

## Corporate sectors – South Cambridgeshire

This report aims at assessing the specialness of the South Cambridgeshire economy by examining the key features characterising the corporate sectors in the area. The first part of the report provides an overview of the size of the corporate sectors in terms of number of companies, total employment and total turnover, while the second part focuses on the analysis of growth in employment and turnover over time. All data refer to Cambridge Ahead data produced by Dr Andy Cosh at the Centre for Business Research unless otherwise indicated.

### 1. Size

Table 1 reports the distribution of employment by sector (in levels as well as in percentage terms with respect to the total for all sectors in the area and to the total for each sector in the Combined Authority) for 2016-17.<sup>1</sup>

Table 1 Distribution of employment by sector in 2016-17

	South Cambridgeshire			Combined Authority	
	Total employment	% of total	% of Combined Authority	Total employment	% of total
<b>KNOWLEDGE INTENSIVE SECTORS</b>					
Information Technology and Telecoms	5,503	9.6%	28.3%	19,419	8.2%
Life science and healthcare	10,021	17.5%	71.0%	14,106	6.0%
High-tech manufacturing	6,545	11.4%	30.2%	21,651	9.2%
Knowledge intensive services	3,451	6.0%	48.3%	7,148	3.0%
<i>TOTAL KI SECTORS</i>	<i>25,520</i>	<i>44.6%</i>	<i>40.9%</i>	<i>62,324</i>	<i>26.4%</i>
<b>OTHER SECTORS</b>					
Primary	1,713	3.0%	14.3%	12,020	5.1%
Manufacturing	3,922	6.8%	20.1%	19,465	8.2%
Wholesale and retail distribution	7,080	12.4%	28.5%	24,839	10.5%
Construction and utilities	3,792	6.6%	20.4%	18,600	7.9%
Transport and travel	942	1.6%	9.1%	10,305	4.4%
Property and finance	3,300	5.8%	12.3%	26,771	11.3%
Other business services	4,100	7.2%	14.9%	27,502	11.6%
Other services	3,224	5.6%	23.6%	13,677	5.8%
Education, arts, charities, social care	3,674	6.4%	17.6%	20,843	8.8%
<i>TOTAL NON-KI SECTORS</i>	<i>31,747</i>	<i>55.4%</i>	<i>18.2%</i>	<i>174,022</i>	<i>73.6%</i>
<i>TOTAL ALL SECTORS</i>	<i>57,267</i>	<i>100.0%</i>	<i>24.2%</i>	<i>236,346</i>	<i>100.0%</i>

With a total employment of 57,267, South Cambridgeshire contributes 24.2% of total employment in the Combined Authority. The largest sector is given by Life Science and Healthcare (10,021), which represents 17.5% of employment in the district and 71.0% of total employment in the sector for the Combined Authority. Within this sector, particularly high is employment in Biotechnology R&D (7,044) and in High-Tech Manufacturing – Life Sciences (2,193). Other KI sectors that have large shares of employment are High-Tech Manufacturing (11.4% of the district and 30.2% of the

<sup>1</sup> The distribution of the number of companies by sector for 2016-17 is included in Table A.1. A comparison of employment estimates by sector between Cambridge Ahead data and BRES data is presented in Table A.3.

Combined Authority) and Information Technology and Telecoms (9.6% and 28.3%, respectively). One can also notice that the share of employment in each individual KI sector for South Cambridgeshire is larger than the corresponding share for the Combined Authority, suggesting that KI sectors play a major role in the district. Among non-KI sectors, employment is high in the Wholesale and Retail Distribution sector (12.4% and 28.5%, respectively) and in the Other Business Services sector (7.2% and 14.9%, respectively). The smallest sector in terms of employment is Transport and Travel (942), which constitutes 1.6% of total employment in the area.

Table 2 presents the distribution of turnover by sector (in £,000 as well as in percentage terms with respect to the total for all sectors in the area and to the total for each sector in the Combined Authority) for 2016-17.

Table 2 Distribution of turnover by sector in 2016-17

	South Cambridgeshire			Combined Authority	
	Total turnover £,000	% of total	% of Combined Authority	Total turnover £,000	% of total
<b>KNOWLEDGE INTENSIVE SECTORS</b>					
Information Technology and Telecoms	908,135	7.2%	22.7%	4,001,051	8.8%
Life science and healthcare	2,059,143	16.3%	71.6%	2,876,583	6.4%
High-tech manufacturing	1,375,939	10.9%	23.3%	5,895,454	13.0%
Knowledge intensive services	680,737	5.4%	62.6%	1,088,008	2.4%
<i>TOTAL KI SECTORS</i>	<i>5,023,954</i>	<i>39.7%</i>	<i>36.2%</i>	<i>13,861,095</i>	<i>30.6%</i>
<b>OTHER SECTORS</b>					
Primary	463,810	3.7%	22.9%	2,027,805	4.5%
Manufacturing	1,178,626	9.3%	25.6%	4,609,590	10.2%
Wholesale and retail distribution	3,543,463	28.0%	41.2%	8,608,794	19.0%
Construction and utilities	754,769	6.0%	17.6%	4,294,229	9.5%
Transport and travel	157,837	1.2%	4.1%	3,834,353	8.5%
Property and finance	445,884	3.5%	14.6%	3,054,435	6.7%
Other business services	597,389	4.7%	21.5%	2,779,856	6.1%
Other services	194,833	1.5%	22.2%	876,403	1.9%
Education, arts, charities, social care	297,244	2.3%	22.6%	1,315,213	2.9%
<i>TOTAL NON-KI SECTORS</i>	<i>7,633,854</i>	<i>60.3%</i>	<i>24.3%</i>	<i>31,400,678</i>	<i>69.4%</i>
<i>TOTAL ALL SECTORS</i>	<i>12,657,808</i>	<i>100.0%</i>	<i>28.0%</i>	<i>45,261,773</i>	<i>100.0%</i>

Turnover in the KI sectors represents 39.7% of total turnover in the district, with considerable shares in Life Science and Healthcare (16.3%) and High-Tech Manufacturing (10.9%). Specifically, turnover in the Life Science and Healthcare sector in South Cambridgeshire alone accounts for over 70% of total turnover in the sector for the Combined Authority. The largest sector based on total turnover is Wholesale and Retail Distribution (28.0% of the district and 41.2% of the Combined Authority), particularly the Sale of Motor Vehicles sub-sector (1,974,415).

Table 3 shows employment and turnover location quotients (LQs) with respect to the Combined Authority, the LEP and the UK for 2015-16. A similar analysis based on BRES data instead of Cambridge Ahead data is included in Table A.2.

Table 3 Employment and turnover location quotients in 2015-16 – Cambridge Ahead data

	Employment			Turnover		
	LQ (Comb. Auth. = 1)	LQ (LEP = 1)	LQ (UK = 1)	LQ (Comb. Auth. = 1)	LQ (LEP = 1)	LQ (UK = 1)
<b>KNOWLEDGE INTENSIVE SECTORS</b>						
Information Technology and Telecoms	1.23	2.01	2.25	0.83	0.96	1.21
Life science and healthcare	3.06	8.26	10.38	2.77	3.42	10.40
High-tech manufacturing	1.33	1.55	2.74	0.98	0.95	2.07
Knowledge intensive services	2.06	3.53	4.54	2.43	4.41	5.29
<i>TOTAL KI SECTORS</i>	<i>1.76</i>	<i>2.73</i>	<i>3.84</i>	<i>1.47</i>	<i>1.64</i>	<i>3.05</i>
<b>OTHER SECTORS</b>						
Primary	0.64	0.68	0.75	0.81	0.79	0.30
Manufacturing	0.73	0.59	0.63	1.21	1.01	1.49
Wholesale and retail distribution	0.98	1.09	0.55	1.10	1.21	1.00
Construction and utilities	0.93	1.15	1.74	0.69	0.52	0.52
Transport and travel	0.41	0.35	0.24	0.14	0.20	0.25
Property and finance	0.50	0.80	0.57	0.43	0.67	0.22
Other business services	0.58	0.36	0.47	0.78	0.62	0.67
Other services	0.97	0.43	0.41	0.72	0.32	0.30
Education, arts, charities, social care	0.72	0.79	1.06	0.86	0.88	1.41
<i>TOTAL NON-KI SECTORS</i>	<i>0.72</i>	<i>0.64</i>	<i>0.60</i>	<i>0.80</i>	<i>0.76</i>	<i>0.65</i>

Employment LQs for the district indicate that there is high concentration in all KI sectors. Among these, employment is found to be particularly concentrated in Life Science and Healthcare (8.26 relative to the LEP and 10.38 relative to the UK) and in Knowledge Intensive Services (3.53 and 4.54, respectively). Non-KI sectors with an LQ relative to the UK greater than 1 are Construction and Utilities (1.74) and Education, Arts, Charities, Social Care (1.06), whilst Transport and Travel appears to be the least concentrated sector (0.24).

Similarly, the highest LQs for turnover are associated with Life Science and Healthcare (3.42 and 10.40, respectively) and Knowledge Intensive Services (4.41 and 5.29, respectively). Among non-KI sectors, there are significant strengths in Manufacturing (1.49), Education, Arts, Charities, Social Care (1.41), and Wholesale and Retail Distribution (1.00). Conversely, a relatively low degree of concentration in terms of turnover is observed for Property and Finance (0.22) and Transport and Travel (0.25).

Table 4 illustrates the distribution of the number of companies that are based in the area (in both absolute and relative terms) by firm size for 2016-17. The groupings used in Table 4 and in the other tables below are defined as follows: (i) micro firms = 1-9 employees; (ii) small and medium-sized firms (SMEs) = 10-249 employees; (iii) large firms > 250 employees. A detailed disaggregation of the number of companies by firm size is included in Table A.4.

Table 4 Distribution of number of companies by firm size in 2016-17 – Broad summary

	South Cambridgeshire		Combined Authority	
	No. of companies	%	No. of companies	%
Micro firms	5,434	89.9%	22,214	90.4%
Small and medium-sized firms	576	9.5%	2,224	9.1%
Large firms	34	0.6%	123	0.5%
All firms in area	6,044	100.0%	24,561	100.0%

The distribution of companies by firm size in South Cambridgeshire largely resembles that for the Combined Authority. Approximately nine out of ten companies in the district have between 1 and 9 employees (5,434), while SMEs represent around 10% of the total number of companies (576). There are 34 large firms in the area, corresponding to 0.6% of the total.

Table 5 reports the distribution of employment by firm size for 2016-17. A detailed disaggregation of the figures presented below is included in Table A.5.

Table 5 Distribution of employment by firm size in 2016-17 – Broad summary

	South Cambridgeshire		Combined Authority	
	Total employment	%	Total employment	%
Micro firms	11,963	20.9%	46,737	19.8%
Small and medium-sized firms	21,355	37.3%	80,499	34.1%
Large firms	23,949	41.8%	109,110	46.2%
All firms in area	57,267	100.0%	236,346	100.0%

Firms with more than 250 employees account for the largest share of employment in the district (41.8%), although this figure is below the corresponding figure for the Combined Authority as a whole (46.2%). SMEs contribute over one third of total employment in South Cambridgeshire, while 20.9% of employment is at micro firms. These figures suggest that employment for the 34 large firms that are based in the district is about twice that for the 5,434 micro firms.

Table 6 shows the distribution of turnover by firm size for 2016-17. A detailed disaggregation of the figures presented below is included in Table A.6.

Table 6 Distribution of turnover by firm size in 2016-17 – Broad summary

	South Cambridgeshire		Combined Authority	
	Total turnover £,000	%	Total turnover £,000	%
Micro firms	2,185,282	17.3%	7,706,187	17.0%
Small and medium-sized firms	4,266,217	33.7%	13,536,479	29.9%
Large firms	6,206,309	49.0%	24,019,107	53.1%
All firms in area	12,657,808	100.0%	45,261,773	100.0%

The distribution of turnover by firm size is broadly in line with the results obtained for employment. The largest portion of turnover in the district is generated by firms with more than 250 employees (49.0%), followed by SMEs (33.7%) and micro firms (17.3%). It is also worth noting that the share of turnover originated by SMEs in South Cambridgeshire is greater than the corresponding share for the Combined Authority (33.7% and 29.9%, respectively).

Table 7 lists the largest companies that are based in South Cambridgeshire, among those with more than 100 employees, by their turnover in 2016-17.

Table 7 Largest South Cambridgeshire-based companies (100+ employees) by turnover in 2016-17

Company name	Sector	Employment 2016-17	Turnover 2016-17 £,000
Amino Technologies PLC	Information Technology and Telecoms	190	75,178
Netcracker Technology Emea Limited		146	74,994
Quixant PLC		160	73,241
PPD Global Ltd	Life Science and Healthcare	1,471	323,017
Napp Pharmaceutical Holdings Limited		622	288,015
Amgen Limited		481	172,717
Abcam PLC		882	171,673
Medimmune Limited		584	153,972
Genome Research Limited		1,015	125,064
Mundipharma Research Limited		251	119,233
Marshall of Cambridge (Holdings) Limited	High-tech manufacturing	2,133	360,499
Domino UK Limited		816	228,530
DOW Agrosciences Limited		596	219,620
Syngenta UK Limited		183	134,002
Xaar PLC		626	96,178
Sepura PLC		702	94,027
Bayer Cropscience Limited	Knowledge intensive services	157	283,613
Cambridge Consultants Limited		497	74,470
PRO CAM Europe Limited	Primary	544	235,734
Hexcel Composites Limited	Manufacturing	993	497,923
Woodford Holdings Limited		393	212,200
Histon Sweet Spreads Limited		423	150,079
Marshall Motor Holdings PLC	Wholesale and retail distribution	3,926	1,899,405
Spicers Limited		416	153,657
Cambridge Meridian Academies Trust	Education, arts, charities, social care	706	89,357

A number of the largest companies that are based in the district belong to the High-Tech Manufacturing sector (e.g. Marshall of Cambridge (Holdings) Limited and Domino UK Limited) and to the Life Science and Healthcare sector (e.g. PPD Global Ltd, Genome Research Limited and Abcam PLC). Other large companies, such as Cambridge Consultants Limited and Bayer Cropscience Limited, are found in the Knowledge Intensive Services sector. Outside of the KI sectors, large companies are observed in Wholesale and Retail Distribution (e.g. Marshall Motor Holdings PLC), Manufacturing (e.g. Hexcel Composites Limited) and Education, Arts, Charities, Social Care (e.g. Cambridge Meridian Academies Trust).

Table 8 provides a list of the largest companies that are active in South Cambridgeshire, among those with more than 100 employees, by their turnover in 2016-17.

Table 8 Largest South Cambridgeshire-active companies (100+ employees) by turnover in 2016-17

Company name	Sector	Employment 2016-17	Turnover 2016-17 £,000
Sony Interactive Entertainment Europe Limited	Information Technology and Telecoms	1,234	4,181,068
IBM United Kingdom Limited		13,212	3,899,200
CSC Computer Sciences Limited		5,283	928,445
Gilead Sciences Ltd	Life Science and Healthcare	131	511,646
Spirax-Sarco Engineering PLC	High-tech manufacturing	4,998	757,400
Intertek Group PLC	Knowledge intensive services	41,571	2,567,000
WS Atkins Limited		17,639	2,081,500
Bodycote PLC		5,367	600,600
Shell U.K. Limited	Primary	2,250	4,449,000
BP Oil UK Limited	Manufacturing	560	3,030,000
Premier Foods PLC		4,132	790,400
Dixons Carphone PLC	Wholesale and retail distribution	41,847	9,738,000
Lancaster Public Limited Company		2,941	1,930,307
WH Smith PLC		13,769	1,212,000
Premier Farnell UK Limited		1,267	520,116
Wates Construction Limited	Construction and utilities	3,660	1,431,419
Morgan Sindall Construction & Infrastructure Ltd		3,151	1,261,955
UK Power Networks (Operations) Limited		4,852	955,800
Galliford Try Infrastructure Limited		1,253	451,048
Enterprise Rent-A-Car UK Limited	Transport and travel	4,845	727,235
National Farmers Union Mutual Insurance Society Limited(The)	Property and finance	3,666	1,460,000
Grant Thornton UK LLP		4,629	533,785
Nisa Retail Limited	Other Business Services	312	1,251,657
DHL International (UK) Limited	Other Services	3,983	795,690
EI Group PLC		789	632,000

Some of the largest companies that are active in South Cambridgeshire are found among the KI sectors, namely Information Technology and Telecoms (e.g. Sony Interactive Entertainment Europe Limited and IBM United Kingdom Limited), Knowledge Intensive Services (e.g. Intertek Group PLC and WS Atkins Limited) and High-Tech Manufacturing (e.g. Spirax-Sarco Engineering PLC). Other sectors with large active companies are Wholesale and Retail Distribution (e.g. Dixons Carphone PLC), Primary (e.g. Shell U.K. Limited), Manufacturing (e.g. BP Oil UK Limited), Property and Finance (e.g. National Farmers Union Mutual Insurance Society Limited), and Construction and Utilities (e.g. Wates Construction Limited).

## 2. Growth

Table 9 reports the annualised growth rates in employment by sector over the three- and six-year periods to 2016-17.<sup>2</sup>

Table 9 Three-year and six-year employment growth (% pa) by sector

	South Cambridgeshire		Combined Authority	
	3 years to 2016-17	6 years to 2016-17	3 years to 2016-17	6 years to 2016-17
Information Technology and Telecoms	9.1%	8.4%	6.9%	7.3%
Life science and healthcare	6.9%	7.2%	7.4%	6.7%
High-tech manufacturing	2.2%	2.7%	1.6%	1.9%
Knowledge intensive services	7.6%	5.8%	8.6%	5.9%
<i>TOTAL KI SECTORS</i>	<i>6.1%</i>	<i>6.0%</i>	<i>5.2%</i>	<i>4.9%</i>
OTHER SECTORS				
Primary	3.8%	3.3%	5.9%	4.9%
Manufacturing	8.9%	7.3%	4.7%	3.2%
Wholesale and retail distribution	13.6%	6.5%	6.6%	4.3%
Construction and utilities	0.8%	3.6%	5.4%	4.6%
Transport and travel	11.0%	6.3%	11.7%	5.6%
Property and finance	17.3%	10.4%	8.6%	9.0%
Other business services	9.9%	10.3%	5.3%	5.9%
Other services	10.5%	10.2%	8.4%	8.7%
Education, arts, charities, social care	13.0%	29.8%	8.2%	13.8%
<i>TOTAL NON-KI SECTORS</i>	<i>10.0%</i>	<i>8.7%</i>	<i>6.9%</i>	<i>6.5%</i>
<i>TOTAL ALL SECTORS</i>	<i>8.2%</i>	<i>7.4%</i>	<i>6.4%</i>	<i>6.0%</i>

Total employment growth in the district has been higher compared to the Combined Authority (7.4% and 6.0%, respectively, when the six-year growth rates are considered). Employment in the KI sectors taken together has grown by 6.0% over the entire period, as opposed to a 4.9% growth rate for the Combined Authority as a whole. The fastest growing KI sector is Information Technology and Telecoms, while the Knowledge Intensive Services sector has performed slightly below the Combined Authority (5.8% and 5.9%, respectively). High rates of growth in employment can also be observed for Education, Arts, Charities, Social Care (29.8%), Property and Finance (10.4%), and Other Business Services (10.3%). Furthermore, one can notice that employment over either the three years or six years to 2016-17 has increased in all sectors.

<sup>2</sup> A comparison of employment growth rates by sector between Cambridge Ahead data and BRES data is presented in Table A.8.



Table 10 presents the annualised growth rates in turnover by sector over the three- and six-year periods to 2016-17.

Table 10 Three-year and six-year turnover growth (% pa) by sector

	South Cambridgeshire		Combined Authority	
	3 years to 2016-17	6 years to 2016-17	3 years to 2016-17	6 years to 2016-17
Information Technology and Telecoms	14.4%	10.8%	10.4%	9.7%
Life science and healthcare	9.8%	10.0%	9.0%	8.7%
High-tech manufacturing	2.8%	3.7%	3.4%	3.9%
Knowledge intensive services	3.4%	6.4%	6.1%	6.9%
<i>TOTAL KI SECTORS</i>	<i>7.5%</i>	<i>7.7%</i>	<i>6.6%</i>	<i>6.6%</i>
<i>OTHER SECTORS</i>				
Primary	2.2%	5.5%	3.2%	6.6%
Manufacturing	18.1%	17.5%	4.8%	5.1%
Wholesale and retail distribution	26.9%	15.3%	11.3%	8.0%
Construction and utilities	10.5%	7.8%	9.3%	7.2%
Transport and travel	8.9%	4.4%	-0.2%	0.3%
Property and finance	21.1%	11.3%	9.6%	11.6%
Other business services	9.9%	12.4%	6.9%	5.5%
Other services	10.7%	10.5%	9.5%	9.3%
Education, arts, charities, social care	23.5%	39.4%	5.6%	14.3%
<i>TOTAL NON-KI SECTORS</i>	<i>18.7%</i>	<i>13.5%</i>	<i>7.0%</i>	<i>6.5%</i>
<i>TOTAL ALL SECTORS</i>	<i>13.7%</i>	<i>10.9%</i>	<i>6.9%</i>	<i>6.5%</i>

South Cambridgeshire has witnessed a greater rate of growth in total turnover relative to the Combined Authority. Among KI sectors, particularly high growth is exhibited by Information Technology and Telecoms, which has seen considerable growth for a number of its sub-sectors such as TV & Video Production (21.2% during the six-year period), Software Development & Publishing (18.8%) and Telecoms Activities (14.5%). Growth in turnover has also been relatively high in Life Science and Healthcare, primarily because of the fast growth in the Biotechnology R&D sector (11.2%). Other sectors that have been characterised by a significant growth in turnover are Education, Arts, Charities, Social Care (39.4%), Manufacturing (17.5%), and Wholesale and Retail Distribution (15.3%).

Table 11 illustrates the absolute change in employment and turnover LQs (calculated with respect to the Combined Authority) by sector over the three- and six-year periods to 2016-17. A similar analysis for employment based on BRES data instead of Cambridge Ahead data is included in Table A.7.

Table 11 Change in employment and turnover location quotients (Combined Authority = 1) – Cambridge Ahead data

	Employment		Turnover	
	3 years to 2016-17	6 years to 2016-17	3 years to 2016-17	6 years to 2016-17
Information Technology and Telecoms	0.01	-0.02	-0.07	-0.16
Life science and healthcare	-0.19	-0.14	-0.45	-0.48
High-tech manufacturing	-0.04	-0.04	-0.19	-0.24
Knowledge intensive services	-0.16	-0.17	-0.67	-0.69
<i>TOTAL KI SECTORS</i>	<i>-0.04</i>	<i>-0.03</i>	<i>-0.23</i>	<i>-0.26</i>
OTHER SECTORS				
Primary	-0.07	-0.11	-0.19	-0.29
Manufacturing	0.06	0.12	0.15	0.32
Wholesale and retail distribution	0.15	0.05	0.28	0.20
Construction and utilities	-0.17	-0.12	-0.10	-0.14
Transport and travel	-0.03	-0.01	0.01	0.00
Property and finance	0.08	0.00	0.06	-0.15
Other business services	0.05	0.09	-0.08	0.10
Other services	0.01	0.00	-0.13	-0.15
Education, arts, charities, social care	0.06	0.37	0.20	0.50
<i>TOTAL NON-KI SECTORS</i>	<i>0.03</i>	<i>0.03</i>	<i>0.10</i>	<i>0.11</i>

In terms of employment, concentration in KI sectors has slightly decreased throughout the entire period. Specifically, the largest changes in LQs are observed for Knowledge Intensive Services (-0.17) and Life Science and Healthcare (-0.14). Among other sectors, employment has become more concentrated over time in a number of sectors, including Education, Arts, Charities, Social Care (0.37), Manufacturing (0.12) and Other Business Services (0.09). At the same time, the relative concentration of employment in the district has declined – among others – for the Construction and Utilities (-0.12) and Primary (-0.11) sectors.

The results are largely confirmed if one examines the LQs based on total turnover. There appears to have been an increase in concentration in a number of non-KI sectors, such as Education, Arts, Charities, Social Care (0.50), Manufacturing (0.32), and Wholesale and Retail Distribution (0.20). However, the relative concentration of turnover in the KI sectors has decreased over time, with the largest decline observed for the Knowledge Intensive Services sector (-0.69).

Table 12 shows the annualised growth rates in employment by firm size over the three- and six-year periods to 2016-17. A detailed disaggregation of the figures presented below is included in Table A.9.

Table 12 Three-year and six-year employment growth (% pa) by firm size – Broad summary

	South Cambridgeshire		Combined Authority	
	3 years to 2016-17	6 years to 2016-17	3 years to 2016-17	6 years to 2016-17
Micro firms	7.2%	7.0%	6.6%	6.4%
Small and medium-sized firms	5.5%	7.7%	5.1%	5.7%
Large firms	11.4%	7.4%	7.4%	6.2%
All firms in area	8.2%	7.4%	6.4%	6.0%

Some of the highest employment growth rates in the district are found among large firms, which have been growing between 11.4% (three years to 2016-17) and 7.4% (six years to 2016-17). Fast rates of growth can also be observed for micro firms as well as SMEs, although their three-year growth rates are well below those for large firms. Moreover, it is worth emphasising that employment for all groups of firms based in the district has grown more rapidly compared to the Combined Authority, especially if the three years to 2016-17 are examined.

Table 13 shows the annualised growth rates in turnover by firm size over the three- and six-year periods to 2016-17. A detailed disaggregation of the figures presented below is included in Table A.10.

Table 13 Three-year and six-year turnover growth (% pa) by firm size – Broad summary

	South Cambridgeshire		Combined Authority	
	3 years to 2016-17	6 years to 2016-17	3 years to 2016-17	6 years to 2016-17
Micro firms	14.3%	10.9%	10.2%	8.2%
Small and medium-sized firms	12.2%	11.1%	6.1%	4.0%
Large firms	14.6%	10.8%	6.4%	7.6%
All firms in area	13.7%	10.9%	6.9%	6.5%

A similar picture can be obtained if one considers the three- and six-year growth rates in total turnover. Firms with more than 250 employees have seen the largest increase in turnover throughout the three-year window (14.6%), substantially higher than that for the Combined Authority (6.4%). In terms of turnover, micro firms and SMEs appear to have been growing at a similar rate over the six years to 2016-17, although growth has somewhat accelerated for micro firms during the most recent period (14.3% for micro firms compared to 12.2% for SMEs). Growth rates in turnover for the three groups of firms in South Cambridgeshire have been well above the corresponding figures for the Combined Authority.

## Appendix A

Table A.1 Distribution of number of companies by sector in 2016-17

	South Cambridgeshire			Combined Authority	
	No. of companies	% of total	% of Combined Authority	No. of companies	% of total
<b>KNOWLEDGE INTENSIVE SECTORS</b>					
Information Technology and Telecoms	842	13.9%	30.0%	2,805	11.4%
Life science and healthcare	197	3.3%	51.3%	384	1.6%
High-tech manufacturing	134	2.2%	25.5%	526	2.1%
Knowledge intensive services	226	3.7%	31.7%	712	2.9%
<i>TOTAL KI SECTORS</i>	<i>1,399</i>	<i>23.1%</i>	<i>31.6%</i>	<i>4,427</i>	<i>18.0%</i>
<b>OTHER SECTORS</b>					
Primary	172	2.8%	26.2%	657	2.7%
Manufacturing	269	4.5%	22.9%	1,174	4.8%
Wholesale and retail distribution	498	8.2%	20.2%	2,468	10.0%
Construction and utilities	704	11.6%	23.8%	2,952	12.0%
Transport and travel	131	2.2%	14.6%	895	3.6%
Property and finance	640	10.6%	21.4%	2,991	12.2%
Other business services	1,238	20.5%	26.2%	4,720	19.2%
Other services	685	11.3%	22.5%	3,039	12.4%
Education, arts, charities, social care	308	5.1%	24.9%	1,238	5.0%
<i>TOTAL NON-KI SECTORS</i>	<i>4,645</i>	<i>76.9%</i>	<i>23.1%</i>	<i>20,134</i>	<i>82.0%</i>
<i>TOTAL ALL SECTORS</i>	<i>6,044</i>	<i>100.0%</i>	<i>24.6%</i>	<i>24,561</i>	<i>100.0%</i>

Table A.2 Employment location quotients in 2016 – BRES data

	LQ (Comb. Auth. = 1)	LQ (LEP = 1)	LQ (GB = 1)
High-tech manufacturing	1.90	1.92	2.49
Life sciences manufacturing	3.89	3.60	4.10
ICT	1.62	2.15	1.93
R&D	3.62	5.91	24.67
Knowledge intensive services	1.61	1.94	2.25
<i>Sub-total - KI sectors</i>	<i>2.15</i>	<i>2.69</i>	<i>3.32</i>
Primary	0.68	0.56	0.10
Other manufacturing	1.06	0.80	1.08
Property and construction	1.32	1.11	1.11
Utilities	0.53	0.54	0.53
Publishing	0.76	1.07	1.89
Transport and travel	0.77	0.66	0.75
Wholesale distribution	0.97	0.83	0.99
Retail distribution	0.61	0.59	0.61
Hotels, pubs and restaurants	0.80	0.68	0.60
Other business services	0.76	0.81	0.78
Public services	0.43	0.45	0.34
Other Services	0.72	0.72	0.70
Education	0.75	0.85	0.92
Finance and professional services	0.66	0.71	0.45
Health services	0.92	0.95	0.84
<i>Sub-total - Other sectors</i>	<i>0.81</i>	<i>0.78</i>	<i>0.76</i>

Table A.3 Comparison of employment by sector in 2016 – Cambridge Ahead vs. BRES data

	Total employment		% of total	
	Cambridge Ahead data	BRES data	Cambridge Ahead data	BRES data
High-tech manufacturing	7,713	4,765	13.5%	5.9%
Life sciences manufacturing	1,641	765	2.9%	0.9%
ICT	4,864	5,905	8.5%	7.3%
R&D	8,795	9,005	15.4%	11.2%
Knowledge intensive services	2,915	4,380	5.1%	5.4%
<i>Sub-total - KI sectors</i>	<i>25,928</i>	<i>24,820</i>	<i>45.3%</i>	<i>30.7%</i>
Primary	1,542	145	2.7%	0.2%
Other manufacturing	3,772	4,655	6.6%	5.8%
Property and construction	4,928	5,810	8.6%	7.2%
Utilities	107	785	0.2%	1.0%
Publishing	247	600	0.4%	0.7%
Transport and travel	5,041	3,630	8.8%	4.5%
Wholesale distribution	1,339	3,100	2.3%	3.8%
Retail distribution	1,441	4,860	2.5%	6.0%
Hotels, pubs and restaurants	740	3,615	1.3%	4.5%
Other business services	4,890	8,005	8.5%	9.9%
Public services	7	1,150	0.0%	1.4%
Other Services	1,637	2,655	2.9%	3.3%
Education	2,843	6,380	5.0%	7.9%
Finance and professional services	1,260	1,720	2.2%	2.1%
Health services	1,545	8,800	2.7%	10.9%
<i>Sub-total - Other sectors</i>	<i>31,339</i>	<i>55,910</i>	<i>54.7%</i>	<i>69.3%</i>
<i>Total Employment</i>	<i>57,267</i>	<i>80,730</i>	<i>100.0%</i>	<i>100.0%</i>

*Note:* For a detailed comparison of employment estimates between Cambridge Ahead data and BRES data, please see the report titled “Comparison of the employment growth from the corporate database with BRES data”.

Table A.4 Distribution of number of companies by firm size in 2016-17 – Detailed summary

	South Cambridgeshire		Combined Authority	
	No. of companies	%	No. of companies	%
<i>Micro firms</i>				
1 employee	2,659	44.0%	11,662	47.5%
2-4 employees	2,213	36.6%	8,369	34.1%
5-9 employees	562	9.3%	2,183	8.9%
<i>Small firms</i>				
10-49 employees	469	7.8%	1,848	7.5%
<i>Medium-sized firms</i>				
50-99 employees	58	1.0%	189	0.8%
100-249 employees	49	0.8%	187	0.8%
<i>Large firms</i>				
> 250 employees	34	0.6%	123	0.5%
<i>All firms in area</i>	<i>6,044</i>	<i>100.0%</i>	<i>24,561</i>	<i>100.0%</i>

Table A.5 Distribution of employment by firm size in 2016-17 – Detailed summary

	South Cambridgeshire		Combined Authority	
	Total employment	%	Total employment	%
<i>Micro firms</i>				
1 employee	2,659	4.6%	11,662	4.9%
2-4 employees	5,742	10.0%	21,260	9.0%
5-9 employees	3,562	6.2%	13,815	5.8%
<i>Small firms</i>				
10-49 employees	9,686	16.9%	37,818	16.0%
<i>Medium-sized firms</i>				
50-99 employees	4,077	7.1%	13,451	5.7%
100-249 employees	7,592	13.3%	29,230	12.4%
<i>Large firms</i>				
> 250 employees	23,949	41.8%	109,110	46.2%
<i>All firms in area</i>	<i>57,267</i>	<i>100.0%</i>	<i>236,346</i>	<i>100.0%</i>



Table A.6 Distribution of turnover by firm size in 2016-17 – Detailed summary

	South Cambridgeshire		Combined Authority	
	Total turnover £,000	%	Total turnover £,000	%
<i>Micro firms</i>				
1 employee	365,182	2.9%	1,642,977	3.6%
2-4 employees	896,485	7.1%	3,442,876	7.6%
5-9 employees	923,616	7.3%	2,620,334	5.8%
<i>Small firms</i>				
10-49 employees	2,163,233	17.1%	6,854,090	15.1%
<i>Medium-sized firms</i>				
50-99 employees	638,610	5.0%	2,100,819	4.6%
100-249 employees	1,464,374	11.6%	4,581,570	10.1%
<i>Large firms</i>				
> 250 employees	6,206,309	49.0%	24,019,107	53.1%
<i>All firms in area</i>	<i>12,657,808</i>	<i>100.0%</i>	<i>45,261,773</i>	<i>100.0%</i>

Table A.7 Change in employment location quotients – BRES data

	3yrs 2013-2016			6yrs 2010-2016		
	Comb. Auth. = 1	LEP = 1	GB = 1	Comb. Auth. = 1	LEP = 1	GB = 1
High-tech manufacturing	0.12	-0.01	-0.40	0.44	0.36	-0.07
Life sciences manufacturing	-1.17	-1.28	-1.29	0.24	-1.52	-1.76
ICT	-0.01	-0.01	-0.04	0.11	0.18	0.43
R&D	-0.21	-0.34	-1.23	0.23	0.24	2.67
Knowledge intensive services	0.13	0.08	0.16	0.07	0.01	-0.31
<i>Sub-total - KI sectors</i>	<i>0.02</i>	<i>0.00</i>	<i>-0.14</i>	<i>0.19</i>	<i>0.21</i>	<i>0.03</i>
Primary	-0.30	-0.34	-0.05	-0.02	-0.15	0.00
Other manufacturing	0.06	0.03	0.04	0.09	0.07	0.15
Property and construction	-0.05	-0.09	-0.05	0.17	0.08	0.01
Utilities	-0.10	-0.09	-0.16	-1.47	-1.93	-2.69
Publishing	0.03	0.08	0.56	0.09	0.10	0.65
Transport and travel	-0.03	-0.02	0.04	-0.03	0.01	0.08
Wholesale distribution	-0.30	-0.24	-0.29	-0.36	-0.38	-0.60
Retail distribution	-0.02	-0.01	-0.01	0.06	0.07	0.10
Hotels, pubs and restaurants	-0.05	-0.06	-0.07	-0.12	-0.09	-0.06
Other business services	-0.01	-0.01	-0.05	-0.02	-0.01	0.03
Public services	0.01	0.01	0.01	-0.21	-0.20	-0.18
Other Services	-0.07	-0.03	0.09	-0.05	-0.02	-0.02
Education	0.08	0.10	0.05	0.12	0.17	0.17
Finance and professional services	0.18	0.20	0.14	0.04	0.00	0.04
Health services	0.07	0.08	0.06	0.19	0.21	0.16
<i>Sub-total - Other sectors</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>-0.03</i>	<i>-0.03</i>	<i>-0.02</i>

Table A.8 Comparison of employment growth by sector – Cambridge Ahead vs. BRES data

	3yrs 2013-2016		6yrs 2010-2016	
	Cambridge Ahead data	BRES data	Cambridge Ahead data	BRES data
High-tech manufacturing	3.5%	-1.9%	4.5%	0.5%
Life sciences manufacturing	0.6%	-7.3%	1.5%	-8.0%
ICT	9.2%	8.1%	8.5%	8.8%
R&D	8.5%	8.7%	6.8%	4.2%
Knowledge intensive services	5.1%	15.2%	7.3%	3.8%
<i>Sub-total - KI sectors</i>	<i>6.1%</i>	<i>6.5%</i>	<i>6.0%</i>	<i>3.7%</i>
Primary	2.9%	-7.8%	2.7%	0.0%
Other manufacturing	10.3%	7.2%	9.6%	3.7%
Property and construction	3.3%	5.2%	4.5%	2.5%
Utilities	-5.6%	-3.6%	0.6%	-25.5%
Publishing	-5.1%	14.5%	-9.0%	4.9%
Transport and travel	20.4%	11.1%	12.8%	5.7%
Wholesale distribution	-0.1%	-3.3%	-6.5%	-6.4%
Retail distribution	8.1%	4.0%	9.2%	3.8%
Hotels, pubs and restaurants	8.0%	4.5%	7.4%	2.5%
Other business services	15.1%	7.1%	12.7%	5.7%
Public services	-4.4%	3.9%	0.0%	-8.8%
Other Services	6.2%	11.5%	5.4%	1.6%
Education	14.4%	6.6%	48.9%	4.7%
Finance and professional services	9.1%	19.2%	7.6%	3.2%
Health services	15.5%	8.4%	13.5%	5.9%
<i>Sub-total - Other sectors</i>	<i>10.0%</i>	<i>6.4%</i>	<i>8.7%</i>	<i>1.6%</i>
<i>Total Employment</i>	<i>8.2%</i>	<i>6.4%</i>	<i>7.4%</i>	<i>2.2%</i>

*Note:* For a detailed comparison of employment growth rates between Cambridge Ahead data and BRES data, please see the report titled “Comparison of the employment growth from the corporate database with BRES data”.

Table A.9 Three-year and six-year employment growth (% pa) by firm size – Detailed summary

	South Cambridgeshire		Combined Authority	
	3 years to 2016-17	6 years to 2016-17	3 years to 2016-17	6 years to 2016-17
<i>Micro firms</i>				
1 employee	-5.1%	0.0%	-2.2%	1.8%
2-4 employees	11.9%	12.3%	10.1%	9.9%
5-9 employees	12.4%	6.5%	10.7%	6.1%
<i>Small firms</i>				
10-49 employees	8.3%	7.7%	9.6%	6.7%
<i>Medium-sized firms</i>				
50-99 employees	-2.2%	0.7%	-2.2%	1.4%
100-249 employees	7.0%	13.4%	3.7%	6.6%
<i>Large firms</i>				
> 250 employees	11.4%	7.4%	7.4%	6.2%
<i>All firms in area</i>	8.2%	7.4%	6.4%	6.0%

Table A.10 Three-year and six-year turnover growth (% pa) by firm size – Detailed summary

	South Cambridgeshire		Combined Authority	
	3 years to 2016-17	6 years to 2016-17	3 years to 2016-17	6 years to 2016-17
<i>Micro firms</i>				
1 employee	-5.4%	-0.5%	-1.7%	1.3%
2-4 employees	11.4%	12.9%	12.3%	11.1%
5-9 employees	33.8%	16.7%	17.9%	10.3%
<i>Small firms</i>				
10-49 employees	21.1%	14.5%	12.1%	8.3%
<i>Medium-sized firms</i>				
50-99 employees	0.7%	-0.5%	-6.6%	-7.2%
100-249 employees	7.6%	14.5%	5.7%	6.3%
<i>Large firms</i>				
> 250 employees	14.6%	10.8%	6.4%	7.6%
<i>All firms in area</i>	<i>13.7%</i>	<i>10.9%</i>	<i>6.9%</i>	<i>6.5%</i>