

Hypothesis

The aim of this project is to prove or disprove the hypothesis that, 'The growth of the high-tech industry has had a positive effect on the Cambridge area'.

Cambridge is one of the leading centres for research and development in the world. This attracts many of the top high-tech companies to locate there. As more companies locate in Cambridge the job opportunities rise, in 1945 there were approximately 50,000 jobs this figure has rose to 80,000 in 1996. This is what caused Cambridge to become the fastest growing county in the UK this is also one of the positive impacts of a Science Park locating in Cambridge.

A Science Park is a collection of high-tech companies or research institutes located in one area. They are usually situated in a very attractive environment and have close connections to a University. On the premises of a Science Park there are no factories, the Park is for research purposes only.

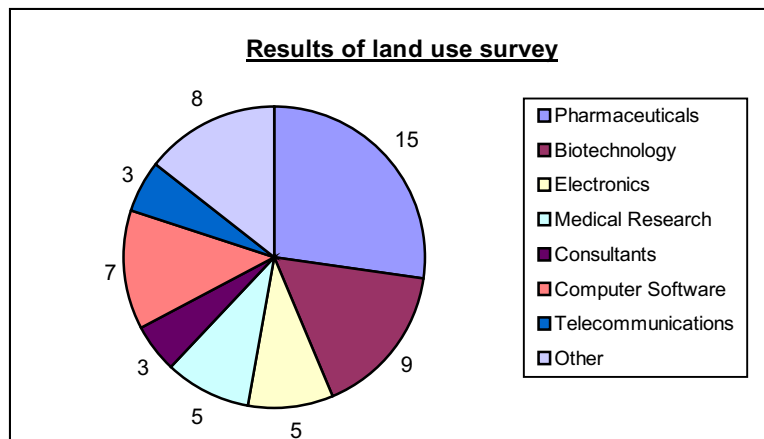
A high-tech industry is linked to science and technology, for example, electronics, computing and medical equipment production. They are involved in a lot of research and development this usually takes place on Science Parks. Production of high-tech products is done in factories elsewhere.

<u>How the data was collected</u>	<u>Why the data was collected</u>	<u>How the data collected could be improved</u>
Traffic survey	Amount of congestion and levels of traffic.	Could do the survey at rush hour.
Land use survey	To find what high-tech companies are based in the Science Park.	Get a list of companies.
Quality of environment	To find out how well kept the environment is.	Could have been surveyed at different times, e.g. Rush hour
Questionnaire for Cambridge city centre	Find the positive and negative effects of the Science Park.	Ask a certain number of people

Results and Analysis

Cambridge has become a popular location for high-tech companies as it has good infrastructure there are many roads, there is also a railway line running quite close by, there is an airport situated on the outskirts of the town this means that the Cambridge area has good communication and easy access. There are also many colleges in the area and links to Cambridge University, so there are many qualified people to work for the companies. Another incentive was that Cambridge is an attractive area there are also many satisfactory high quality buildings. There are many research facilities available for the companies. The Science Park was established by the Trinity College to attract high-tech companies to locate there.

Most of the high-tech companies situated in Cambridge are found in the science park. It is found North of the town centre. We conducted a survey on the types of high-tech industry situated in the Science Park, the results are shown in the table below.



As you can see from the results there were more pharmaceutical companies than any other situated on the Science Park. We also found a nursery, gym, bar and restaurant and various other facilities for workers. This is also attractive for companies as there are facilities for employees to use, this increases the amount of people wanting to work in the Science Park.

Workers and companies are also attracted to the Science Park, as it is a very clean modern area. We also conducted a survey of the quality of environment. There is easy access from the main road a second exit has also been made recently to make it easier for workers to get in and out. The traffic problems inside the park are minimal, although it could be heavier at other times, for example in the mornings when people are coming in to work and afternoons when people are going home. The buildings are quite modern they are simple, clean and tidy. They

are also very similar to each other. There were some two-storey buildings but most had only one floor. The Park is also landscaped very well there are many trees and flowers, most of the plants were fully-grown. There were a few fountains and ponds there were also ducks and other wildlife. The Science park is also a very secure environment there were CCTV cameras and also speed ramps, there were also many lights so it should be very well lit at night.

There were plenty of parking spaces for employee's easy access from the car parks to the buildings. As we walked around the Science Park we did not come across any litter or graffiti, there are not many pedestrians in the Science Park so there were not many litter bins. Overall the Cambridge Science Park had a very clean and attractive environment to work in. This proves my hypothesis that the growth of high-tech industry has had a positive effect on the Cambridge area. I think this because there is not much pollution or vandalism altogether the park is a very clean and healthy environment, which is good for the Cambridge area as there is no pollution caused as a result of high-tech industry in the area. There was a sewage works located opposite the Science Park, this did pollute the air, as there was a horrible smell in the air.

We also did a traffic survey, we stood at the entrance to the Science Park located on Milton Road and observed the amount of traffic travelling in six directions. We conducted the survey at 9.55 a.m. The results of our survey are shown below.

Milton Road-Traffic travelling south

Traffic travelling south towards Cambridge.

Type of Vehicle	Total
Cars	74
Vans	14
Lorries	12
Busses	0
Other	0

Traffic travelling south and turning into the Science Park.

Type of Vehicle	Total
Cars	33
Vans	3
Lorries	3
Busses	0
Other	0

Milton Road – traffic travelling north

Traffic travelling north towards A10

Type of Vehicle	Total
Cars	79
Vans	13
Lorries	5
Busses	5
Other	3

Traffic travelling north and turning into the Science Park.

Type of Vehicle	Total
Cars	11
Vans	2
Lorries	0
Busses	1
Other	4

Science Park – traffic turning out of the park

Traffic turning south towards Cambridge.

Type of Vehicle	Total
Cars	9
Vans	4
Lorries	0
Busses	0
Other	0

Traffic turning north towards the A10

Type of Vehicle	Total
Cars	13
Vans	0
Lorries	2
Busses	0
Other	0

We did a traffic survey to see whether or not the Science Park has had an impact on the amount of traffic flowing around the Cambridge area. There did not seem to be much traffic, although this could be different at different times of the day. For example at peak times such as in the mornings and afternoons when most people are arriving and leaving work there could be an increase in traffic.

According to the results from my traffic survey I think that the presence of the Science Park has not had a negative effect on the level of traffic flowing around the Cambridge District.

There were more cars compared to vans, lorries and busses and other which consisted of cyclists and motorcyclists. I noticed that most of the traffic was travelling north towards the A 10 this consisted of 105 vehicles altogether. Although there were also 100 vehicles headed towards Cambridge. The least number of cars were 11 they

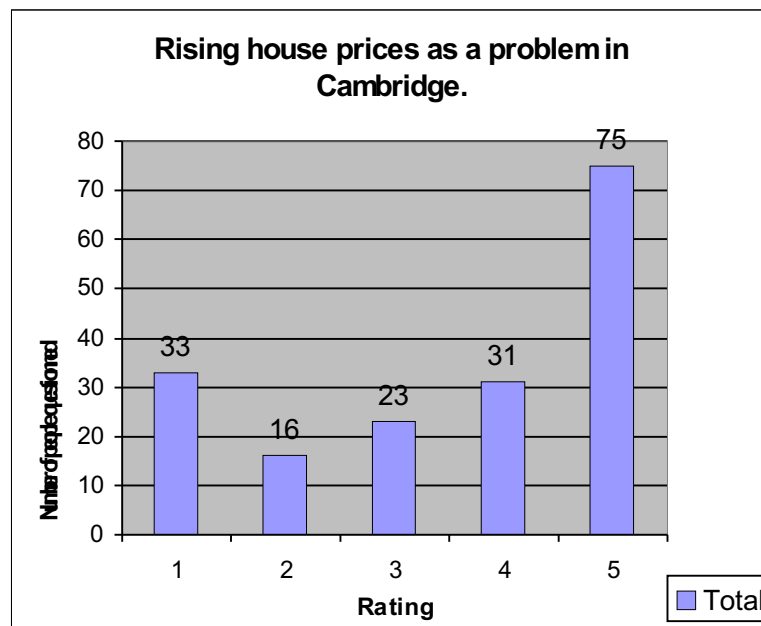
were turning out of the Science Park and travelling south towards Cambridge. The survey was conducted over a period of 10 minutes.

Overall I do not think that the Science Park has had a negative effect on the amount of traffic flow in Cambridge. This proves my hypothesis that the growth of high-tech industry has had a positive effect on the Cambridge area. Although this may not be true for other times of the day when people are arriving for work or leaving work. There could be an increase in traffic at these times.

We also did a survey in Cambridge City Centre, to find the opinions of people on different issues concerning the Science Park. We asked them to rate different issues in Cambridge between 1 – 5, this is how the rating stood;

1 – No problem

5 – Serious problem



The figures clearly show that most people think that rising house prices are a serious problem in the Cambridge area. This disproves my hypothesis that the growth of high-tech industry in Cambridge has had a positive effect on the Cambridge area. Rising house prices means that only people with high earning jobs can afford to live in the Cambridge area. This causes inconveniences, as other people who work in Cambridge have to travel quite a distance to travel to work, as they cannot afford to buy a house inside Cambridge.

The table below shows the price increases for terraced housing between 1980-2000 for Cambridge city and South Cambridgeshire.

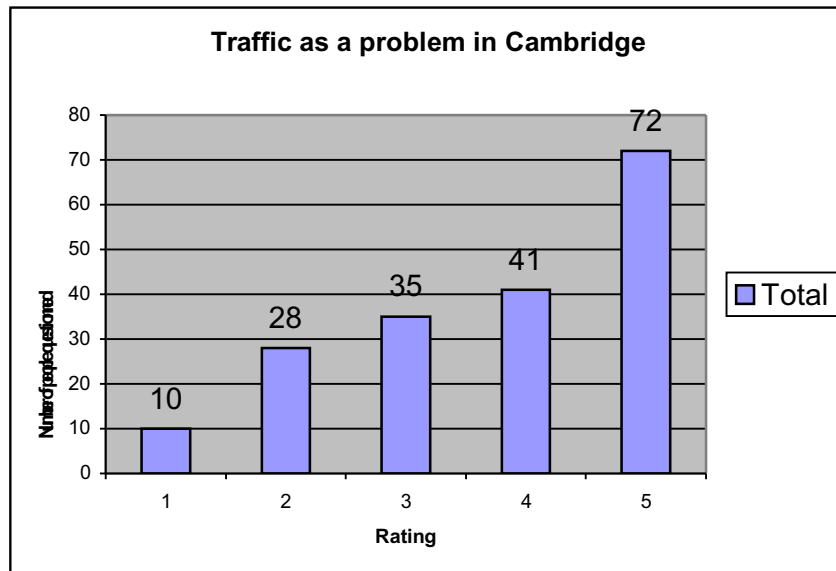
Area	1980	1985	1990	1995	2000
Cambridge City	£20,700	£56,000	£100,000	£82,000	£110,000
South Cambridgeshire	£20,000	£35,000	£63,000	£58,000	£64,000

Between 1980 and 1990 the house prices rose dramatically in both areas. In Cambridge city the figure stood at £20,700 in 1980, this rose to £100,000 in 1990. In South Cambridgeshire the figure was £20,000 in 1980 this rose to £63,000. As the prices increased in both areas so did the price difference between the areas. In 1995 the prices decreased in both areas. They then rose again in 2000 and became higher than they were in 1990. Overall the growth of high-tech industry in Cambridge has had a negative effect on the house prices in the Cambridge area.

We also asked people to rate traffic as a problem in the Cambridge area;

1 – No problem

5 – Serious problem

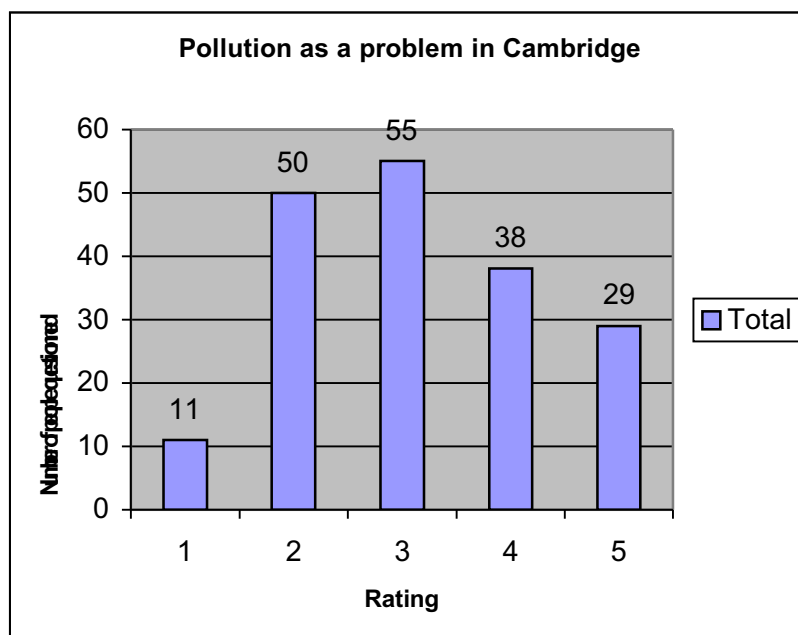


The figures above show that 72 people thought that traffic was a serious problem in Cambridge. These people most likely had to travel in and out of Cambridge to get to work. This disproves my hypothesis, as an increase in traffic caused by the growth of high-tech industry is a negative effect. Only 10 people thought that traffic was not a problem in Cambridge. These people probably lived in Cambridge and did not have to travel in or out of Cambridge to get to work. This graph clearly shows that traffic is a big problem in the Cambridge area.

We also asked people to rate pollution as a problem caused by the growth of industry.

1 – No problem

5 – Serious problem

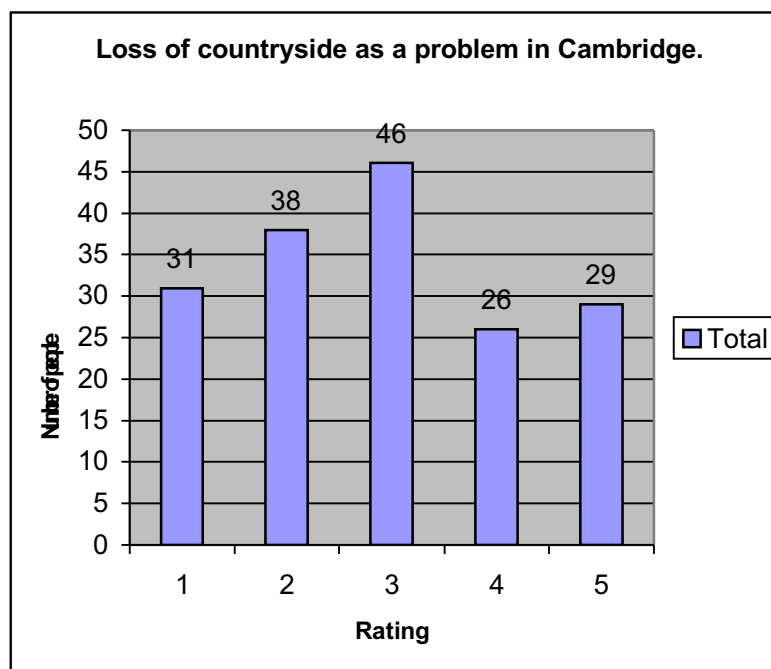


Most people thought that pollution was a minor problem in Cambridge. Although 29 people did think it was a serious problem compared to 11 people that thought it was no problem. I think that most of the people that did say pollution was a problem were referring to the increase in traffic therefore the direct increase in car fumes. I do not think there is a lot of pollution caused as a result of the Science Park, as there are no factories or production occurring on the Science Park. The Park is used for research and development only. I do not think that pollution as a problem disproves my hypothesis, as the Science Park is a very clean environment. Although some of the people may have confused the Science Park with the nearby sewage works. I do not think that pollution is a problem in Cambridge, as most people do not drive cars they cycle around the city.

We also asked people whether or not they thought that loss of countryside was a problem in Cambridge.

1 – No problem

5 – Serious problem

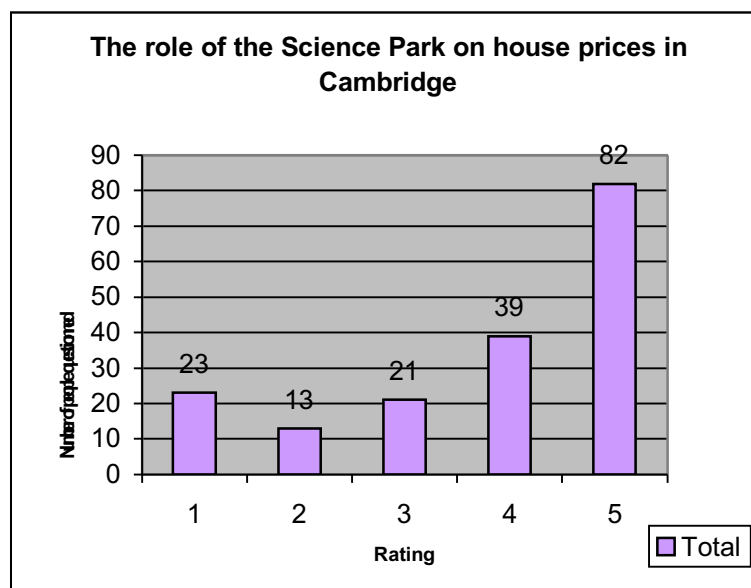


Most people did not think that loss of countryside was a serious problem in Cambridge. Only 29 people thought that it was a serious problem compared to 31 people who thought it was no problem at all. There were 46 people that rated loss of countryside as 3. The Science Park may have created this problem as it has attracted more high-tech industries to locate in the area, and therefore expanded. Loss of countryside is a negative effect of the growth of industry. Although it is also a positive effect as loss of countryside shows that the number of high-tech industries in Cambridge are increasing. Therefore there are more jobs being created as a result, this is a positive effect of growth of industry. This also proves my hypothesis.

We also asked people to rate the role the Science Park has had on the following 4 issues; Rising house prices, Traffic, Pollution and Loss of countryside.

1 – No role

5 – Major role

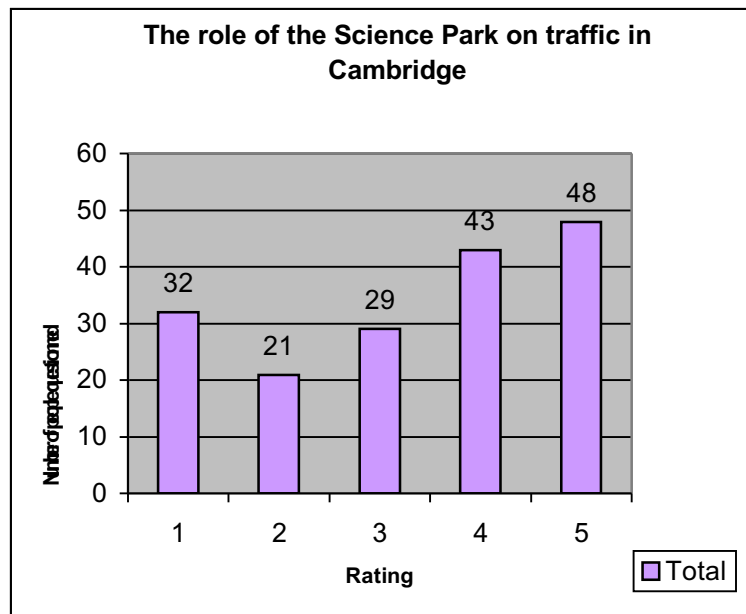


The figures above show that 85 of the people questioned thought the Science Park played a major role towards rising house prices. This disproves my hypothesis, as it is a negative effect of the growth of industry. Rising house prices means that people that work in Cambridge cannot afford to buy houses in the area. So they have to travel quite a distance to get to work. This causes the increase in traffic and congestion.

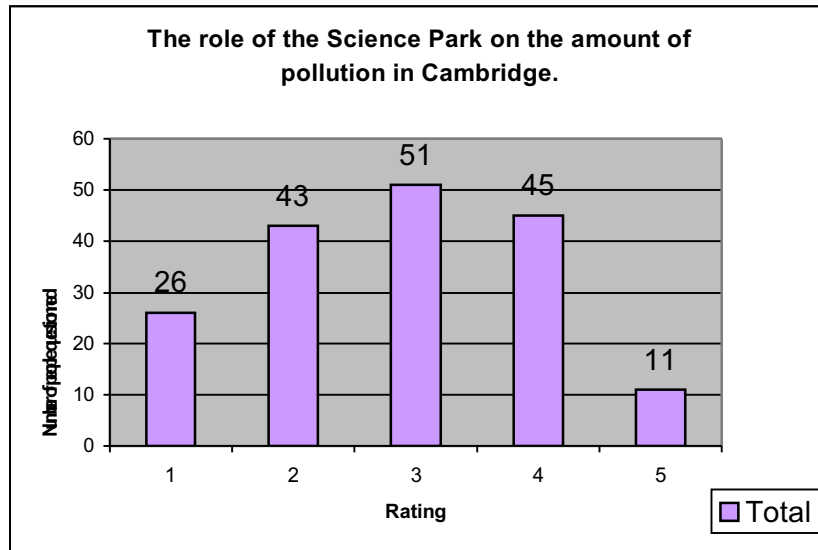
The table below shows the distance employees of the Science Park have to travel to work.

Distance travelled	Up to 5km	6–10km	11–15km	16–20km	21–25km	More than 25 km
Percentage of people	35%	11%	14%	14%	7%	19%

The table clearly shows that 35% of the employees have to travel up to 5km to get to work. 19% of the employees have to travel more than 25km to get to work. As more people have to travel from outside Cambridge to get to work more traffic is created. Overall I think that the growth of industry has played a major role on rising house prices in Cambridge. As the high-tech industry grows more housing is being built, the area is becoming more expensive as there are many colleges and research and development centres in the area. It is an attractive environment to live in so more and more people are moving in to Cambridge. This also increases house prices, as there is a high demand for homes so new housing must be built.



The figures show that 48 of the people asked thought that the Science Park played a major role on the amount of traffic in Cambridge. 32 people thought that it played no role on the amount of traffic. This is a negative effect of the growth of industry and disproves my hypothesis.



The graph above clearly shows that 51 people asked though that the growth of industry in Cambridge had, had an effect on the amount of pollution created. Although they could have been confused as there is a sewage works located near the Science Park. Only 11 people thought that it played a major role, whereas 26 people thought it played no role at all. The Science Park itself does not create pollution, as there is no production or any factories on site.