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[IS THERE A MARKET FOR CARGO BIKES IN HACKNEY?]

The aim of this project has been to explore the potential market for cargo bikes in Hackney, in comparison to Copenhagen. This project has focused primarily on child transport and has examined whether there is the possibility for cargo bikes to become a common transport mode for carrying children as in Copenhagen. It has sought to establish the perceived advantages and disadvantages of cargo bikes among a sample of potential users in Hackney and assessed which social groups might be more disposed to start adopting cargo bikes in the near future. This research project has carried out a mixed research strategy using quantitative and qualitative methods, applying a cross-sectional design with a survey of 166 questionnaires among parents from six different Hackney's primary schools and three semi-structured interviews.

Although currently there is a small market in Hackney for cargo bikes this project suggests that there could be a potential future market. An important element which needs to change for the cargo bike market to increase is the perception of issues around practicality and safety, as well as cost. Therefore in future research projects conditions under which people would consider using a cargo bike need to be studied to determine what actions need to be taken to raise the popularity of cargo bikes.

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Thank you all for encouraging and helping me in every situation.

2. REPORT SCOPE

Cargo bikes are increasingly popular in Denmark, specifically in Copenhagen for moving goods or children. A cargo bike is a generic term for any bicycle which can carry goods or people whether it has two or three wheels (Hymon, 2008). Sales of cargo bikes are on the up worldwide with an increasing number of people using them in more and more contexts. Some commentators have indicated that they might be the next big thing in cycling (Lennon, 2011). International institutions like the European Union are starting up projects that encourage the use of cargo bikes among European countries such as the CYCLE logistics project (http://www.ecf.com/4289_1) which aims to reduce the energy used for urban freight transport in a trial period of three years (European Cyclists' Federation, 2011). There are many good reasons to encourage the use of cargo bikes. Cargo bikes consume far less non-renewable resources than any motorized mode of transport and do not cause any air pollution. Cycling, and consequently cargo bikes are economical, although at the moment an initial high investment is needed for cargo bikes compared to bicycles more generally. However, cargo bikes cost less in the long term than using a private car or public transport (Buehler and Pucher, 2008:3). Moreover, cargo bicycles could potentially contribute to reducing inequalities, in terms of mobility and access to services, among disadvantaged social groups.

3. AIM, MOTIVATIONS AND OBJECTIVES

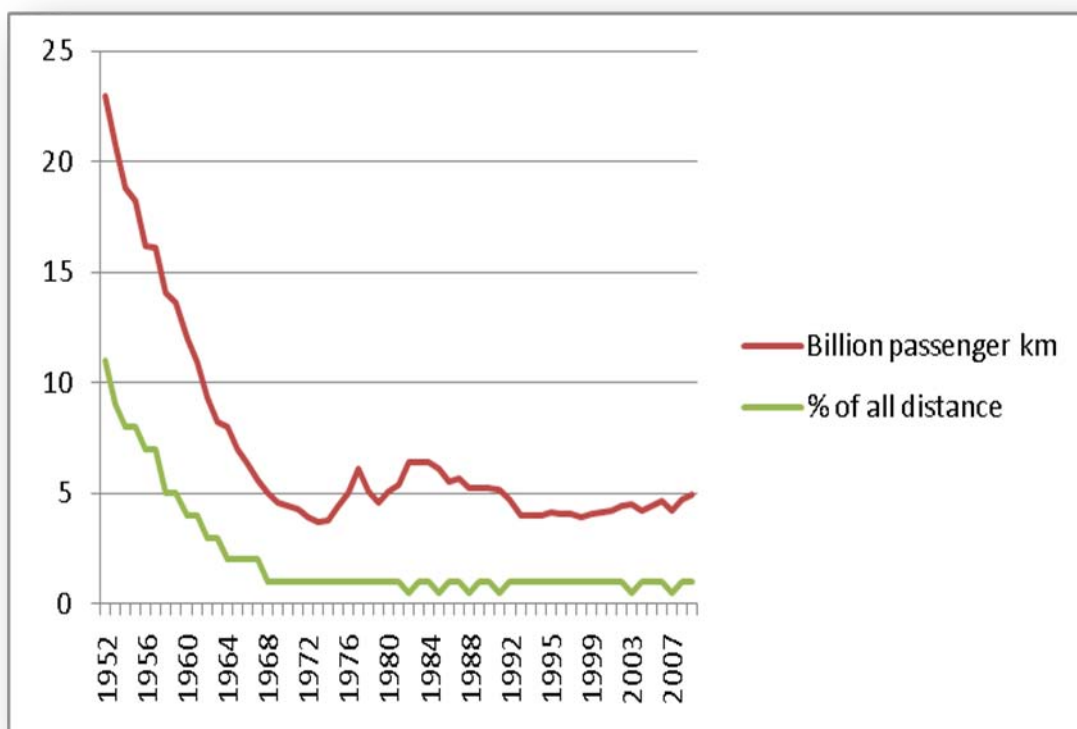
The aim of this project has been to explore the potential market for cargo bikes in Hackney, in comparison to Copenhagen where a mature market exists. Information about the use of cargo bikes in Copenhagen, and about the growing use of bicycles in Hackney, helped to identify Hackney as the most likely market for selling cargo bikes in London. This project has focused primarily on child transport and has examined whether there is the possibility for cargo bikes to become a common transport mode for carrying children as in Copenhagen. It has sought to establish the perceived advantages and disadvantages of cargo bikes among a sample of potential users in Hackney and assessed which social groups might be more disposed to start adopting cargo bikes in the near future.

4. BACKGROUND RESEARCH

4.1 CYCLING IN DENMARK AND IN THE UK

Bicycles in Europe have historically been a major means of transport for working people. Cargo bikes were used to carry items in many developed countries until after World War II (Hart, 2011), when the growing popularity of the motor car led to the decline of cycling; especially once more affordable cars and increased affluence brought driving to the working and middle classes. The car culture arrived, transforming landscapes and at the same time marginalising bicycles to leisure or sporting activity (Sachs, 1992 in Rosen, 2002). However, by the 1970s, the bicycle enjoyed something of a renaissance in many parts of Europe, although in the UK cycling levels continued to stagnate. In the UK in the 1990s, changes in policy, technology and culture led to a complete revival of the bicycle promoting it as a solution to a variety of problems including health, congestion, and environmental degradation. However, the growing promotion of the bicycle in policy discourse was not matched by a substantial uptake (Rosen, 2002). Ambitious targets in the UK's 1996 cycling strategy were missed and later quietly dropped (Golbuff and Aldred, 2011).

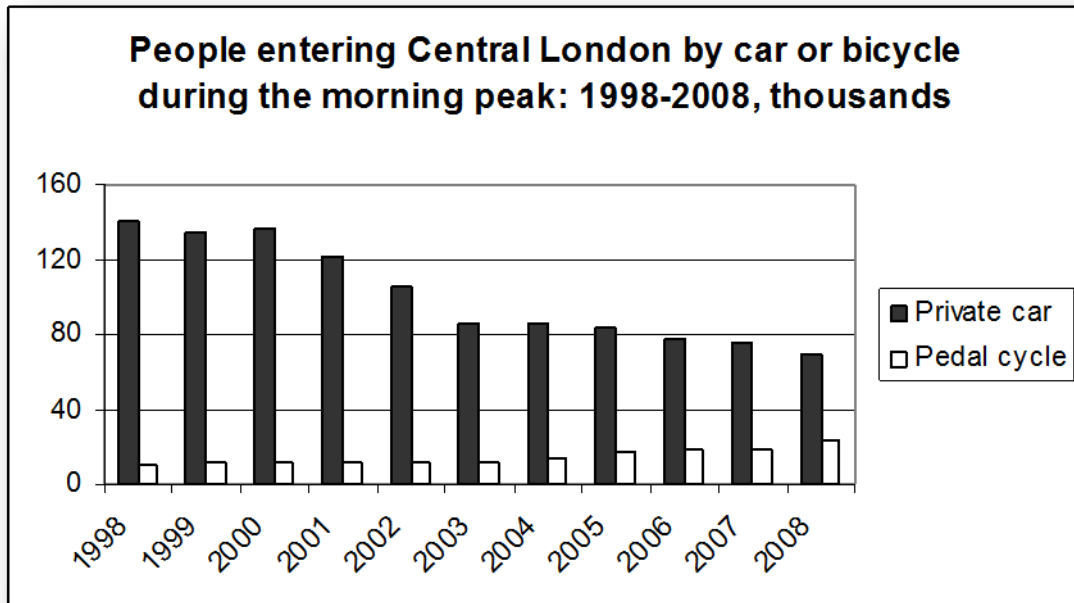
Figure 1: Decline of cycling in the UK



Source: created from the data provided in Transport Statistics Great Britain 2010.

However, it should be noted that in the UK, cycling has become locally salient in specific contexts, for example, Central London commuter journeys:

Figure 2: People entering Central London by car or bicycle during the morning peak: 1998-2008



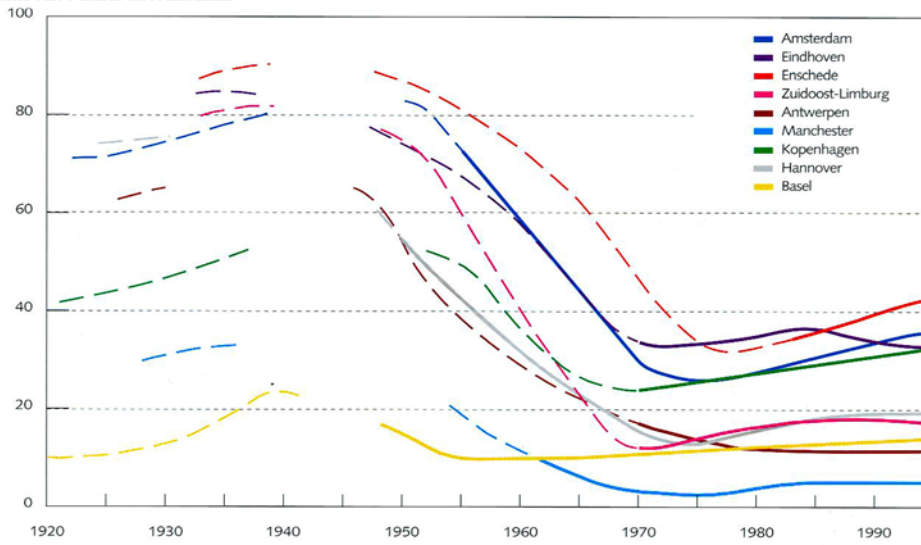
Source: Transport for London data.

It is important to mention that the renaissance of the bicycle and cargo bikes and their later acceptance as a mode of transport has not been homogeneous within Europe.

Figure 3: Share of the bicycle among all modes (excluding walking), selected European cities

Reconstructed trend lines of the bicycle share in the total number of car, bicycle, motoped and public transportation trips in nine West European Cities, 1920-1995 (in %)

Bruháze, A.A. de la and Veraat, F.C.A. 1999. *Fietsverkeer in Praktijk en beleid in de 20^e Eeuw: Overeenkomsten en verschillen in het fietsgebruik te Amsterdam, Eindhoven, Enschede, Zuid-Oost Limburg, Antwerpen, Manchester, Kopenhagen, Hannover en Basel.* Den Haag: Ministerie van Verkeer en Waterstaat.



In Denmark and in some other European countries, cycling levels have been revived (although still not approaching their original high point before mass motorisation). This has happened through a reversal in urban planning policies and transport from car culture to a more cycle-friendly culture, while in the UK cycling has been roughly stagnant since the 1970s. Given that some countries have managed to reverse the secular decline in cycling, it seems that high cycling levels depends on government policies as well as upon culture, history, climate or topography. By contrast, policy in the UK has traditionally welcomed the rise of the car, almost regardless of its social, environmental and economic costs (Buehler and Pucher, 2008:3). However, there has been a global increased of awareness of the benefits of cycling in Europe leading to an official acknowledgement from the European Union regarding the importance of cycling as a practical mode of transport and the need to support raising cycling levels and increasing safety (European Conference of the Ministers of Transport, 2004 in Buehler and Pucher, 2008:4).

When looking at the social distribution of cycling in Denmark and the UK, trends are very uneven. Danish women cycle as often as men and rates of cycling fall only slightly with age whereas in the UK while women cycle far less than men and older people hardly cycle at all. However, it should be noted that in high-cycling areas within the UK, such as Cambridge, cycling is much more evenly distributed (Aldred, 2010). In Denmark cycling is distributed across all income groups and for all trip purposes whereas in the UK cycling happens mostly within middle classes (Buehler and Pucher, 2008:3).

4.1.1 AN OVERVIEW OF BICYCLE CULTURE AND INFRASTRUCTURE IN DENMARK/COPENHAGEN

The cycling levels seen in Denmark and in Copenhagen have been possible due to strategic cycling policies implemented by the Danish government and local municipalities. Instead of further promoting motor vehicles by expanding parking and roadways facilities, the Danish cities have focused on cities becoming more sustainable and liveable than British cities (Buehler and Pucher, 2008:3) as can be seen in the case of Copenhagen. Copenhagen is known internationally as a bicycle friendly city and as the city of cyclists (Bondam, 2008). The Copenhagen's government has been planning, constructing and funding cycling facilities for many decades, instead, central government involvement has been more recent, providing overall goals and developing policy since 1980. Each of the planned strategies set forth the final goal of raising cycling levels for daily travel. Some of these plans are better lanes, more and better parking, better paths and intersections, more coordination with public transport as well as cycling safety (Buehler and Pucher, 2008:16).

Specifically, key policies to promote convenient and safe cycling include the implementation of extensive systems of cycling facilities that are separate both from motor vehicles and from pedestrian space, intersection modifications and priority traffic signals, traffic calming, bike parking, coordination with public transport, traffic education and training and traffic laws with special legal protection for children and elderly cyclists (Buehler and Pucher, 2008:19). In the case of Copenhagen for example, a project was developed called "Shared use streets for pedestrians and slow-moving traffic" which was implemented in 1992. This project reduced traffic and traffic speed. Traffic was redirected and the speed limit was reduced to 15km/h (Beckmann et al., 2007:34).

The most significant approach to making cycling safe and attractive in Danish cities has been the provision of separate cycling facilities combined with extensive traffic calming of residential areas (Buehler and Pucher, 2008:32). These changes have been especially important for children, the elderly and for anyone with special needs due to any sort of disability. However, separate facilities are only part of the solution. Danish cities, especially Copenhagen, have reinforced the safety and attractiveness of cycling with extensive bike parking, comprehensive traffic education, good organization with public transport and other factors. Therefore, the key to the success of cycling policies in Copenhagen and in other Danish cities is the coordinated and comprehensive implementation of a set of policies (Buehler and Pucher, 2008:32).

4.1.2 AN OVERVIEW OF BICYCLE CULTURE AND INFRASTRUCTURE IN LONDON/HACKNEY

In general, the situation in the UK appears to be far less favourable to cycling than in Denmark. A study conducted in the UK suggested that British metropolitan areas have a greater supply of car parking and motorways than in Denmark (Banister, 2005 in Buehler and Pucher, 2008). However, one interesting exception in the UK is the London congestion pricing scheme, in place since 2003. It has helped to increase cycling levels by 30%, although, the increase has also been possible through a simultaneous provision of extended and improved cycling facilities (Buehler and Pucher, 2008:30). Looking at the borough of Hackney in particular, a set of local strategies have been developed to increase cycling such as the "Home Zone, Streets for people" project. This project involved altering streets and roads to meet the needs of pedestrians and cyclists, opening

up space for social use. This effect was achieved by road size reduction, trees and flower pots and other shared public spaces. The outcome of this scheme gave a significant boost to the area in relation to cycling (Beckmann et al., 2007:33).

Cycling in Hackney is an important mode of transport with the borough experiencing the highest increase in cycling in England between 1991 and 2001. Comparing Hackney with London, the borough increased 70% in cycling whilst the increase in London over the same period has been 23% (Hackney Cycle Plan, 2006:4). Hackney has a history of support for cycling and shares with London the vision for cycling to play a key role in developing an exemplary sustainable city (Hackney Cycle Plan, 2006:11). It is important to mention that there are still barriers in Hackney which have blocked a further increase in cycling. Research by TfL has indicated, that these barriers do not just relate to the physical environment but also to culture, attitudes towards cycling and perceptions of risk (Hackney Cycle Plan, 2006:14).

4.2 CARGO BIKES: ADVANTAGES AND DISADVANTAGES

As societies face rising fuel costs, increased air and noise pollution and urban congestion, cargo bikes are now seen as a viable solution to carry children or goods (European cyclists Federation, 2011). The cargo bike concept is almost as old as cycling itself and the modern cargo bike was born in Denmark (Michael, 2007). In the early 1970's the Christiania bicycle was developed in the "Free State" from which it takes its name (Hyman, 2008). For many people journeys are complicated by the need to deliver and collect children from nurseries and schools as well as shopping getting to work. Using a car has become the "normal" solution to chains of trips, but cargo bikes could be a solution for the whole family on a daily basis. Cargo bikes are potentially perfect for journeys which are too far to walk and require carrying a variety of people or goods. In the medium term they save money through saving on petrol, parking, and/or bus fares, although good quality cargo bikes require an initial high investment. In Copenhagen various forms of cargo bikes are commonly used for carrying children (Spokes, the Lothian Cycle Campaign, 2001).

One attraction in an increasingly health conscious age is that cycling to school allows parents to stay fit and avoid the congestion of the school run (London Cycling Campaign, 2011). Increasingly, UK schools are promoting cycling for children including cycle training in their curriculum although; some schools are still hesitant to encourage cycling as they feel it is too dangerous (London Cycling Campaign, 2011:13). On the negative side, in Denmark one problem has been that cargo bikes takes up more space than bikes on the cycle tracks which can result in increased congestion. Cargo bikes are more expensive than standard bicycles and more difficult to store because they do not fit in bike parking facilities and because of their high cost, may be particularly vulnerable to theft.

4.2.1 CARGO BIKES IN COPENHAGEN

From 2000 and beyond the cargo bike became increasingly prominent in Copenhagen (City of Cyclists, 2009). Currently, cargo bikes are enjoying a revival around the developed world (Michael, 2007), even if the design

seems to have been around for a while, sales have exploded over the past few years and the trend seems to be catching on in the UK too (Peace, 2009). Cargo bikes are not new in the UK because historically they were used for home deliveries from local shops. However, in Denmark cargo bikes are commonly used to transport children too (Cycling Blog, 2011).

It is part of the Copenhagen landscape to see parents dropping off and picking up children in cargo bikes (Hyman, 2008) and although environment, congestion and climate benefits are positive effects, the Danes ride them because it is practical and easy (Cycling Embassy of Denmark, no date). The use of cargo bikes in Copenhagen can be understood in the following paragraph:

“In 2008 6% of all Copenhagen households had a cargo bike. This figure indicates that many of the journeys carried out by cargo bike replace car journeys. Of those who have a cargo bike 40% state they use it to transport goods and 50% say they use it to carry children. As a result, as many as 25% of Copenhagen families with two children have a cargo bike” (Bondam, 2008).

The growth of the cargo bike culture has provided more pressure to improve the bicycle infrastructure which then increases the amount of cyclists. Cargo bikes may be the realm of the family but constantly new variations are appearing up in the city such as a newspaper rack or a mobile coffee bar (Hyman, 2008) contributing to the development of the cargo bike culture.

4.2.2 CARGO BIKES IN HACKNEY

The London Cycling Campaign states that a third of Londoners want to cycle because cycling offers an affordable and quick way of decreasing congestion, health care problems and pollution (London Cycling Campaign in Hackney, 2010:2). However, the modal share of cycling in London remains low with only around 2% of all journeys made by bicycle, although there are substantial variations by borough and by trip purpose. It is believed that the minority of parents who cycle the school run tend to use child seats rather than cargo bikes, which remains relatively rare even among cyclists with children (Keller, 2011).

Hackney is one of the boroughs of London which has seen higher growth rates of cycling however, cargo bikes use levels in Hackney is well behind Copenhagen levels.

Nevertheless, as it has been already mentioned, there is some evidence which indicates that trend of using cargo bikes is also catching up with London (The Bike Show, 2008; Blomfield, 2008; Community Cycling Fund for London, 2007; Cummins, 2009). Projects exist in London to encourage the use of cargo bikes such as the Richmond-based Parents for Pedal Power project which asks parents in this affluent borough to swap their 4x4s for a cargo bike (Peace, 2009). There is a community-based project called “Food for All” in Camden which picks up surplus food products and distributes them by cargo bike to Camden's disadvantaged and socially excluded people free of charge (Community Cycling Fund for London, 2007). There are several local businesses which are using cargo bikes to deliver their products such as Zero Couriers (The Bike Show, 2008) or Darwin's Deli, a sandwich delivery company.

5. METHODOLOGY

This research project has carried out a mixed research strategy using quantitative and qualitative methods. I applied a cross-sectional design using a survey of 166 questionnaires among parents from six different Hackney's primary schools: St. John & St. James, Morningside, Rushmore, Southwold, Gayhurst and London Fields; and three semi-structured interviews. The analysis of the interview transcripts and the questionnaires has been mutually supportive and contributed to a more comprehensive response to the research question.

The participants of the questionnaires were randomly selected, although principally targeting parents who had a bicycle with them. The surveys were done at schools' entrances through face-to-face interviews. For the semi-structured interviews purposive sampling was used to establish a good correspondence between the research question and sampling. When choosing participants for the semi-structured interviews I made sure I could interview all of the actors involved in buying a cargo bike: a bike shop owner, a family who owned a cargo bike and a businessman interested in using cargo bikes for his business. The recruitment of respondents for the semi-structured interviews was possible thanks to the research group I was working with which knew the business man and the shop owner, which connected me to the family who owned the cargo bike.

The statistical data analysis has been carried out with the statistical package SPSS and the qualitative data have been managed using the software NVivo by coding the themes related to my research question. Different variables have been taking into account for this project such as ethnicity or occupation; however, it is important to mention that there are limitations on the number of questions one can reasonably ask in an intercept survey and this research project did not take into account gender and age for the following reasons. First of all, the purchase of a cargo bike is most of the time a household decision therefore, more than one people is involved. Therefore this research project is more interested in knowing other aspects of the household rather than the gender or the age of the responding member. It must also be acknowledged that the quantitative section has some missing data due to unanswered questions in the first half of the survey and a change in how the questionnaire was used halfway through the fieldwork. This occurred because initially the decision was made not to continue questioning those who were not current cyclists; however, it became apparent that useful data could still be obtained from this group.













The validity of this project was improved by using different methods to answer the research question. When doing the survey I used open-ended questions which could allow any new topic which I had not initially incorporated to be added to the topics included, although, I was not able to pilot the questionnaire. Moreover, the sample I used does not necessarily represent the population in Hackney, as some of the schools were selected because they were known to be supportive of cycling. To maximize the reliability of the findings all interviews were transcribed and a number of categories produced based on initial reading of the transcripts. Each interview was then taken systematically analysed using these categories. Additionally, for the survey all the categories and concepts used on the question were discussed with different members of the research group to make sure they were going to be valid to answer the research question.

6. ANALYSIS

Here I present the data gathered from the 166 questionnaires and 3 in-depth interviews. This analysis provides the basis to conclude whether there is a potential market for cargo bikes in Hackney, and if so, which social groups might be more disposed to start adopting cargo bikes in the near future. It reports upon assessment of the advantages and disadvantages among a sample of a user and a potential user. Owing to the nature of the method used and a change in how the questionnaire was used halfway through the fieldwork, the quantitative section of this analysis has some missing data due to unanswered questions in the first half of the survey. This occurred because initially the decision was made not to continue questioning those who were not current cyclists; however, it became clear that useful data could still be obtained from this group.

Before I proceed further and to have a better understanding about following analysis it is important to highlight the current prices of the different cargo bikes we can find in the market:

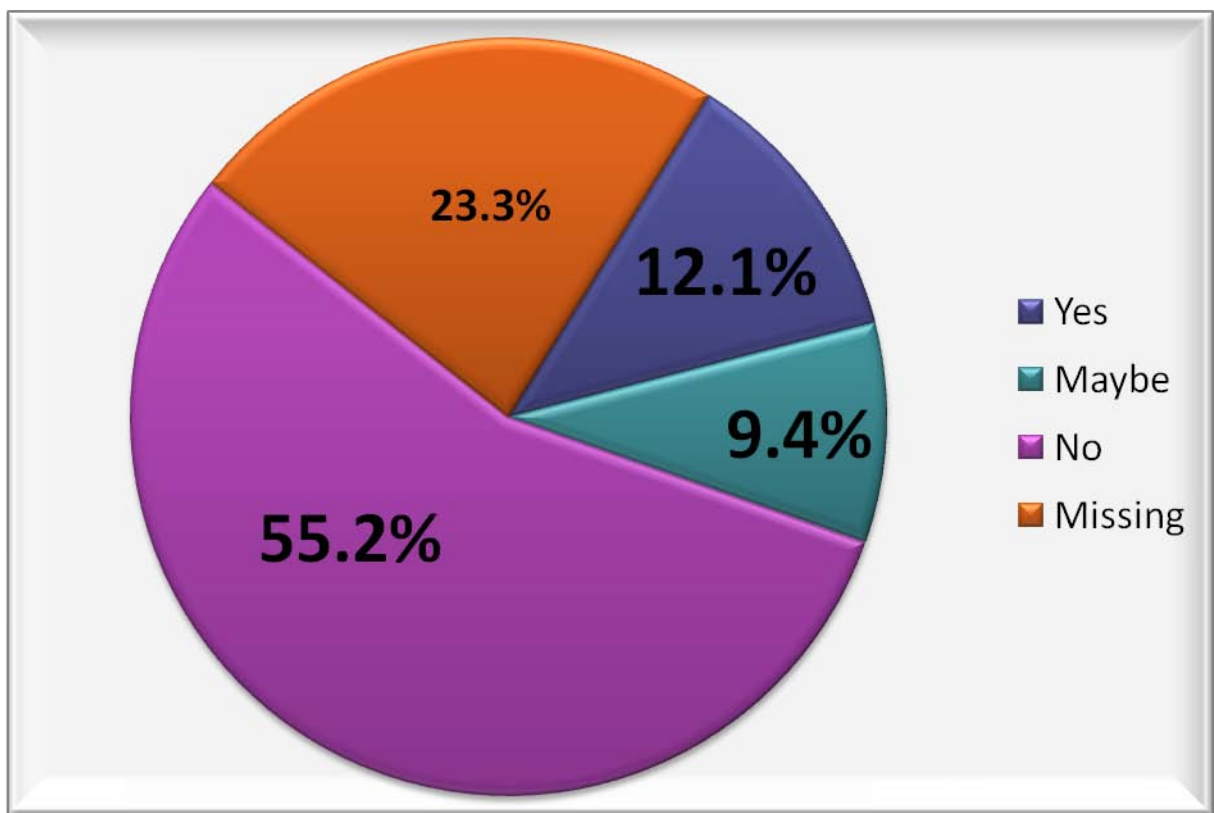
Figure 4: Cargo Bike Prices

 <p>Azor Twins bike</p> <p>From: From £948 FIND OUT MORE</p>	 <p>BIKES / BAKFIETS Bakfiets Cargobike</p> <p>From: £1,660.00 FIND OUT MORE</p>	 <p>Christiania Extended High Box</p> <p>From: £1500 FIND OUT MORE</p>
 <p>FAMILY CYCLING / CHRISTIANIA Christiania for Wheelchair</p> <p>From: £2448 FIND OUT MORE</p>	 <p>CHRISTIANIA / FAMILY CYCLING Christiania Low Box</p> <p>From: £1270 FIND OUT MORE</p>	 <p>FAMILY CYCLING / CHRISTIANIA Christiania Racer - Super Light</p> <p>From: £1700 FIND OUT MORE</p>
 <p>CHRISTIANIA / FAMILY CYCLING Christiania Standard</p> <p>From: £1270 FIND OUT MORE</p>	 <p>FAMILY CYCLING / CHRISTIANIA / WORK BIKES Christiania Trailer</p> <p>From: 430 FIND OUT MORE</p>	 <p>CIRCE / FAMILY CYCLING Circe Helios Tandem</p> <p>From: £1299 FIND OUT MORE</p>
 <p>FAMILY CYCLING / CHILDRENS BIKES / FOLLOW ME Follow Me</p> <p>From: £217.00 FIND OUT MORE</p>	 <p>TOWIN BIKES / KEMPER / FAMILY CYCLING Kemper PackMax Duo</p> <p>From: £1325 FIND OUT MORE</p>	 <p>ONDERWATER / FAMILY CYCLING Tandem Transporter</p> <p>From: £1710 FIND OUT MORE</p>

6.1 IS THERE A MARKET FOR CARGO BIKES IN HACKNEY? WOULD PEOPLE CONSIDER BUYING A CARGO BIKE TO CARRY THEIR CHILDREN?

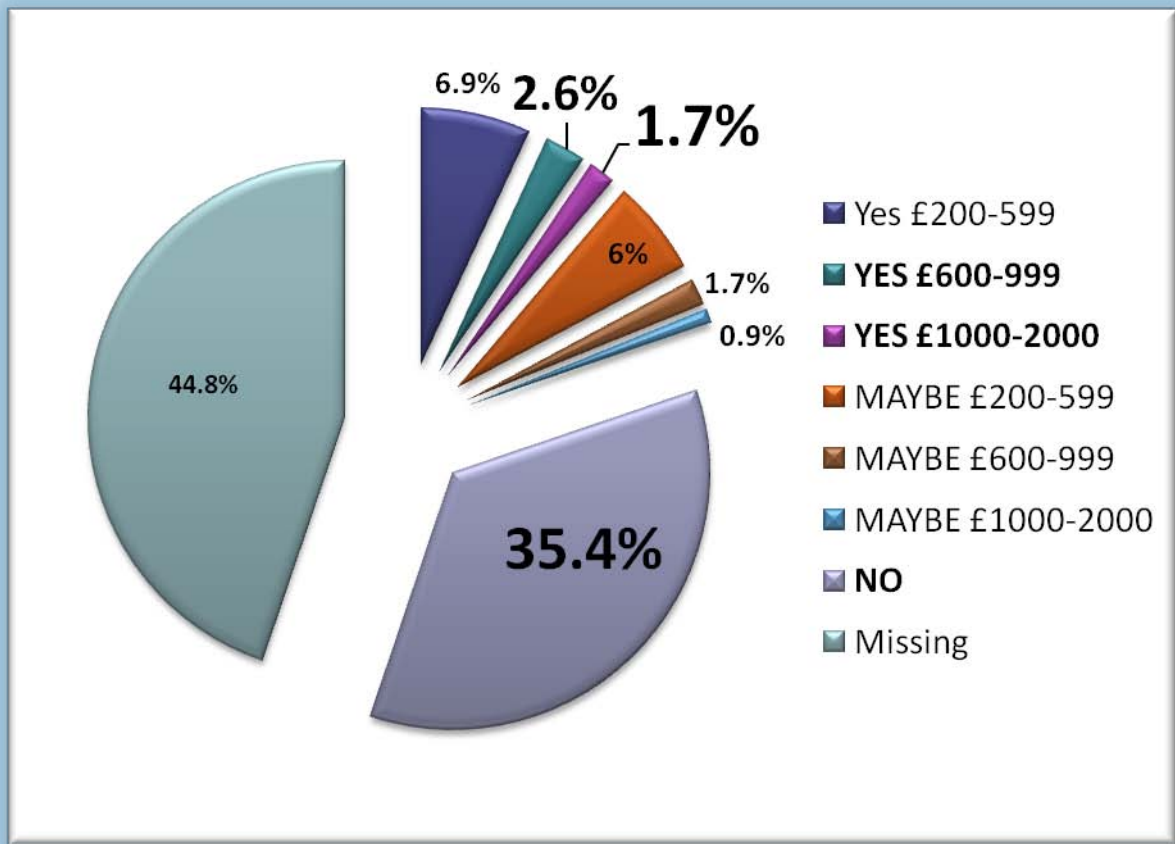
To the core question, if people would consider buying a cargo bike to carry their children can be seen clearly that, among those who answered; about 55.2% of the people asked would not consider buying a cargo bike to carry their children instead; 12.1% said they would consider buying a cargo bike and 9.4% said that maybe, they would consider buying a cargo bike. 21.5% of the people asked were at least willing to consider a cargo bike as a mode of transport to carry their children.

Figure 5: Would you consider buying a cargo bike?



While interest from one in five parents questioned might seem to indicate a substantial potential market for cargo bikes in Hackney, there is the important question of cost. The analysis must take into account the cost of cargo bikes and the willingness of this 12.1% and 9.4% of parents to spend the amount of money that a cargo bike currently cost. When doing this cross tabulation percentages vary dramatically taken into account the current price of cargo bikes. Therefore, the percentage of people who actually would potentially buy a cargo bike such as the Christiana bike is 1.7% whilst the percentage of people who potentially buy a cargo bike such as the Yuba Mundo is 2.6%. Moreover, there are about 2.7% of people who “maybe” would consider buying a cargo bike with current prices.

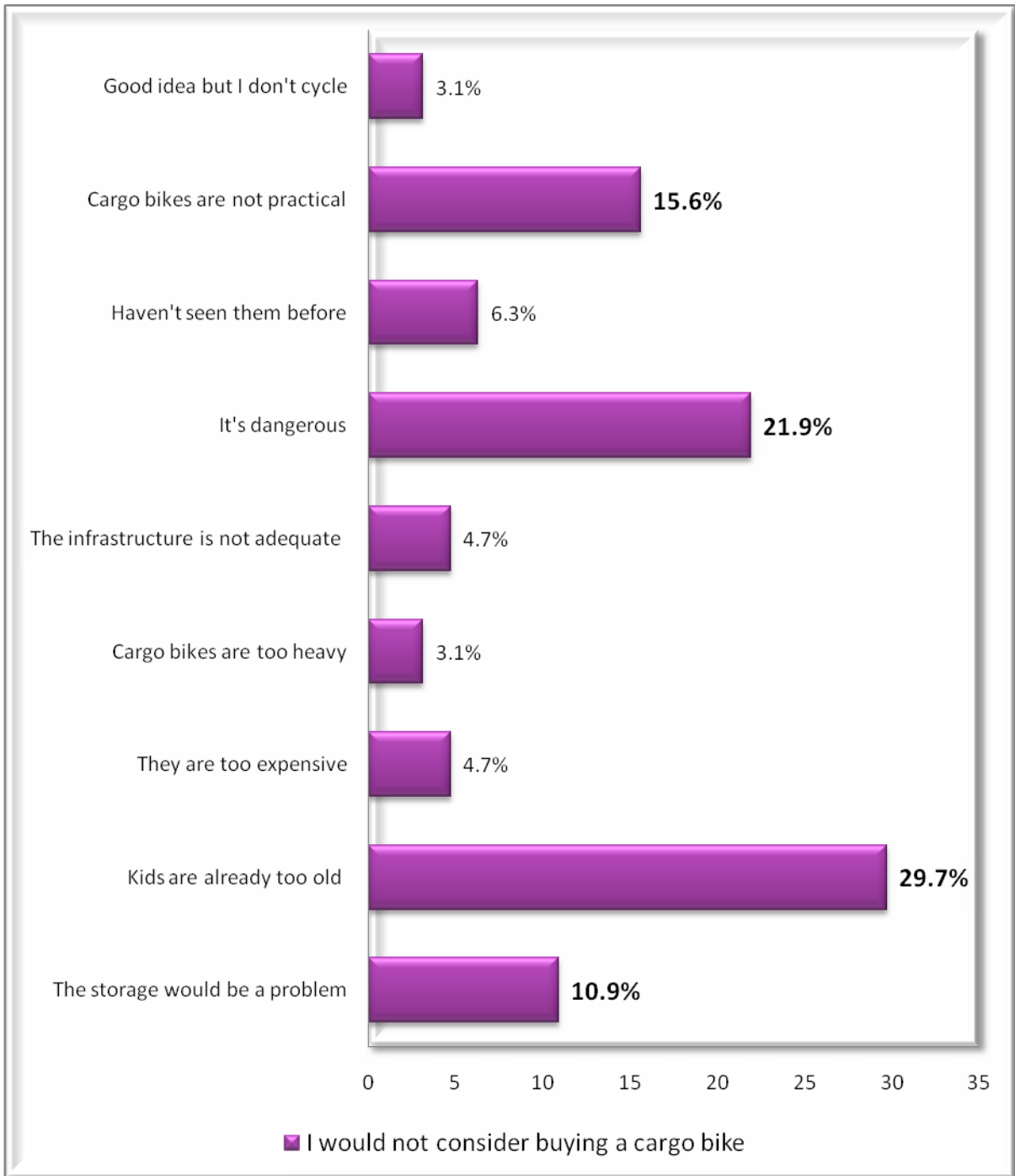
Figure 6: How much people would be willing to pay for a cargo bike?



Therefore, the potential size of the market for cargo bikes at their existing price is 4.3%. Overall, only a minority would consider buying a cargo bike as the figure 1 showed and this number decreases when considering the price of the current cargo bikes as figure 2 demonstrated. Despite the fact that there are not a high percentage of people willing to buy a cargo bike at current prices, if cargo bikes could be offered in a price range between £200-599 11.2% of people would be willing to consider buying a cargo bike. This suggests that governments subsidies similar to those offered for the purchase of electric vehicles might have a substantial impact on the market for cargo bikes.

Participants who said they would not consider buying a cargo bike were invited to comment on why this was. Having said that it is important to highlight that just 64.6% of those who answered negatively to the question if they would consider buying a cargo bike did actually respond to this question. Answers were very diverse but there were some reasons which emerged very often such as 1) children were too old to be carried on a cargo bike, 2) the feeling of danger that people attached to cargo bikes and cycling with children, 3) the impression that cargo bikes are not practical and 4) the problem of storage.

Figure 7: Why would not you buy a cargo bike?



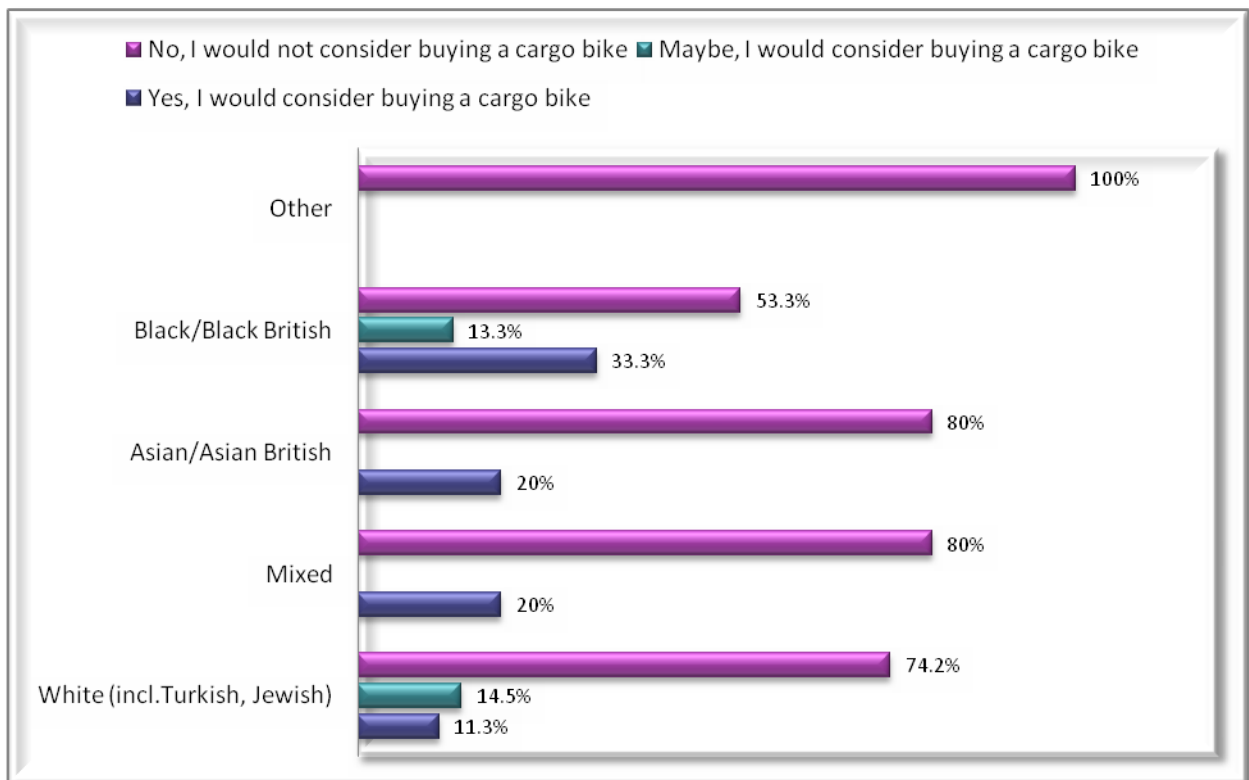
6.2 WHO WOULD BE DISPOSED TO START ADOPTING CARGO BIKES IN HACKNEY?

The following section explores which social groups are most willing to consider buying a cargo bike and is divided in two type of analysis: quantitative and qualitative analysis. The quantitative analysis looks at participants' ethnicity and their occupation. It also looks at levels of car ownership and cycling among participants to determine how these elements influence or not on participants' willingness to consider buying a cargo bike. Moreover, it explores what are the most important factors in deciding about buying a cargo bike. In this section just 76.7% of the answers were valid. On the other hand the qualitative analysis supports these findings through an in-depth interview with a shop owner who sells cargo bikes.

6.2.1 ETHNICITY

As it can be seen in the graph below the ethnicities which were more interested in buying a cargo bike were primarily Black/Black British parents, followed by White parents and finally Asian/Asian British and Mixed parents. About 33.3% of Black/Black British parents stated they would consider buying a cargo bike and 13.3% stated they maybe would consider buying a cargo bike. About 11.3% of White parents said they would consider buying cargo bike and about 14.5% said, maybe they would consider buying a cargo bike. Moreover, about 20% of Asian/Asian British and Mixed said they would consider buying a cargo bike.

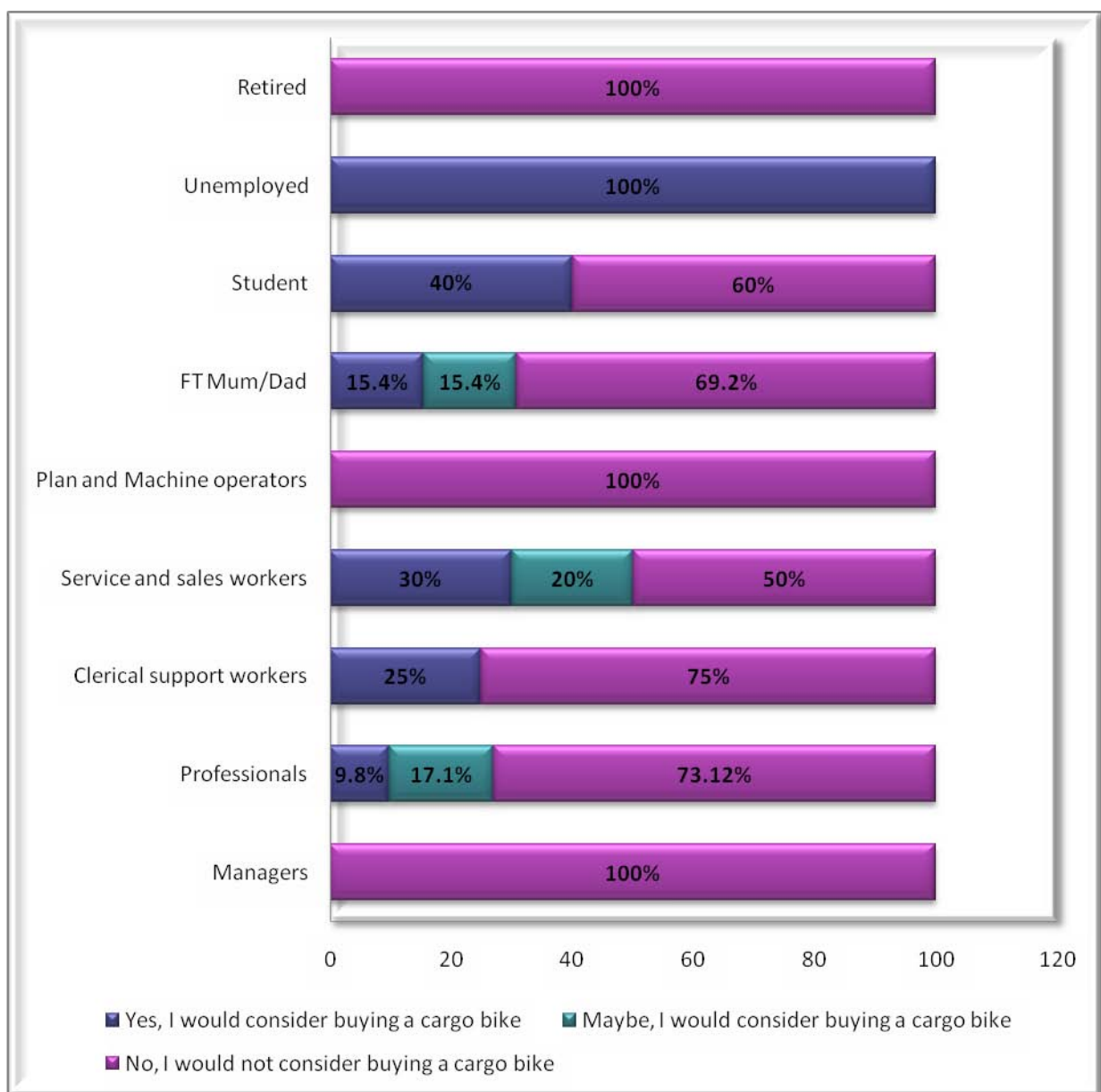
Figure 8: By ethnicity, who would be considering buying a cargo bike?



6.2.2 OCCUPATION

When looking for a pattern which could tell us about what people who would consider buying a cargo bike do, different patterns emerged. The group saying they were most willing to adopt cargo bikes were the unemployed, 100% of them would consider buying a cargo bike. Other groups with a high willingness to adopt cargo bikes were students, about 40%; service and sales workers, about 30%; and clerical and support workers about 25%. The groups with the lowest willingness to adopt cargo bikes were FT Mum/dad, about 15.4% and professionals, about 9.8%. Moreover, about 20% of service and sales workers, 17.1% of professionals and 15.4% of FT Mum/dad said that maybe, they would consider buying a cargo bike. On the other hand, 100% of Managers and the retired said they would not consider buying a cargo bike at all.

Figure 9: By occupation, would you consider buying a cargo bike?



6.2.3 HOW CAR OWNERSHIP INFLUENCES CONSIDERING BUYING A CARGO BIKE

People who showed relatively high interest on cargo bikes did not own a car, followed by those who own 2 cars and then 1 car. About 24% of those who did not own a car would consider buying a cargo bike; about 20% of those who own 2 cars and about 11.3% who own 1 car said they would consider buying a cargo bike. It can be deduced that those households which do not own a car are more interested in cargo bikes than those who own a car. However, the difference of interest in cargo bikes between those households which own 1 or 2 car and those which do not own a car is not too high. Therefore, it could be said that having a car or not having a car is not a very important element in deciding about purchasing a cargo bike.

Figure 10: By car ownership, would you consider buying a cargo bike?

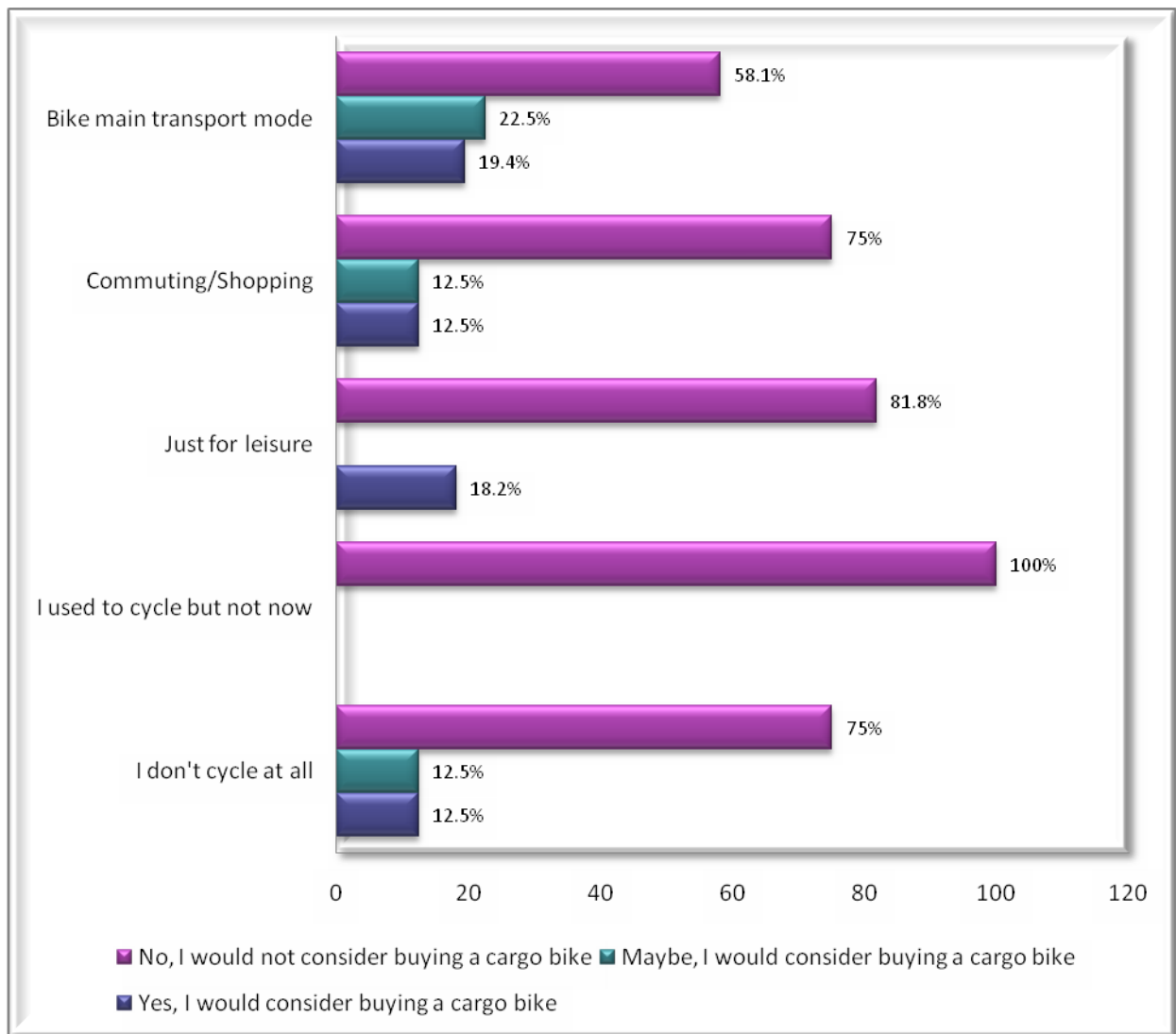


6.2.4 ARE PEOPLE WHO CYCLE MORE WILLING TO USE CARGO BIKE?

Looking at the following figure there is no doubt that for those who the bike is their main transport mode are more willing to consider buying a cargo bike. About 19.4% of those who use the bike as their main transport mode said they would consider buying a cargo bike and about 22.5% said maybe, they would consider buying a cargo bike. Interestingly, the difference between those who use the bike for commuting/shopping and those who do not cycle is not too high. About 12.5% of people who use the bike for commuting/shopping and do not

cycle at all would consider buying a cargo bike and about 12.5% of each group as well said that maybe, they would consider buying a cargo bike.

Figure 11: By cycling levels, would you consider buying a cargo bike?

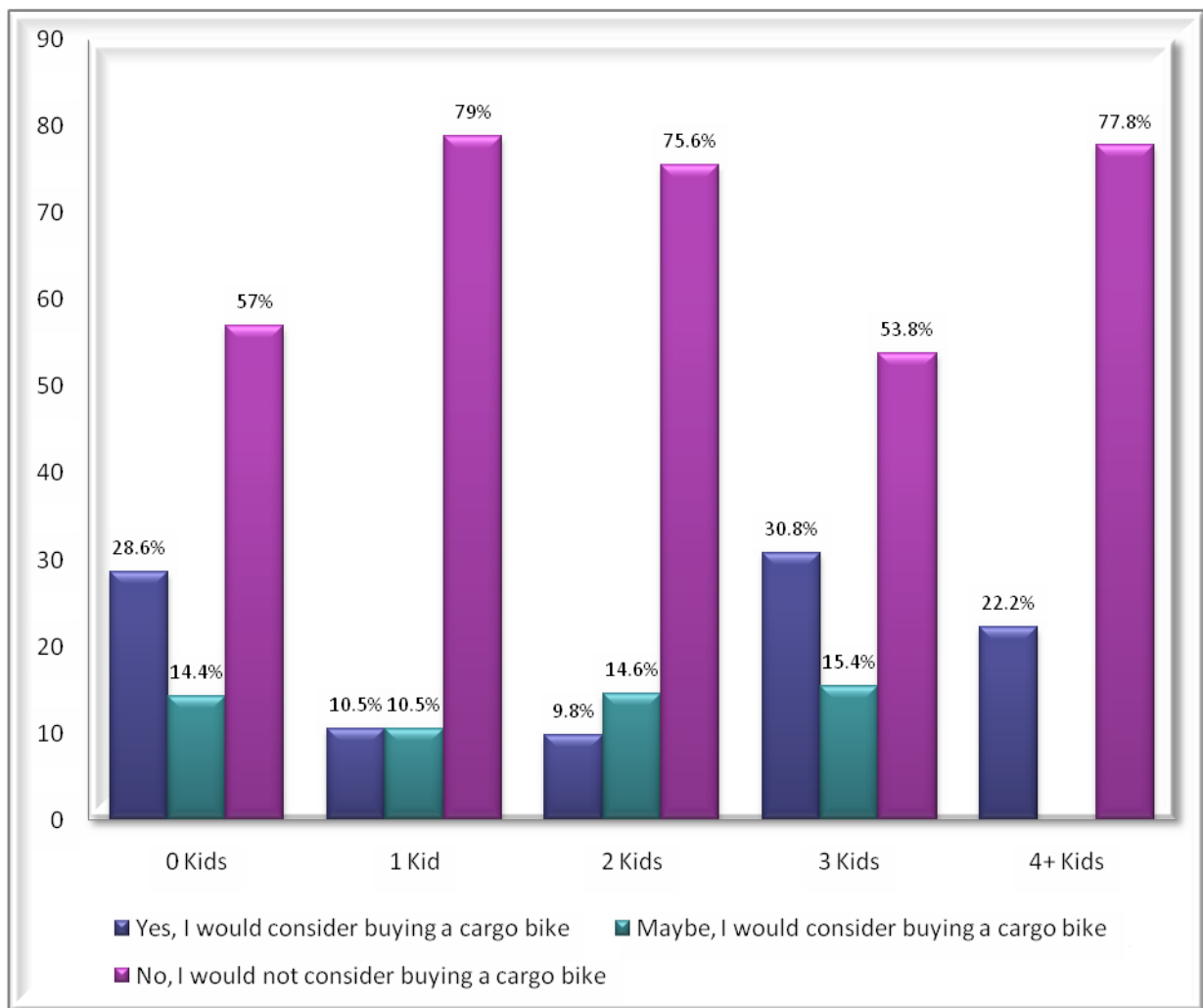


6.2.5 DOES NUMBER OF CHILDREN INFLUENCE CONSIDERATION OF BUYING A CARGO BIKE?

6.2.5.1 HOW MANY CHILDREN DO THEY HAVE?

The higher percentages of people who said they would consider buying a cargo bike were among those who have three children, about 30.8%; and for those with 0 children, about 28.6% followed by those who have 4 or more children, about 22.2% .

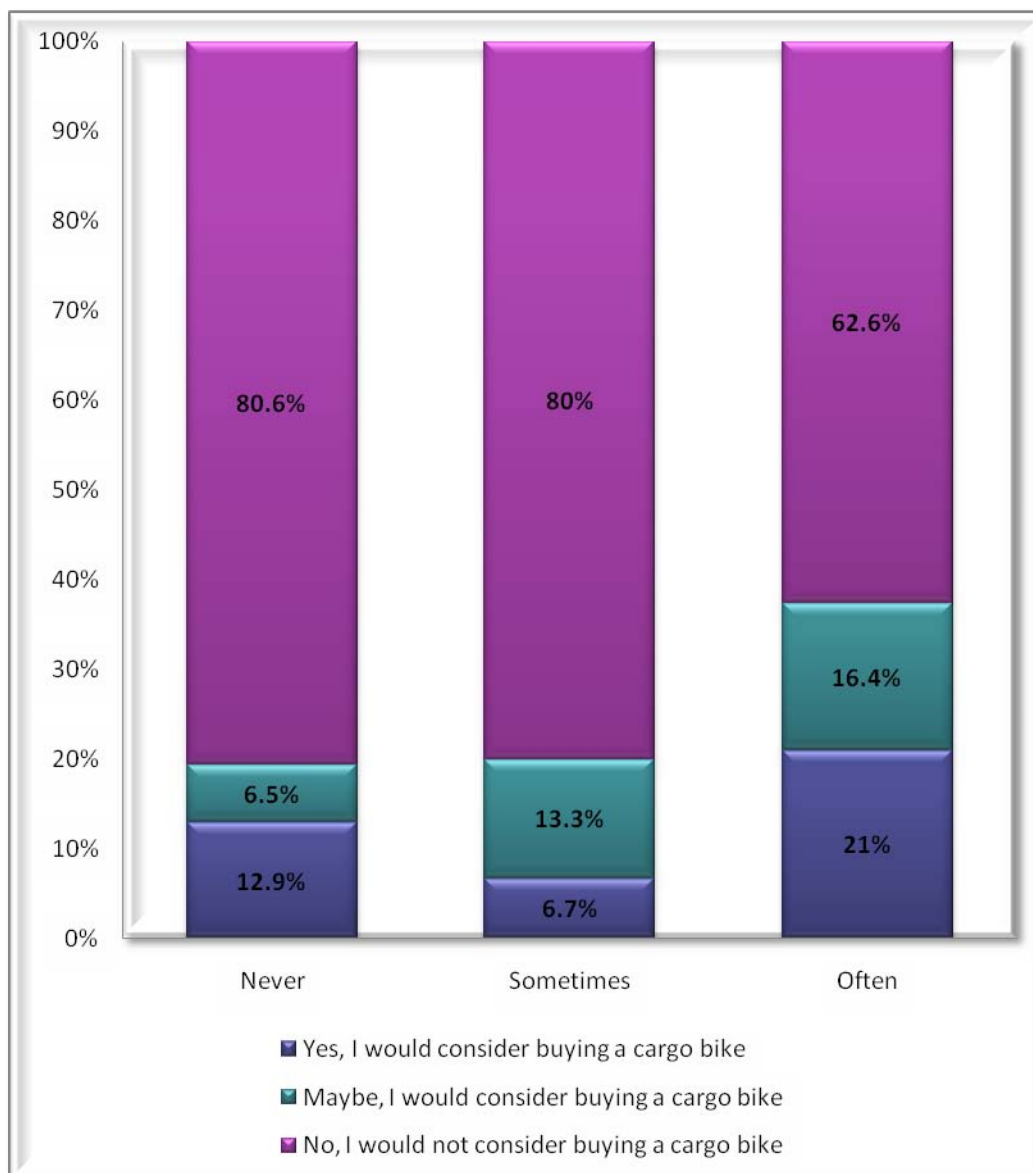
Figure 12: By number of children, would you consider buying a cargo bike?



6.2.5.2 HAVE THEY EVER CARRIED A CHILD ON A BIKE?

The highest percentage of people who were willing to consider buying a cargo bike was among those who often carry their children on a bike, about 21%. However, the second highest percentage of people who were willing to consider buying a cargo bike was among those who never carry their children on a bike, about 12.9%. Even among those who often or sometimes carry their children on a bike, there is a very low willingness to consider buying a cargo bike. About 62.6% of people who carry their children often would not consider buying a cargo bike and 80% of people who carry their children sometimes on a bike or do not carry them at all would not consider buying a cargo bike.

Figure 13: By carry children, would you consider buying a cargo bike?



6.2.6 INTERVIEW ANALYSIS

To support the previous analysis and comprehensively answer the question of “who would be disposed to start adopting a cargo bike?” I interviewed the owner of a bike shop, who is going to be presented as S.O. told me about the general profile of the customers interested in cargo bikes and the specific situations surrounding the use or the purchase of a cargo bike.

As it has been noticed earlier, people with more than two children were more interested on cargo bikes as well as for people with no children. The shop owner argued that cargo bikes are lifesavers and are very practical for business and family transport.

S.O: Well, cargo bikes are used for both business and family transport. These bikes are lifesavers. In Copenhagen, a quarter of the families with two children have one.

As it has been noticed during the quantitative analysis, cargo bikes in Hackney are not as famous as in Copenhagen and people do not see its practicality as much as in Copenhagen people do. As the shop owner said, cargo bikes in Hackney are still seen as an exception.

S.O: Often, the use of a cargo bike is seen as an eccentricity until there is a second one, and then it is not anymore an eccentricity.

As the previous figured showed during the quantitative analysis, the potential users for cargo bikes in Hackney are those families who have had the second or third child and often cycle and carry their children on a bike.

S.O: Cargo bikes here are for people who likes to cycle and for those who have had the second child and want to keep going by bike as much as they can.

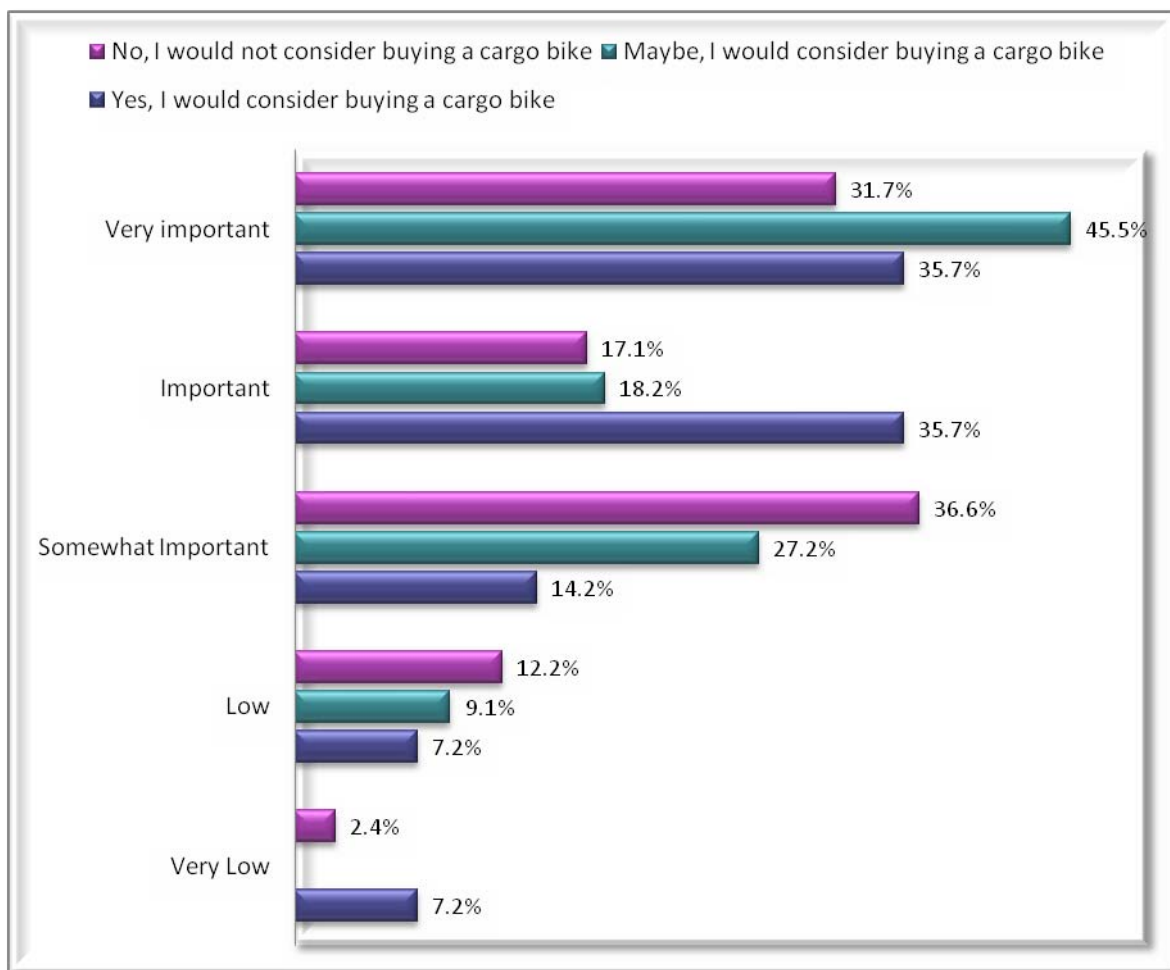
6.3 How important would the following factors be in deciding about purchasing a cargo bike?

In this section it is important to mention that just 53.4% of the answers were valid because there has been some missing data due to unanswered questions in the first half of the survey and a change in how the questionnaire was used halfway through the fieldwork. When looking generally at the importance of cost, safety, infrastructure and storage. It can be seen in the following graphs that there was not a huge difference of opinions between those who would consider buying a cargo bike and those who would not. On each figure can be seen that bars are almost equally distributed across the options given, however, when it comes to safety people had no doubt it was very important, more important than cost.

6.3.1 COST

About 71.4% of those who would consider buying a cargo bike said cost is a very important or important factor as well as for those who would not consider buying a cargo bike. About 23% of the people who would consider buying a cargo bike or maybe would consider buying a cargo bike said cost was not too important.

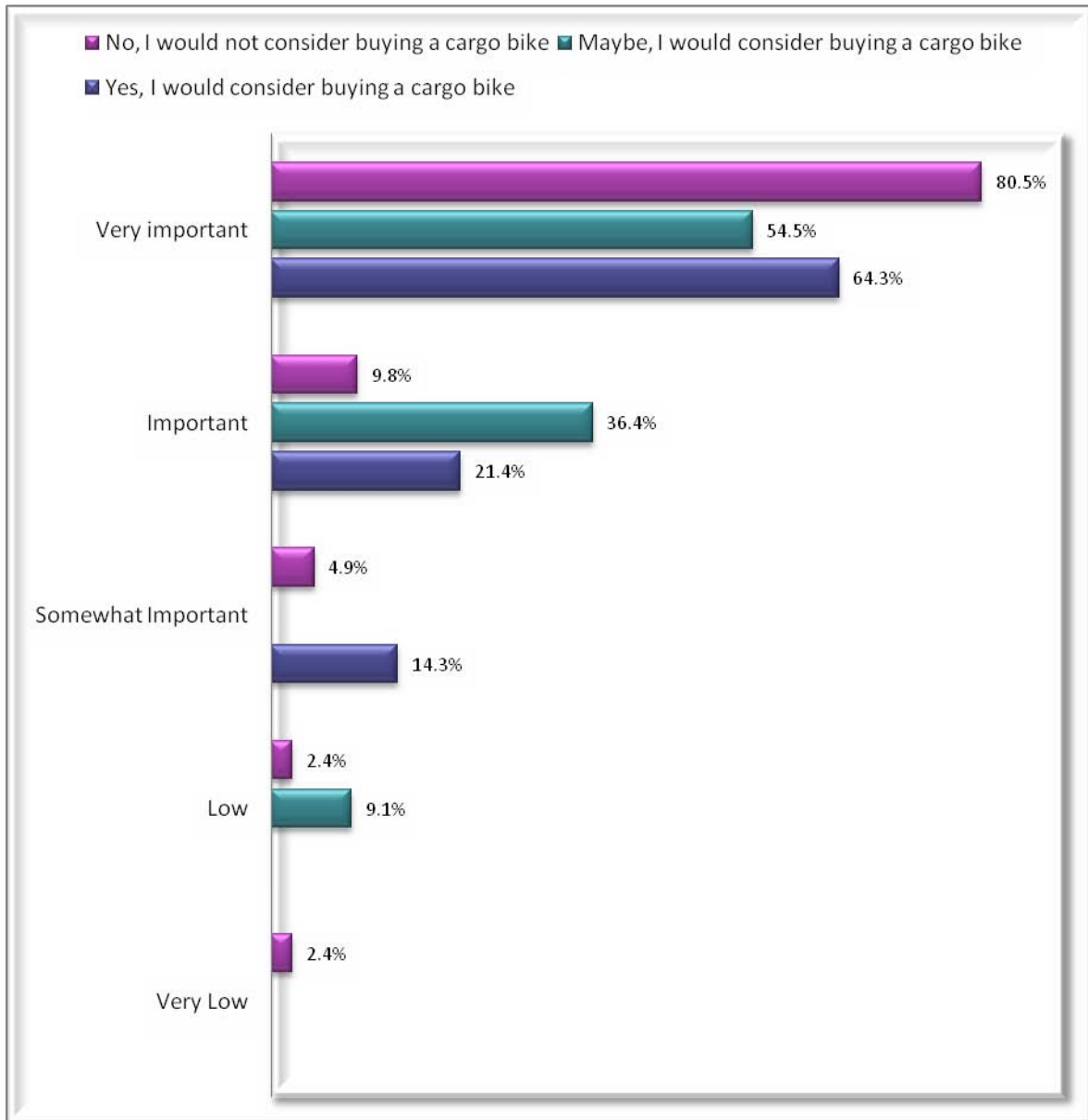
Figure 14: How important would cost be when considering buying a cargo bike?



6.3.2 SAFETY

About 85% of those who would consider buying a cargo bike, safety is a very important or important factor to take into account and about 90% of those who would not consider buying cargo bike said that too.

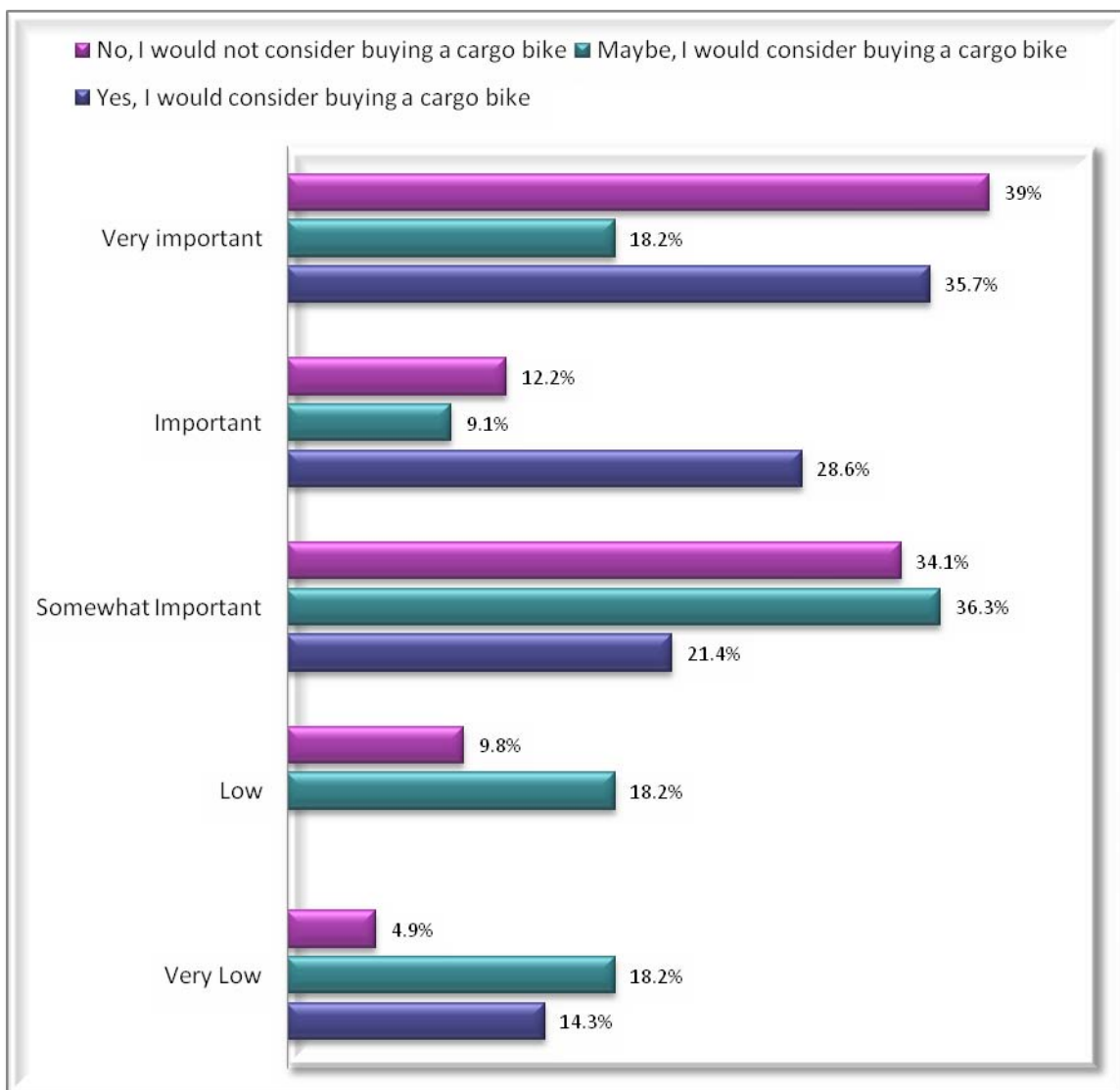
Figure 15: How important would safety be when considering buying a cargo bike?



6.3.3 INFRASTRUCTURE

The importance participants gave to transport infrastructure was more diverse than other factors. About 36% of those who would consider buying a cargo bike said infrastructure was very important but at the same time 14% said it was not important at all. These figures were not too different for those who would not consider buying a cargo bike. About 40% of them said it was very important, about 35% said it was somehow important and about 13% said it was not important.

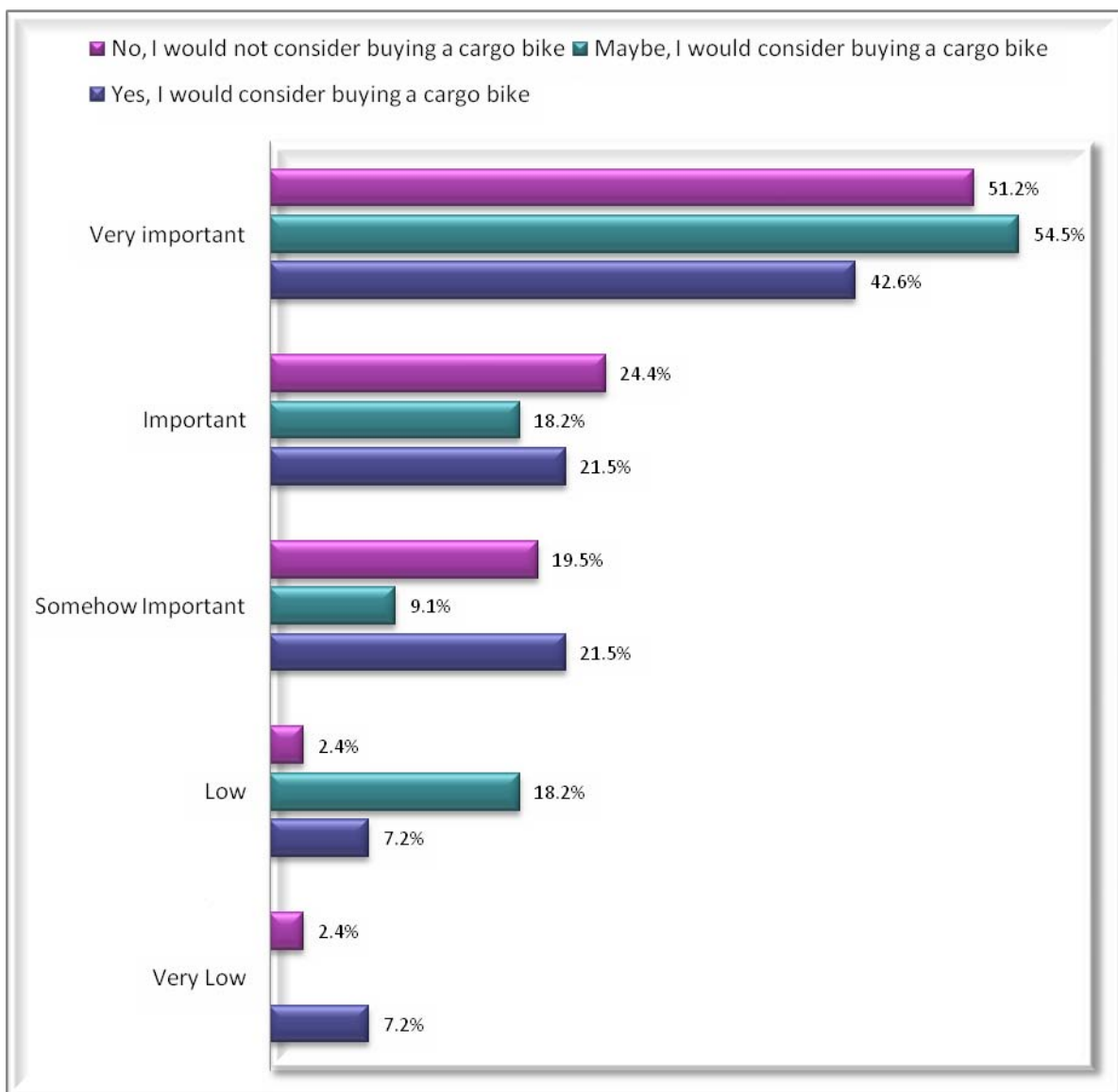
Figure 16: How important would infrastructure be when considering buying a cargo bike?



6.3.4 STORAGE

In terms of finding a place to store the cargo bike participants said it was quite important, independently of whether they would consider buying a cargo bike or not. Moreover, about 43% of those who would consider buying a cargo bike said it was important and about 52% of those who would not consider buying a cargo bike said that too.

Figure 17: How important would storage be when considering buying a cargo bike?



6.4 ADVANTAGES AND DISADVANTAGES OF CARGO BIKES AMONG USERS AND POTENTIAL USERS

This section explores the advantages and disadvantages of cargo bikes among users and potential users trying to establish a link between the perceptions of cargo bikes collected from the analysis of questionnaires and the perception people who use or will use a cargo bike have, collected from the in-depth interviews. The participants of this section have been a family who owns a cargo bike whom are presented by the name James and a business man who is interested in introducing cargo bikes for his business in the area presented as Charles.

6.4.1 ADVANTAGES

When exploring the advantages of having cargo bikes these are some of the comments I received from people who use or are into cargo bike culture. Cargo bikes are a very useful mode of transport if thinking about carrying children as well as goods, James said:

J: Cargo bikes are very useful even when I want my children riding. I can carry the two children and their bikes to the park where they can ride.

They are easy to ride and provide exercise as James stated:

J: We wanted a way of getting children to school there was an easy way of doing it that didn't involve using a car; we wanted to keep fit as well actually.

Another important advantage of cargo bikes is that they are a sustainable mode of transport which allows people to contribute reducing CO₂ emissions as Charles noted:

C: Well, I think the main point why we decided to go with cargo bike are the factors that are sustainable, you know, it's green energy and also helps to reduce traffic and emissions....

Interestingly and in contrast to what the questionnaires said, people who use cargo bikes said that cargo bikes are more cost-effective than a car:

C: Obviously cargo bikes are more cost-effective than getting a van or a car....

6.4.2 DISADVANTAGES

When exploring the disadvantages of cargo bikes it is important to mention that people who use them or are interested in cargo bike culture hesitated when asked about the disadvantages. It does mean that there are not disadvantages about cargo bikes but probably that the advantages make a difference or that the fact that cargo bikes are seen as an eccentricity makes people who use cargo bikes aware of it and therefore concerned

to present them positively. However, as Charles noted, cargo bikes are not very useful when riding long distances:

C: Ummm....if we had to travel large distances, I would not probably have one.

Moreover, as James noticed cargo bikes can create traffic congestions due to their size. Taking into account the current cycle infrastructure in Hackney, there are some routes where one cannot pass through:

J: Another thing that's interesting, particularly in Hackney where there's a lot of cyclists, in the morning because a lot of cyclists are cycling into town and I am cycling for the school run, I am often cycling the opposite way in cycle lanes towards 20 cyclists coming towards me, it's a bit difficult because they don't expect to see one of these coming the other way so sometimes you have to take care.

J: Since I have a cargo bike I had to change my routes because the path has gates which with a cargo bikes you cannot pass.

7. DISCUSSION

7.1 IS THERE A MARKET FOR CARGO BIKES IN HACKNEY?

Drawing from the results of the analysis it can be concluded that currently there is a small market for cargo bikes in Hackney. There are more people interested in cargo bikes as a mode of transport than are currently willing to buy a cargo bike owing to the current price. However, looking at the figures extrapolated from the questionnaires and the comments from the in-depth interviews it can be noticed that people who are into cargo bike culture do not mention the cost as a problem but as an advantage in the long term. It suggests that cargo bikes' advantages are not understood by the population in Hackney and awareness about cargo bikes should be raised in order to increase the market. To raise awareness about cargo bikes local authorities could introduce sharing schemes or subsidies which could help to increase cargo bike users. There is a need to sensitively design infrastructure with cargo bike users in mind.

7.2 WHO WOULD BE DISPOSED TO START ADOPTING CARGO BIKES IN HACKNEY?

When looking at the variables analyzed to determine which social groups would be more willing to start adopting cargo bikes in Hackney there was not a big difference between the categories. These similarities among the categories suggest that rather ethnicity or other variable being a factor of difference is the lifestyle adopted, which seems to make a difference among individuals. However, it is important to mention that generally, the profile of families which currently would be more willing to start adopting cargo bikes are those families among lower middle classes who have more than 2 children, already cycle and often carry their children on a bike.

7.3 WHICH ARE THE MOST IMPORTANT FACTORS IN DECIDING ABOUT BUYING A CARGO BIKE?

Among our participants cost, safety, cycle infrastructure and storage are very important factors in deciding buying a cargo bike. However, the most important element taken into account by our participants was safety and storage followed by cost and cycle infrastructure. Taking into account the factors that people considered as important in deciding buying a cargo bike it can be mentioned that policy strategies could have important implications in the size of the market of cargo bikes.

8. CONCLUSION

Although currently there is a small market in Hackney for cargo bike this project suggests that there could be a potential future market for cargo bikes in Hackney. An important element which needs to change for the cargo bike market to increase is the perception of them among people such as its practicality and its cost. Therefore I recommend that in future research projects conditions under which people would consider using a cargo bike need to be studied to determine what actions needs to be taken to raise the popularity of cargo bikes. As Rachel Aldred concluded¹:

“There are several reasons to think there might be increasing demand for cargo bikes in Hackney. Firstly, there is the broader rise in cycling in the borough, which has led to the relative normalisation of cycling, likely to be a prerequisite for any market in cargo bikes. Secondly, Hackney has experienced a distinctive form of gentrification linked to the borough’s strong local identity: according to local author Iain Sinclair in *Hackney: That Rose-Red Empire*, such incomers are typically ‘intelligent, focused, aggrieved ... conforming in nonconformity’. People in this group (often professionals, artists, or creatives) are likely to be attracted by the subcultural, environmental, and political connotations of cycling. Moreover, many are now in their thirties and having children. A third factor is the embedding of cycling into community practices and organisations: some of Hackney’s schools strongly promote cycling and there are many bike shops, as well as cycling clubs, cafes, organisations, and festivals. Finally, Hackney has relatively low rates of car ownership: over half all households in the 2001 Census had no car, substantially higher than London at 37% and England at 27%. This means that car use and ownership are relatively de-normalised, and given that escorting children is a major reason for car use, provides an additional factor that could – given the right conditions – increase the market for cargo bikes.”

¹ Personal Communication

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