

# A study to try to relate Perth's CBD to a typical textbook CBD

## Aims

1. To study the CBD of Perth to see if it conforms to the characteristics of a typical CBD described in a textbook
2. To delimit the CBD
3. To collect some additional data on one aspect of the CBD and produce a personal extension of the coursework

## Introduction

I would expect to find a textbook CBD in the middle of a city where it is most accessible for the population. The CBD is usually the oldest part of the city and has tall buildings to accommodate the needs for retail services in such a busy centre.

On the ground floor of a CBD I would expect there to be mainly retail shops with a few offices dotted along the streets just off the High Street. I would expect to find very little residential buildings and any that were to be terraced as there would not be enough room, on the highly sought after land, on the high street for a garden. This high demand for land would also mean that it would be too expensive to run any sort of industry and so they must find cheaper land outside the CBD. As the land in the CBD is valued so highly the buildings should tend to be much taller to increase their floor space which is so valuable. On these extra floors the land should be used for shops and offices with the rare flat amongst them. I would expect more offices than shops as customers don't really want to climb a flight of stairs to shop, especially the old and not so mobile, so offices would take the land. It would only really be big chain stores that use two storeys as they can afford escalators and lifts to transport the customers.

The High Street should show the signs of being public friendly with hanging baskets and benches for you to have a rest and would most probably be pedestrianised with bins regularly dotted along the street in an attempt to keep it tidy.

The CBD should be very accessible with many major roads leading into it and their would be parking restrictions so as they might keep the traffic flowing through the CBD. The parking meters in the CBD would be very expensive so they encourage people to avoid taking their cars into the CBD. There might also be multi-story parking on the outside of the CBD or a park and ride system put in place.

I expect that Perth's High Street will sell mainly high order goods as the city has a huge sphere of influence, it is the gateway to the Highlands, and many people will shop in Perth as it is convenient.

As the CBD is generally the oldest part of the city it might have a few churches or a town hall that are very old buildings. There also would be very little in the way of industry in Perth's CBD as the demand for land is too high and there is not enough space to expand or for lorries to access.

Perth's site and situation:

Perth is located on the bank of the river Tay and was originally a crossing point for travellers to cross the river. Perth is on some quite flat ground, that is good for farming, but has the Grampians to the North and (please fill in -] )

Method:

In order to achieve the aims of the coursework my class carried out some data collection in Perth on May 9<sup>th</sup> 2008.

The class was divided into groups of 2 or 3 pupils. Each group was given a transect route which started in the outskirts of Perth, went through the area we believed to be the CBD and finished in the outskirts on the far side of the city. This enabled us to look at the different areas of the city and how they varied in building height, building use and the type of parking on the road throughout the city. The transect gave what we thought to be a fair view on how the city was spaced out.

As we went along our transect we collected data on the use of the land at each given area, the land-use data. We collected the data to find out what each zone of the city is used for and ultimately delimit the CBD. Before we collected the data I expected that the area where we dropped off, in the Outer Suburbs, would mainly be residential with a bit of open space and very few shops. As we progressed I expected the major use would remain residential, however, with less open space and the housing to be more terraced with a few convenience shops on some of the street corners. I expected as we started to leave the Inner Suburbs and into the Transitional zone we would see the land being used for industry where there might be wholesalers or small manufacturers and a few shops and housing. Then as we arrived in the CBD there would be a sudden change with most of the building being used as shops with a couple of offices and maybe the occasional apartment on top of a shop.

One of the types of information we collected was the uses of the land in each place such as residential or retail purposes. We expected this to give us a good idea of the location of the CBD and see if it conforms to the typical CBD as described in a textbook. I expected to find the vast majority of suburban area to be residential and much of the CBD to be shops and offices.

We also collected data on the height of the buildings we passed as we thought that the height of the buildings would change as we approached the CBD. We hoped that the difference in building height would enable us to delimit the CBD. I expected that the buildings would become taller as we approached the CBD as the land would become under higher demand closer to the CBD and as the businesses would not be able to build out they would have to build up. I expected the buildings on the outskirts to be less tall as they would have more room to expand out the way instead of up.

We took data on the type of parking available on the road outside each building as we thought that it would be clear where the CBD was by the amount of parking available. I thought that as we closed in on the CBD the roads would become more and more congested and therefore there would be less room for cars to be parked at the side of the roads so there would be restrictions closer to the CBD. But where we started, in the suburbs, there would be less traffic congestion and so more freedom to park and not cause a traffic jam so there would be less parking restrictions in the suburbs.

After we had finished collecting the data on our transect we started to individual analysis on each building and its use along the High Street. We were looking for signs such as shop clustering and cafés being evenly spread. I expected that there might be a bit of shop clustering amongst the phone shops and high order goods where the customer likes to feel they have a choice between shops as they tend to be spending a lot of money. I also expected the cafés to be spread out as the customer doesn't tend to have a preference on coffee shops and just likes to stop at a café near by on the High Street. We took some other data once we had finished the High Street analysis. We took data on the amount of people passing a certain point in the city. These points were randomly positioned in and around what we thought was CBD and we all took the count at the same time to limit the chances of freak results from rush hour. These results were taken to try and identify the busiest part of the city and in finding that we thought we could also identify the CBD.

### Ground Floor analysis:

Results: On the ground floor of most of the buildings in the suburban area, along Queen Street, we found that they were mainly residential as there was 91% of ground floor being used for residential purposes. The other 9% was mainly used by shops, industry, and open space, these shops were all convenience shops selling everyday items such as newspapers and milk. When we moved closer to what we suspected to be the CBD we found there was a bit of industry for a period as we were passing through the Transition Zone between the suspected CBD and the heavily residential suburban area. There was still some housing but this housing was more lower-class and tended to be blocks of flats. When we left the Transitional Zone and neared the suspected CBD, along Leonard Street, we began to see that there more shops that were shops such as hairdressers and chip shops. Then as we approached the High Street and what we suspected to be the CBD we found that the majority of the land was being used for retail purposes with 72% of the land being used for this. We found also that there was 16% of the land being used as residential and open space and only 6% used for offices. This surprised me as I would have thought there would have been more offices than open space. Altogether throughout the transect we recorded that 55% of the ground floor was used as housing, 27% retail, 7% open space, 4% industry, 3% offices, and 4% for other purposes such as parking.

Explanation: The reason we found that a large proportion of the suburban areas were residential was because there is more space in the outskirts of the city and so the land is not valued so highly so one can afford to build a house in these areas. There were also some shops in the suburbs which would have only really been convenience stores selling bread, newspapers and other everyday products that you wouldn't necessarily go to town for. There was also some industry a bit closer to the CBD which would need lots of cheap land to make a profit and accommodate their needs. As we entered the CBD there were many shops this is where much of the retail business in the city would happen and where the public would be attracted to spend there money. This was reflected in the high percentage of land being used for retail (72%). This may not have as high as some other bigger cities as Perth is a relatively small city. There was a freakish result for the amount of residential and open space; both were 16% of the land use. This is very

peculiar as you would expect there to be much less open space and no residential as the land in the CBD is very expensive and valued very highly as so many people go there to shop.

Conclusion: I expected the pie chart I drew up for the CBD to be dominated by retail, however, over a quarter of the pie chart was made up by open space and residential housing. This surprised me and doesn't conform to a typical textbook CBD.

### First floor land use:

Results: The vast majority of the first floor land use was residential. In the suburban areas, there was some open space(6%) but a huge 91% of the land use taken up by residential means. Progressing towards the CBD the amount of residential land use was maintained at a high percentage, and where the occasional open space was before there are now offices and shops. Even on Kinnoull Street, where all the ground floor land was used for residential means. Offices and shops combined made up only 15% of the land use in what we marked the CBD from the ground floor land use data. It was impossible to mark a CBD from the data we collected.

Explanation: As with the ground floor land use a vast majority of the first floor land was used for residential purposes in the suburban areas. This was because there was no demand for shops or offices on the outskirts of a CBD and so the land would be cheaper for the likes to build a house with a garden. Also people like to have two storey houses as it is more conventional and more convenient. The open space in these areas was generally bungalows, relating back to the lower demand on land so they can afford to spread floor space out rather than up. As Perth isn't really a city that centres itself on its business there are not many offices in the CBD as I had expected. There is not enough business demand in the city for there to be lots of offices on the first floor, also the smaller shops in the city do not like to extend to the first floor as it limits customer accessibility and it was only really the chain stores that expanded to the first floor. This low demand means that the property owners must find another way to occupy their building and hence why there are so many residential flats in the suspected CBD.

Conclusion: From the results I gained for the first floor land use it was hard to delimit the CBD as there was not much change in land use throughout the transect. Perth obviously doesn't conform to a typical textbook CBD for this reason as I was expecting and obvious fall in the amount of residential first floor land use in the CBD and more offices and shops.

### Building height analysis:

Results: At the start of my transect at Queen Street there were mostly 2 or 3 storey houses with the occasional house with a loft conversion. There were few bungalows or 4 storey houses. We then passed through an area of industry and railway lines with areas of open space and low buildings. As we approached the suspected CBD along Leonard Street we noticed the housing had more storeys and the shops had a couple of storeys above them. Many of the shops were 3 or 4 storeys through the CBD with a few

exceptions. As we left the CBD we returned to mainly 2 storey housing with a few loft conversions

Explanation: In the suburban areas there were mostly 2 storey houses. These houses can afford to be less tall as there is more land to use and less demand for the land, as oppose to the CBD. Some of these houses have loft conversions as they may have needed to increase floor space to accommodate new family. In the CBD, however, there is more demand for floor space as it is the centre of the city where most of the commercial retail area is so floor space is valued very highly, so the buildings tend to be taller to accommodate these needs. Many of these buildings were 3 to 4 storeys high. Then as we started to leave the CBD there was a significant change from 3/4 storey buildings to 2 storey buildings. This would have been because of the lower demand on the land in the Inner Suburban area.

Conclusion: The data we collected showed an idea of where the CBD is situated in Perth as it was obvious to see from my results that there was a big change in building height from the suburban areas.

## High Street analysis:

Introduction: Looking at the map on my A3 sheet it is clear to see that Perth has a great range of shops. Some of these shops have large/wide front windows and some have very small fronts. Looking at the bar graph we can see that clothes shops are by far the most common shop, 23 shops in total. Other common types of shop were cafés/pubs, electrical/furniture, and banks/estate agents, all with 11 shops on the street. There were a surprising number of empty shops, 4 in total. There were also a number of gift shops and department stores on the High Street, both 7 altogether. Perth's main High Street has many trees and hanging baskets to attract custom. It also has benches and statues for people to relax and stay in the High Street. I think that the shop with the best position on the High Street is Debenhams as it is on the corner of King Edward Street and the High Street giving it a larger shop frontage to attract custom. Also with it being on 2 streets it will have 2 entrances and more passing trade.

Explanation: Perth has a high population threshold, as it is said to be the gateway to the Highlands as it is the last city before the Highlands, and therefore many people will go to Perth to shop for high order goods as it has more shops to choose from. These comparison stores that sell high order goods need a high population threshold to thrive as a business and as Perth can provide this it has a lot of comparison stores on the High Street. These comparison shops are usually clustered around a certain area so that the buyer can have variety and choice as they are usually spending a lot of money. Perth High

Street has quite a few cafés on the street as many shoppers would want to have a break on there shopping trip and have a cup of coffee. These cafés are usually spaced quite evenly throughout the High Street as shoppers normally do not have a preference on which coffee shop they stop in. However, Perth has no cafés at the centre of the street and only has Costa. Most of the cafés are at the ends of the High Street where the shops are a bit smaller, this may be because they couldn't compete with Costa; or that they cannot afford the expensive prices in the bigger shops in the middle of the street; or they expect shoppers to be wanting their break just at the end of their shop. It could be any one of these or a combination. Perth also has a lot of empty shops on the High Street, this is unusual for a city with such a big population threshold as you would imagine that there was a massive demand for the shops and they would be filled quickly.

Conclusion: Perth has a high population threshold from Perth's population and the surrounding towns. This gives it many people wanting to shop in the city. This allows Perth to have many comparison shops selling high order goods.

### Pedestrian count analysis:

Results: The classes results showed an obvious correlation between the closer to the suspected CBD you were the more people were counted. The isoline map which I drew from our results shows a very regular shape with pretty concentric boundaries between each number barrier. There were very few people on the outskirts of the CBD, for example, on the corner of Scott and Canal Street there just 19 people passing ion the allotted time whereas on the High street there were 106 people counted showing a greater amount of people in the centre of the suspected CBD.

From the same results I drew a distance decay diagram showing how the amount of people varied across a line from one side of the CBD through the centre of the CBD to the other side. There was a gradual increase at the start from the west side of the city reaching a peak in the High Street near the under-cover shopping centre and then sharply declined as the came to the east side, next to the river.

Explanation: In the High Street there are a lot of large shops selling high order goods so the sphere of influence is big for these shops. This sphere of influence means that people come from all over Scotland to shop in Perth and so there were a lot of people on the High Street. However, we did the data collection at 5:00pm so there would have been more people leaving the High Street as they had finished their shopping and heading to their cars which would have mainly been situated on the west of the CBD as this is where the majority of the car parks are in Perth. This shows why there was such a gentle curve on the left of the distance decay diagram and why the contours were larger on the left side of the map. After the peak in the High Street there was a steep downwards curve from then on as on the east side of the CBD is the river which marks almost the end of the CBD. There aren't many services on this side of the CBD and it is mainly offices with few parking spaces meaning there weren't as many people shopping or going to their cars causing a dramatic fall in the diagram.

Conclusion: The results showed quite clearly where the busiest parts of the CBD were and how the people were spread among the suspected CBD. However, there was a big difference to the number of people on the High Street compared to any other street

which does not agree to the textbook CBD. This may have been because Perth is a small city and only has one main street