



# Lambeth Business Intelligence

An Interactive Qualifying Project

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# **Abstract**

Lambeth, a central borough of London, is undergoing large population growth and a shrinking budget. This strains the Lambeth Council's services, so they have chosen to integrate a Business Intelligence [BI] system to improve efficiency. Our project encouraged the staff who gather and use data to incorporate this BI system. After gathering information through interviews and surveys, we developed an integration plan through workshops and a poster. However, many staff members do not use the BI system due to lack of knowledge or perceived uselessness. More workshops, surveys, and interviews will aid the use of this system amongst the council.

## **Executive Summary**

### **Business Intelligence**

BI is a technology-driven process for analyzing data and converting it into useful information. It has helped businesses, corporate executives, governments, councils, and the health industry among other organizations make informed decisions. Several case studies further demonstrated the usefulness of BI.

A suburb in Sweden, called Järfälla Kommun, implemented BI in the contact center of the municipality that improved decision making and the quality of life of its citizens. In addition, a hospital in Southern Taiwan incorporated a BI-based SQL system to streamline information and meet quality standards. Our final case study discussed what factors lead to a successful BI system, using five example organizations. The borough of Lambeth has been developing a new BI system, called the Insight Hub, in order to improve service efficiency and take advantage of the uses of BI. Our project promoted the Insight Hub and improved awareness of BI.

### **Lambeth's Profile**

Lambeth is the 8th poorest borough in London, with a dense population of 310,000 people. Of the working age population, 80 percent is employed; however, 20 percent are below the poverty line. Lambeth's budget has been shrinking and will continue to decrease until 2020. The central government expects all boroughs to be self-sufficient at that time and will no longer fund the borough. Combined with the population growth, a low budget drove the need for more efficient services, hence the council's choice to use a BI based system.

## **Lambeth's Administration**

The administration of Lambeth dispenses its services through the council and the cabinet. In further detail, Lambeth is split into 3 main services. They are categorized as the Children, Adults and Health services, Neighborhoods and Growth services, and Corporate Resources. Public Health is a service with a more external base, concerning all of London rather than just Lambeth. Our project focused on the commissioners and service managers who are largely responsible for collecting and using data to improve their services. The commissioners draft long term plans for services while the service managers administer the day-to-day aspects. Their uses of data differ, but the Insight Hub will benefit both positions and improve service efficiency.

## **Objective 1: Research staff opinions on the use and analysis of data in Lambeth**

Objective 1 developed our understanding of how staff are using data via interviews and a survey. The response rate to our interviews and survey were low due to the current state of flux within the Lambeth Council. Regardless, we had three interviews from different perspectives of the services. We interviewed a Business Control Service Manager who demonstrated limits of Insight Hub. The interview with a BI Analyst illustrated the novelty and lack of awareness of the Insight Hub since it is a new concept in Lambeth. Likewise, we interviewed a BI Team Manager and learned about the Insight Hub as well as its usefulness.

We sent out the survey to staff to further comprehend what data they use and their exposure to the Insight Hub. It served as an introduction to the Insight Hub for those who did not hear of it. The information we gathered was then compiled and applied to develop our integration plan for objective 2.

## **Objective 2: Develop and implement an integration plan of BI in Lambeth**

Our integration plan included a workshop and a poster to encourage the use of the Insight Hub. During the workshop, the Lambeth staff discussed their uses and sources of data and how BI and the Insight Hub can impact their work. The workshop explained the meaning and importance of BI and gave staff a hands on experience with the Insight Hub. Workshop evaluations were also given at the end for future improvement. A script and PowerPoint is included for the BI system

staff to easily lead these workshops in the future. Furthermore, the poster was created as an additional advertisement for the Insight Hub (See Appendices K and L).

## **Conclusions**

The first outcome that we observed is that some staff members do not understand that they use BI. This caused many problems for scheduling interviews. The commissioners and service managers would mainly not respond, or pass the email along to other staff members who they thought dealt with BI more often. The Insight Hub faced a similar predicament. This will be remedied over time as the Insight Hub continues to be advertised and improved.

After finalizing the interviews and surveys we discovered there were 2 main issues concerning the Insight Hub. Most people did not know about the Insight Hub, and those who did thought it was useless for them. For this reason we came up with three recommendations on how to address these issues.

## **Recommendations**

### **Advertise the Insight Hub with Posters**

More exposure to the concept of the program will increase familiarity, thus allowing more staff members to be open to using the hub. We developed a poster for this purpose as a deliverable (See Appendix N). However, other advertisement methods are possible.

### **Hold More Workshops**

While the poster focuses on increasing awareness of the Insight Hub, workshops address the misunderstandings regarding BI. Discussions between different services about data usage break down communication barriers, allowing for more cohesive BI systems. Additionally, the importance of BI, as well as the definition, can be more easily portrayed in a workshop setting.

### **Conduct Additional Interviews and Surveys**

Due to the novelty of BI, we advise the continuation of interviews and surveys. As BI and the Insight Hub become more incorporated within Lambeth, more information will be needed to improve the BI system as well as to track improvements.

## **Acknowledgements**

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## Authorship Page

James Chen, Chris Fernández, Rachel Whalen, and Benjamin Sarkis all contributed to the research and writing of this report. The following is a breakdown of how the report was written for this project.

Chris Fernández researched the bulk of BI and drafted the original second section of the background. Other drafts of his include the case study in Sweden and the interview section of the methods. He also edited the other two case studies and made partial edits on the sections about the government structure of Lambeth.

Rachel Whalen conducted research on the Lambeth Government as well as Workshops. She drafted the two sections about the Lambeth Government, the methods section about workshops, and the section on Posters and Visual Aids. She also formulated the timeline that is depicted in brief and in detail. Her editing job included part of the introduction to the background section, the section on barriers to BI, the introduction to Lambeth's profile and its population, and the last part of the paper about developing the integration plan.

Benjamin Sarkis investigated two case studies about the uses of BI, focus groups, and details about the borough of Lambeth itself. He drafted the case studies on the hospital in Southern Taiwan, and the Empirical success factors of BI. In terms of Lambeth's profile, he drafted the section on budget and employment. For the methods component of the paper, he drafted the section about the first objective, and the section on focus groups. His editing involved part of the introduction to BI, the definition of BI, the uses of BI, BI in Lambeth, part of the introduction to Lambeth's profile, part of the section on government, the introduction to methods, and the proposed timeline.

James Chen researched Lambeth's history as well as the budget for the Lambeth council. He wrote the introduction for the section about BI as a whole, the introduction to Lambeth's profile, Lambeth's budget, the introduction to first objective, and all of the second objective. He edited the case study about Sweden, the sections on population and employment, the overview of all the methods for the first objective, and the section on focus groups.

All of us did touch ups in sections not mentioned to maintain the clarity and consistency of the paper. A detailed list of the primary authors and editors is also provided (See Appendix A).

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## Glossary

**Data** - consists of facts and figures used to describe qualitative or quantitative statements about a specific subject.

**Economist Intelligence Unit (EIU)** - An independent business that offers forecasts and suggestions to organizations such as cities, countries, and firms. They are staffed by economists and are part of a group called the Economist Group. (Economist Intelligence Unit, 2016).

**Idox Group - (Idox)** is a leading provider of complex information management solutions and services to the Government, Funding and Compliance sectors and increasingly to highly regulated asset intensive industries around the world in the wider corporate sector (“Home - Idox group,” n.d.).

**Information** - is the output of some processing, interpretation or analysis of data that seeks to represent and convey meaning.

**Information Governance** - is an ‘umbrella’ term that forms the elements of law and policy from which applicable information governance standards are derived. It encompasses legal requirements, ethical considerations, national guidance and best practice in information handling.

**Online Analytical Processing (OLAP)** - A technology used in many BI systems. It is a catch-all term that refers to report viewing, complex analytical calculations, and forecasting among other uses. (OLAP.com, n.d.)

**SQL** - Structured Query Language, a language updated and maintained by the American National Standards Institute which is used for accessing and managing databases. Database administrators are the ones who primarily use this language. (Quality Nonsense Ltd., 2016)

**Taiwan Quality Indicator Project - (TQIP)** An initiative started by Department of Health of Taiwan that is based off two other Quality Indicator Projects from Maryland and the International Stage. It has three criteria for quality: acute care indicators, psychiatric care indicators, and long-term care indicators (Chang, 2011)

# 1. Introduction

Lambeth has a growing population of roughly 310,000 people and a declining budget with a £36.9 million cut in the 2015/2016 budget (*State Of The Borough*, 2014; Hill, 2015). The population growth by itself has strained the services that the local government can provide. With additional budget cuts in the next few years, Lambeth is struggling to provide the necessary services for its residents. More efficient service models are required to counterbalance this looming reality of limited resources. Business Intelligence [BI] can greatly improve the service efficiency and increase Lambeth's service deliverability for its residents in the face of these challenges.

BI, as defined by Negash, is the term for a system that combines data gathering, data storage, and knowledge management with analytical tools to present complex information to planners and decision makers (Negash, 2004). It is a relatively new concept, as it relies heavily on technological tools. Yet, the act of gathering and sorting information, while not formally BI, resembles the spirit of BI (N. Hatch, personal communication April 21, 2016). Thus, BI itself is the most recent iteration of information organization and processing. In various organizations throughout the world, the rapid increase of information causes a need to compartmentalize and utilize massive amounts of data. Therefore, BI has been used in hospitals, businesses, and even government councils. For example, Swedish municipalities as well as Taiwanese hospitals have implemented BI based systems in the search for efficient decision-making (Adelakun, 2012; Kao, 2016). These implementations have improved the services and efficiency in both cases.

Between the services of the London Borough of Lambeth's Council, there are disconnected information communication systems that cause miscommunication and low communication. In January of 2016, the council created a BI-based database, called the Insight Hub, in an effort to improve information sharing amongst services. There exists many different information databases in Lambeth's council, nearly one for each department. This makes the information flow within the council inefficient due to the steps and time it takes for information to travel from one service to another. Some miscommunication happens when a citizen's profile is not being passed on to other services on time or completely. For example, Social Health services will not be able to help society if they do not have a complete profile for each citizen (*OASIS*, 2014).

BI itself is a growing concept not 20 years old, let alone the Insight Hub. However, with the help of BI, governments have the potential to improve all different types of services by using the collected data in insightful ways. Our overall aim is to encourage the Lambeth Council

commissioners, service managers, and staff to use the new BI system so Lambeth can improve its service delivery. We researched how BI is presently being used and spoke with Lambeth staff in order to gather their thoughts and opinions. Unfortunately, staff across all services knew almost nothing about BI or the Insight Hub because it is new in Lambeth. To remedy this, we presented the new BI system and explained how the staff are already using BI through data analysis. Our final objective was to implement an integration plan that could proceed into the future. We postulated that this would raise the conscious use of BI as it evolves in Lambeth as well as increase service efficiency.

## **2. Background**

### **2.1 Background Introduction**

This chapter begins with details on what BI means as well as the real world implications of using it within an organization. The typical processes that follow a BI philosophy are discussed, as well as benefits and drawbacks related to BI. We then elaborate on several case studies about BI in practice to demonstrate how exactly it has worked in both the government and the health industry. In order to understand why Lambeth has considered BI, we will describe their current situation. We include geographical and historical information to aid in framing the issues Lambeth must deal with today. We then present statistics on the budget, population, and employment to provide modern day context. These statistics provide an understanding of Lambeth's problem solving capability. We conclude the background section with an explanation of the government structure within Lambeth. It is necessary to know how the government is arranged so that we maximize the value of our project by gathering input from the right people.

### **2.2 Business Intelligence**

#### **2.2.1 Definition of BI**

BI is a technology-driven process for analyzing data and converting it into useful information to help businesses, corporate executives, governments, councils, and many other organizations make informed decisions. BI may be divided into four stages ("What is Business," n.d.). The first stage is gathering data or accessing data that has already been gathered. At this stage, caution must be taken with how data is gathered. Otherwise a system contains information to the point where it is inaccurate, unreadable, or incomplete (Popovi, 2009). Consequently, stage two addresses overload issues by sorting data so that it is easy to access when needed. Stage three is analyzing the data. In this stage the data is inspected in order to gain new insight on how processes are functioning. The final step is providing access to this information. While the process compartmentalizes data into a practical format, using this data for effective execution remains an issue (Blackman, 2015; Khan, 2009).

### 2.2.2 Barriers of BI

A problem with BI in recent years is that despite huge investments by big companies, organizations using BI fail to convert data into useful knowledge. According to Khan, such conversion failures arise from data access issues (Khan, 2009). Indeed, in a study conducted by the Economist Intelligence Unit [EIU] on businesses that use BI, a pyramidal pattern of access arises (EIU, 2007). A mere 22 percent of respondents said all employees has access to business data, rising to 54 percent for middle managers and 84 percent for senior managers (Figure 1) (EIU, 2007). Access issues exacerbate the prevailing attitude of employees resisting change (Khan, 2009). The study by the EIU states that nearly 80 percent of employees will still use Excel sheets for fear of skewing the data (EIU, 2007).

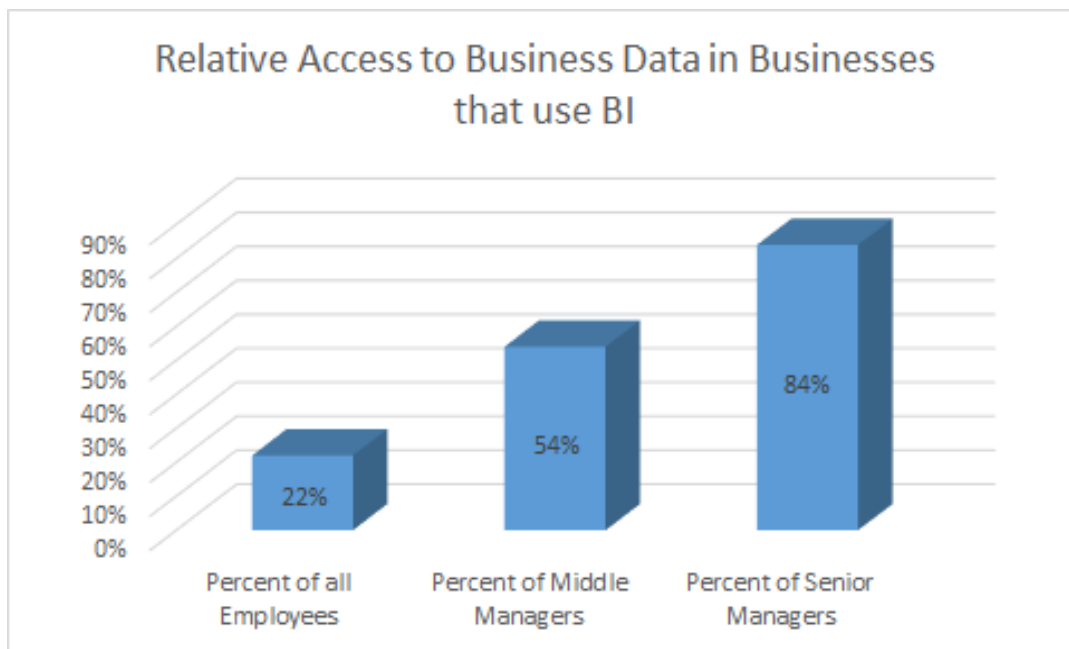


Figure 1. A view of perceived access to information in Businesses that use a BI based system. Data Source: (EIU, 2007).

A financial factor inhibits implementation as well. BI systems can suffer from an overload of sparsely used features, expensive consulting, and costly management of data (Fielding 2006). Additionally, this cost might not produce immediately useful results, as staff members have to readjust to a new system. When implementing BI the amount of manpower required to lead to a successful system may stretch the functionality within. However, amidst the drawbacks related to BI, there are several options and procedures to consider, depending on how an organization wants to use its data.



### 2.2.3 Uses of BI

One of the most common forms of BI is business operations reporting (“Business Intelligence,” n.d.). Operation reports are used to show company performance during a certain time period, measure customer satisfaction, and quality inspections. This information can then be packaged in a readable format, so that any potential stakeholders can see the status of the organization (Chen, 2003). BI forecasting is another form of BI in which one can analyze historical data to try and predict the future. It has more supporting evidence than an educated guess, but is limited in its cost reduction potential (Negash, 2004). Hence, forecasting is most useful when a lot of information is known on a certain topic.

A third process called multidimensional analysis, or Online Analytical Processing [OLAP], helps to find details where forecasting misses them (Baars, 2008). This process has the most flexibility in both levels of specificity and extrapolation (Baars, 2008). If the organization wants to know aggregate facts, like costs and budget, during a specific time period at any level of detail, OLAP accommodates these criteria (Baars, 2008). In turn, the organization may discover how different factors are correlated or find time trends to see if certain events can be anticipated, reinforcing the forecast method (“Business Intelligence,” n.d.). The variability and promise of BI, as well as its association with modern data mining make it attractive not only to businesses, but to governments as well (Choi, 2016).

### 2.2.4 BI in Lambeth

Within the Lambeth Council, new BI programs are being used to analyze data for Lambeth’s services. These new programs are Tableau and Office Power BI (N. Hatch, personal communication, May 12, 2016). Analysis from these BI programs are accessible on a database named the Insight Hub (Figure 2) (N. Hatch, personal communication, May 12, 2016). This database displays information on dashboards which are pre-made by staff with programming knowledge (N. Hatch, personal communication, May 12, 2016). The user may choose to view data at the local or ward level viewing specific ages, ethnicities, and locations (LG Inform, n.d.). These metrics aid in pinpointing who needs the most attention or help from the council. It will help to give the council a better understanding of how the borough economy works, since they will have to be self-sufficient by 2020 (Hill, 2015). In general, these new BI systems will be used to make better quality decisions and focus their resources where they’re needed most.

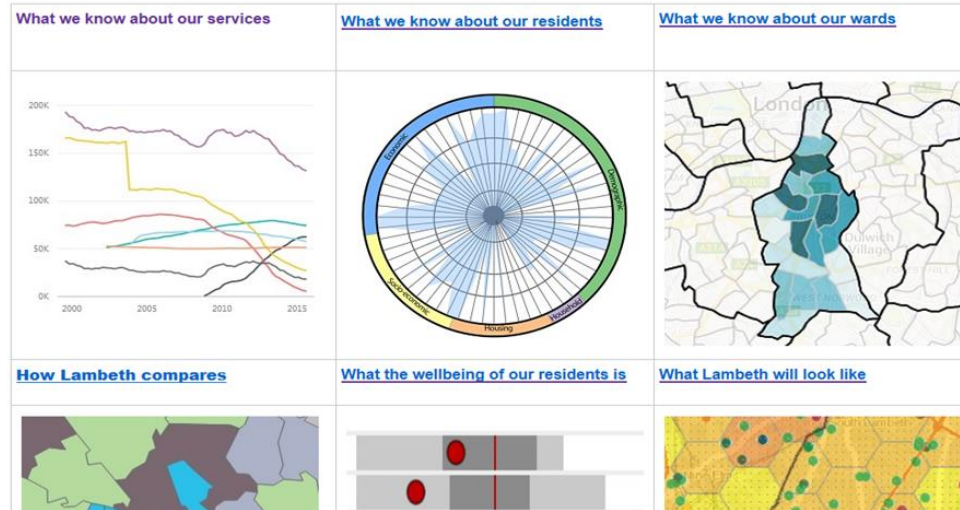
## Insight Hub



Welcome to the Insight Hub, bringing you [research](#) & analysis about Lambeth, the people that live here and the services they use.

Discover methods & tools to help you use data & evidence in your everyday work, as well as [case studies](#) of how other people in Lambeth and beyond have used analysis to help them. You can also take part in sessions where you can find out & share how to use these [methods & tools](#).

Whether you carry out research & analysis or want to use insights to help you commission or run services, the Insight Hub's for you. If you can't find what you're looking for, or you'd like to find out how to do something around research or analysis, add a comment on [Yammer!](#)



[Insight Hub](#)

[Programme](#)

[What is business intelligence?](#)

[Who carries out business intelligence?](#)

[How are we planning to improve the use of evidence & analysis?](#)

[How can you be involved in shaping this programme?](#)

Figure 2. A screenshot of the Insight Hub. Reprinted from the Insight Hub (2016). Reprinted with permission.

On top of addressing economic issues, BI provides a realistic view of Lambeth to the Council, communities, and service providers (“Introduction to the Insight Hub 0.2,” 2016). For the council to achieve its goals, the staff working in research and analysis need to better understand how to contribute to strategic priorities and outcomes. Part of effectively contributing to the council involves the staff realizing how significant they are to the whole (Information Governance Team, 2016). They will also need to enable colleagues to get support from peers, be aware of strategic priorities, and access specialist expertise to carry out intelligence to anticipate and predict demand (“Introduction to the Insight Hub 0.2,” 2016).

It is important that people using the Insight Hub make it responsive to their needs. To that end, they can point out what resources they use to carry out research and analysis, what research and analysis has helped them, and what else they would like to see on the Insight Hub. Once the council receives this feedback, they can produce the necessary changes in BI and data analysis.

## 2.3 Case Studies

### 2.3.1 Sweden

Within the last decade, governments and the health industry have been trying to implement BI to improve overall service. Järfälla Kommun, a suburb of Stockholm, Sweden implemented BI in the contact center of the municipality. The suburb investigated how data collected from their municipality contact center could be leveraged with the help of a BI solution (Adelakun, 2012). The customer contact center of a municipality is a centralized service where they can make inquiries, provide information, lodge complaints or promote actions related to activities within the specific municipality (Golfarelli, 2004).

Findings from this study reveal that the potential benefits of implementing a BI solution at the Contact Center outweigh the drawbacks. BI implementation can allow the Contact Center and Municipal department as a whole learn more about their residents. This can help decision makers determine what their residents want or need which can in turn help improve the quality of living within the municipality (Adelakun, 2012). As seen through the case study in Sweden, governments can benefit greatly from BI, but they are not the only ones.

### 2.3.2 Southern Taiwan

The health industry, especially hospitals, need accurate information on a timely basis for phenomenon such as clinical care decisions (Foshay, 2014). To that end, BI provides a way to group data from multiple sources. This aids areas such as patient care, where a multifaceted perspective helps with diagnosis (Tremblay, 2012). A regional hospital in southern Taiwan needed BI not only for expediency, but also for its rapidly expanding employee base and bed space (Kao, 2016). Before implementing BI, there was no automated support of any sort, hindering data quality and collection (Kao, 2016). BI thus served as a facilitator for decision making by providing more available quality information.

The issues this hospital faced related to layers of certification as well as the large amount of sources gathering information (Kao, 2016). Such sources include hospital information systems, patient safety reports, physician profiles, and the Taiwan Quality Indicator Project (Kao, 2016). The information that hospital gathered from sources would then be given clearance by National Health Insurance, hospital accreditation, and healthcare quality (Kao, 2016). Accommodating the reality of varied information that had to pass three different standards warranted a three layered

model. A data warehouse provides initial access to all relevant data, from internal and external sources. With this data, a certain OLAP server uses this data for multidimensional analysis. The final layer used SQL to clearly present the analyzed data in graphs and tables, with any abnormalities highlighted (as cited in Strum, 2000).

This system succeeded in improving how the hospital made its business decisions while simultaneously increasing the quality of clinical data. These successes were also seen in the health services of Lambeth, this is partially why they have considered BI from its inception (N. Hatch, personal communication April 22, 2016). Wherever there is an entity that needs high quality information for effective decision making, BI serves as an excellent practice to use. It requires a vast undertaking, as BI is a complex phenomenon. Despite huge investments in BI software and solutions, some organizations still fail to convert data into strategically valuable knowledge (Marr, n.d.).

### 2.3.3 Success Factors of BI

Most guidelines for BI are anecdotal and do not provide objective guidelines due to the novelty of BI (Jaglieska, 2003). Few empirical guidelines exist to determine if a BI system succeeds or fails. Therefore, a case study by William Yeoh and Andrew Koronis discusses the key success factors according to interviews from BI stakeholders in five organizations (Yeoh, 2010). There were consistent differences between those that had productive BI systems and those that failed. The organization that fared the worst from BI, a utilities function, had BI scrapped due to one IT enthusiast running the entire system and a customer oriented focus (Yeoh, 2010). By contrast, the organizations that got the most out of BI had systems that could adapt to a growing business, had top-level management consistently involved, and were built with a business perspective (Yeoh, 2010).

A BI system succeeds when it has the ability to scale to the needs of the business (Olszak, 2007). For example, the three organizations that succeeded within the case study all prioritized business needs over technology or customer needs (Yeoh, 2010). In other words, even if a BI system is not within a business, focusing on the needs of the organization over the customer leads to success. Additionally, the Lambeth council's motivation to avoid relying on a technical consultant to better their system is sound, as it caused the failure of the utilities organization in the case study (N. Hatch, personal communication May 12, 2016; Yeoh, 2010). In addition, our

primary focus will be on top level information gatherers, since top level management needs to be committed to BI for it to work throughout an organization (Yeoh, 2010). The aspects of BI that we will present to the Council will be factors that lead to a successful system.

## **2.4 Lambeth's Profile**

### **2.4.1 Introduction to Lambeth**

Lambeth is a borough of London that stretches from the River Thames to the suburbs of Streatham and Clapham (Figure 3) ("Lambeth Borough Guide," n.d.). Until the beginning of the 19th century, most of the northern part of Lambeth was a marsh ("Survey of London Vol. 23," 1900). From the 1500s to the 1900s, the borough of Lambeth extended south as far as the boundary of London and was inhabited by the parish of St. Mary ("Survey of London Vol. 23," 1900). Lambeth is now one of the 14 inner London boroughs. Although it is in the center of London (Figure 4), encompassing the London eye, Lambeth is not the richest borough of London; in fact, Lambeth is the 8th poorest borough ("Lambeth Borough Guide," n.d.). However, Lambeth has good nightlife and affordable real estate. Despite good living conditions, population, monetary, and employment issues make the streamlining and integration of services paramount to maintaining a wholesome borough ("Lambeth Borough Guide," n.d.).

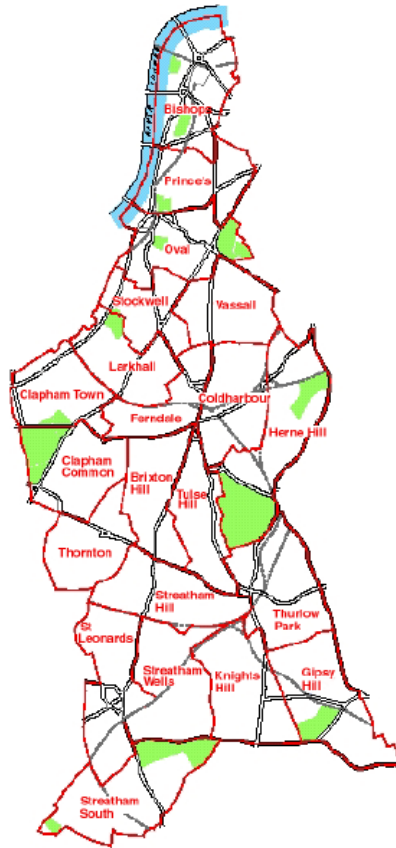


Figure 3. A political map of the London Borough of Lambeth. Reprinted from the Constitution of the London Borough of Lambeth (Part 1, Sec. 3.1), 2016. Reprinted with permission.



Figure 4. A map of the 32 Boroughs of London with the Borough of Lambeth highlighted. Reprinted from Wikipedia, by TUBS, (2011). Retrieved from [https://en.wikipedia.org/wiki/London\\_Borough\\_of\\_Lambeth#/media/File:Lambeth\\_in\\_Greater\\_London.svg](https://en.wikipedia.org/wiki/London_Borough_of_Lambeth#/media/File:Lambeth_in_Greater_London.svg). Copyright by Creative Commons. Reprinted with permission.

## 2.4.2 Population

Lambeth is an urban area with a variety of people and religions. Just under 60 percent of people are Caucasian (Figure 5), with 40 percent of Irish or British descent and 15 percent from other places (*State Of The Borough*, 2016). Of the remaining 40 percent, the largest minority is people of African background, followed by people of Asian backgrounds (*State Of The Borough*, 2016). This ethnic diversity exists largely due to England’s Imperial past and from refugees of conflict zones (*State Of The Borough*, 2016). Additionally, over 60 percent of people from Lambeth follow an established religion (Table 2), with a large Christian following and a token representation of other faiths (*State Of The Borough*, 2016).

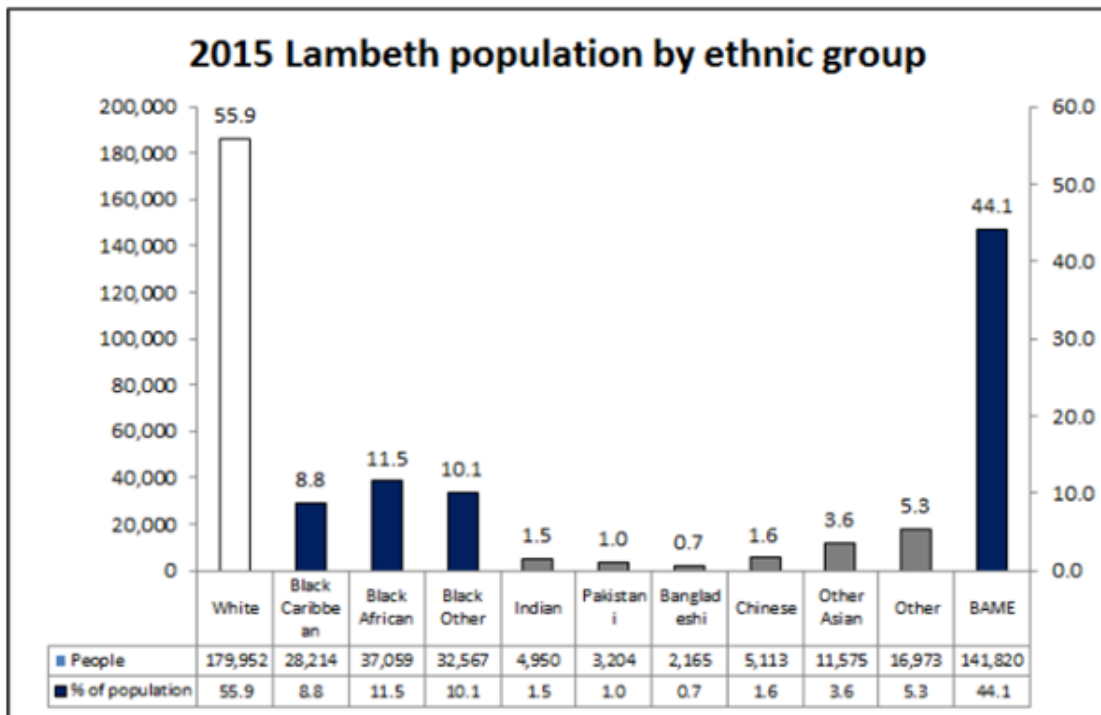


Figure 5. Ethnic population percentages of Lambeth. Reprinted from *State Of The Borough 2016*. 1st ed. London: N.p., (2016). Reprinted with permission.

Lambeth also has a young age profile compared to other boroughs (Table 3). The median age is 31, which is the fourth youngest in London and the mean age is 32.4, (Figure 6), which is fifth youngest in London (*State Of The Borough*, 2016). About 21 percent of Lambeth’s population is aged 20 or under (*State Of The Borough*, 2016). Less than a fifth of the population are older working age people, 17 percent are aged between 45 and 64, and only 3 percent are aged 60 to 64 (*State Of The Borough*, 2016). Compared to other boroughs, Lambeth is the top five for people

aged 25 to 44; this is influenced by its central location (“Lambeth Borough Guide,” n.d.; *State Of The Borough*, 2016). Many young migrants work in Lambeth for a short time before returning home, translating into a fluid age profile (*State Of The Borough*, 2016).

### 2.4.3 Employment

Lambeth has a large, transitory, underpaid working population. According to a strategy document by the deputy leader of the Lambeth Council, nearly 80 percent of the working age population is employed, with unemployment below the national average (McGlone, 2015). It must be noted that despite a high employment rate, the employment growth in Lambeth (Figure 7) consistently lags behind the rest of the London boroughs (*Lambeth Growth Strategy*, 2014).

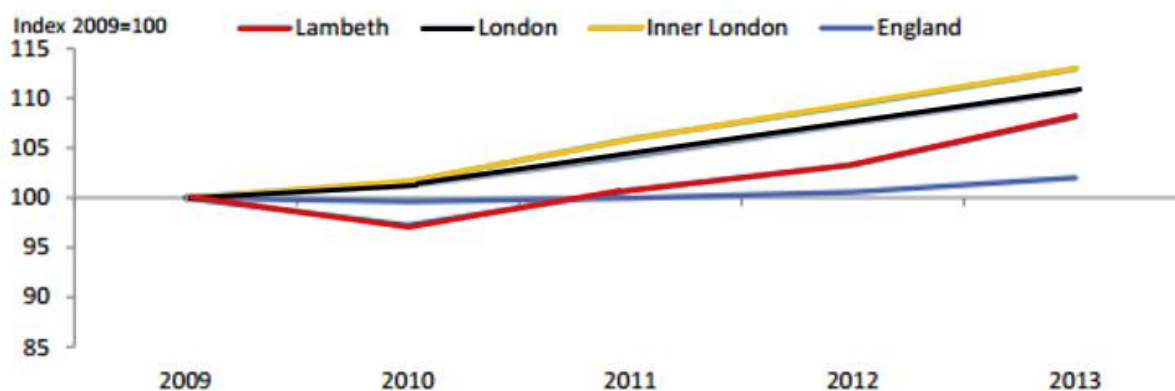


Figure 7. Employment Index of Lambeth compared to outside of Lambeth. This is a relative scale with 2009 as the base level on employment. Adapted from *Lambeth Growth Strategy Evidence Base*. 1st ed. London: Shared Intelligence, (2014). Reprinted with permission.

Roughly 2.4 percent of working age residents are long-term unemployed; the highest in London (*State Of The Borough*, 2016). Of the people who are employed, 20 percent are below the poverty line, implying that while many jobs exist in Lambeth, some of them pay meager wages (McGlone, 2015). Compared to other boroughs, Lambeth’s household income is below average: £48,610 within the borough compared to a £51,770 London average in 2013 (Piggott, 2015). Indeed, throughout London, the portion of employed people in poverty has grown over the past 10 years (McGlone, 2015).

The situation worsens as higher skilled jobs become more common, increasing the competition for lower skilled jobs (McGlone, 2015). For example, over 45 percent of Lambeth residents have a level 3 (i.e. college) degree, and around 14 percent have no qualifications,



matching the average for London (*State Of The Borough*, 2016). Measures previously taken by the borough to address these issues include the Benefit Cap Employment Project, to address the lower allotment of money to welfare recipients, and the Citizen's Advice group, to aid people with debt and tenancy issues (Citizen's Advice, 2016).

However, in the past 5 years, Lambeth has been known as an “escalator borough” or a borough where poorer people work to increase their standard of living, then move to a more well off borough (Lambeth First, 2008; McGlone, 2015). This is seen through the 12 percent turnover rate each year, meaning 12 percent of the population leaves and is replaced by new people (C. Guthrie, personal communication, May 25, 2016). Young people in professional fields have been moving in from richer boroughs at the same time, mainly for health department jobs (McGlone, 2015). The two hospitals taking up most of these health department jobs are St Thomas' hospital and Maudsley's hospital (Guy's, 2016; Maudsley's, 2009). Yet despite a large influx of health jobs, resources within Lambeth decline as the demand for services is increasing.

#### 2.4.4 Budget

The financial outlook in Lambeth looks stringent. Lambeth's budget issues results from financial issues at multiple levels. At a national level, the Chancellor of the Exchequer reports that the UK economy will grow the most of all the G7 countries in the 2015-2016 fiscal year, countered only by lagging productivity (Osborne, 2016). However, the global economy as a whole has been lackluster, with markets losing \$8 trillion dollars at the beginning of the 2015 (Osborne, 2016). In context of grim prospects, planning has become more long term; the public, financial, and housing sectors are resilient enough to allow aggressive financial action (Osborne, 2016). Such action will be directed to augmenting the economy in the northern part of England, since there has been less prosperity there on the whole than in London (Osborne, 2016). This means Lambeth will not receive the core aid of the government, regardless of England's efforts to support the working population. Taxes on fuel, alcohol, and cash salaries, resources common to local communities, will either be halted or significantly reduced (Osborne, 2016). The national exchequer projects a balancing of spending, at the cost of cutting services to councils.

Claire Kober, head of one of the most deprived boroughs in London, predicted in 2012 that poorer boroughs would experience budget cuts for at least 5 years (Hill, 2015). Not only was the 5 year projection correct, but cuts will continue until 2020 when Lambeth will become self-

sufficient (Hill, 2015). This means Lambeth will only receive money from the tax paid by their residents and businesses without any additional funding from the London proper. Lambeth in particular will undergo a £36.9 million garnish in its 2015/2016 budget, the third largest of the poorer boroughs (Hill, 2015). Reductions in spending power serve as a key measure for the effects of budget cuts. According to an article by Sedghi and Butler, Lambeth will undergo a 5.0 percent loss in spending power in 2015/2016 (Sedghi, 2014). In other words, all the resources available to the Lambeth council, including business duties, fees, permit costs, as well as government funding will be lowered by 5.0 percent (Sedghi, 2014). Conversely, richer boroughs, that happen to espouse a conservative party majority, will gain £33 million in savings (Hill, 2015). Some see this as an effect of the coalition government’s policy of emphasizing business empowerment over public services (Lowndes, 2016). Thus, a trend of increasing austerity exists for Lambeth. Limited resources affect how the Lambeth Council can apply BI, thus a cost-benefit model is paramount (N. Hatch, personal communication, April 10, 2016).

## 2.5 Lambeth’s Administration

### 2.5.1 Lambeth Council

These problems are directly affecting Lambeth’s administration. The government includes the Lambeth Council and the Cabinet (“Committee meeting,” n.d.). The Council is the legislative body consisting of 63 councillors with 3 councilors representing each of the 21 wards of Lambeth (“Constitution of the” [Const. of Lambeth], 2016, Part 1, Section 3.1). Every 4 years, these councillors are elected by the voting electorate (“Const. of Lambeth,” 2016, Part 1, Section 3.1). The Council also has 6 committees with 3 sub-committees (Figure 8) (“Committee meeting,” n.d.).

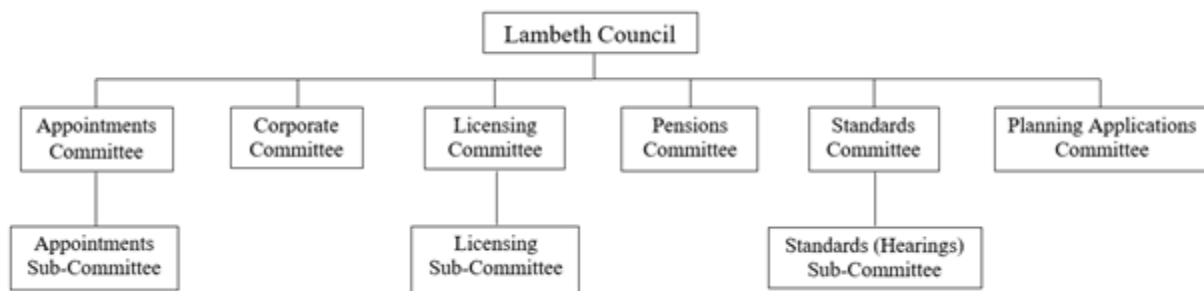


Figure 8. A diagram of the Lambeth Council and its committees. Data source: (“Committee meeting,” n.d.).

During the most recent election in 2014, 59 councillors were elected from the dominant Labour Party, 3 councillors were elected from the Conservative Party, and 1 councillor was elected from the Green Party (Table 4) (“Lambeth Council,” n.d.). The current Mayor, Donatus Anyanwu, and Deputy Mayor, Saleha Jaffer, were elected at the Council’s annual meeting along with the Leader of the Council (“Committee details - Council,” n.d.; “Const. of Lambeth,” 2016, Part 1, Section 6.1; “Const. of Lambeth,” 2016, Part 1, Section 8.2). The Leader of the Council acts as the head of the Cabinet and appoints 2 Deputy Leaders along with 7 other cabinet members (“Const. of Lambeth,” 2016, Part 1, Section 8.1). These 10 councillors form the Cabinet.

As a legislative body, the Council makes and approves budgets and policies for the Borough of Lambeth (“Const. of Lambeth,” 2016, Part 1, Section 3.1). The Council also provides many services (Figure 9), including housing, schools and education, social support and health, as well as benefits and council tax (“Lambeth Council,” n.d.). The Cabinet is then charged with providing these services by implementing the Council’s policies and budgets, recommending changes for major policies, and proposing an overall budget (“Committee details - Committee,” n.d.).

Additionally, the Council became a “cooperative council” in 2010 (*A Cooperative Council*, 2015). The premise of a cooperative council is that it puts its citizens first; then, this dedication is taken a step forward, focusing and working with residents more intently while integrating them directly into the process (*Behaviours For*, 2013). There are specific guidelines that the council must follow in order to call itself a “cooperative council” including providing a learning culture, building an unified approach, and putting the borough first (*Behaviours For*, 2013). Unfortunately, some residents of Lambeth are not impressed by this new title; they believe it is hypocritical because the government still has not addressed some important issues such as fly tippers and housing evictions (“Lambeth Borough Council,” 2013). However, the government may have improved since becoming a cooperative council. The improvements may be difficult for the residents to see because it has just recently been incorporated and is still developing; the positive effects of these changes to a cooperative council may not have fully materialized yet. Additionally, due to the declining state of the budget, the Council may be having increased difficulties in supplying services. For example, many Lambeth residents recently protested the closing of several libraries (“Campaigners protest,” 2016). The Council responded by citing the need to reduce the cultural services budget by £4 million (“Campaigners protest,” 2016). Lambeth needs to improve

its service efficiency in order to address these problems and continue to provide their services despite continuous budget cuts.

## 2.5.2 Services

The Council determines policies and budgets whilst executing the services through various departments. There are 3 main departments each composed of many smaller groups (N. Hatch, personal communication, May 12, 2016). They are categorized as the Children, Adults and Health services, Neighbourhoods and Growth services, and Corporate Resources (Figure 10). Children, Adults and Health encompass education, children’s services, as well as adult social care. Neighbourhoods and Growth pertains to producing capital, housing, and future planning services. Additionally, Corporate Resources focuses on businesses, communication, finance, and other corporate affairs. Business Intelligence works under Corporate Resources. Public Health is also a service in Lambeth, but it is more external, concerning all of London rather than just Lambeth. This organization is relatively new, so the buildings and office layouts don’t reflect this new structure.

### Lambeth Council

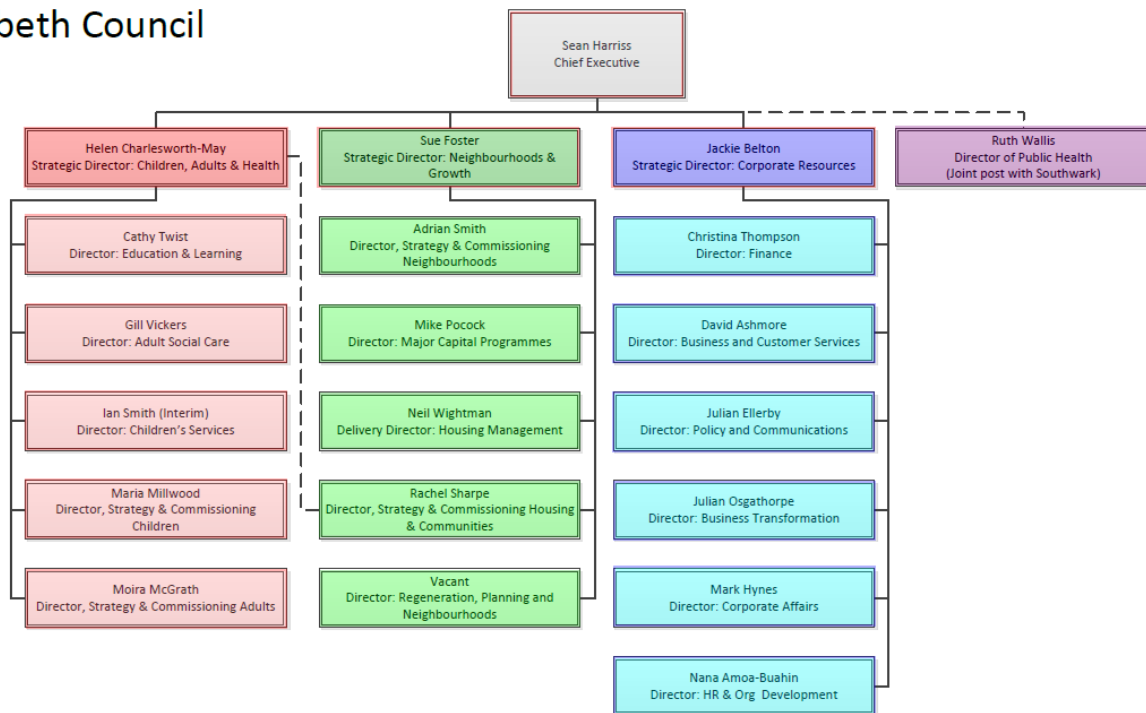


Figure 10. The structure of the Lambeth Council services. Adapted from *Lambeth Council Structure*. 1st ed. London: Lambeth Council, (n.d.). Reprinted with permission.

Prior to January 2016, the commissioners and service managers were separated into different services (N. Hatch, personal communication, May 12, 2016). Both of these roles still exist, but the separation caused some disconnections within the services. The commissioners are in charge of the long term planning of services and the service managers run the day-to-day short term parts of the services (N. Hatch, personal communication, May 12, 2016). This results in two different ways of using and analyzing data. Commissioners use data to perform predictions for the future and plan over time while service managers analyze current data to make immediate changes. In some cases, one person will perform the duties for both positions, but in Lambeth, each service has a commissioner and a service manager even if not by title (N. Hatch, personal communication, May 12, 2016).

The current structure of the services places the commissioners and service managers in each respective service that they direct. Unfortunately, there is still some physical separation left over from the old structure in terms of buildings and office organization. There are currently 4 office buildings for Lambeth's Services; 3 buildings are in Brixton with the service managers and most of the workers, whereas the commissioners reside in the fourth building at Vauxhall (N. Hatch, personal communication, May 12, 2016). The 3 buildings in Brixton contain the corporate and community, environment, and the children and family based services, while the commissioning services are in Vauxhall (N. Hatch, personal communication, May 12, 2016). This physical structure allows for plenty of communication between the commissioners of different services, but unfortunately the service managers of different services infrequently communicate (N. Hatch, personal communication, May 12, 2016). Business Intelligence improves the communication between services and relays information to where it is needed which will help to overcome this separation.

## 3. Methods

### 3.1 Introduction

In the Lambeth Council, services have used BI when it is convenient, and not as an intentional technique. Numerous barriers existed as to why BI was not core or known to the Council's operation. Our goal was to encourage those who gather data, as well as those who utilize it, to understand how BI facilitates their job. We furthered the integration of BI by:

1. Researching staff opinions on the use and analysis of data in Lambeth.
2. Developing and implementing an integration plan of BI in Lambeth.

This chapter will describe the particular methods by which we gathered input from stakeholders, namely service workers, commissioners, and service managers. A summary of the methods used for each objective is illustrated below (Figure 11). We will discuss how their opinions from the first objective shaped the deliverable of the second objective.

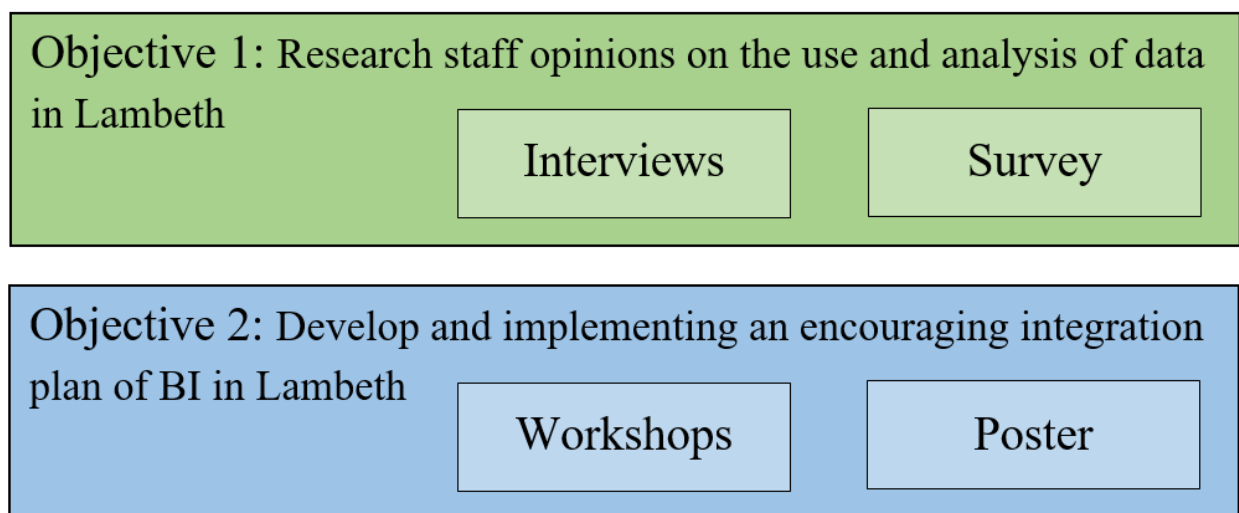


Figure 11. A chart displaying the 2 objectives along with their corresponding methods.

### 3.2 Timeline

The timeline below (Figure 12) demonstrates the relative position and length of each task performed throughout this project. Many tasks overlapped with each other, while others fed into later tasks. The tasks for each of the 2 objectives are color coded and separated for clarity. A more detailed and descriptive timeline (See Appendix D) lists tasks for each week with an end goal, termed "Due," that kept the project on schedule.

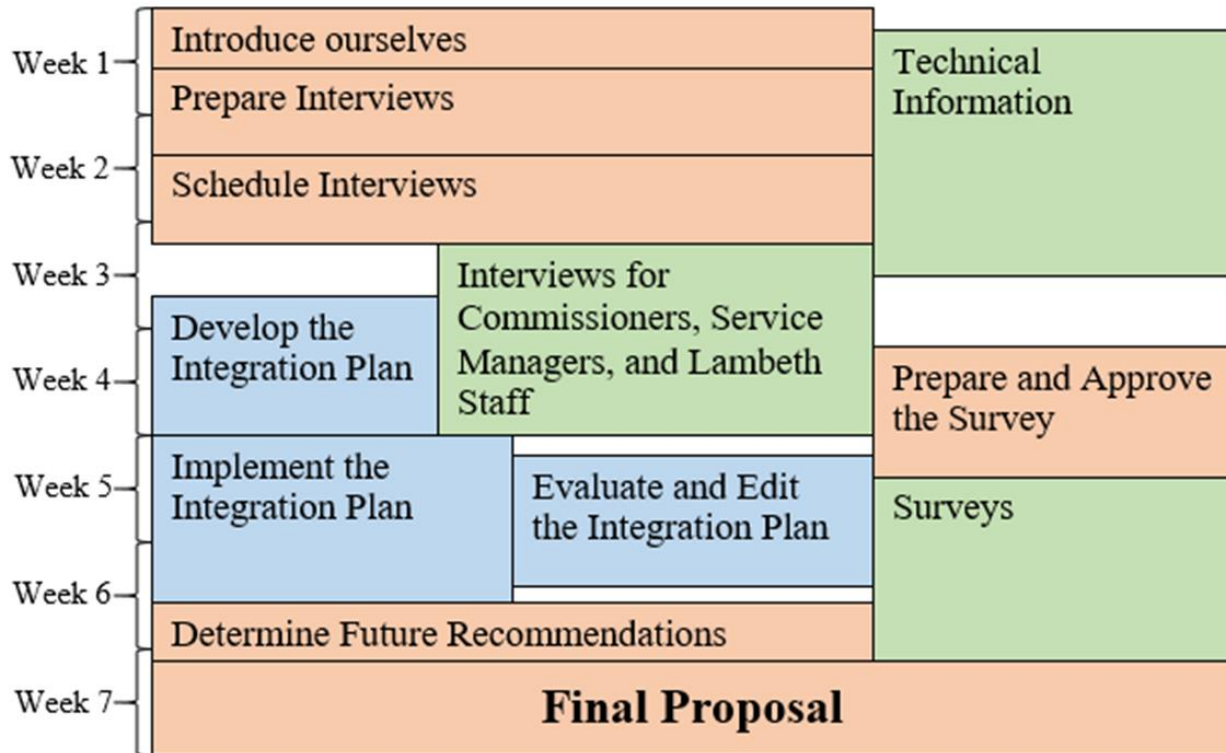


Figure 12. The proposed timeline with green, blue, and red representing tasks for objective 1, tasks for objective 2, and extra preparatory tasks for the overall project respectfully.

### 3.3 Research staff opinions on the use and analysis of data in Lambeth.

In order to improve the BI systems that are being used in Lambeth, we first needed to understand what systems were being used and how. As the system depended on how council workers interacted with one another, their opinions served vital to our goal. To that end, we obtained the whole perspective of the current BI system. This included the views of commissioners and service managers in relation to BI. Commissioners are those who design or re-design services based on information they have gathered. They have a long term planning role whereas their counterparts, the service managers, use planning for daily affairs of services (N. Hatch, personal communication, April 21, 2016). Service workers, on the other hand, are those who carry out the services relevant to their particular service. Thus, commissioners and service managers understand the planning and management perspectives, while the workers use BI more directly with a focus on realistic applications. Our efforts were tailored based on both these groups' concerns.

Achieving a good understanding of the opinions of people in various government functions about BI required several interviews. We held interviews with important people of the Lambeth Council in order to learn about the nuances of top level issues that arose with BI or a lack thereof.

From the interviews, we learned in detail how the services function, what methods of BI are used by different people, and what people think of the current BI. In addition, a survey was sent to commissioners, service managers, staff, and others to get an understanding of how people use data. We also furthered our goal directly by introducing the new BI system, called the Insight Hub, and encouraging its use.

### 3.3.1 Interviews

An interview is a meeting of two or more people face to face for consultation or gathering data. An interview always has a goal, which is known at least by the interviewer (Schutt, 2015). Therefore it is a process of interaction that has a particular purpose. We did not use asynchronous interviews or Internet interviews. Asynchronous interviews take an extended amount of time, which is not desirable for a 7-week project (Schutt, 2015). Internet interviews, while easy to organize and set-up, remove the personal aspect that more accurately depicts the opinion of the interviewee (Schutt, 2015). In our project, interviews were held with the aim of gathering opinions from the Lambeth Council regarding BI and the use of information within the Council.

These formal interviews were planned about a week in advance and lasted around 45 minutes. We received a list of commissioners and service managers' emails from our sponsor. Formal emails were sent out to all commissioners and service managers in order to set up a time and meeting place which did not conflict with their schedules. In addition, posters were placed throughout the government buildings in order to attract any other Lambeth staff who were interested in an interview. The discussion was about what information sources they used, and their opinions on the new BI system. To gather this information we asked questions regarding their use of data and common sources that they used (See Appendix E for the Interview Script).

Formal interviews, no matter how set up and organized, have a few shortcomings. The interviews were about 45 minutes with adequate notice beforehand due to the length. All interviews provided the same experience to all interviewees to maintain accuracy. However, similar reactions from different people required a careful tempering of questions (as cited in de Leeuw, 2008: 318).

The objective of these interviews was to provide an in depth understanding of opinions consisting of issues with BI. Also, these interviews helped us get a better understanding of all the technical information. Almost all technical information was related to the Insight Hub, a database



where information can be accessed. Questions were open ended in order to spur longer discussion. In addition, we controlled the order of questions, so that we maintained the right amount of focus while maintaining rapport (Schutt, 2015).

In order to mitigate confusion, the questions were easily explainable especially due to the complexity and vocabulary of BI. If we asked a question that confused the interviewee, we clarified on the spot, which helped us improve the flow of future interviews. Though there were numerous caveats that we dealt with, interviews were one of the best qualitative information gathering techniques and one of our main sources of information (Schutt, 2015). This information was incorporated into how we improved the use of BI as well as how we encouraged Lambeth staff to use it.

### 3.3.2 Survey

A survey was also employed to collect data from individuals. This information is collected through the use of standardized procedures so that every participant is asked the same questions in the same way (HR-Survey, 2016). Surveys are commonly used to gather the opinions of a large range of people quantitatively. They are commonly used for employees in a 360 degree feedback survey, a salary survey, or an employee attitude survey (HR-Survey, 2016). Similar to an employee attitude survey, our survey focuses on staff development by encouraging a change in their behavior (HR-Survey, 2016). The questions gathered some background of how long each responding staff worker had worked in Lambeth as well as their job titles (See Appendix I for images of The Survey). The survey then goes on to focus on 2 key areas: data usage and Insight Hub awareness.

From the survey, we gathered information about how the Lambeth staff use data. We learned what type of information is used and in what ways they use it. This knowledge is important in order to encourage them to use the Insight Hub. This allowed connections between the systems they currently use and the Insight Hub in order to show the staff what the Insight Hub can provide them beyond systems they already used.

Data about staff's awareness of Insight Hub was also collected. Due to the novelty of the Insight Hub, it was unlikely that many of the staff had heard of it. However, the Insight Hub was being used by some staff, so we needed to gather information about how many had previously seen the Insight Hub and how they found out about it. If a common source introduced some staff to the

Insight Hub, it would be wise to continue using that source because it had been previously successful.

Information from surveying helped us understand the awareness of Insight Hub and make connections between each services on how similar they use data. Surveys give respondents an opportunity to discuss important key topics (Wyse, 2012). Information gathered from surveys lended itself to mathematical analysis techniques, quantifying the overarching issues within the council (Rossi, 2013). From trends gathered we can show people how the Insight Hub helps their job. But our use of surveys faced significant limitations. Given the layoffs happening within the Lambeth council, many staff members had to take on more duties. Although we expected more people to answer the survey than attend interviews, lack of time curtailed the amount of responses we received. Data obtained from surveys had to be analyzed in context as well; raw numbers on their own do not present the real situation (Rossi, 2013). With very little data, we had to use speculation in concert with our interviews to make a recommendation.

### **3.4 Develop and implement an integration plan of BI in Lambeth**

This objective addressed the need to integrate a new BI system into Lambeth by encouraging and teaching the staff to apply it to their services. Lambeth currently uses many different data sources which can impede service efficiency. However, a new BI system was recently developed and called the Insight Hub. It is a database linking current sources of data and providing additional analysis. By gathering many data sources in one convenient place, service efficiency can be greatly improved. Our goal was to encourage the Lambeth staff to use this new system.

To achieve this goal, the staff needed to learn what the new BI is, how it is different from the system they are currently using, and why they should use it. Determining who needs to use BI and how was also very important because each service had and needed its own unique information. We needed to demonstrate that different information used by specific services was included in the Insight Hub. This linked the specialties in each service to ensure that the Insight Hub would be useful to all staff. Staff were more willing to use BI if we showed them why they needed information or needed to give information to other departments.

Lack of responses and attendance was an additional hurdle to achieve this objective. If the staff did not want to use the new system, then we determined why and how to possibly overcome

it. It is also very common for Lambeth staff to believe that they are not using BI. Several possible causes include a misunderstanding of what BI is or unacknowledgement that the way they are using data constitutes as BI. In order to address this, a clear definition of BI was explained. Additionally, a discussion of how data is currently used was employed to demonstrate how the Lambeth staff were indeed using BI. Then, we were able to introduce the Insight Hub and display some of its uses. This would establish the notion of BI and improve how it is used.

Throughout this objective, information was collected in order to develop and improve the most effective integration plan. Lambeth can then change the integration plan as needed according to included guidelines and our recommendations. One method to achieve this included creating a workshop for Lambeth staff to promote the Insight Hub. Posters were also invaluable to gain awareness and promote the Insight Hub.

### 3.4.1 Workshops

One method of integrating BI was to teach the uses and importance of information communication between people in different departments. A workshop is a program designed to teach or introduce to participants practical skills, techniques, or ideas which people can then use in their work (“Section 4,” n.d.). Workshops are best for creating an intensive educational experience in a short amount of time, and a way for someone to pass ideas and methods that he or she has developed or finds important to their colleagues (“Section 4,” n.d.). Our workshops were used to explain what BI is, why it is important, and how to use it. Each workshop should take about an hour, and is voluntary. These workshops will allow staff from different services to discuss BI and demonstrate how BI is going to improve efficiency. This will be achieved through a focus on the applications of BI with an introduction to the Insight Hub.

The workshops will include key information such as:

- The existence of current BI
- An explanation of what BI is
- Reasons for why BI is important
- The requirements to use BI
- Discussion about information between services
- An example of what BI can offer
- A plan for future BI

During workshops, staffs will have discussions about what to do when one service needs information from other services. For example, when Public Health needs information about the individual citizen's income from the government agencies in order to predict the risk of starving that the population will face in future.

One potential challenge is to identify the appropriate workers from different services. Some of the services are located in the same building but others are spread across the city, and BI can connect all agencies in a more efficient way. Discussing BI with all Lambeth staff will take a prolonged amount of time, so we developed guidelines, scripts, and presentations for the BI workers to continue the workshops to promote long-term sustainability (See Appendices K and L for the Workshop Script and Slides respectively).

Additionally, workshop evaluations help measure effectiveness and identify improvements for the workshops. The evaluation will have a maximum of 5 questions (See Appendix M for the Workshop Evaluation) and should be answered in approximately 3 to 5 minutes. The information gathered from the workshops will be used to evaluate and improve future workshops.

### 3.4.2 Posters and Visual Aids

Posters served a purpose of encouraging the use of Lambeth's new BI system to a wide audience. The workshops were very important to display the uses and benefits of the new system; however, not everyone could attend. This left posters and other visual aids to reach a wider distribution of staff. By reaching more people, the different reactions to and uses of BI were observed. This information can be aggregated in order to improve the integration of BI as well as tailor certain tools and data analysis for different uses. Most directly, the posters generated an awareness of BI and helped achieve our goal by encouraging the use of the Insight Hub.

Posters, and other visual aids, are commonly used to promote events and services because they attract attention and are simple and easy to remember (Tolliday, 2016). One study revealed the use of pamphlets to increase knowledge about prostate cancer screening tests (Schapira, 2000). This illustrated pamphlet improved patient knowledge about prostate cancer screening tests, but did not increase the use of prostate cancer screening tests (Schapira, 2000). Our posters also attempted to educate the staff and encourage them to use the new Insight Hub (See Appendix M for The Poster). It included links that directed staff to the Insight Hub and a guide. These links acted as a call to action, engaging the viewer by prompting them to go to a website (Tolliday,

2016). The posters also included several images depicting the uses and advantages of the Insight Hub. By using these images over text, viewers can understand the poster quickly and clearly (*Poster Tips*, n.d.).

On the other hand, the emphasis on images that posters employ may not cover all important information. It can be difficult to portray the desired meaning in such brief explanations of text. Several staff members may have overlooked our poster because they do not believe that they use data. Most of Lambeth's staff uses data, but some do not realize it. While the Insight Hub may prove to be very useful to them, they do not consider it because they may not understand its importance to them. The poster illustrated how the Insight Hub improves data usage by condensing and analyzing data, resulting in staff who aren't using data to possibly ignore it. The workshops addressed this disconnection between data usage and awareness while the posters focused on promoting the Insight Hub.

Another issue arose through the distribution of the posters. Lambeth was in a state of transition, moving buildings and personnel. This flux made it difficult to find proper physical places to hang posters. Instead, the staff bulletin was used. An email is sent to the Lambeth staff every other Wednesday containing important information similar to a biweekly newsletter. Even though this email reached many members of the staff, it may neglected new members or it may not be checked frequently. Some staff may have dismissed it as spam or had more important emails that took precedence. Regardless, some staff may have been missed, limiting the diversity of responses.

Various staff were expected to react to the Insight Hub differently. While our focus was on commissioners and service managers, other staff use data and could benefit from the Insight Hub. The poster reached out to all staff to incorporate these positions as well. Analysts will use the Insight Hub differently than a service manager would. Even between services, the emphasis will be on distinctive tools and data sources. The posters covered many different uses for the Insight Hub to address this, and the staff's reactions will be very instructive to improve and direct how BI is advertised in the future.

## **4. Results and Analysis**

### **4.1 Introduction**

Throughout this chapter, the results of our methods will be presented and analyzed. Each method will be explored for valuable insight starting with our first objective. Objective 1 revolved around gathering data and opinions which was difficult due to a low response rate. From all the emails we sent out for interviews, we analyzed the reasons behind the response rate based on the state of the Lambeth council. Additionally, the interviews provided an external perspective. They demonstrated the limitations of the Insight Hub as well as evidence of its novelty. The survey confirmed these results as well as suggesting the usefulness of the Insight Hub. After discussing the outcomes of the interviews and surveys, we explain how it influenced our plan of integration. Thus the second section details the deliverables of our poster and our workshop, along with the small visual of the Insight Hub on the surveys. It includes the reasoning behind the selection of each deliverable as well as where it was, or will be, implemented.

### **4.2 Objective 1**

The response from our emails was low as expected. We received a mere 5 responses out of a total of 28 emails sent out (Table 5) and 8 email addresses did not exist. A low response rate and the non-existent emails reflect the changes within the council. Council reforms driven by national budget cuts have created a state of flux. The council needs to decrease the number of staff and building space in order to operate with lower funding. It confirms the statistics found from our background. Less staff translates into more responsibilities for those who still work. It also means e-mails of people that no longer work in the council become void. From the replies we received over half of them came from staff who said they were unavailable (Figure 13); 3 of them came from staff who said they were unavailable and 15 people simply did not respond. However, it is noteworthy that one of the responses was from an analyst who was referred to us by a commissioner. An email was not sent to her originally (Figure 14). This demonstrates how many Lambeth staff do not believe that they use BI. Of the non-automatic replies, sickness or unavailability prevented the responders from attending our interviews or workshops. This left us with three interviews in total: 2 pertained to the interviewee's opinion of the Insight Hub, and 1 pertained to Lambeth's situation.

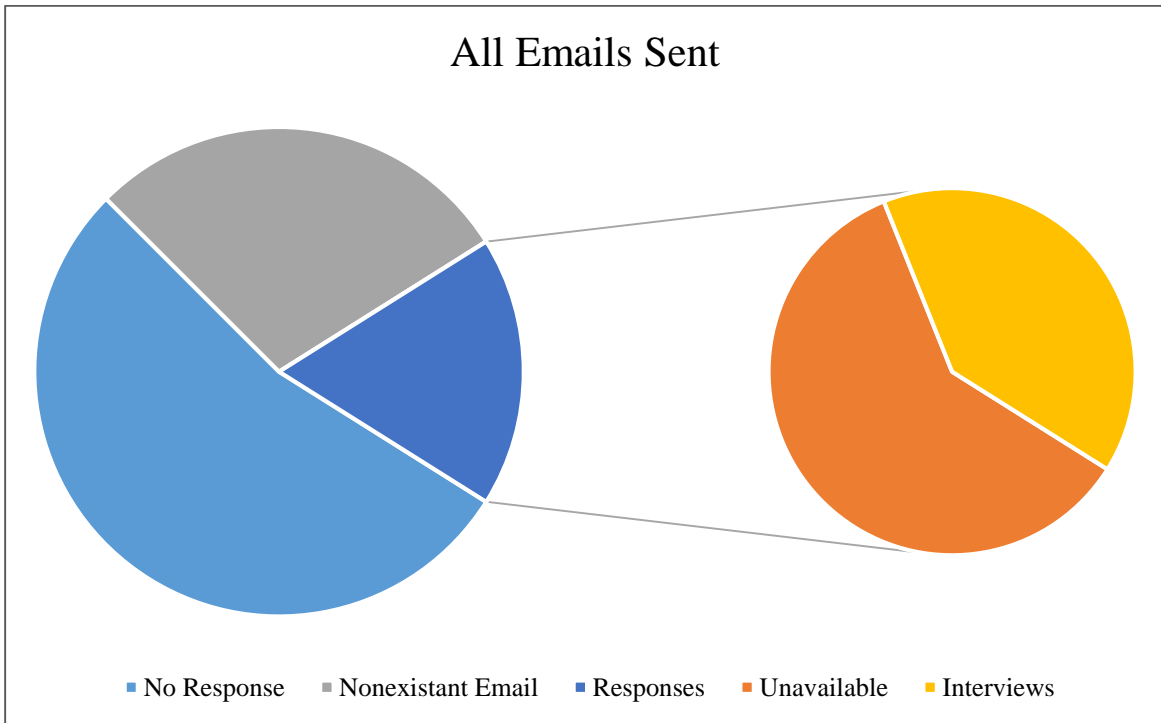


Figure 13. A pie chart depicting the response rate compared to the total amount of emails sent.

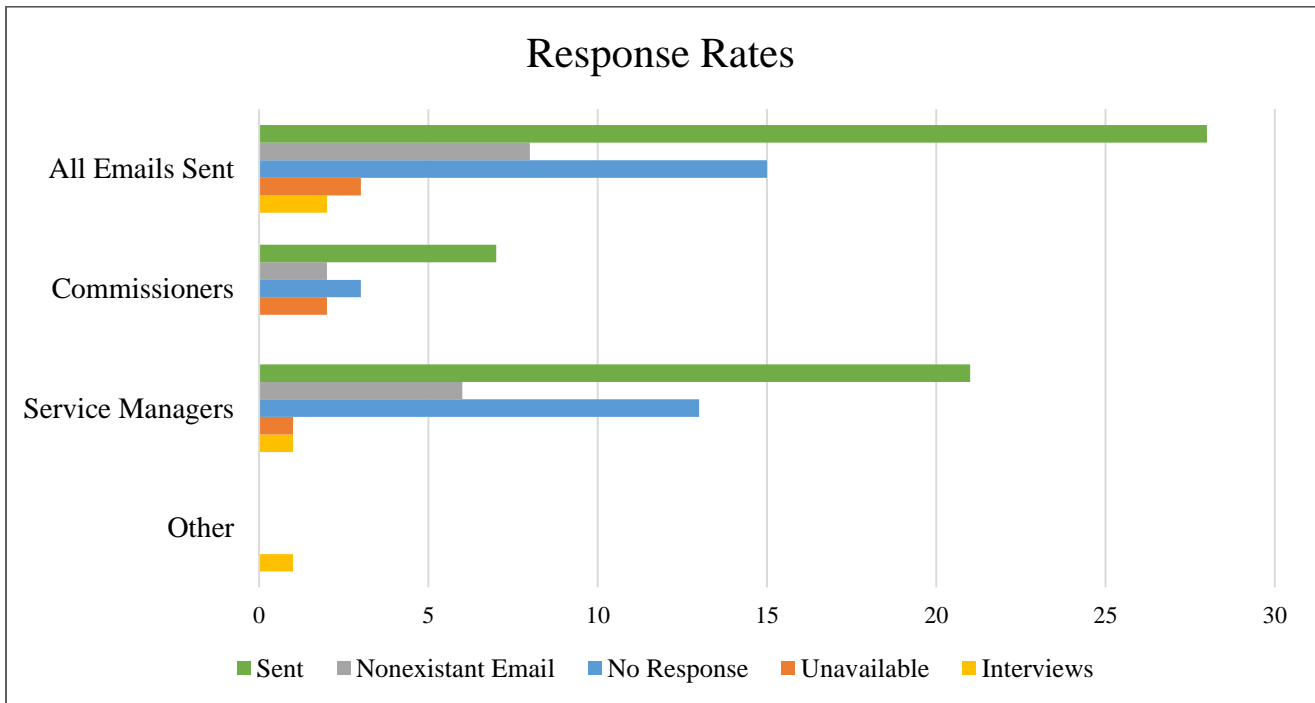


Figure 14. A more detailed display of the email responses compared to the emails sent out to particular people.

In addition to the email, we also made a poster (Figure 15) that was posted in the staff bulletin board, which is a biweekly email to staff in the Lambeth council. This poster is an invitation for all the staff other than commissioner and service manager to come to our interviews. Times and dates take the top of the poster to get the vital details to the viewer first. The images on the bottom half serve to grab the attention of those looking at the announcement board. On the bottom is a blurb describing a reason to attend these interviews and workshops: to help out the council. Unfortunately, this poster did not garner much results.

**BUSINESS INTELLIGENCE**

Business Intelligence is the process of gathering, analyzing, and using evidence or data in order to make more informed decisions.

Focus Groups are from 12:00 to 13:00 and from 13:00 to 14:00  
Wednesday May 25 in Olive Morris House Room 01-10,  
Tuesday May 31 in International House Room 03-05,  
Thursday Jun 2 in Blue Star House Room 01-01,  
Friday Jun 3 in Olive Morris House Room 02-05.

Help Lambeth Council improve service efficiency by streamlining data

The poster features a central graphic with the word "EASY!" in large red letters. The graphic includes a bar chart, a lightbulb, a speech bubble, a question mark, a clock, a Venn diagram, a calculator, a magnifying glass, a Wi-Fi symbol, a mobile phone, a laptop, a globe, and currency symbols (\$, €, £, ¥). The background is light blue.

Figure 15. The advertisement poster for the interviews.



### 4.2.1 Interview Outcomes

We gathered three important perspectives on BI from our interviews. One was from a BI analyst, one was from a Building Control employee, and the third was from a close colleague of our sponsor (Figure 16). Each supplemented the reality of the issue. The analyst had heard of the Insight Hub before but had not used it. The person working in Building Control implied that the Hub's functions does not apply to his department. Our sponsor's colleague, having helped in the directing of the Insight Hub, affirmed our research and provided a top down perspective of the state of the program in Lambeth Council. All the interviews conducted happened to be with people outside the original intended stakeholder base.

As depicted in the interview script, the interview with the BI analyst related to its implications with the Housing services in the council (See Appendix F for the Interview Script). The trend seen in the answers of this interview reflect a limited interaction with the program. Much of this behavior derived from the novelty of the Hub. The data used in the housing department comes from a range of sources sorted into certain categories. Housing in particular garners attention for homelessness. Enquires for this department occur at such a large rate, that many times requests are directed toward a national database. A major concern from the housing department perspective was how it would make their jobs more time efficient and cost efficient. The interviewee did acknowledge that if the Insight Hub already does these tasks it would be adopted by staff. Thus an openness exists for adopting a new system, as departments such as the housing department need to adapt to a slashed budget and a shrinking IT staff. While this openness exists at the top level, a key factor for a successful BI system, there is a perception that the gathering and analysis of information is outside the job description of commissioners, service managers, and service workers (Yeoh, 2010). It was a perception we found in other parts of the council as well.

The interview with our sponsor's colleague described to us a big picture of the Lambeth council's structure (See Appendix G for the Interview Script). What he said to us confirmed and reinforced the budget and population issues of the Lambeth Council. By 2020, the London government will stop giving budget support to the Lambeth council, so this means that Lambeth will become self-sufficient. Some staff have changed location to address other needs, and others have left Lambeth. As both a budgetary and housing move, they have planned to decrease their office space from 14 buildings down to two. Less money had to be allocated toward full utility costs, while at the same time the housing department gained 12 buildings to work with. But the

situation of Lambeth was so urgent it warranted more systemic changes. The interviewee told us about their plan having a BI system that can make data usage be more efficient, and this system is call the Insight Hub. He showed us how the Insight Hub works and how it is more efficient than other systems. No matter its merits, surmounting the knowledge gap proved to be the number one issue as depicted in our third interview.

Building Control [BC] is the only department in Lambeth that acts both like a business unit and a government function. According to the interview with a financial manager of BC, the department is strictly nonprofit (See Appendix H for the Interview Script). They collect fees for partner applications and demolition notices for dangerous structures. No money for this department comes from the government it is all self-generated. Thus the finance issues the Lambeth Council is facing do not directly affect BC. In addition, their systems are specialized toward their tasks and do not necessarily relate to the Insight Hub. They had their own systems, called Uniform Idox and Enterprise. The former dealt with paperwork and letters so as to efficiently address claims. The latter dealt with making sure that BC employees were doing their job correctly. Both systems do not use demographic information, which is what the Insight Hub is based around. The most the Insight Hub could do is provide links to Idox and Enterprise, though he did express interest in trying out what the Hub does, no matter the quality of the result. From this interview, we deduced that while the Insight Hub will facilitate government departments, mainly housing, it would not aid an autonomous specialized department such as Building Control.

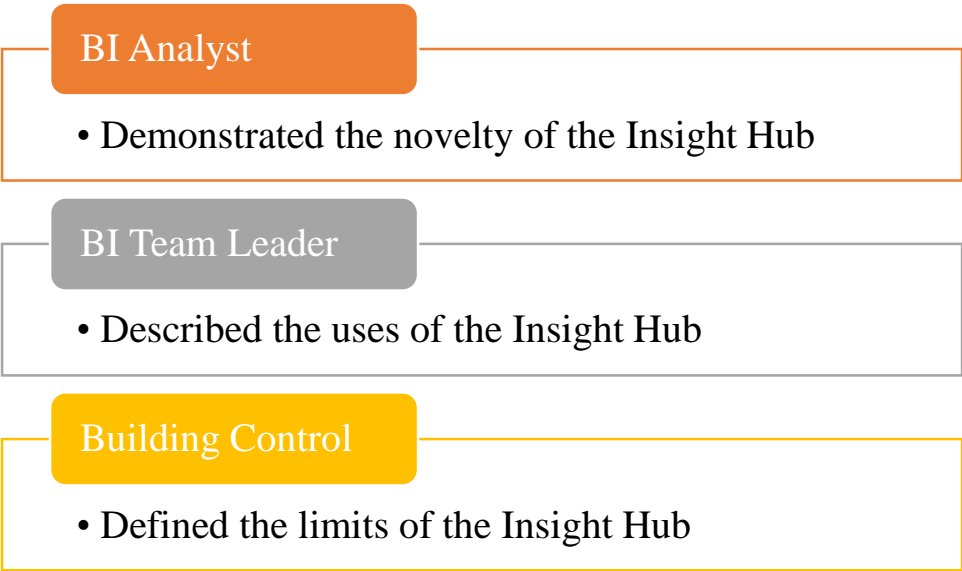


Figure 16. A summary of the interview outcomes from each person.

## 4.2.2 Survey Outcomes

Our surveys observed statements similar to the ones encountered in our interviews, but confirmed no new information. To make sure the most people would see the survey we sent it out through a biweekly email. However, the response rate was similar to that of our interviews. All 3 of the respondents have worked in the Lambeth council over 2 years, implying that those who have experience in the council were more apt to answer the survey (Figure 18). Respondents also relayed information regarding their job and how they use data (Table 7). Unfortunately, the low response rate prohibits definite conclusions regarding trends in data usage.

Additionally, 3 responses were checked as to what tools are helpful to access and utilize data (Figure 19). The two options that received no responses were the links to data sources and separations by wards and neighbourhoods. Conversely, the most answered responses were comparisons to other boroughs and trends in services. These tools are all available in the Insight Hub which demonstrates its relative usefulness to staff. Though the few responders implied a desire for macroscopic functions, it says nothing for the majority of the council.

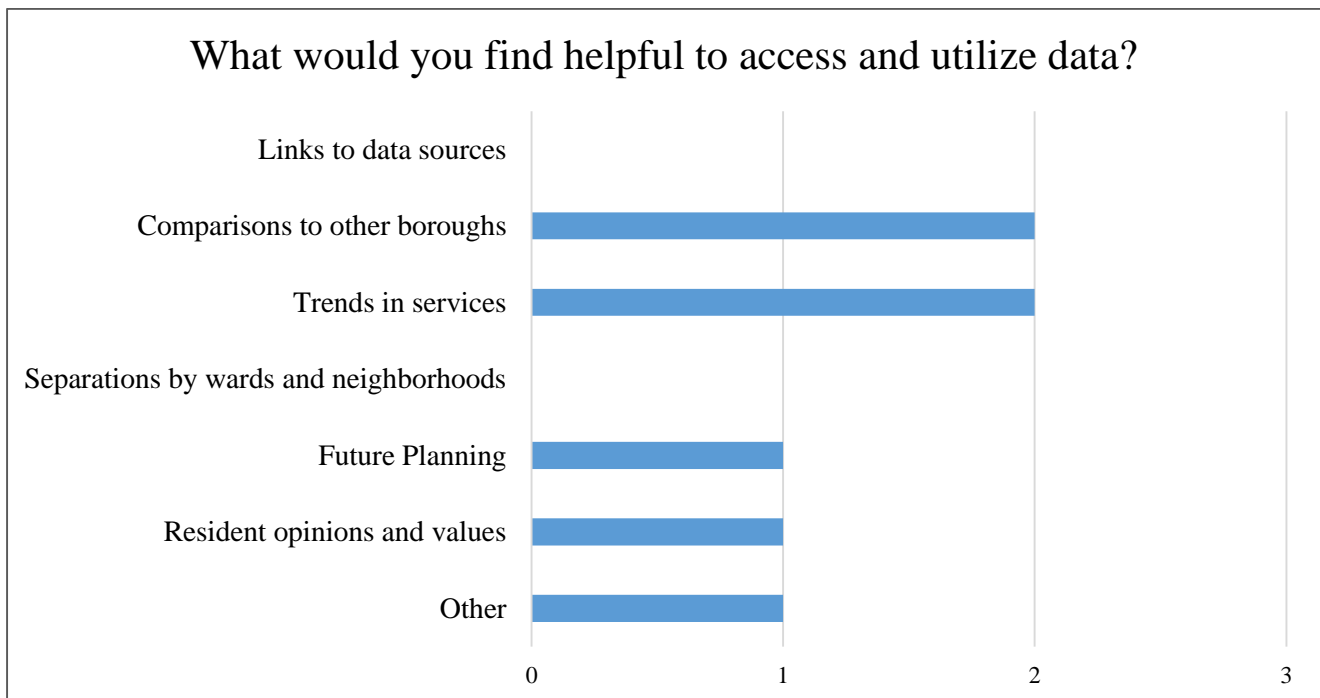


Figure 19. The survey results from 3 responses selecting tools that are and would be helpful for using and analyzing data.

In addition to gathering information for objective 1, this survey has a question where we ask if they have heard of the Insight Hub. If the response was no, then they were redirected to a brief introduction of what the Insight Hub could do, supplemented with pictures in order for them to get a visual understanding (See Appendix I). If the response was yes, then we asked them where they heard about the Insight Hub and redirect them to a description of the database. In this case, none of the respondents had heard of the Insight Hub before the survey (Figure 20). That result confirms that surveys act as a good introduction to the insight hub in addition to posters and emails. This introduction was taken more in depth with objective 2.

### **4.3 Objective 2**

We developed 2 primary strategies in order to promote the Insight Hub throughout the Lambeth Council. All of them were adapted based off systems and techniques that the council already uses. Our first promotional strategy was eye catching posters that were hung throughout the government buildings of Lambeth. This poster contains several pictures demonstrating the diverse uses of the Insight Hub, as well as a link to the Insight Hub. We deduced that this would be effective from the informational posters spread throughout government buildings. It also was the most effective option given the rules for visual media in Lambeth Council.

Our second and most important promotional strategy, we developed a workshop. This workshop included discussions on what data systems they used, why Lambeth needs insight, and an example of how the Insight Hub is used. The workshop was discussion based, and was made in order to create awareness of the usefulness of the Insight Hub. We chose the workshop because it is how the council describes novel concepts to relevant people. In addition, we could communicate to them that the Insight Hub is a better implementation of what they already do.

#### **4.3.1 Workshop**

The workshop we create presented information about Insight Hub. This workshop was the primary integration plan for the Lambeth BI group (See Appendices K and L for the Workshop Script and Slides respectively). It followed a progressive pattern that provided a warm introduction to the program. We stimulated discussion by first asking them what systems already worked. This was followed by an explanation of BI as well as their familiarity with the concept. In turn we

would narrow down with a definition of insight, which applies specifically to the conglomeration of unrelated data.

With a basis in BI and Insight established, the workshop would culminate in the presentation of the Insight Hub. The order of the workshop allowed the participants to understand how the Insight Hub facilitated their job. Participants would have time investigate tools of the program and ask questions that would be forwarded to our sponsor's colleague. Upon conclusion of the workshop, a short evaluation would have been given out then collected for future improvement. The evaluation included three questions about BI and the Insight Hub with one open response about how the workshop could be improved (See Appendix M). Shorter evaluations emphasized the aspects of the workshop, which, when improved, would magnify the effectiveness of the workshop.

#### 4.3.2 Poster

The poster we created for objective 2 was a promotion for the Insight Hub that complemented the workshop (See Appendix N). This poster was also posted to the biweekly bulletin board. The poster provides succinct pictures of the Insight Hub's potential. It includes what data one can access via the Hub and the potential analysis gained from these data. Pictures were shown for all kinds of graphs that the user can see for data analysis. Links to the Insight Hub on the top of the poster emphasizes to the viewer to check it out first. Visual media such as the poster increase awareness of the hub, providing an introduction to the changes the council wants to implement.

## **5. Conclusions and Recommendations**

### **5.1 Introduction**

This chapter will discuss what we deduced from the procedure of our project. We begin with realizations obtained from both objectives as well as barriers faced. Our outcomes from these objectives determined our recommendations to Lambeth. We first discuss matters pertaining to objective one, then the matters pertaining to objective two. From these, we write about what plan of action the borough should take in the form of three recommendations. Finally we expound upon the long term implications of this project.

### **5.2 Conclusions**

The three interviews gave us varied perspectives on Lambeth Council and how it uses BI. While the interviews confirmed our background and affirmed what we knew about Lambeth, there was a lackluster response rate that reflected the state of the council. The department centric work culture that was described to us in our interview with the sponsor's colleague proved to be prevalent in our interactions or lack thereof. Sharing data or even the prospect of sharing data felt ancillary to the commissioners and service managers; most of them felt no need to show up to workshops or interviews. Posters and emails did not work to help attendance, but this does not disprove its effectiveness for spreading the idea of the Insight Hub. Work culture inhibited response rate the most. Indeed, our interviewees were aware that their work culture was something that had to be changed. We deduced this from their prevailing attitudes; they felt the onus was on their own staff to attend. That said, they understood the chaotic situation of the Lambeth Council and how it was affecting our response rate. Thus we implemented surveys to act as a complement to the interviews and workshops.

### **5.3 Overall Recommendations**

Through our research, interviews, and development of the poster, workshop and survey, it has come to our attention that most of the government workers for Lambeth are either unaware of the Insight Hub or believe they have no use for it. Employees who believe that they have no use for it are accustomed to their own methods of gathering data. We have come up with

recommendations in order to promote the Insight Hub to people who are unaware of it, and encourage people who think it is moot.

### 5.3.1 Media for Insight Hub

In order to encourage people to use the Insight Hub the Council must continuously advertise and encourage employees to use it. This can be done through repeated notices in the fortnightly bulletin email. Since all staff have access to this email, it is a proper way to present the Insight Hub to them. The drawback with advertising through the weekly email is the possibility that the employees will skim over it along with the other notices. Hence, another way to advertise the Insight Hub to employees is through more posters. These posters can be placed in the common areas of different floors throughout the government buildings. These posters can be positioned strategically in order to catch the eye of the most amount of employees possible. On their own, posters may be ignored, much like the e-mail. Proposed cuts to office space will in turn decrease the amount of posters spread throughout the council. However, in tandem with another communication medium, it garners attention to the message. Although we have already promoted the Insight Hub during our time here, it is important to continue to do so. This way the awareness of the Insight Hub and usefulness of it will continue to grow.

### 5.3.2 More Surveys and Interviews

It is vital to keep gathering different employees' perspective and observe a possible change in opinion about the Insight Hub. If subsequent interviews indicate more people are aware of the Insight Hub or that more people are willing to use it, then the promotional strategies are working. Care should be taken that similar barriers may be encountered related to work culture. Research should be done on primary sources related to work culture to aid with further tailoring of surveys and interviews. For direct qualitative information on wellbeing and culture, a Human Resources person should be interviewed. Having that perspective in mind will help with adding relevance to the interviews and surveys that will increase response rate.

### 5.3.3 Procter more Workshops

Lambeth Council uses workshops as the primary medium for educating new concepts or skillsets. Our workshop script and slides (See Appendices K and L) will act as a starting point, but

more must be built off it. The script depicts a guide and structure for the workshops as well as some suggested examples. This can be altered to accommodate different presenters and examples. Additionally, the workshops can be edited and evaluated through our workshop evaluation (See Appendix M). As the council gradually incorporates the Hub into their work, more issues will have to be addressed and more advanced techniques will have to be taught. However, the majority of the workshops should be done once the council finishes its major reorganization efforts. Once in a state of stability, the workshops will have the most effect.

### 5.3.4 Long Term Implications

The prospect of using a different database for a job that employees do not realize that they already do is a hard sell in a settled environment, let alone one in flux. Staff in Lambeth are attempting to work on extra tasks with less resources in a situation that will worsen in the next few years. The Insight Hub will objectively lessen the burdens of each member within the main departments of the council. Yet it alone will not ameliorate the dearth of resources in Lambeth. However, future projects will benefit from the foundation established at Lambeth. We constructed a chart of how the government operates and the relations between different departments. Thus, even if the next project had nothing to do with the Insight Hub, they could aid with research and data gathering within one department. As an organization the Lambeth council accepts the aid of college projects. BI in the rest of the council will be known to everyone at some point, as the amount of resources invested in the Insight Hub make it too costly to redirect efforts.



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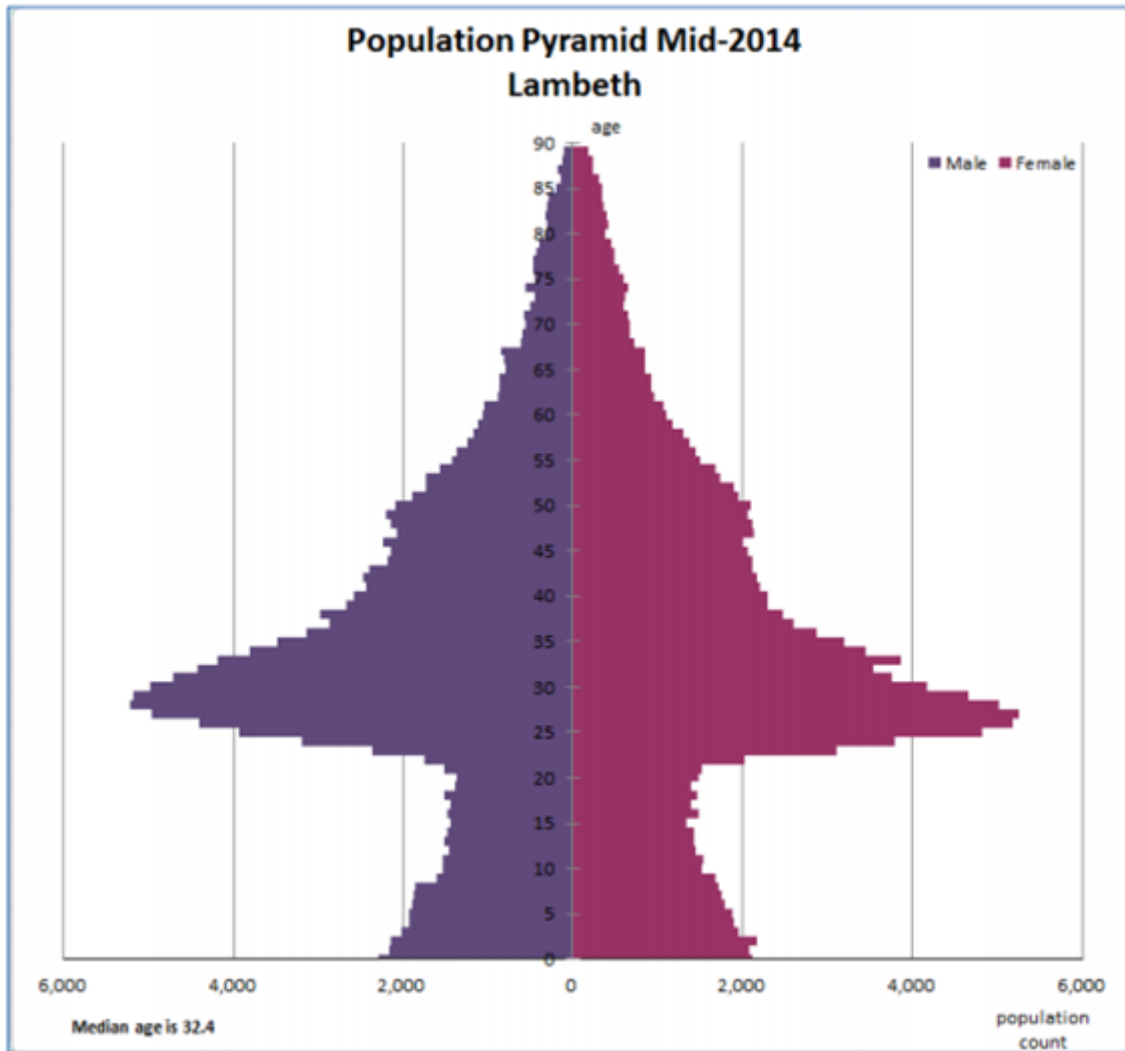
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Table 1. The primary authors and editors of each section in this report.

## Appendix B Graphs and Figures



**Source: ONS 2014 Mid-year population estimate**

Figure 6. A population pyramid of different ages and genders in Lambeth. Reprinted from *State Of The Borough 2016*. 1st ed. London: N.p., (2016). Reprinted with permission.

## Council services



### Benefits and council tax

Benefits paid by Lambeth. Pay council tax and find information about rates, property bands and ways to reduce your bill.



### Births, deaths, marriages and civil partnerships

Advice on weddings and civil partnerships, funeral arrangements and how to get copies of certificates.



### Business services, rates and licensing

Pay business rates online, get advice and apply for and review business licences and sign up to our business e-newsletter.



### Elections and council

Register to vote and find information about how the council works and your councillors.



### Housing

Help with finding a home, help for homeless people and advice for landlords and for tenants.



### Leisure, parks and libraries

Find out about sports, parks and leisure facilities and find information on libraries.



### Parking, transport and streets

Apply for parking permits, pay parking penalties, report problems on your street, find out where to park and hear about Lambeth's cycling schemes.



### Pests, noise and pollution

Report anti-social behaviour and get help with noise nuisances, health and safety issues and pests.



### Planning and building control

Submit applications for planning and permission for building works. Find information on conservation areas, trees and listed buildings.



### Rubbish and recycling

Recycling services, household bin collections plus reporting tools for waste related problems.



### Schools and education

Find out about educational resources in Lambeth, school admissions, term times, exclusions and free school meals.



### Social support and health

Care services for residents, family support, options for care at home and information about public health.

Figure 9. Services provided by Lambeth Council. Reprinted from Lambeth Council, (n.d.). Retrieved from <http://www.lambeth.gov.uk/>. Reprinted with permission.

## Appendix C Tables

Christian	160,944	53.1%
No religion	84,803	28.0%
Religion not stated	26,501	8.7%
Muslim	21,500	7.1%
Buddhist	2,963	1.0%
Hindu	3,119	1.0%
Other religion	1,682	0.6%
Jewish	1,134	0.4%
Sikh	440	0.1%

Table 2. Religious distribution within Lambeth. Reprinted from *State Of The Borough 2014*. 1st ed. (pg 12), 2014, London: N.p.. Reprinted with permission.

London Borough	Population 50+	%50+	% Female 50+	% Male 50+	Population 65+
Barking and Dagenham	43,700	24%	54%	46%	19,200
Barnet	102,700	29%	54%	46%	47,400
Bexley	77,800	34%	54%	46%	47,900
Brent	77,800	25%	52%	48%	32,600
Bromley	108,200	35%	54%	46%	51,900
Camden	53,500	24%	53%	47%	24,100
City of London	2,400	32%	50%	50%	1,000
Croydon	103,500	29%	54%	46%	44,500
Ealing	86,100	25%	53%	46%	36,300
Enfield	86,600	28%	54%	46%	39,000
Greenwich	61,300	24%	53%	47%	26,000
Hackney	44,800	18%	52%	48%	17,300
Hammersmith and Fulham	38,900	21%	54%	46%	16,400
Haringey	55,900	22%	54%	46%	22,500
Harrow	73,900	31%	55%	45%	33,600
Havering	87,000	37%	54%	46%	42,400
Hillingdon	78,000	29%	52%	48%	35,200
Hounslow	64,500	25%	53%	47%	26,900
Islington	43,400	21%	53%	47%	18,100
Kensington and Chelsea	44,700	28%	54%	46%	19,300
Kingston upon Thames	45,800	29%	53%	47%	20,300
<b>Lambeth</b>	<b>59,000</b>	<b>20%</b>	<b>53%</b>	<b>47%</b>	<b>23,100</b>
Lewisham	63,300	23%	54%	56%	26,200
Merton	52,600	26%	54%	46%	23,200
Newham	54,500	18%	53%	47%	20,400
Redbridge	76,400	27%	54%	47%	33,400
Richmond upon Thames	57,100	31%	57%	43%	25,200
Southwark	58,500	20%	56%	44%	22,400
Sutton	60,000	32%	53%	47%	27,300
Tower Hamlets	39,100	15%	51%	49%	15,800
Waltham Forest	61,100	24%	54%	46%	25,600
Wandsworth	63,200	21%	54%	46%	27,100
Westminster	55,100	25%	52%	28%	24,400

Table 3. The Population age percentages compared between the different London Boroughs with Lambeth highlighted in red. Adapted from Elliott, D. (2011). Key stats. Retrieved April 10, 2016, retrieved from <http://www.ageuk.org.uk/london/about-age-uk-london/media-centre/key-stats/>. Reprinted with permission.











Party name	Seats won	% of votes
 Labour	59	54%
 Conservative	3	15%
 Green	1	16%
 Liberal Democrat	0	13%
 UK Independence Party	0	2%
 Trade Unionist and Socialist Coalition	0	< 1%
 Independent	0	< 1%
 The Socialist Party of Great Britain	0	< 1%
 Trade Unionist and Socialist Against Cuts	0	< 1%
 Pirate Party	0	< 1%
Turnout:		34%

Table 4. Percentage of votes and amount of seats each party received in 2014 elections. Reprinted from Lambeth Council, n.d., Retrieved from <http://www.lambeth.gov.uk/>. Reprinted with permission.

	Sent	No Response	Nonexistent Emails	Responses	Unavailable	Interviews
All	28	15	8	5	3	2
Commissioners	7	3	2	2	2	0
Service Managers	21	13	6	2	1	1
Other	0	0	0	1	0	1

Table 5. The responses to the emails sent separated by job position.

## Appendix D Detailed Timeline

Week	Objectives	Tasks	Due
1	Research staff opinions on the use and analysis of data in Lambeth	<ul style="list-style-type: none"> <li>○ Learn more about the details of BI in Lambeth</li> <li>○ Fine tune the project with our sponsor</li> <li>○ Redefine and reword objectives</li> <li>○ Prepare questions and structures for the interviews and focus groups</li> </ul>	<p>Have interview questions prepared</p> <p>Gather background information</p>
2		<ul style="list-style-type: none"> <li>○ Reserve rooms for the interviews and focus groups</li> <li>○ Finish solidifying interview questions</li> <li>○ Contact administrators to begin setting up interviews</li> <li>○ Advertise the interviews to Lambeth staff</li> </ul>	<p>Have interviews scheduled</p> <p>Contact commissioners, service managers, and staff</p>
2		<ul style="list-style-type: none"> <li>○ Start interviews</li> <li>○ Begin developing an outline for an integration plan (workshops)</li> </ul>	<p>Gather preliminary information</p> <p>Construct a baseline of opinions and data</p>
3		<ul style="list-style-type: none"> <li>○ Continue interviews and focus groups more in depth</li> <li>○ Begin compiling the information</li> <li>○ Begin to develop an integration plan</li> </ul>	<p>Finish gathering data</p> <p>Begin compiling information</p>
4		<ul style="list-style-type: none"> <li>○ Compile and analyze the information</li> <li>○ Develop an integration plan</li> <li>○ Schedule and address logistics of the workshops</li> </ul>	<p>Develop the integration plan</p>



5	Develop and implement an integration plan of BI in Lambeth	<ul style="list-style-type: none"> <li>○ Implement the integration plan</li> <li>○ Begin workshops and evaluate them</li> </ul>	Implement and establish the integration plans
6		<ul style="list-style-type: none"> <li>○ Continue editing the integration plan and narrow its focus</li> <li>○ Solidify the workshop and establish guidelines to allow for flexibility in the future</li> <li>○ Begin establishing a longevity plan to continue the integration plans after the IQP is complete</li> <li>○ Develop future recommendations for Lambeth</li> </ul>	<p>Solidify the integration plan</p> <p>Develop recommendations for the future</p>
7	Proposal	Presentation on Wednesday	Final Report

Table 6. The detailed timeline in tabular form with lists of tasks and an end goal for each week.

# **Appendix E Interview Script**

## **For Commissioners and Service Managers**

### **About 45 minutes**

#### **IRB Consent**

Hello Mr./Mrs. (say their name), and welcome to this interview which is meant to discuss issues pertaining to information and how it is transferred throughout the council. You have been brought to, if you so choose, participate in a discussion about BI.

We are four students from the Worcester Polytechnic Institute in the United States conducting this interview for a research project. Our research is meant to help with promoting an idea of information management, called Business Intelligence, to various members of the Lambeth Council. The research will be published online within the databases of the Worcester Polytechnic Institute. Therefore, the nature of the information we are seeking is strictly about intelligence, how it is gathered, how it is distributed amongst the council, and current issues with the systems used.

This interview is expected to take 45 minutes. The information discussed during this time will be applied to a workshop in order to address the issues in the most relevant manner possible. No names, addresses or other personal information will be published, only the minutes of this talk will be published. That said, this whole process is completely voluntary, you are not required to participate. If you do not want to discuss a certain question for any reason, you have the right to skip any question.

Are there any questions about this interview before we begin?

#### **Explain BI**

Whenever we mention Business Intelligence, we're referring to the process of gathering, analyzing, and using evidence or data.

#### **Questions**

- Have you worked with BI before?
- What are the most common sources of data you use? Do they make job easier?
  - For example, from London itself, from hospitals, from the school system...
- What is your planning process for your service?
- How will you use data analysis and research to improve your service?
- Have you used or heard of the Insight Hub?
  - If so, what have you hear about it? Why and what have you used?
- How have you had to prioritize your time since the budget cut? Has it limited your service in any way?

# **Appendix F Business Intelligence Analyst Interview Script**

## **Interview with a Business Intelligence Officer On May 26, 2016 from 11:00 to 11:45**

**IQP GROUP (IG):** Have you worked with Business Intelligence before?

**BUSINESS INTELLIGENCE ANALYST (BIA):** Yes I have.

**IG:** Have you used or heard of the Insight Hub?

**BIA:** Yes I've heard of it, and I've seen it, but...no I have not used it yet.

**IG:** What are the most common sources of data you use? Do they make job easier?

**BIA:** I assess a range of housing data that my colleagues plug into the housing system. Our database works in how we gather data. Everything I generates goes to certain categories. However, I wouldn't be averse to using Insight Hub, but we have our own systems. Let me tell you, the attention homelessness attracts is enormous given the cost and we are asked for information all of the time. We contribute nationally and point people toward communities in local government. We point toward summary data, gathered from all councils in England. With the freedom of information act we must answer to all enquiries. Every enquiry is different. One reason we do not directly dispense information is that businesses are voracious in terms of what it needs to know. They need to know about customers coming in, and the changing customer. Though that makes sense because if you look at things from a static point of view, then you miss the point. Thus we get reports from colleague departments and from what I have in consideration of what they want, so I can give best information. Sharing data is a frequent thing. For example, we obtain data from London itself, from hospitals, and from the school system.

**IG:** Do you work with service managers?

**BIA:** Yes, I work directly with service management, but there are service managers for every team. I work with several of them in housing management. I will analyze info to help with service improvements I look at interest groups to see what can do, other times it's a broad brush approach. For example, I was asked to look at single people and all adult households. There was a detailed analysis of both groups, which were different from families and each other. We tried to find certain markers that would tease them out of temporary accommodation. While researching we found a collection of people in their 70's. What exists right now is a choice based letting scheme, allow people to choose new kind of housing (once authorized). The groups she looked at were authorized, but people in 70's don't choose housing other than temporary accommodation. Thus chose to have conversations with that group. So our data is meant for business improvement strategies and pieces of it are given to different people to work through. We might change our allocations policy, so a group will get higher priority from housing, and cost as well. This is because we have 1900 households in temporary accommodation with 5000 people and 3000 of them are children.

**IG:** Do any Service Managers know or work with Insight Hub?

**BIA:** I doubt if they do.

**IG:** Why do they not know much about it?

**BIA:** We are all Pared down in terms of staffing, and getting locked into operational issues. Our department in particular has to manage teams, deliver housing advice, and manage temporary accommodation. We need additional time to analyze our own data, however the Insight Hub might already do this. If so, service managers would be open to it as long it's something they are already doing. There was a link shown in April showing the tools that were there. But here in Blue Star house, we only work in housing, and it might be helpful to change the scope of the Hub.

**IG:** How did you use data analysis and research to improve your service?

**BIA:** A recent example of what we did was research on older persons. We looked where they were geographically and resized sheltered housing services and commissioning in the borough as a result. We asked how services were in places where people lived. This was all done through our housing program in Northgate.

**IG:** How have you had to prioritize your time since the budget cut? Has it limited your service in any way?

**BIA:** I haven't actually noticed anything recently. My only concern is a cut in IT section, this directly impacts the housing service by compromising my ability to get data. An increase in data and a paring down in service, creates an information hungry department. We will have to ask for additional fields to gather information, because doing it directly compromises security. We will have to restructure without any reference to business. It is difficult to see something in sure time, as housing is a long term thing. All we are doing is gathering more. External pressures that exist are the London Councils and Authorities. They have passed pan-London agreements to keep temporary accommodation down. But at the same time they want data on this in certain format. In return, they will give us new data that has nothing to do with what is going on in Lambeth. We don't want to resist requests for data, because it's a push and pull agreement in a sense.

**IG:** What other departments you use data from?

**BIA:** We use the national website every month and put it in informational reports. These go into a circulation list that has the heads of service, commissioners, other authorities, and all the managers I work with on it. In other words it doesn't go everywhere, only to people who are interested.

**IG:** Would it be more helpful to be on a database?

**BIA:** People are drowning in information a database is not needed. We need to know more about people placing outside of the borough. We don't produce much on that, but receive information about this from the Pan London group. So I guess yes and no, if I can drop a site link into it, then it's fine.

**IG:** Is there a lack of analyzing info that's coming in?

**BIA:** I'm not sure that's the real issue, I think we are just short of bodies to do it. There is a lack of expertise; housing within council is involved with lots of other departments. There is a census person "George Sen Gupta" who has all the info there. In addition we use many national databases, but there is not a lot of corporate analysis going on. Lambeth safeguarding children's board, temporary accommodation, goes into a stream of stuff.

**IG:** Are there people with your position at other departments?

**BIA:** Yes, Tim Wheatman is the head of corporate performance council-wide. He is the contact for housing and homelessness.

**IG:** What kind of performance do you expect in your department?

**BIA:** We'll have a target to prevent homelessness, for 1300 people a year. This is tracked every month locally. Meanwhile, we look at the comments gathered quarterly and see if they are over or under our targets. We have two considerations, one is for temporary accommodation and another is for prevention, in terms of temporary higher cost accommodations. People in management have tighter targets than us.

**IG:** Would Service managers be interested into coming to a workshop?

**BIA:** They are always busy, just interrupt them, it is nice to invite them. They would go to Phoenix House, but you have a better chance for them coming to Blue Star.

**IG:** Do you have any questions for us?

**BIA:** Yes I do. Do you have to present this when going back?

**IG:** Yes, for our final IQP presentation

**IG:** So what is your knowledge of the Insight Hub?

**BIA:** I didn't give it enough time, but there is a lot of pictures. I will give it a try soon.

# Appendix G Sponsor's Colleague Interview Script

## Interview with a Business Intelligence Team Manager On May 25, 2016 from 15:30 to 16:15

**IQP Group (IG):** Hello (name redacted) Thank you for talking with us today.

**Sponsor's Colleague (SC):** And you as well. Welcome to Lambeth. Let me tell a bit about what I do. Basically what we're about is bringing research muscle of one publically funded institution into another public institution. I have background in citizen engagement and have worked with other boroughs on similar matters. Thus I can say that in the grand scheme of things there has been a concern since 2010 with national policy. It is neoconservative based, you know with small state and all that, and they are essentially severing all aid to the local authorities by 2020. Needless to say these local authorities need to find a way to deal with these cuts and still function well.

**IG:** What are these authorities doing to address this?

**SC:** Well there are a few ways to approach this. One route we can take is privatization. This is what the borough of Barnet has already done. They signed over all their services to Capital, an outsourcing company. Now outsourcing shrinks staff in an already low staff to population ratio. It is the lowest ratio in recent history. I've worked with foreign cities in South Korea and Bosnia Herzegovina to know that this is especially bad. But Lambeth is an interesting borough from what I've worked with.

**IG:** What do you mean by interesting?

**SC:** I mean that Lambeth has both great deprivation and wealth. We have a ward with a 14,000 pound income, which is low compared to the 34,000 pound average. We have a homelessness issue that we need to ship out of Lambeth. Education here is good, in fact we are lowering the teenage pregnancy rate, but we are having an increasing aids rate. We have to strategically organize our priorities over the narrowing income gap, jobs, and neighbourhood wellness. This is all because of the numerous constraints that exist.

**IG:** Could you tell us a little more about these constraints?

**SC:** Well, we don't really have a lot of land to build on. Our council is called to act differently, yet shifting from a risk-averse policy to a risk-aware policy is no small feat. Somehow we have to rate organizations by innovation. The best way to rate this is by a system called Intelligence failure. This measures innovation by the number of failures encountered, which implies that an organization is constantly innovating. Yet, will this actually incentivize innovation? We don't want to outright reward failure when nothing is learned.

**IG:** Where does the Insight Hub fit into all of this?

**SC:** On top of the innovation dilemma, we have to deal with raw information. I'm sure you have heard of big data right? Well it needs volume, variety and voracity if we ever want the slightest chance of it being used in the future. We have to get on top of it so Lambeth can closely target services that we deliver. That is where the Insight Hub plays a crucial role. Effective service is more important for those who are on social housing than those who are middle class and predominantly white. This is because the former group of people have many long term needs including low employment, so they will interact with the government a lot. Put into categories, the most vulnerable groups of people are the unemployed, the long term unemployed, children in poverty, and children with disability needs.

Now to even begin addressing this issue, we have to somehow identify who exactly needs what. In the United States I know you have Social Security numbers and insurance numbers. But it is not like that at all in the UK. What we do have is something called the national insurance number. But not everybody has one, as you get it assigned at age 16, and not everyone even knows what it actually is. Ireland has partially addressed this issue by creating a zip code for every house which allows them to aggregate data around physical space. Lambeth by comparison has only a name and a birthday, with for identification which is problematic in itself for similar sounding ethnic names. This is absolutely key for the 38,000 dwellings that we own which are managed and rented out.

**IG:** We read about barriers to BI at the administrative level in our sponsor's presentation. Could you elaborate on that?

**SC:** Sure thing, these boundaries exist primarily at the top level. Whenever I go to people and ask for data they think I am auditing them, which is crucial for whenever you talk to people about information. Other issues are the 12% of the change in population every year, which makes targeting services more ambiguous. Also, due to their short stay, they do not necessarily follow all rules and regulations, as they are not there long. In addition there is massive increase in property prices throughout London; indeed, we have expensive housing and transport. So housing, and in that property ownership, is key to addressing. We need a cleaner street to keep the rooted community comfortable here.

This is why distributing information is so crucial. Right now the public services are horizontal silos, but by sharing data, there is a whole lot more that can be leveraged. And the phenomenon is, they have the data, but essentially hide behind the data protection act. It is mostly a power move because the data protection act does not apply to anonymous information. But sometimes there are perceived confidentiality issues as well.

**IG:** Do you have an example of confidentially barring information transfer?

**SC:** Yes, in the Lambeth borough, the accident emergency department reports that 70% of assaults are in hospital admission, but they will not share the information. The hospital does not care about the injury, they just have to treat it, since that is the ethical standard. Yet we have to try to identify the places where assaults are happening in order to address the problems at the root. We have an inkling that these assaults happen at nightclubs and clubs, but they are just not being reported by hospitals. Sometimes it requires reminding people of their obligations and solving problems at

their source. But merely sharing data via the NHS [National Health Service] is difficult, since they employ 1.3 million people. It is something we need to get better at.



# **Appendix H Building Control Interview Script**

## **Interview with a Building Control Service Manager On June 1, 2016 from 13:30 to 14:15**

**IQP GROUP (IG):** Tell us a little about yourself.

**BUILDING CONTROL SERVICE MANAGER (BC):** Sure, I am from the Building Control department. Ours is the only department that exists as a business unit. No one else in council acts as their own business unit. This means all income for this department is derived from applications that come under building regulations, or under different areas of legislation. We collect fees to keep functioning. Without our self-generated income our department doesn't exist. For example, the environmental health gets central government money for use. But building control has no money anywhere other than what they raise themselves. We do get money from demolition notices for dangerous structures and partner applications. Partner applications are from construction companies that come into the London borough of Lambeth alone. However, we are allowed to check applications from other boroughs anywhere in England at all. If an agent or architect likes the way that our Building Control works, then they will put applications into this department. It's another way to get additional money.

In addition, more recently, we have a memorandum of understanding. This is a document for all London boroughs, there are 32 of them. This means we can check building regulation applications from other boroughs. Now can work anywhere in London and get fees for demolition.

In all my years, I have tried to give a service as best as possible. Though we are hemmed in, we still have to act as a business. We quote for Local Authorities, but don't want a profit either. Anything in other boroughs outside is "cream on the cake" so to say. We have to take care of jobs in Lambeth first, but taking care of external projects supplements our income.

Speaking of income, the Building Control department is covered by a finance group. I think it's a quasi-group? From the Central government? Anyway it is called the CIPFA. The Chartered Institute of Public Finance and Accountancy. In 2009 they produced a document when there was a change in building regulations. It pertained to charging issues, what we can charge, how we can charge it, and what account it goes into. It boils down into two accounts: BCA and non BCA.

BCA is the Building Control account. It included building regulation application fees, demolition notices, and dangerous structures. In this account, we are only ever allowed at the end of a financial year to break even. Thus, we have to assess where we were the previous year and try to see where the area is likely to go the following year, taking into account the rest of the country. London for example, is more buoyant. Our manufacturing index increased from 49.4 to 501. Tomorrow we will get the index for the services sector. For past reference, last month it went down dramatically, but up in London. Positive trends are mostly seen in the south central part of England, the rest of the country is exhibiting negative trends. In other words, anything inside the M25 route is buoyant, as there is considerably more building in London. Anyway, we are meant to have a balanced budget over a three year period, so we are allowed to go over or under budget a little bit year by year, but it must balance out by the end of the third year. In the last two years, we had a small profit on the

scale of 30,000 to 40,000 pounds. In this case, we need to lower fees so as to help break even. However, if we were in the opposite situation, a small deficit, then we would have to slash staff. Thus we are slightly different than a business in that we have to adjust for a zero profit margin as opposed to just profit.

So for non-BCA... let's backtrack a bit. In 1987, the government set up an alternative form of Building Control called Approved Inspectors. They were private companies associated with no local authorities allowed to do exactly what Building Control does as a department. They were not allowed to deal with dangerous structures or even rule enforcement. In principle, these approved inspectors acted as a private company purely there to make money. That's what a business does, it is there to make money and get work at a price that is equitable. In addition, approved inspectors do not check regulations in the same way as a Local Authority. They may only do enforcement through e-mailed photographs, and as long as nothing goes wrong, the insurance is good. However, they do have claims. So that is the issue with approved inspectors.

Anyway, now for non-BCA, this deals with work coming in outside of Lambeth. Here we are allowed to make a profit, and under the 2011 trading regime, undertake other work. So fire risk assessors will be a thing, and SAP, standard assessment procedure, calculations can be done privately. We can charge for it. As all 32 boroughs combined, we looked at the amount of work for approved inspectors. Some were down only to 25% of work done by their own building control departments, with 75% for approved inspectors. Others were the opposite. However, though I can't tell you how Lambeth is doing for business reasons, I can tell you that we are doing fine. Our location in central London definitely helps us out. Indeed, we did so well, that at a meeting of all the boroughs at our umbrella company, the Local Authority Building Control, we got 2 awards in an 11 award ceremony. The LABC also looks after the interests of all boroughs in the country and provide legal and technical advice. As part of their advice, they told us ways to fight back against approved inspectors. We were essentially given three options. One format was to partner with them, but this means that we will have to alienate ourselves from the Local Authority, which we do not want. Another format was to join a Local Authority Trading Company. This means we could trade as a private business, but within the confines of a Local Authority. We don't have to fully comply, but so far only one borough is doing this. We will start of small and have other boroughs join if this format works. The third format involves writing a draft report for another borough, but this warrants taking on a professional. We will need a full report for the department anyway and take the matter forward, 12 to 15 months' time, to actually have a business.

**IG:** Will the business plan include data analysis?

**BC:** Definitely, but the assumption is that we will have 3 plans to the council, to our department, and for a disaster scenario. Our department assumed we will probably run at a deficit for first 24 months, but I don't think it's likely. The advantage of having three plans is that it allows us to undertake legitimate work and get more money. One obstacle we have however is the Party Wall Act. It says that for foundations within 10 - 25 feet of a boundary, we have to serve notices to do any work. I'm going to be very biased here that's not good for building control since it slows down inspection. Another obstacle is the Construction Design and Management regulations. This deals with Building residential, producing methods statements and documentation for work undertaking

and identify risks. There is a lot of money in this. We also have to set calculations, fire risks, and anything involving a proper service at the front allows acting in better ways.

**IG:** Thank you, but I was talking about data itself. Like do you need specific data sources or systems to make it better?

**BC:** What we have is a database called the “Uniform Idox” It is only provided to Local Authorities, not business since there is a large initial cost. It allows all applications to be registered as well as paperwork and letters. In addition, it has Completion certificates. We are going to be the first department to use a version of Idox called mobile Idox on the first of July. This is because most of the staff at the moment are able to connect up Iaps with a specialist firewall. This is a firewall particular to the central government to make sure no attacks get through. Through the mobile Idox, one can go straight to a site and return at the end of the day. Mobile Idox is not some sort of “Big Brother” system, it is purely there to make sure people are safe. So it does all things on an iPad which goes to servers.

Another system is based on photographs, for visual proof to address projects. Let me be clear, we are not there to see every piece of building undertaken. This means we can recall photographs back onto Idox. The mapping system of Idox is only meant to see where the easiest inspections are on a certain day.

We have also been introducing enterprise, it’s been a system we’ve been using for 2 years. We haven’t found necessary until now, due to the changing manner of mobile working. Enterprise allows us to check that people have been to a site based on the traffic light system. It also recalls whether or not they’ve done it right. It exists for completion certificates. This system is Quality Assurance Accredited, because we recently had a half yearly assessment with nothing going wrong. My personal opinion is that the current system produces mediocre results, but they are consistent.

**IG:** Do you use demographic data from London’s data sources?

**BC:** No, we made an agreement with Housing that any work associated with the council now involving regulations, automatically comes to this department.

**BC:** I assume you know about the cuts that are coming to local authorities in the future as well as the staff cuts right?

**IG:** Yes.

**BC:** Well, cash strapped authorities on the periphery of London such as Lambeth are far more willing to bring money into departments such as ours now because we are less affected by cuts from the central government. See, we were set up as a company to see more money come in because no matter what happens with the Local Authority, this department can give excess profit back to them. We get funds from architects, structural engineers, surveyors. This happens when they come into the borough and put out an application to be a partner of a house or do work. London has agreed to put all work applications through building control. Indeed, a large

nationwide company was going to put largest housing project to date in Lambeth. In the near future, if we are to get publicity for large projects, we will need media people. But for now we are known well enough for people to give applications to us.

Funding in housing works separate from the rest of the borough. Certain works in housing are protected, they can never use revenue monies for capital works. Or if they can they can do it rarely. This is because housing money is ring fenced; it is meant only for housing and nothing else. Why does that restriction exist? Well it's because the borough of Lambeth could theoretically take money out of housing for say...children's needs.

About the staff cuts, we've had to cut 500 staff, on top of another 179 to slash up to first of September this year. To make matters worse, we must slash another 500 on top of that, making the net reduction about 1000 staff over 2 years. This has especially hurt the director of planning for transportation, David Joyce. He needs to cut back given his indication of the forthcoming year and the year after. It is looking similar to the Library issue that recently happened in Lambeth. Two of them were closed recently this year incurring massive protests. It the worst situation Lambeth has gone through in a long while. This came about because Lambeth is an easy target for cuts. The sheer amount of cuts have gone beyond slashing wasteful spending to the point where services have to be reduced. Will Lambeth still have public libraries or social services delivered effectively?

**IG:** Thank you for your time, you presented an interesting perspective on our project.

**BC:** You're welcome.

# Appendix I The Survey

---

How long have you worked for the Lambeth Council?

- Under 6 months
  - 6 months to 1 year
  - 1 to 2 years
  - Over 2 years
- 

What is your current job title?

- Commissioner
- Service Manager
- Analyst
- Executive Support Staff
- Other

How do you commonly use data and evidence? (Service planning, future predictions, ect.)

What data sources do you frequently use? (Police reports, National Health Service data, a specific database, national data, ect.)

---

What would you find helpful to access and utilize data? (tick all that apply)

- Links to data sources (Police reports, National Health Service data, national data, ect.)
- Comparisons to other boroughs
- Trends in services
- Separations by wards and neighborhoods
- Future Planning
- Resident opinions and values
- Other

---

Have you heard about the Insight Hub?

- Yes
- No
- Not Sure

---

How did you hear about the Insight Hub?

- Poster
- Email
- Learning session or workshop
- Friend or colleague
- Other

---

The Insight Hub has many of these data sources and more. The Insight Hub is a new database containing important, commonly used information for Lambeth. With links to other sources as well as analyzed data in a convenient format, the Insight Hub has tools and options to improve service efficiency.

Check it out at <http://bit.ly/insighthublambethgov>

There is also a helpful guide at <http://lginform.local.gov.uk/about-lg-inform/user-guides>

**Lamnet** Home Useful info ▾ Stuff you need to know ▾ News ▾ Library Team Sites Search \_\_\_\_\_

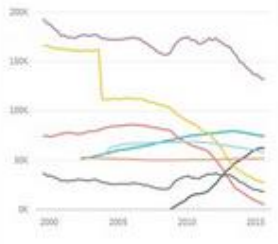
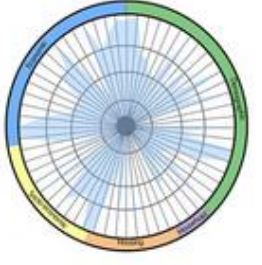


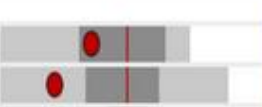
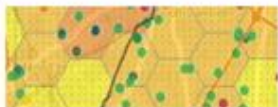
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Site Contents

Welcome to the Insight Hub, bringing you [research](#) & analysis about Lambeth, the people that live here and the services they use.

Discover methods & tools to help you use data & evidence in your everyday work, as well as [case studies](#) of how other people in Lambeth and beyond have used analysis to help them. You can also take part in sessions where you can find out & share how to use these [methods & tools](#).

Whether you carry out research & analysis or want to use insights to help you commission or run services, the Insight Hub's for you. If you can't find what you're looking for, or you'd like to find out how to do something around research or analysis, add a comment on [Yammer!](#)

<p><a href="#">What we know about our services</a></p> 	<p><a href="#">What we know about our residents</a></p> 	<p><a href="#">What we know about our wards</a></p> 
<p><a href="#">How Lambeth compares</a></p> 	<p><a href="#">What the wellbeing of our residents is</a></p> 	<p><a href="#">What Lambeth will look like</a></p> 

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[Programme](#)  
[What is business intelligence?](#)  
[Who carries out business intelligence?](#)  
[How are we planning to improve the use of evidence & analysis?](#)  
[How can you be involved in shaping this programme?](#)

Figure 17. Images of the survey questions and its content including links to and a picture of the Insight Hub.

## Appendix J Survey Results



Figure 18. The time survey respondents have worked for the Lambeth Council.

Respondents	What is your current job title?	How do you commonly use data and evidence?	What data sources do you frequently use?
1	Allocation and Verification Team Manager	Performance stats	Internal systems
2	Team Manager	Operational management / Performance management	Internal management information / reports. Local government (London Councils) data / reports.
3	Service Manager	To monitor and evaluate customer satisfaction	Specific databases

Table 7. Answers to survey questions describing respondent’s job title and data usage.

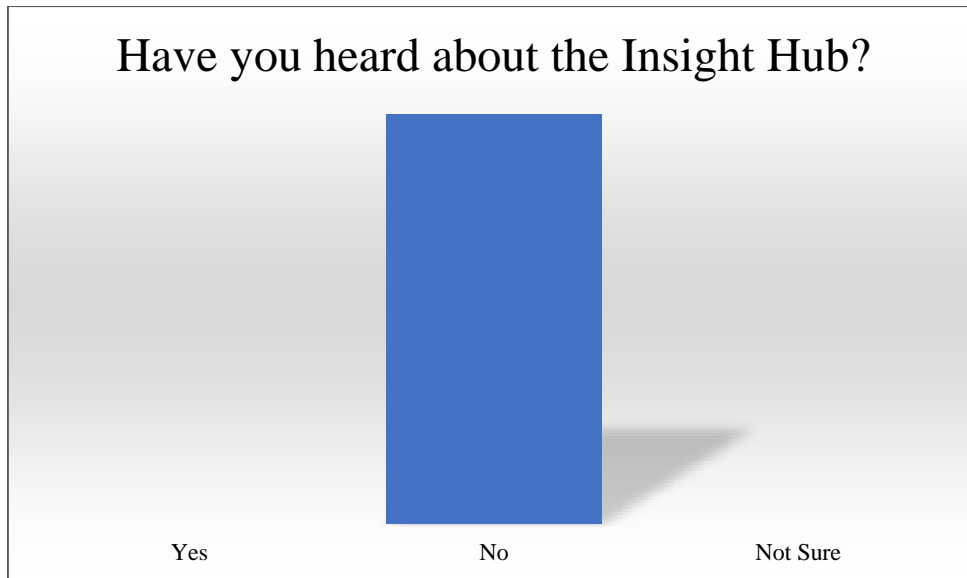


Figure 20. The survey results displaying if they responders had heard of the Insight Hub.



# Appendix K Workshop Script

## Data in Context: The Insight Hub

This workshop is discussion based in order to begin a conversation about data usage and Business Intelligence. The Insight Hub, a database, is also introduced.

Time: Will be about 1 hour long.

How many people: 3-10

A suggested script and examples are included in [blue text](#).

1. Begin with a greeting. (5-10 minutes)  
[Hello, and welcome to this workshop about the Insight Hub. This will last about one hour. There will be two main discussions, one on the data systems you already use, as well as the Insight Hub itself. Bathrooms are \(point out location\) and the nearest fire exits are \(point out exits\). Let us begin by introducing who we are and what we currently work on or study.](#)
  - a. Ice Breaker. Introducing yourself  
[\(Everyone introduces themselves, including the presenters\).](#)
2. Ask what data systems they use and why it already works. This will aid in showing them that the Insight Hub is a better implementation of what they already do. (15-20 minutes)  
[To begin, what sort of data systems do you already use?  
Why do you use one system?  
What sort of benefits does it have and what drawbacks does it carry?  
\(A discussion ensues about how each department deals with its data and why\).](#)
3. Talk about what BI is and why Lambeth needs it. (15-20 minutes)  
[So that was a very productive discussion. It turns out that what all of you have been doing, is in fact “Business Intelligence.” \(Show them the definition\). It is a novel concept, but it applies directly to how your services operate. Some of the drawbacks stated have been \(discuss drawbacks that have been mentioned\). Fortunately, there is a relatively new adaptable database called the Insight Hub that does the job of what you have been using and addresses these drawbacks.](#)
  - a. Why Lambeth needs insight (about 10 minutes)
    - i. Other departments need context for an issue, example housing.  
[Housing needs a lot of data from outside of their department like national data, so they can use external links in the Insight Hub in order to make decision from different types of data.](#)
    - ii. Maximizes usefulness of info.  
[Helpful to pinpoint exactly where the problem is most affecting people in order to maximize efforts in that area. For example, Insight helps with addressing the issue. This occurred when trying to reduce rates of teen pregnancy throughout the borough of Slough. It was found that clusters of teen pregnancy in Slough coincided with locations of pharmacies. This was a perplexing correlation at first until someone brought up that most of these pharmacies were owned by religious families who did not support contraception. The issue was that these pharmacies were not adequately advertising birth control and contraception. Thus, the borough talked to these pharmacies stating that they were required by law to make contraception known to customers. When that happened, the rate of teen pregnancy dropped.](#)
    - iii. Yes there is national data, but sheer size of organization makes sharing data difficult even anonymously.

This is where the Insight Hub works best. The Hub makes the most of what is already known and accessible.

- b. Display Insight Hub and how it works (get someone with permissions to do it). (about 10 minutes)  
Here is the Insight Hub. It does look like a lot at first glance, but that is because you can tailor how it shows data.
  - i. Able to look at data from any context or angle.  
For example, let's take a look at a bar graph of homeless people over 40. Now Let's compare that with employment.
  - ii. Metrics for defining level of granularity.  
For that example, let's view only the people in the ward of Stockwell. Compare that alongside those living in Herne Hill.
  - iii. Data from sparse sources may be displayed in one part.  
What if you wanted some construction data from a housing project and survey data from service workers to assess the quality of a neighbourhood over a time period? Well by gathering data from these links, a time graph can be generated with little difficulty.
  - iv. Helps to identify problems at source with information already in hand.  
This is less about gathering new data and putting together what the council already has into an accessible format. No research has to be done, the hub facilitates analysis of what already exists.
4. Discussion. (about 10 minutes)  
Now, have your try at the Insight Hub. What's your view on it?
5. Evaluation. (less than 5 minutes)  
Fill out this evaluation and hand it to us before you leave.
6. Thank you for coming.  
Thank you for coming to this workshop!

## Appendix L Workshop Slides

# Data in Context: The Insight Hub

James Chen, Ben Sarkis,  
Rachel Whalen, Christopher Fernandez



Office for  
National Statistics



Discussion:

What system/database do you use?



**Business Intelligence** is a technology-driven process for analyzing data and converting it into useful information to help businesses, corporate executives, governments, councils, and many other organizations make informed decisions.

BI can be divided into three stages:

1. Gathering data
2. Sorting data
3. Analyzing data

## Why Use Insight?



## Insight Hub

<http://bit.ly/insighthublambethgov>

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**Insight Hub**

Welcome to the Insight Hub, bringing you [insight](#) & analysis about Lambeth, the people that live here and the services they use. Discover methods & tools to help you use data & evidence in your everyday work, as well as [case studies](#) of how other people in Lambeth and beyond have used analysis to help them. You can also take part in sessions where you can find out & share how to use these [methods & tools](#).

Whether you carry out research & analysis or want to use insights to help you commission or run services, the Insight Hub's for you. If you can't find what you're looking for, or you'd like to find out how to do something around research or analysis, add a comment on [Twitter](#).

**What we know about our services** **What we know about our residents** **What we know about our wards**

**How Lambeth compares** **What the wellbeing of our residents is** **What Lambeth will look like**

[What is business intelligence?](#)  
[Who carries out business intelligence?](#)  
[How are we planning to reduce the use of evidence & analysis?](#)  
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Information Asset Register - Senior  
Information Risk Owners  
Site Contacts

**Local Government** Recently added **LG Inform Plus Reports** [Click here to view the full suite of Power BI reports and dashboards](#)

[Click here to the MAA](#)

**Operational Performance Dashboards** **Demographic Profiles**

**Service User Profiles** **Thematic Profiles**

**Housing Benefits Profile** **NOMIS Benefits & Grants Power BI**

Site Contacts - [Dano Clark](#) [Alex Tloache](#) [Tan Brown](#)

Dano Clark  
Business Analyst

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**Resident Survey 2015**

**Themes**

- How people feel about their service
- How people feel about their community
- How people feel about their health & wellbeing
- How people feel about working together
- What has changed in people's everyday lives
- What makes health improve

**Neighbourhood**

- All Lambeth
- Elephant
- Clapham
- South Lambeth
- Newington
- Brixton
- Streatham

**Questions**

- How often people visit the Council's premises
- How people feel about the Council's premises
- How satisfied people are with the way Lambeth Council runs things
- How well Lambeth Council is engaging people
- How well Lambeth Council keeps people informed
- People wish to be kept involved with what the Council is doing locally
- What are people's preferred methods of contact with the Council
- What have people noticed Lambeth is doing for
- What services people use most
- Whether Lambeth Council provides value for money
- Whether people visit Lambeth Council to make improvements

Microsoft Power BI [1 of 2](#)

[Click here to view the full suite of Power BI reports and dashboards](#)

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Team Calendar

**Case Studies**

Read how colleagues have used research & evidence effectively. From using evidence to inform budgeting on housing repairs to using data to target interventions with families, have a look at the case studies by clicking on the images below.

**Using data analysis to make processes more efficient**

**Owners:**

- Non Domestic Rates and FOI Requests - [rcarter@lambeth.gov.uk](mailto:rcarter@lambeth.gov.uk)
- Allotment rationalization - [cguthrie@lambeth.gov.uk](mailto:cguthrie@lambeth.gov.uk)
- Community Facility Hire Payment Processing - [cguthrie@lambeth.gov.uk](mailto:cguthrie@lambeth.gov.uk)
- Arc-GIS Mapping Lambeth

**Using data analysis to target interventions**

**Owners:**

- Camden Residents Index - [cguthrie@lambeth.gov.uk](mailto:cguthrie@lambeth.gov.uk)
- Housing Repairs - [saarsoos@lambeth.gov.uk](mailto:saarsoos@lambeth.gov.uk)
- Aspirational Lambeth Families -

What do you think of the Insight Hub?

Any Questions?

# Appendix M Workshop Evaluation

## Workshop Evaluation Form

Please answer the questions below at the end of the workshop.

Facilitator: \_\_\_\_\_ Date: \_\_\_\_\_

	Strongly agree	Somewhat agree	Neither disagree nor disagree	Somewhat disagree	Strongly disagree
This workshop helped me understand Business Intelligence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This workshop helped me understand the Insight Hub.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I plan to use the Insight Hub in the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How would you like to see the workshop improved? Do you have any recommendations about the Insight Hub? \_\_\_\_\_

\_\_\_\_\_

**Thank you!**

Figure 21. The workshop evaluation given after the workshop.

## Appendix N The Poster

**Insight Hub**

Insight Hub: <http://bit.ly/insighthublambethgov>  
Guide: <http://lginform.local.gov.uk/about-lg-inform/user-guides>

**USE DATA MORE EFFECTIVELY ALL IN ONE PLACE!**

SERVICES TRENDS

BENEFICIARIES

SERVICES TRANSACTIONS

REPORTS

COMPARISON

COSTS & BENEFITS

WARDS

NEIGHBOURHOODS

CLIP AREAS

FUTURE PLANNED

RESIDENTS

TENANTS

LOCAL WELLBEING (TBC)

LOCAL DEPRIVATION

RESEARCH REPORTS

**FOR MORE EFFICIENT SERVICE DELIVERY IN LAMBETH COUNCIL**

Contact Chris Guthrie at: [cguthrie@lambeth.gov.uk](mailto:cguthrie@lambeth.gov.uk)

Figure 22. The poster developed to advertise and encourage use of the Insight Hub within Lambeth.