

INTRODUCTION

Through the use of a case study of a quaternary industry, this unit of work is designed to support topic 5 in the new 'Human Environment' Unit of the Intermediate Geography course.

Topic 5 Industrial change:

- **factors affecting the changing location of industry – labour, market, transport, raw materials, technology, government policies**
- **changing landscapes – infrastructure, appearance, impact of change on the environment, use of maps to describe and evaluate changing industrial location and landscapes.**

The case study industry chosen is call centres; it is felt that this provides a modern example of industrial change within the UK (and in particular within Scotland). At the time of writing, the topic is receiving significant media coverage and may therefore prove relevant and interesting to candidates.

Sections 1–3 on the iron and steel industry are included to help set the historical context for the unit; they also provide some review and revision of material that may have been covered at Standard Grade.

The student tasks included are designed to focus attention on terminology and the interpretation of data, as well as developing geographical skills such as interpreting graphs and maps.

The materials are designed to cover the following areas:

- **Industrial location factors**
- **How and why has the structure of industry in the UK changed?**
- **Call centres and their key location factors**
- **The growth and regional distribution of call centres in the UK**
- **The changing location of call centres, the reasons behind the changes and the potential impact of changes.**

1. What is an industry?

Industry is any work people do for economic gain (i.e. in order to make money). In geography we classify industry into four categories:



1. **Primary industry** – extractive industries which produce raw materials. These include farming, mining and fishing.
2. **Secondary industry** – industries in which raw materials are processed into finished products, such as steel making and brewing. Secondary industries are also called **manufacturing industries** and these can be further split into two sub-categories:



- (i) **Assembling industries** – where components are put together, such as car assembly and computer assembly.
- (ii) **Power-producing industries** – such as those where fuel from oil or coal or hydro-electric water power is used to generate electricity.

3. **Tertiary industry** – these are industries which involve no finished product. They provide personal services to the community, such as working in a shop, serving in the police force, running a hotel and teaching geography. Tertiary industries are also called **service industries**.
4. **Quaternary industry** – this category of industry covers information- and office-based industries such as finance, insurance, working with computer software and internet services.

Call centres are generally classified as an example of a quaternary industry.



Student task

Copy and complete the table by placing the industries listed below into the appropriate columns:

Shipbuilding, computer software development, forestry, gold mining, jewellery, distillery, hairdressing, professional football club management, online banking, education

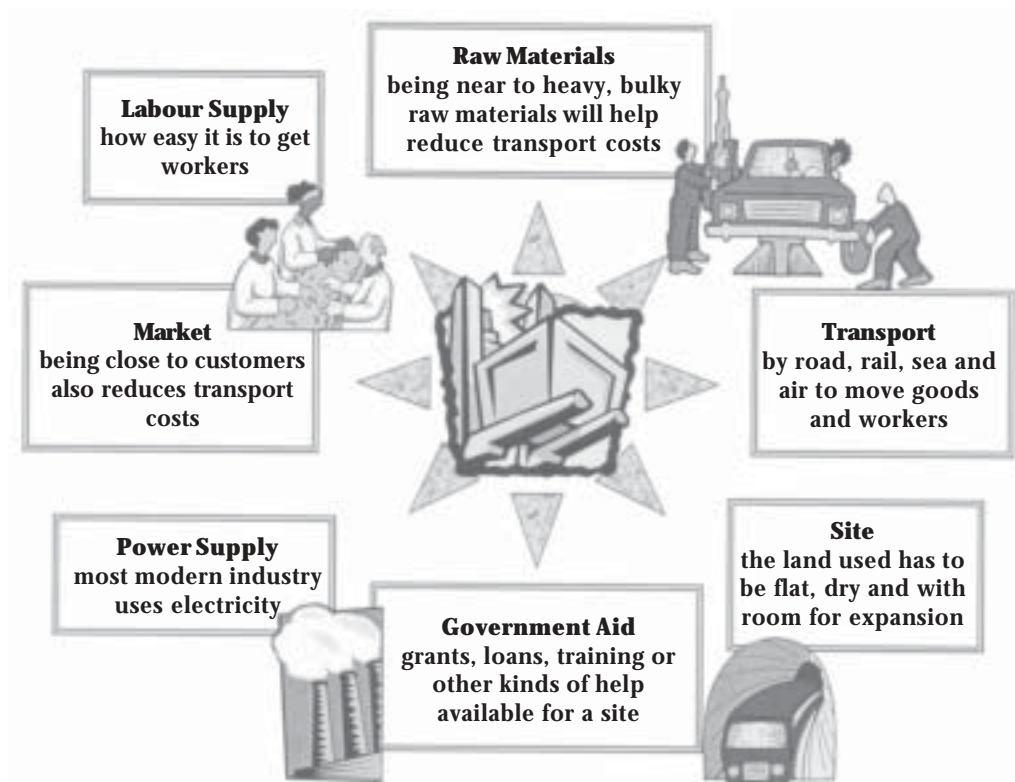
Primary industry	Secondary industry	Tertiary industry	Quaternary industry

2. Industrial location factors

Different types of industry (primary, secondary, tertiary and quaternary) have different locational needs in order for them to function with maximum efficiency.

Primary industries are found where the extractive resources are found, e.g. coal mines have to be located on coal fields. The location of **secondary industries** is more complicated; the following factors have to be considered:

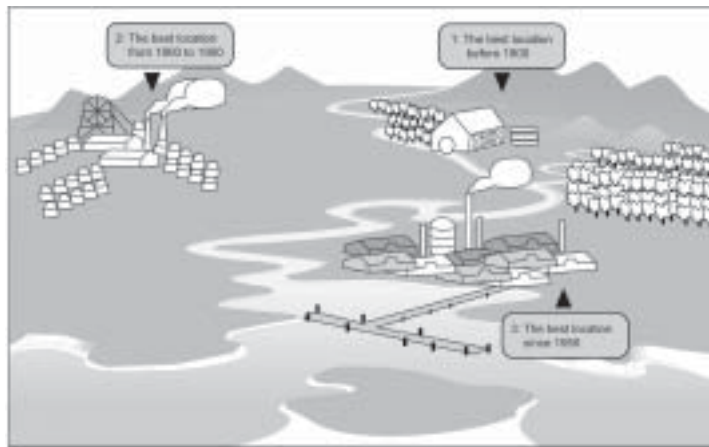
Figure 1: Industrial locational factors



Most **service industries** rely heavily on the location of the market and the availability of a labour supply. For example, it is unlikely that you would find a large department store in a small, isolated Highland village.

Quaternary industries are less tied down by location factors but often base themselves in areas where government aid is available and in areas of high unemployment. The availability of a broadband internet connection is also a consideration for modern quaternary industries in the UK and abroad.

Case study: The changing location of the iron and steel industry



The UK iron and steel industry is a good example of how the location of an industry has changed over time. It is also a good example of a declining UK manufacturing industry.

Location 1: Before 1800.

The best location was:

- near the raw materials – iron ore and limestone
- near a power supply – wood
- near running water to drive the machines.



The industry was located in forests, besides running water, where iron ore and limestone were found.

Location 2: After 1800. Key factors:

- Coal replaced wood as the fuel to heat the iron and drive the machines.
- There was cheap transport now in the form of canals and railways.

The industry was sited on or near coalfields, and beside canals and railways.

Location 3: Since 1950. Key factors:

- Iron ore and coal had to be imported from abroad.
- In order to be economically viable factories have increased in size.

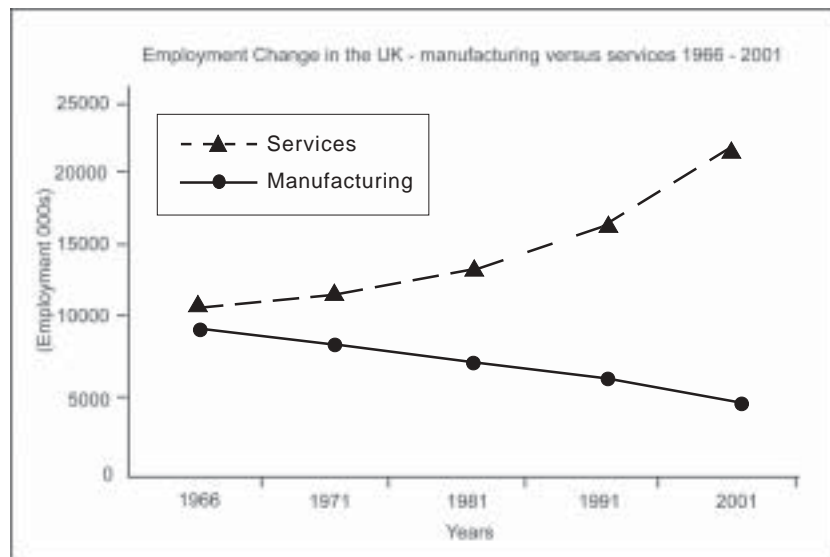
The location of the steel industry changed to large areas of flat land near deepwater coastal ports.

In recent years most of the UK's steel-works have closed down (there are none left in Scotland) and it is now cheaper to buy steel from abroad. It is unlikely that new steel-plants will be opened in the UK.

3. Changes in the structure of UK industry

In the Economically More Developed Countries (EMDCs) of the world the focus of industrial location has switched from physical location factors (e.g. site and raw materials) towards the factors common to successful service industries (e.g. communications and skills). This is reflected in the dramatic decline of manufacturing industries in countries such as Scotland and the rise of the service and quaternary sectors – as shown by Fig. 2 below. The UK's share of world export markets declined from 25% in 1950 to under 5% in 2000.

Figure 2: Changes in UK manufacturing and service industry employment



Some of the main reasons behind the decline in UK manufacturing industries were:

- **Increased competition from abroad** – this initially came from countries such as the USA, Germany and Japan and latterly from the newly industrialising countries like Brazil, South Korea and Taiwan. The UK was unable to compete with the cheap labour costs and up-to-date manufacturing techniques available in these countries. The availability of cheap labour impacted on industries such as textiles whereas the modern manufacturing techniques impacted on industries such as car manufacturing.
- **Over-reliance on foreign investment** – the UK has been criticised for being too quick to accept foreign firms instead of investing money in building up its own manufacturing companies.

- **Problems with trade unions** – trade unions are organisations that are established to represent workers' rights including rates of pay, working hours and unfair dismissal. In the 1980's they were seen as having too much power. A series of strikes in the UK, e.g. the coalminers' strikes of the 1980s, created a negative image of the UK. This made the UK less attractive as a labour market for foreign firms who preferred to locate in countries where trade unions were less powerful or even banned.

In the space of just five years between 1979–84, the UK lost 25% of its manufacturing jobs. In contrast, employment in the service sector grew from 10 million in the 1960s to 20 million in 2001.

4. What are call centres?

There is no universally accepted definition of the term 'call centre'. However, a possible definition, suggested by the Health and Safety Executive, is:

Call centre – a work environment in which the main business is conducted via the telephone whilst simultaneously using computer equipment (often linked to the internet). The term covers parts of companies dedicated to this activity (such as internal helplines) as well as whole companies.

Call centres employ '**call handlers**' and many call centres use '**hot desking**'. **Call handlers** (also known as customer service advisors/agents/associates) are individuals whose job requires them to spend a significant proportion of their working time responding to calls on the telephone whilst simultaneously using a computer.

Hot-desking is when computer and telephone work-stations are not assigned. For example, some call handlers may sit at any work-station within their team area; sometimes, other call handlers sit anywhere in a call centre and not necessarily with their team; some even hot-desk within a shift, sitting at different work-stations before and after a break.

Student task

1. Define the following terms in your own words: call centre, call handler and hot desking.
2. Imagine you are employed in a call centre. Describe the advantages and disadvantages of hot desking.



5. Key location factors of call centres

Figure 3: The key location factors of call centres



1. **Source of labour** – call centres need people to make and answer calls! Therefore most call centres are located in or near major towns/cities.
2. **Cost of labour** – this is one of the single biggest costs for a call centre; so the cheaper the labour, the greater the profits.
3. **Government aid/grants** – call centres are ‘footloose’ and therefore are not tied to a limited number of locations as compared to an industry like shipbuilding. As a result, governments will offer financial incentives to get call centres to locate in certain areas, e.g. areas of high unemployment. The aid they offer may include things like reduced tax rates, a grant to help build the call centre or to provide new road links to the call centre. ‘Locate Scotland’ is an example of a government organisation set up to encourage companies to locate in Scotland and which will offer companies money to do this.

4. **Communications** – access to a high-quality telecommunications network is crucial for any call centre. On top of this many call centres employ large workforces (11% of UK call centres employ more than 250 people), so they need to be near good road and rail links to enable their employees to commute easily to and from work.
5. **Working environment** – many firms believe that providing a high-quality working environment for their employees will increase their productivity as they will be ‘happier’ in their work and be more likely to stay with the company. Companies will therefore carefully consider sites which are landscaped and buildings which are air conditioned, modern, etc. This is particularly true for highly specialist call centres, e.g. IT call centres where highly qualified graduates are needed.
6. **Accents!** – researchers have found that customers’ attitudes towards making or receiving calls to or from call centres can be affected by the accent of the person they speak to. Among other things, they have discovered that people in the UK find Scottish and Geordie (Newcastle) accents more trustworthy and less easy to classify than other regions of the UK. As a result, the North East of England and Scotland have proved popular choices for call centre companies.

Student task

List the six call centre location factors in order of importance, 1 being the most important, 6 being the least important. Explain your choices.



6. The growth and location of call centres in the UK

There is absolutely no doubt that the development of call centres as an industrial sector has had a dramatic impact on the UK economy. The number of call centre jobs in the UK has risen from 162,000 in 1997 to 274,000 by 2002.

Figure 4:

Traditional location of heavy industry

Location of UK call centres



Key:



centre of heavy industry (past and /or present) e.g. shipbuilding and steel.



major call centre locations

Student task

Use the maps above to describe the relationship between the distribution of call centres in the UK and the main centres of heavy industry, e.g. steel and shipbuilding.

Use an atlas to add detail to your answer by naming some of the areas of the UK you refer to.

Call centres are not distributed evenly throughout the UK. They tend to be located in areas of high unemployment, e.g. Glasgow, Fife, the North East around Newcastle, the North West and Yorkshire, around Manchester and Sheffield. However, with such a rapidly expanding industry, competition has driven companies to other regions.

Figure 5: Top five call centre locations in the UK in terms of employment and number of centres.

Rank	Area	Number of Employees	Area	No. of centres
1	Tyneside	27,589	London	252
2	G. Glasgow	23,284	G. Glasgow	108
3	W. Yorkshire	21,228	G. Manchester	100
4	London	17,689	W. Midlands	96
5	G. Manchester	16,284	W. Yorkshire	87

(Source: Urban studies 2003)

Student task

Use the data from Figure 5 to produce two bar graphs that may improve the graphical presentation of the information. Make sure each graph has a title, scale and labelled vertical and horizontal axes. Under each graph write **at least** two sentences describing the information.

It is estimated that nearly 1.6–2% of the total UK workforce is employed in call centres. These figures are provided by the Call Centre Association (CCA) and Communication Workers Union.

This is more than the combined workforce of coal mining, steel and vehicle production. Continued development of call centres is likely, though probably not at the same rate as in recent years. It is estimated that there are between 3,000 and 5,000 (figures provided by CCA) call centres in Britain.

7. Regional differences in call centres

Not only does the distribution of call centres vary across the UK (see Figure 6 below), but the ‘type’ of call centres and employment conditions also varies.

Figure 6: Distribution of UK call centres

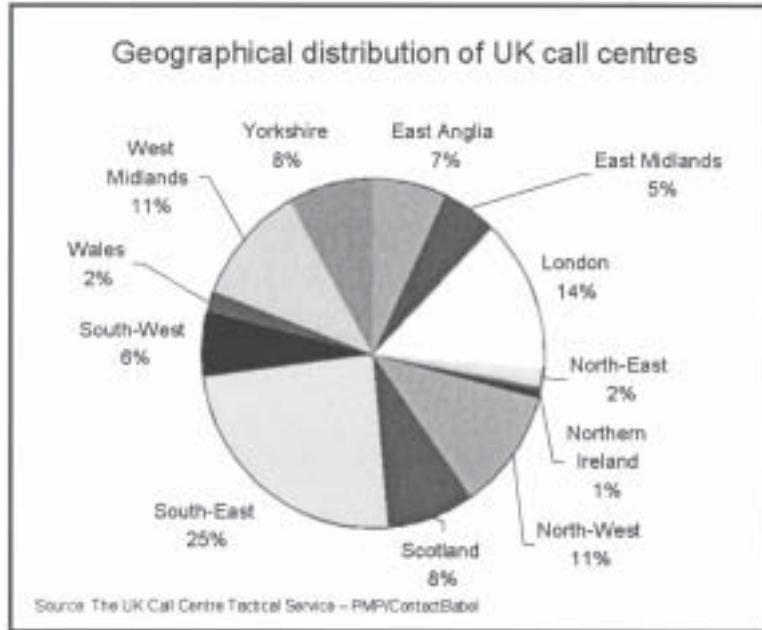


Figure 7 below shows clearly that average wages in call centres in northern regions, e.g. Glasgow, Dundee and Newcastle, are significantly lower than for southern regions, e.g. Reading.

Figure 7: Comparisons of average wage rates for call centre work in different UK cities 1999

Services making ‘outbound’ calls	Average wage	Services making ‘inbound’ calls	Average wage
Reading	£14,143	Slough	£13,300
Manchester	£11,833	Manchester	£10,644
Newcastle/Sunderland	£10,733	Newcastle/Sunderland	£10,025
Leeds	£10,643	Leeds	£10,000
Merseyside	£10,417	Merseyside	\$9,450
Glasgow	£10,000	Glasgow	£8,900
Dundee	£9,080	Dundee	£8,720

(Source: Mital, 1999 UK and Eire, Call Centre Study, London).

This variation can be explained in part by differences in the type of call centre being considered. Call centres can be divided into two broad categories:

- 1. Those related to sectors such as IT (computing) which deal with sophisticated (complex) customer enquiries. These centres tend to employ skilled graduates, provide a higher quality of working environment and offer higher wages. They are predominantly located in the south and east of the UK.**
- 2. Those related to more routine services such as banking, travel and retail services. The skill levels required are lower, wages are lower and the working conditions tend to be more basic. These call centres are more commonly found in northern regions, e.g. Tyneside and the Central Belt of Scotland.**

8. Are call centres the saviour of the UK economy?

Given the devastating decline of manufacturing industry in the UK, many people see the rapid rise of the call centre sector as a welcome boost to both jobs and the economy as a whole. However, call centres have also come in for a lot of criticism. Some of the main advantages and disadvantages of call centres are listed below.

Advantages

- Job creation – call centres have employed thousands of people in some of the UK's main unemployment 'black spots', e.g. Tyneside and Clydeside.
- Benefits to the local economy – if people are in employment they have more money to spend, and that has knock-on effects for local businesses, e.g. restaurants, shops, etc.
- Boost for the national economy – if more people are employed and paying taxes, the government is spending less on benefits and earning more through income tax.
- Enhanced reputations – regions of the UK which had a negative image due to high unemployment and associated social issues are seen in a more positive light when large multinational firms locate call centres in these areas.

Disadvantages

- Many view the type of jobs created by call centres as low-skill, poorly paid and with a lack of prospects, e.g. promotion, career progression.
- Over-reliance on large multinational firms – this means that the jobs are vulnerable to changes in the global economy or to the success of these overseas firms, e.g. if the firms' profits fall, they will often close their foreign branches first.
- Call centre jobs are vulnerable to cheaper international competition, e.g. companies moving jobs to countries such as India (where pay rates are much lower than Western Europe's).
- Companies are simply taking advantage of the opportunity to pay low wages in areas of industrial decline.
- Poor working conditions – some of the criticisms levelled at call centres by their employees are:
 - their work is very tightly monitored ('Big Brother is watching you' mentality);
 - phone lines are 'tapped' by bosses to make sure employees are sticking to the rules and not wasting time;
 - starting pay as low as £3.91 (below the minimum wage for over 18s);

- long working hours, e.g. within one 12-hour shift an employee may only be entitled to two breaks of 15 minutes, one break of 20 minutes and one unpaid break of 30 minutes;
- some call centres have been described as the 'UK's sweat shops' and the 'dark satanic mills' of the twenty-first century.

One further conclusion made by some experts is that the growth of the call centre sector is adding to the widening gulf between the 'richer' south of the UK and the 'poorer' north. This is also referred to as the north/south divide.

Student task

Use Associated Mapping or spider diagrams to summarise the advantages and disadvantages outlined above.

9. Changing location factors of call centres

The 'footloose' nature of call centres means they are often looking for the cheapest location in terms of labour, since labour is their major expense.

There has been a lot of coverage in the media recently about companies in the UK moving call centre jobs abroad, in particular to India. This includes companies such as Lloyds TSB, Norwich Union, Barclays, British Airways and Abbey.

Why is India seen as an attractive location for call centres?

- Labour is much cheaper – wage costs for the company can be up to 70% less than in the UK.
- There is a very large, highly educated and English-speaking workforce.
- Many of the Indian employees view working in a call centre very positively; they see it as a valuable career, with excellent prospects. This is in contrast to the UK where many people view working in call centres as simply an unskilled job.

Although salaries in India are much lower, in spending terms, it is estimated that someone receiving £200 a month in India is earning the equivalent of an annual salary of between £20–22,000 in the UK. This is significantly more than many workers in the UK earn and partly explains why working in a call centre is viewed as a 'good' job in India.

Call centre workers in India, dealing with UK customers, often adopt an English name and are supplied with information about the weather in the UK and even about what is happening in *Eastenders*. Thus they can engage the customer in topical conversation – masking the fact that they are thousands of miles away.



10. Will competition from abroad signal the end of the UK call centre 'boom'?

It is too early to say accurately what impact competition from countries like India will have on the number and type of call centre jobs in the UK. However some trends are beginning to emerge:

- So far, most of the jobs which have been moved out of the UK have been what are regarded as 'routine' (low skill) tasks, e.g. directory inquiries – not the more complex jobs such as IT helplines.
- Due to negative feedback from customers in the UK who have dealt with call centres in other countries, some companies (such as the Royal Bank of Scotland) are now thinking twice about moving their call centre work abroad.

Student task

Describe and explain the advantages and disadvantages of moving call centres to countries such as India for:

- (a) the call centre company;
- (b) the customer using the call centre.



Wednesday, 27 November, 2002.

India's call centre boom

By Jill McGivering : BBC South Asia correspondent

British companies are making dramatic savings by shifting back-office work to India. Indian call centres handle a wide range of processing jobs from answering customer service calls and e-mails to telesales, credit demands and accounting. They are seeing explosive growth of between 50% and 70% a year and claim that the economic slowdown in the West is just accelerating demand.

The increasing trend is raising fears about the safety of British jobs among trade unions in the UK. There is already concern about whether the Indian companies will be able to continue to find enough high calibre recruits to satisfy demand.

Long-term shift

Commentator Madan Mohan Rao sees this growth as the next global trend. "This is a sort of level two economic shift," he says. "The first was when low cost manufacturing shifted from the west to China, Malaysia and so on. Now we're seeing the second wave, because of IT services, because of good telecommunications links, you can outsource a lot of the basic service and call centre jobs out of your country to other countries."

And it's easy to see why. Thanks to modern telecoms, India can process the same work as UK call centres - with a saving of about 40%. The manager of ICICI OneSource, one of India's biggest call centres, argues that India's advantage is in terms of productivity. "The quality of the people we put in is graduates with experience, they perform better, so on matrix such as quality percentages we score higher," says Ganesh.

In a smart downtown office in the southern Indian city of Bangalore dozens of Indian graduates work for ICICI OneSource. They answer the phone to customers in Britain calling about car insurance or cable TV.

Culture coaching

Youngsters like Jack Travis are paid much less than British call centre workers - but more than most Indian graduates. It is considered high status here to work in an air-conditioned office. The average British caller can understand him - and vice versa. But because he has never been to the UK, he also had a crash course in British culture.

His course has taught him that "what English people like most is hitting the pubs. They love horse racing and obviously football and the kind of food, that's puddings and fish and chips just to name a few," he says.

The shift east is a controversial trend in the UK where British unions are battling to stop jobs leaving the country. It has become so sensitive that Indian companies keep the names of their British clients top secret. But Jack could be the voice of the future.

Staffing troubles

One prediction is that by 2008, India will employ two million people as call centre operatives. The only obstacle to runaway growth may be finding enough high-standard recruits with good enough English to meet demand; because the work is so repetitive, most employees leave within two years.

Madan Padaki of MeritTrac who screens would-be applicants - at a rate of 100 a day - says that only 4% of applications are up to scratch and the number of people applying is steadily falling. So recruiters are now looking beyond India's top cities in search of suitable graduates.

The question is whether the English there will be good enough to maintain standards.

Student tasks

Study the newspaper article 'India's Call Centre Boom' dated 27 November 2002 and answer the following questions:

- **What sort of call centre processing jobs are moving to India?**
- **Why are call centres able to move to places like India?**
- **What sort of people does the Indian call centre industry attract?**
- **How does the rate of pay in an Indian call centre compare to that of a British call centre?**
- **What are Indian call centre workers taught during their crash course in British culture? And why do you think it is important for call centre workers to have this sort of information?**
- **How many call centre workers will India employ by 2008?**
- **Up to how many applicants per day do some call centres interview?**

Tuesday, 20 January, 2004

Head-to-head: Call centre jobs

Controversial moves by some British companies to close call centre operations in the UK and move them abroad have become more of a rush recently, with thousands of jobs being created in countries such as India.

Two major UK financial players, Norwich Union and Nationwide, outline the business pros and cons of the practice known as "offshoring".

Norwich Union

For insurance giant Norwich Union, offshoring is a long-term strategy, and as long as it makes financial sense, the company believes it is "the right way to go for our business".

In December, Norwich Union - which is part of financial giant Aviva - said it was transferring call centre operations from the UK to India, creating 2,350 jobs in the subcontinent. "We've got to remain competitive to remain in business. Given the intense competition in the market, we have to look at every operation to reduce costs," a spokeswoman said.

Norwich Union already has 1,200 staff in Delhi and Bangalore, where it says it can achieve cost savings of up to 40%. "It's a saving that benefits the whole business. It means we have more of a competitive advantage. Put simply, it means there is more money in the pot."

Staff in India, new to the business and trained in a variety of skills from day one, can adapt to different roles and are "more responsive" than some of their UK colleagues, the company argues. "We have a very high grade of applicant for these jobs in India."

The time difference between the UK and India also means Norwich Union can provide a more flexible service. "Customer requirements are changing. People might not be able to make calls until after 10 at night. It means we can always be there when they want."

Nationwide

Nationwide building society has chosen to invest in its UK call centres, shunning the move to switch jobs abroad. Chief executive Philip Williamson believes "call centres abroad may suit some of our competitors, but they are not the right option for us".

Earlier this month, Nationwide pledged to refurbish its centres in Northampton and Swindon and open a new site in Sheffield, creating up to 180 new UK jobs. "Offshoring may bring short term cost savings, but the turnover of staff in call centres abroad is very high," a spokeswoman

said. "There is always a cost when recruiting and training people, and high staff retention helps save money. We have the lowest call centre employment turnover of any financial services firm in the UK."

Nationwide said its decision to bolster its call centre workforce at home and keep jobs in the UK had also played well with the public. "We've had a positive response from our customers because we are keeping jobs here. We don't want to outsource that key contact with our customers."

Student tasks

Read the article 'Head-to-head: call centre jobs' dated 20 January 2004. Use the information to answer the following questions.

- **What is offshoring?**
- **Copy and complete the following table:**

	Norwich Union	Nationwide
Location of new call centres		
Number of new call centre jobs created		

- **Compare the advantages and disadvantages outlined by the Norwich Union and the Nationwide in the location and quality of their call centres.**