (Professors, Lecturers and researchers) are the largest single type of occupation, jobs are provided across a very wide range of skills and occupations. This reflects the need to maintain a significant university estate lecture halls, laboratories, offices as well as student accommodation, cafeteria and related facilities for students such as sports facilities.

⁵ Student off-campus expenditure was estimated using Student Income and Expenditure Survey 2007/08 (Johnson, Pollard et al DIUS Research Report 09 05). This is a detailed survey of both fulltime and part time English domiciled students. International student expenditure was assumed to be similar to that of domestic students. The estimated expenditure is of *off-campus* expenditure i.e. excludes any fee payments to the University ; account is also taken of university accommodation charges or other payments to the University e.g. cafeteria etc . Therefore there is no double-counting .

Figure 3: Occupational profile of employment



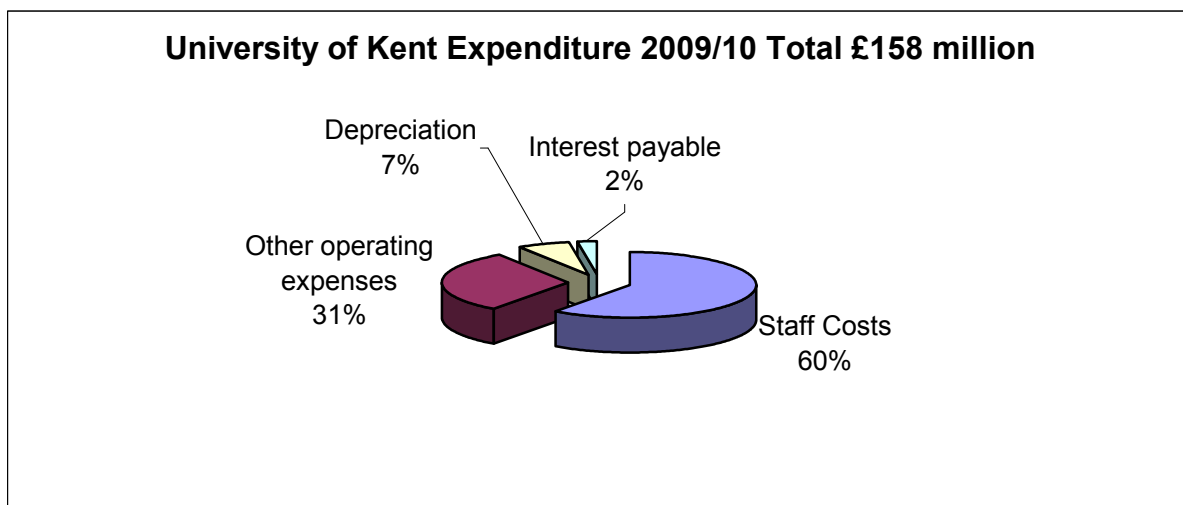
Source: HESA Resources in Higher Education Institutions (Staff) 2009/10

2.4 Expenditure

- University expenditure, together with the expenditure of its staff and students generates economic activity through secondary or 'knock-on' effects, creating output and jobs in *other* industries. This is elaborated in Section 3.
- In 2009/10 the University' accounts show a total expenditure (including staff salaries) of just over £158 million⁶ .

⁶ As a non-profit institution, University Institutional expenditure would normally be very close to institutional income . In this study year the University generated a notable financial surplus of over £15 million, which was planned as part of the University's aims to make provision for investment in student facilities and in its estate. As a non-profit institution all surpluses are reinvested in the institution.

Figure 4: University Expenditure



Source: HESA Resources in Higher Education Institutions (Finance) 2009/10

2.5 Students at the University of Kent

- The institution attracted 3572 students from outside the UK and these international students spent an estimated additional £30.4 million off-campus.
- In addition, the University attracted 8387 students from outside the South East, who spent an estimated £74.5 million off campus. The expenditure of these students from outside the South East can be regarded as an injection into the regional economy.
- The University also provided educational opportunities for local students, from within the South East region. 7665 locally domiciled students were registered at the University in 2009/10 and the opportunities provided by the University meant that these local students did not have to go elsewhere outside of the region to study. In that sense the University may be considered to have helped retain local students within the region. This is important of course in terms of increasing local skills base and the absorptive capacity of the region –

the retention of students and graduates has been highlighted as an important development objective for the Kent area; Kent County Council has stated its aims to work with the Universities to encourage graduate retention in the region in order to increase the pool of skilled labour that is vital for future economic development.⁷ Retaining students locally also means that local student spending is largely retained within the region, which is important for local businesses. The 7665 local students spent an estimated £69.2 million off campus.⁸

3. Secondary or 'Knock-on' effects on the economy

3.1 The University generates economic impact through its expenditure.

Known as 'knock-on' effects, this impact is chiefly recognised as occurring in two ways:

- through the University itself buying goods and services from a wide range of suppliers (from books and stationery to legal services, laboratory equipment to catering supplies) ; the suppliers also have to make purchases in order to fulfil the University orders and their suppliers in turn make other purchases and so on, rippling through the economy.
- through the University paying wages to its employees, who in turn spend their salaries on housing, food and other consumer goods and services. This creates income for employees in other businesses and sectors, who also spend their income and so on.

3.2 In the case of universities that are long established in a particular location, purchasing linkages will be highly developed within their host region (previous

⁷ *Unlocking Kent's Potential* Kent County Council 2009

⁸ Total Student off campus expenditure estimates are derived from the 2009 DIUS *Student Income and Expenditure Survey 2007/08* (Johnson, Pollard et al). Estimates are based on the recorded median personal /living costs expenditure of students and the totals take account of the characteristics of each group attending the University in terms of the proportion of fulltime or part-time students. The total personal expenditure is further adjusted downwards to exclude monies that may have been paid to the University for accommodation or other 'campus' expenditure. This is to ensure no double-counting.

studies of universities in the UK have shown that universities have a relatively high propensity to spend on UK, rather than imported, goods and services, generating greater regional economic impact than businesses that rely more heavily on imports⁹.) The University has been established for 50 years and its strong local presence will be likely to enhance its local impact. Staff and student expenditure tends to follow a different, more consumer oriented pattern, but staff and student expenditure will have a higher proportion of expenditure on imported consumer goods and goods from elsewhere in the UK (e.g. through online shopping) but there is still an observable reliance on local goods and services – from coffee shops, pubs, restaurants, fast food outlets, taxi services or personal services such as hairdressing etc. The ‘snapshot’ analysis of the impact of expenditure will reflect the composition of those linkages.

3.3 In this particular study, the impact of the University expenditure on the UK as a whole was modelled and then analysis made of the proportion of that impact accruing to the South East region. This took into account the business and industry structure of the South East as well as consideration of purchases that are most likely to be ‘local’. The South East Region is defined as the Government Office region for the South East (London is not included.)

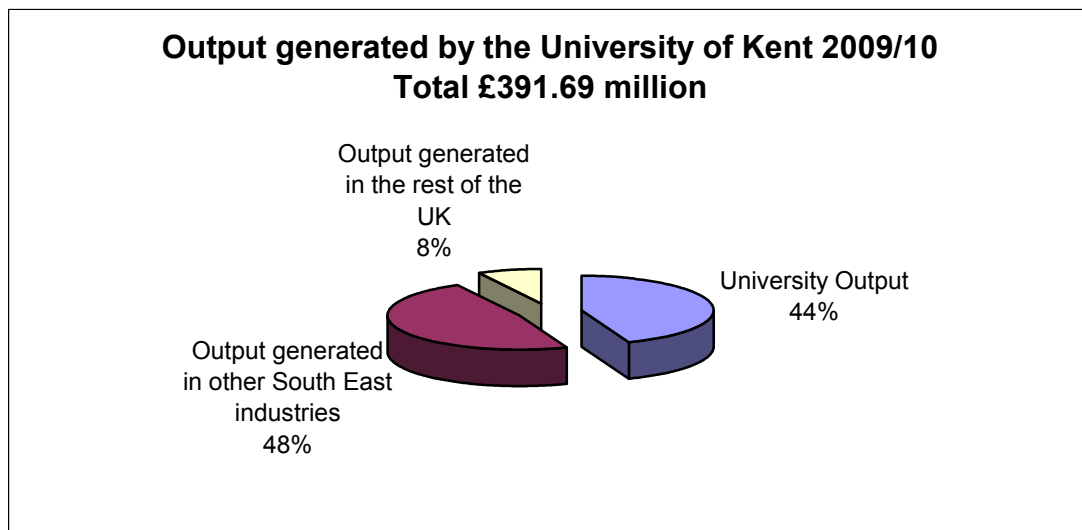
3.4 Output generated

- The University’s own output in 2009/10 was £173 million.¹⁰ Through ‘knock-on’ effects in that year the University generated an additional £218.66 million in other industries throughout the UK, with the majority (£187.89 million) accruing in South East Industries. Within the South East itself a significant proportion would be likely to accrue to the immediate Kent and Medway areas surrounding the Canterbury and Medway campuses because of the highly localised nature of supply of certain commodities, notably in the areas of consumer services and small business services.

⁹ See McNicoll, 1995 & 1997 Kelly et al 2006, 2009

¹⁰ Institutional revenue equates to institutional output.

Figure 5: Total Output generated by the University



Source: UUK modelling system (2009) analysis

3.5 The secondary (or 'knock-on' impact was spread across a range of other industries, with an emphasis on manufacturing, wholesale and retail, and business activities. The spread of impact is determined by the types of goods and services bought by the University and its staff – as well as from whom they are bought. The University may buy laboratory equipment direct from a manufacturer, for instance, or through a wholesaler. They may purchase legal services from a local firm of Solicitors. University staff expenditure tends to be more oriented towards consumer goods and services, many of these from local companies and shops. Figure 6 shows the pattern of output impact across industries.

Figure 6: Secondary ('knock-on') output generated by the University of Kent

SECTOR	OUTPUT £M South East Region	OUTPUT £MN Rest of UK	TOTAL SECONDARY OUTPUT
Agriculture, Forestry and Fishing	3.59	0.17	3.76
Mining and Quarrying	1.52	0.59	2.12
Manufacturing	34.79	12.50	47.29
Electricity, Gas and Water Supply	5.22	1.55	6.77
Construction	9.46	1.19	10.65
Wholesale and Retail Trade	22.81	0.50	23.31
Hotels and Restaurants	4.87	0.86	5.73
Transport Storage and Communication	14.98	3.10	18.08
Financial Intermediation	15.96	2.26	18.22
Business Activities	53.36	3.46	56.82
Public Administration	15.65	0.02	15.67
Other Services	5.68	4.58	10.26
TOTAL	187.89	30.77	218.66

Source: UUK modelling system (2009) analysis

3.6 The impact is generated by University expenditure and by studying the volume of impact generated by 2009/2010 university activity it is possible to calculate 'multipliers.' Analysis of the output impact enabled Type II output multipliers for the University to be derived. These were:

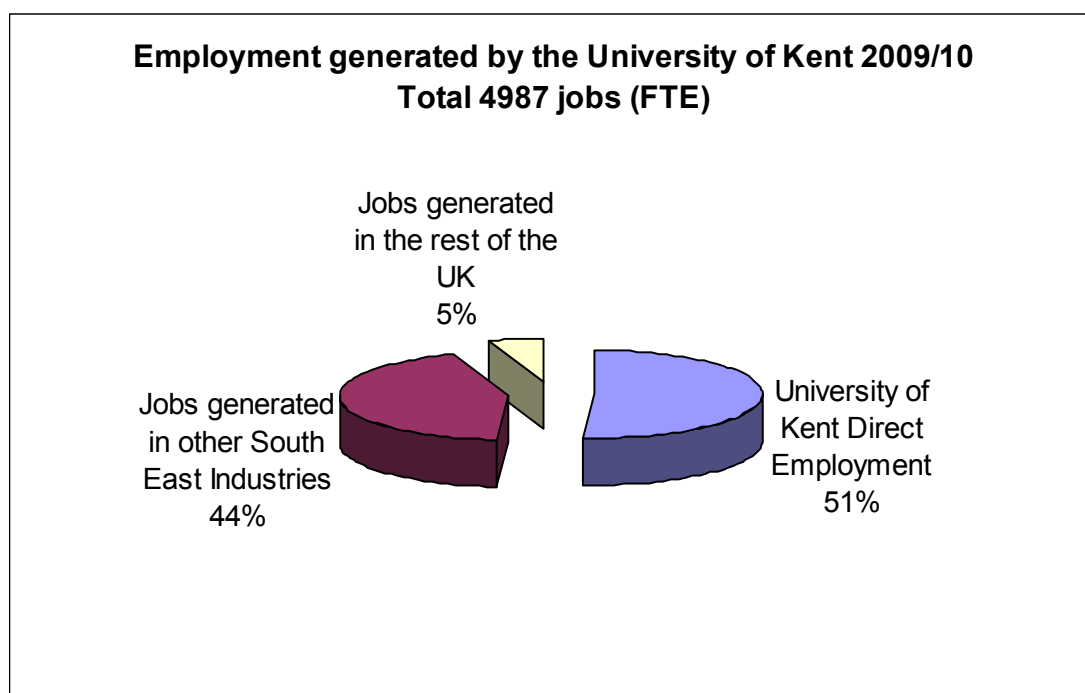
- UK: 2.26
- South East Region 2.09

3.7 In other words, for every £1 million of University output a further secondary output impact of £1.09 Million in the South East region is generated plus a further £0.17 million outside the South East in the rest of the UK.

3.8 Employment generated

- In addition to directly providing 2551 full time equivalent (FTE) jobs, university expenditure generated additional jobs in other parts of the economy.
- Over 2436 more FTE jobs were generated outside the University. The majority of the additional jobs (2172) are generated in the South East.

Figure 7: Employment generated by the University of Kent



Source: UUK modelling system (2009) analysis

3.9 Figure 8 below shows the other industries within which the additional jobs would be generated. This pattern of employment generated has a particular emphasis on the manufacturing, wholesale and retail trade and business activities. This is because of a combination of two major factors – that the University had a relatively high output impact in these areas and also that these industries tend to be relatively labour intensive.

Figure 8: Secondary employment generated by University of Kent expenditure

SECTOR	FTE Employment South East Region	FTE Employment Rest of UK	TOTAL FTE Secondary Employment in UK
Agriculture, Forestry and Fishing	28	2	30
Mining and Quarrying	11	14	24
Manufacturing	224	88	312
Electricity, Gas and Water Supply	6	2	8
Construction	94	12	106
Wholesale and Retail Trade	458	16	474
Hotels and Restaurants	151	27	177
Transport Storage and Communication	134	15	150
Financial Intermediation	122	8	131
Business Activities	598	28	626
Public Administration	261	13	274
Other Services	84	39	123
TOTAL	2172	264	2436

Source: UUK modelling system (2009) analysis

3.10 As with the analysis of output impact, it is possible to calculate ‘multiplier’ values.

- The Type II employment multipliers derived for the University were observed to be as follows:
 - UK: 1.96
 - South East: 1.85
- In other words, for every 100 direct full time equivalent (FTE) job created in the University itself, another 96 jobs would be generated

in the UK outside the University, 85 of which would be in the South East Region .

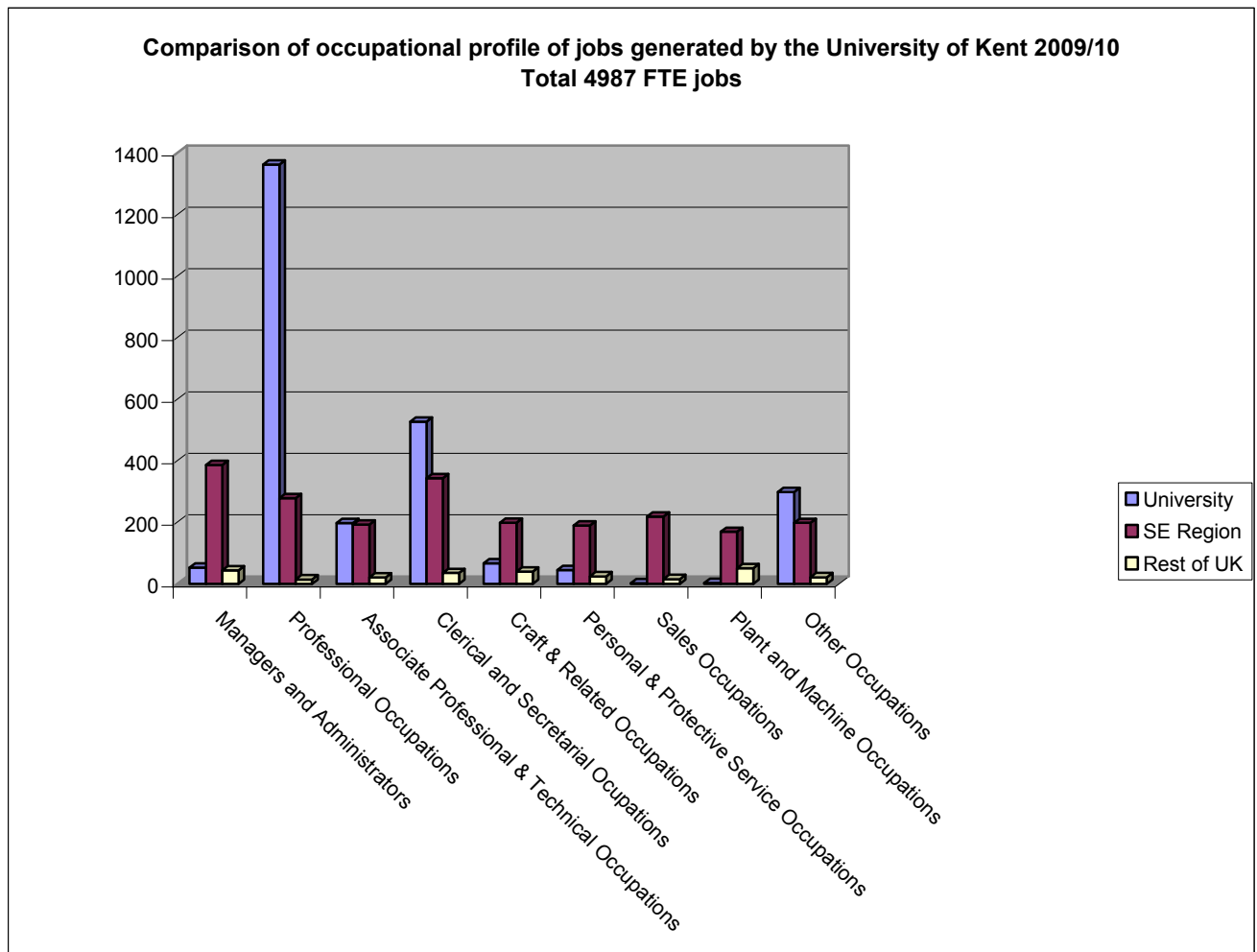
- The total UK employment impact of £1M received by University of Kent is 28.83 FTE jobs. Every £1 M of University output ¹¹creates:
 - 14.75 FTE jobs directly in the University
 - plus 12.55 FTE additional (secondary impact) jobs in the South East
 - plus 1.53 FTE secondary impact jobs outside the South East in the rest of the UK

3.11 The University's employment impact on the South East can be seen to be significant for a single enterprise, with the University itself providing 255 full time equivalent jobs and its expenditure estimated to generate a further 2172 jobs in the South East .

3.12 Section 2 (Figure 3) had shown how the University's employment profile covered the full range of skills and qualification levels. By translating the University's employment profile into Standard Occupational Classifications it is possible to compare the profile of the University's own employment with that generated outside the University by its expenditure. Figure 9 compares the University's occupational profile with that of the employment created outside the University in the South East and in the rest of the UK.

¹¹ Institutional output is defined as institutional revenue or 'turnover'

Figure 9: Comparison of the University’s occupational structure with that of the secondary employment generated.



Source: HESA 2010 Staff data and UUK modelling system (2009)analysis

As figure 9 illustrates, the University employment profile is relatively specialised in high skilled ‘white collar’ jobs compared to jobs in the rest of the economy. The recent Kent & Medway scoping report¹² for the local economic assessment identified the universities as being important for promoting innovation and increased levels of knowledge intensity in the region – the knowledge intensive nature of University activity is reflected in its employment profile.

4. The impact of student expenditure

4.1 As well as providing educational opportunities for local students in the South East region students, the University attracts a substantial number of

¹² See: Kent & Medway Local Economic Assessment Scoping Report 2010

students from the rest of the UK and from overseas. The University of Kent attracts 43% of its domestic student population from outside the South East, (from the rest of the UK) and 18% from other countries. This aspect of the University is of considerable potential value to the region, helping it to achieve regional development goals particularly in relation to cultural development and tourism and the strategic promotion of Kent as a Visitor destination.¹³ The University has a strong international focus, with links across Europe and in the rest of the World. It is widely promoted as the 'UK's European University', has international campuses and a long tradition of encouraging student exchange and mobility. Students studying at Kent who come from outside the region can be regarded as 'long stay visitors', spending money in the region. They also attract and regularly pull in short stay leisure visitors (parents, relations, friends) who spend money on hotel accommodation and local amenities. Active alumni networks can also help make such benefits a longer lasting phenomenon, attracting alumni back to the region and strengthening international links. The University has been actively developing its alumni networks, particularly international networks in the USA, Hong Kong and China.

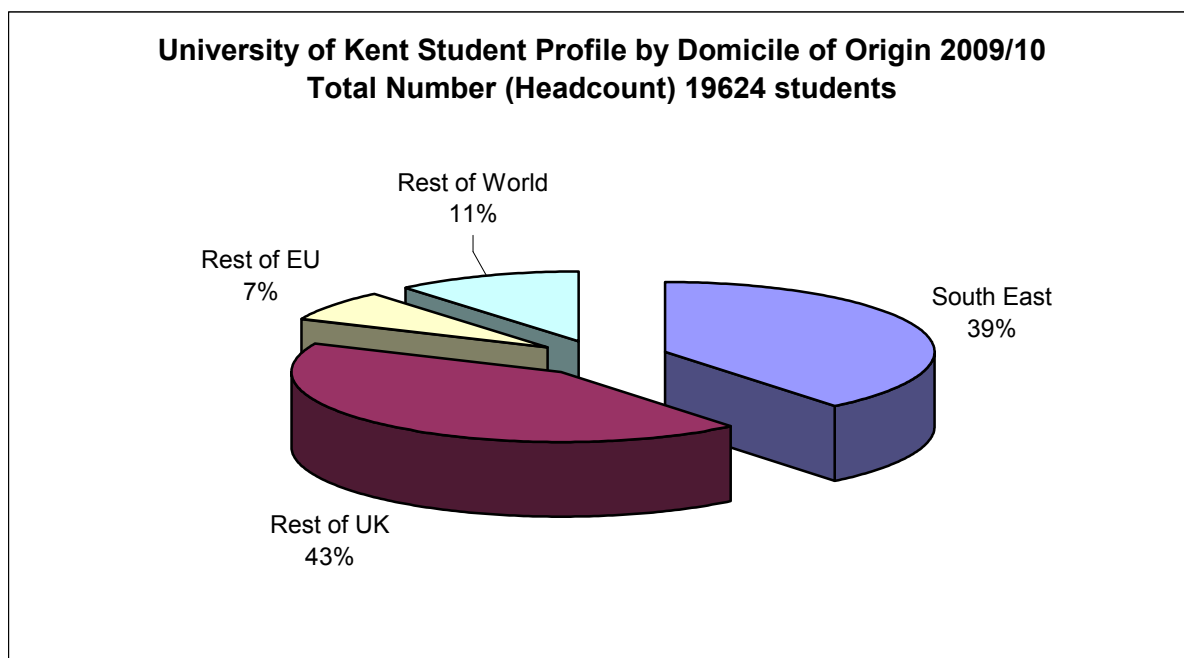
Another point worth noting, although it is not the focus of this study, is that the University has a very positive role to play in the promotion of business tourism. Universities are frequently pivotal in attracting conference business and high spending conference visitors to a region. Many UK regions have established 'conference ambassador programmes' to support university staff in persuading major learned societies to bring their annual conferences (frequently very large conferences) to their host city or region.¹⁴ The current 'visitor economy' for Kent has been estimated as being worth around £2.5

¹³ Promotion of Kent as a visitor destination is one of the aims in *Unlocking Kent's potential* Kent County Council 2009

¹⁴ These programmes tend to be run by the Tourism and Conference Bureaus and involve as many academics and other professionals as possible – in this way they are different from the 'Kent Ambassador' programme which appears to be more 'high level figure head'-focussed. For one example of a conference ambassador programme, see the Sheffield programme: <http://conference.welcometosheffield.co.uk/ambassadors/what-is-a-conference-ambassador> Another example is the one just launched by the English Riviera: <http://www.rivieracentre.co.uk/news/item/call-for-conference-ambassadors>

billion¹⁵ and the University of Kent is very well placed to help expand this business.

Figure 10: University of Kent Students by Domicile of Origin



Source: University of Kent Registry

4.2 International Student Expenditure

By attracting students from further afield to study in the region also means that the University is attracting additional money into the region and boosting export earnings.

- In 2009/10 the University of Kent attracted 3572 students from outside the UK to study in Kent. The fees paid by international students to the University are captured in the University accounts and their impact is included in analysis of the institutional impact. Payments to the University for Halls of Residence accommodation, or money spent in University cafeteria, bars etc are likewise captured in the University

¹⁵ *Unlocking Kent's Potential* Kent County Council (2009)

impact. However, in addition to any fees or other monies they pay to the University, international students spend money off-campus. This can be on private sector rental, food, entertainment, consumer goods, travel etc. In 2009/10 this off-campus expenditure of international students was estimated as £30.4 million.¹⁶ In this context 'international' includes both students from the rest of the EU and the rest of the World, as all of their expenditure can be regarded as an injection into the UK economy and are export earnings.

- The off-campus expenditure of international students generated £42.71 million of output (of which £36.81 was in the South East) and over 404 full time jobs throughout the UK (of which 360 were in the South East region.)

4.3 Students from the rest of the UK

- In 2009/10, 8387 students from outside the South East were registered as students at the University.¹⁷ The expenditure of students from outside the South East - while it is not additional to the UK economy as a whole - can be regarded as an injection into the regional and local economies. Consideration of this element of impact is legitimate in terms of local and regional policy evaluation
- The off-campus expenditure of the 8327 students from the rest of the UK studying at the University of Kent was estimated to be £74.5 million.¹⁸
- This off-campus expenditure of students from the rest of the UK generated £90.19 million of output in the South East and over 882 jobs in the South East.

¹⁶ This estimate is based on the 2009 DIUS Student Income and Expenditure Survey, adjusted downwards to take account of any monies paid to the institution which would already be included in institutional accounts. In the absence of specific international student expenditure survey data, international students were assumed to have the same spending pattern as domestic undergraduates.

¹⁷ Source: University of Kent Registry

¹⁸ This estimate is based on the 2009 DIUS Student Income and Expenditure Survey, adjusted downwards to take account of any monies paid to the institution which would already be included in institutional accounts,

4.4 Local Students

- As we have seen, one of the particularly distinctive aspects of the University of Kent is its international outlook and focus. Its international outlook also brings benefits to local students, enabling local residents to have access to educational opportunities within a cosmopolitan environment and mixing with students from around the world (students from over 120 different countries are currently studying at the University.) . In 2009/10, 7665 students from the South East region itself were registered as students at the University.¹⁹ The expenditure of students from the South East is not additional to the UK or regional economy. However there is an arguable case that the University ensures that this expenditure is *retained* within the region, rather than the students being obliged to outside the South East to obtain the educational programmes they seek. At a local level student expenditure is always seen by local businesses as extremely important and has a visible effect on the areas surrounding a university. The most casual observer can see the plethora of bars, cafes and shops and other services that spring up to serve the student population. Local landlords also benefit from the need for rented accommodation. Therefore it is worth analysing the impact of the local student expenditure as well.
- The off-campus expenditure of the 7665 local students studying at the University of Kent was estimated to be £69.2 million.
- This off-campus expenditure of these students generated £83.81 million of output and over 820 jobs in the South East. Much of this impact is likely to accrue to the area closest to the University, to the immediate campus areas (e.g. in local bars, cafes and clubs, on local public transport and taxis, etc. in Canterbury or Medway.)

¹⁹ Source: University of Kent Registry

5. Conclusions

5.1 This study focussed on the University of Kent as a business and on the economic activity generated by its expenditure. The results for the modelled analysis are summarised in Figure 11 overleaf. The study shows the University to be of significant economic importance in the South East, bringing immediate benefits to the region in terms of output generated and jobs created.

5.2 Key points to note include:

- The university directly employs over 2551 people in occupations spanning the whole spectrum of skills and qualifications.
- Institutional expenditure generates substantial additional employment and output in other UK industries.
- The University's extensive international activity makes it a global business, attracting students from outside the UK and thereby generating export earnings as well as building international partnerships and links that will be of benefit to the region as well as the University.
- The University also attracts a significant proportion of students from the rest of the UK, which brings additional benefits to the local and regional economies.
- The University's provision of educational opportunities for local students and its commitment to the surrounding community means that it also retains significant numbers of students in the local region who may otherwise have left to study elsewhere. The off-campus and personal expenditure of local students is significant, and this may be regarded as having been *retained* within the region.

Figure 11: The total impact of the University of Kent activity in 2009/10

Total Impact of the University of Kent 2009/10					
Output (£ Million)					
Category	Direct (£ Mns)	Total Knock on Impact on UK	Of Which Total Knock On Impact Accruing to the South East Region	Total Impact on UK (Direct Plus Knock on)	Total Impact on the South East(Direct plus knock-on)
University of Kent	£173.03	218.66	187.89	391.69	360.92
Generated by International Students	0	42.71	36.81	42.71	36.81
Generated by UK Students from outside the South East	0	104.64	90.19	104.64	90.19
Generated by local Students	0	97.24	83.81	97.24	83.81
Total Combined Impact of University Activity	173.03	463.25	398.70	636.28	571.73
FTE Employment					
Category	Direct (FTEs)	Total Knock on Impact on UK	Of Which Total Knock On Impact Accruing to the South East	Total Impact on UK (Direct Plus Knock on)	Total Impact on the South East (Direct plus knock-on)
University of Kent	2551	2436	2172	4987	4723
Generated by International Students	0	404	360	404	360
Generated by UK Students from outside the South East	0	989	882	989	882
Generated by local Students	0	919	820	919	820
Total Combined Impact of University Activity	2551	4748	4234	7299	6785

5.3 This study demonstrates the baseline economic impact of the University as a large business and large employer. The University 's overall impact will also generate many wider benefits in addition to its impact as a business. The University has a 'public space' role in the area, with a commitment to encouraging community engagement through an extensive programme of public lectures and also has an active Student Volunteering programme. It is active in working with local enterprises to encourage and support local development. This includes offering innovation advice and support to business particularly with SMEs (through an 'innovation voucher' initiative, for example, whereby businesses can obtain university support and advice on a 50:50 cost sharing basis with the University.)

5.4 However the primary focus of this study was of the University as a business in itself generating economic activity. The analysis shows that in 2010/11 University activities generated nearly £572 million of output and 6785 jobs for the regional economy; it can be noted that this impact excludes the effects of university capital expenditure.²⁰ The £20 million spent by the University in 2010/11²¹ on new buildings and other capital projects will have had a further positive impact on the region with job creation, particularly in the construction sector.

5.5 Overall the results clearly demonstrate that, irrespective of any wider impact generated by the nature of the University's activities, the University's expenditure and that of its staff and students have an immediate positive economic impact and this impact is significant to Canterbury, to Kent & Medway, the wider South East region and the UK as a whole.

²⁰ Only University operating expenditure in the study year is included in the modelled analysis

²¹ Source: University of Kent Finance Office

Appendix One: Methodology and Data Sources

The primary focus of the study was the University of Kent as an operating business and the impact generated by its activity during the academic and financial year 2009/10. The study also examined the impact of the off-campus expenditure of international students who were studying at the University in that year.²² It also analysed the additional injection into the regional economy of the expenditure of students from the rest of the UK (i.e. from outside the South East region.) A further analysis was undertaken of the impact of off-campus expenditure of local (i.e. those domiciled within the South East region) students, as the University may have retained them, and their expenditure, in the region rather than them leaving to study elsewhere. The South East Region is defined as that corresponding to the Government Office Region.

The study utilised a two-stage approach to the estimation of the economic impact of the University. The impact of the University on the UK economy was modelled, using a purpose-designed economic model of the UK. Analysis was then undertaken, using a Location Quotient approach, to estimate the share of the institutional impact on the UK likely to have accrued to the South East region.

The model used was a 'Type II' input-output model based on actual UK data derived from the 2006 UK Input-Output Tables (Office of National Statistics) together with Labour Force Survey and Annual Business Inquiry data and the 2008 UK Bluebook. The modelling system was purpose-designed for UK higher education institutions and was the new and most recent version of the Universities UK modelling system (the first edition of which was published in 2006.) The technical specification for the model is included in *The impact of universities on the UK economy* Kelly, McLellan and McNicoll Universities UK 2009.

²² In this context 'International students' refers to all students whose permanent domicile is recorded as outside the UK, including other parts of the EU as well as non EU students.

Appendix Two: References & Selected Further Reading

University of Kent *The University's Plan 2009-12*

University of Kent *Annual Review 2010*

Cultural Footprint Review: A Cultural Audit of the Universities at Canterbury
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