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Crossrail Community Investment Program

Establishing Benchmarks for Community Investment Programs



Yi Sun, Sean Greene, William Evangelakos
Worcester Polytechnic Institute
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Establishing Benchmarks for Community Investment Programs

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Submitted by:

Yi Sun, Sean Greene, William Evangelakos

Report Submitted to:

Sponsors:

Shireen Ali-Khan
Gareth Epps
Crossrail Ltd

Faculty Advisors:

Professor Carolina Ruiz, Advisor
Professor Ingrid Shockey, Co-advisor
Worcester Polytechnic Institute

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Abstract

Crossrail aims to bring a new world-class railway to the London area. It requires its contractors to deliver Community Investment Programs (CIPs) to give back to the communities in which they work. Our goal was to develop an assessment system to evaluate the impact of CIPs on local communities. We conducted research in several boroughs affected by CIPs in order to understand the needs of the community. We interviewed contractors and a local governmental official, surveyed community members, and engaged in on-going CIPs. After collecting and analyzing our data, we classified CIPs into four categories, and identified potential outcomes and indicators to assess the impact of CIPs on communities.

Executive Summary

Introduction

The Crossrail Community Investment Program (CIP), a long-term initiative to support local communities, is one of the sub-programs under Crossrail. The CIP is the first of its kind in the United Kingdom. According to the Crossrail website, “It requires Crossrail construction contractors to donate their time, money and expertise to bring lasting benefits to the communities in which they are working” (Crossrail Ltd, 2014). Crossrail has implemented Community Investment Programs alongside the construction to deliver consistent and meaningful benefits.

While good intentions have given these ideas momentum, there have been few standardized or consistent sets of updated and specific tools or strategies to assess the Community Investment Programs’ design or delivery. Crossrail was looking to efficiently evaluate the effectiveness of their Community Investment Programs in order to create long-lasting positive projects in the community. Without a systematic way to evaluate these initiatives, some Community Investment Programs suffer from limited ingenuity and funding, and contractors are frustrated by the lack of recognition that they receive for their efforts. Our goal is to establish benchmarks for systematically evaluating the impacts of each project on their local communities. A rubric that can measure outcomes can assist the contractors and planners in realizing how these projects have and can still benefit the quality of life of local residents.

Literature Review

We investigated current Crossrail Community Investment Programs, as well as two related case studies. As we have stated, the CIP was conceived as a series of sub-projects that could support initiatives in local communities. More than 20 different projects have already

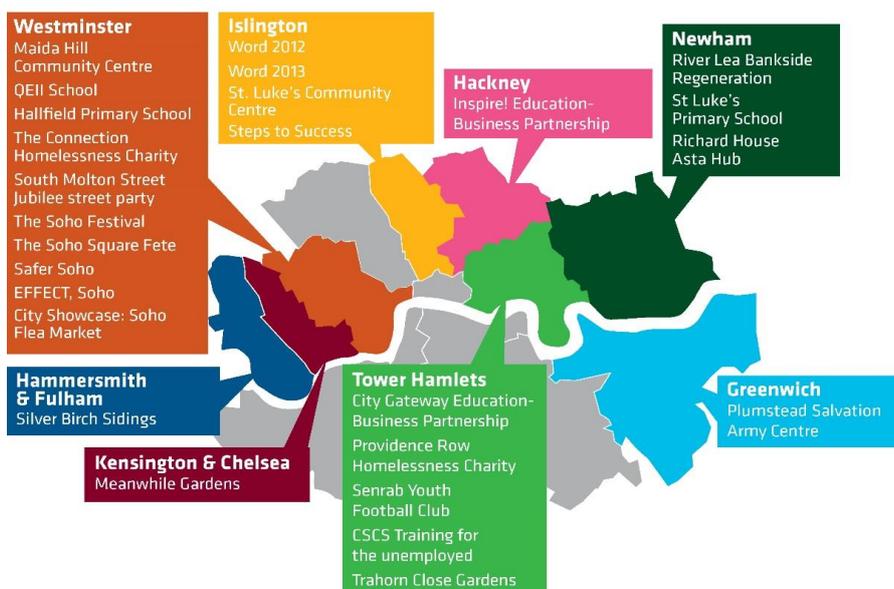


Figure 1. Crossrail CIP Initiatives Map (Crossrail Ltd, 2014)

been designated and put into practice in eight communities:

Westminster, Islington, Hackney, Newham, Greenwich, Tower Hamlets, Kensington & Chelsea, and Hammersmith & Fulham. The Crossrail CIP Initiatives Map in Figure 1 depicts the kinds of projects that have been completed in the respective regions.

We investigated the concept of

Corporate Social Responsibility and essential social values behind the community

investment, as well as a successful community investment completed by Cisco, an American computer networks company. With an insightful investment, Cisco provided communities and local residents with more educational opportunities and jobs, and further developed the economies of these communities.

Indicators and measures for community impact have been used in other similar case studies. In general, indicators should clarify the outcomes and make them either observable or measurable (Community Stabilization Report, 2014).

We also analyzed a comparative case study between the UK and Australia on outsourcing community services to non-profit organizations or sectors - an unsuccessful management of the Community Investment Program. This case study allowed us to see the role that different quantitative and qualitative indicators play, and what can potentially cause the failure of providing sustainable and long-lasting community investments.

Methodology

The main goal of our project was to develop a new assessment system to evaluate the impacts of the Crossrail CIP on local communities, and to encourage more of Crossrail's contractors and employees to design and deliver successful CIP in the future. Therefore, we had four objectives for the successful completion of our goal:

1. Identify and evaluate five communities that have been already affected by Community Investment Programs in terms of their environment and their collaborative relationship with the local contractors.
2. Understand the experiences of contractors engaged in Community Investment Programs including the challenges that they faced and the motivation they had while designing and delivering their Community Investment Programs.
3. Understand the expectations of local residents and people who were influenced by Community Investment Programs in order to recognize the areas in which community engagement can be improved.
4. Discover the potential outcomes and compile a set of corresponding indicators that can be used to create an evaluation tool for Community Investment Programs and contractors.

Upon commencing work at Crossrail, we conducted archival research on the populations and demographics of each borough associated with Crossrail according to the London 2011 census in order to develop a better understanding of the status of each borough and the economic standings of its residents. We visited eight different construction sites: Paddington, Whitechapel, Tottenham Court Road, Liverpool Street, Bond Street, Woolwich, Victoria Dock Road, and Wallasea Island. We completed a site assessment checklist for five of these communities. We also developed an online survey for two hundred contractors and employees, as well as an interview guide for the face-to-face interviews with six contractors. Furthermore, we designed and conducted paper surveys for the residents in the community affected by Crossrail and its CIPs in order to understand the residents' perspective on these programs. We then divided CIPs into different categories according to their inputs and outcomes, and then compiled a set of corresponding indicators to evaluate each of these categories.

Results and Discussions

Based on the 6 interviews, 9 paper survey responses, and 139 online survey responses, we can determine that Community Investment Programs can actually mitigate some of the negative effects that the construction might have on the local community, and also change local residents' perspective towards Crossrail. Key words, such as “legacy” and “long-term,” appeared several times from responses of contractors, residents, and the local governmental official. Community Investment Programs involved in job training, youth employment, and early childhood development were recommended most for future programs. All of the results from our surveys to the residents reflect the four main aspects for future Community Investment Programing: education, renovation, social welfare, and economic development. These four categories are the most significant areas that need to be improved and addressed. Currently most of Crossrail contractors and employees have developed a good understanding of the Community Investment Programs. However, our team was surprised by the limited awareness of the Community Investment Program among local residents based on the responses from our paper survey.

From the interviews, we found that most contractors have not actively sought feedback from volunteers and participants. However, data from the online survey shows that people would like to see the outcomes and learn more about the Community Investment Programs from Internal Communications and the Crossrail website. Therefore, it was clear that an assessment system that makes explicit potential outcomes of programs in different dimensions and that provides indicators was needed.

Previous Crossrail Community Investment Programs have covered a wide range of areas. By dividing them into education, renovation, social welfare, and economic development categories we were able to identify both quantitative and qualitative indicators appropriate for each category. These indicators provide an effective mechanism that Crossrail, the contractors, and the local communities can utilize to assess the impact of their Community Investment Programs.

Recommendations and Conclusions

We recommend that each Community Investment Program implemented by a Crossrail Contractor follow the core mission established by the initiative to be sustainable, long lasting, and provide a legacy to the community. More specifically, we recommend that Crossrail and contractors divide Community Investment Programs into four categories: education, renovation and refurbishment, social welfare, and economic development. We recommend that Crossrail and contractors be required to track the inputs of their Community Investment Programs, and that they also track the outcomes and indicators related to their Community Investment Program according to its category. See Figures 2, 3, 4, and 5 for category-specific outcomes and indicators for the education, renovation and refurbishment, social welfare, and economic development categories, respectively.

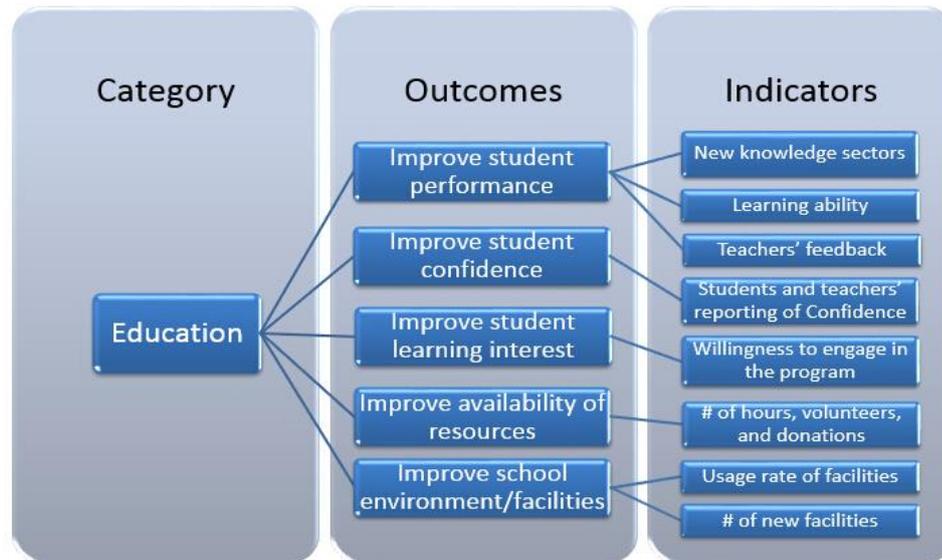


Figure 2. Education CIP Outcomes and Indicators

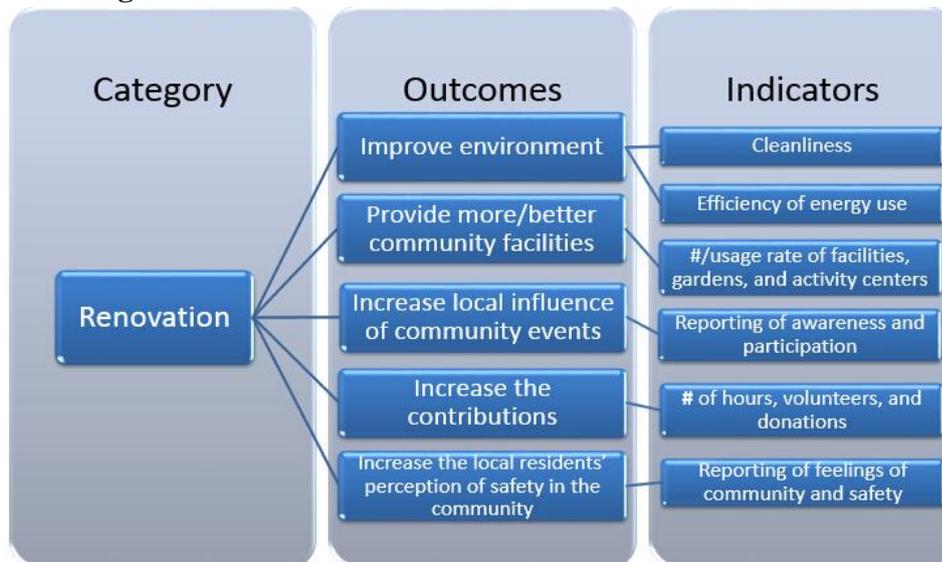


Figure 3. Renovation and Refurbishment CIP Outcomes and Indicators

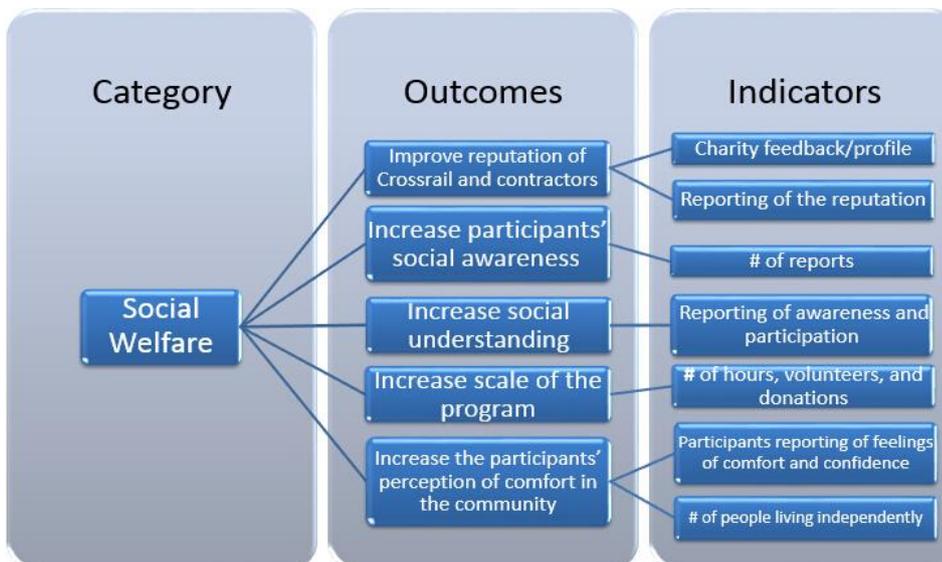


Figure 4. Social Welfare CIP Outcomes and Indicators

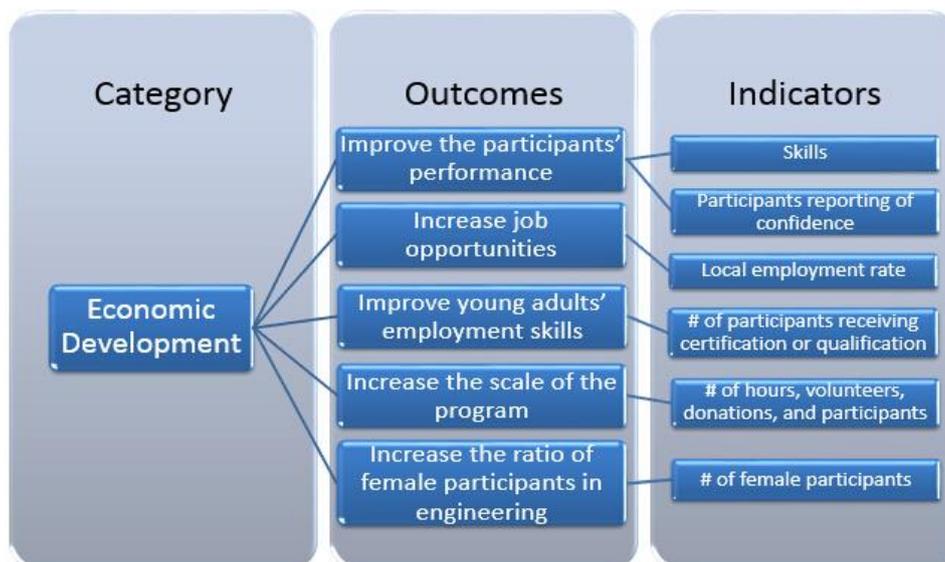


Figure 5. Economic Development CIP Outcomes and Indicators

We recommend that all new Crossrail contractors should fill out a site assessment checklist to gain a deep understanding of the community's background and needs. Additionally, all Crossrail contractors should establish goals and predict potential outcomes before delivery, track outcomes during the program, and document all accomplishments and results after completion. Finally, all Crossrail contractors should access the CIP webpage to get a comprehensive understanding of the indicators and evaluation methods in each category.

In conclusion, with the recommended assessment system that includes these comprehensive indicators and outcomes in place, the efficiency and effectiveness of the CIP evaluation process will be greatly improved. More contractors and employees will be encouraged to participate in the program. We expect that these recommendations will enhance Crossrail's ability to offset the negative consequences of construction with meaningful, sustainable, and long-lasting Community Investment Programs.

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Authorship

All team members contributed equally to all aspects of the project. Each chapter was written and edited by all members.

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Chapter 1. Introduction

A Community Investment Program is a plan, design, or scheme intended to address or solve a problem of local concern or need. The team in charge of the program is obliged to consider the maintenance, the benefit, and the long-term impacts of the initiative. In addition, the program should be examined from multiple perspectives in order to obtain a comprehensive understanding of its effectiveness. Using rubrics to establish benchmarks and assess the impacts on community, sustainability, political and cultural sensitivities, achievability, duration, and cost are vital to determine the success of the program. Overall, these dimensions are a key consideration for agencies working together with communities in urban planning. While most planners are aware of the importance of evaluating community impacts, there is no previously established method or procedure to evaluate each of these impacts on a community.

Crossrail is the largest ongoing infrastructure project in Europe. It aims to bring a new, fast, and convenient railway into central London and the South East. Stretching from Reading and Heathrow in the West, across to Shenfield and Abbey Wood in the East, the new railway will cover over 100 km of track including 21km of new twin-bore rail tunnels and ten new stations. Crossrail will change the way commuters travel around the capital by improving journey times across London, easing congestion, and offering better connections. Construction of Crossrail began in 2009, and it will open in 2018. Up to 24 trains per hour will operate in the central section between Paddington and Whitechapel during peak periods, with each train's capacity being 1,500 passengers. According to Crossrail's website, it is estimated that 200 million passengers will travel on Crossrail each year (Crossrail Ltd, 2014). Many of these individuals will have made the switch from road transportation to the more environmentally sustainable railway. The service will also increase London's rail-based transportation network capacity by 10 percent and cut journey time across the city drastically. In these ways, Crossrail will benefit the local community for many years to come.

The Crossrail Community Investment Program (CIP), a long-term initiative to support local communities, is one of the sub-programs under Crossrail. The CIP is the first of its kind in the United Kingdom. According to the Crossrail website, “It requires Crossrail construction contractors to donate their time, money and expertise to bring lasting benefits to the communities in which they are working” (Crossrail Ltd, 2014). Crossrail has implemented Community Investment Programs alongside the construction to deliver consistent and meaningful benefits.

Since 2009, the Crossrail Community Investment Program has engaged local communities in different ways. In April 2012, for example, the staff of Costain Skanska, one of Crossrail’s contractors, began volunteering at Hallfield Primary School in Bayswater. They committed over 150 hours of classroom support in an effort to help develop students’ reading skills through one on one instruction. Over the course of two days in June 2013, volunteers from Crossrail’s contractor BFK took part in an exercise to clean up an important area of birch woodland that is next to the Grand Union Canal, close to Old Oak Common. Furthermore, a £15,000 donation from Farringdon based contractor, BFK, enabled Islington’s ground-breaking ‘Word Festival’ to take place for the second year running (with further support from Arts Council England and Islington UNISON). These projects can range thematically to benefit the local community’s education, renovations, social welfare, or economic development.

While good intentions have given these ideas momentum, there have been few standardized or consistent sets of updated and specific tools or strategies to assess the Community Investment Programs’ design or delivery. Crossrail was looking to efficiently evaluate the effectiveness of their Community Investment Programs in order to create long-lasting positive projects in the community. Without a systematic way to evaluate these initiatives, some Community Investment Programs suffer from limited ingenuity and funding, and contractors are frustrated by the lack of recognition that they receive for their efforts. Our goal was to establish benchmarks for systematically evaluating the impacts of each project on their local communities. A rubric that can measure outcomes can assist the contractors and planners in realizing how these projects have and can still benefit the quality of life of local residents.

Chapter 2 Literature Review

This chapter presents a detailed study on current Community Investment Programs, as well as two related case studies. In the following sections, we first address Crossrail's mission and examples of previous Community Investment Programs. Then, we present supporting evidence and benefits for understanding the concept of Corporate Social Responsibility and essential social values behind the community investment, as well as a successful community investment completed by another company, Cisco. We also demonstrate the mechanism of community investment and the importance of measuring both quantitative and qualitative outcomes by using specific, relevant, and affordable indicators. We end this chapter with a comparative case study between the UK and Australia on outsourcing community services to non-profit organizations or sectors - an unsuccessful management of the Community Investment Program. This case study allows us to see what different quantitative and qualitative indicators for evaluation and what can potentially cause the failure of providing sustainable and long-lasting community investments.

2.1 Crossrail

The origins of the idea of Crossrail are not new and date back to the 19th century from the Regents Canal Company (Crossrail Ltd, 2014). Regents Canal Company originally devised a plan for a surface railway across London. In 1880, Parliament finally approved of the concept but the planning and development of the railway system were not carried out. After 50 years, the idea of this railway system re-emerged with the end of World War II in sight. The name Crossrail originated from a 1974 London Rail Study. Crossrail was finally given a planned route by the Crossrail Act in 2008, and began construction on May 15, 2009 at Canary Wharf.

Crossrail's mission is to construct an easily accessible and affordable mode of transportation that connects the capital with the surrounding communities. Its rail construction is estimated to be complete in 2018. The tracks will cover 118km from the West

to the East, and it will transport more than 200 million passengers every year by train (Crossrail Ltd, 2014). It will improve the connection between Great Western, Great Eastern, and Southeast sections of network rail, connect with the London Underground, and provide accessibility into central London's core business district. The central section will run 24 trains an hour (averaging every 2.5 minutes) in each direction and will be primarily underground (Harvey, 2010). To describe the enormity of the project, construction statistics include 42km of tunnels, 37 new stations, including eight subterranean, more than 60 lengthened platforms, the removal of eight million cubic meters of spoil, and 140 main works contracts (Pugh, 2013). The total infrastructure budget is GBP 14.8bn (Pugh, 2013).

By 2019, Crossrail will run from Heathrow and Reading to Abbey Wood and Shenfield. As a result of Crossrail's construction and completion, 55,000 jobs and 75,000 business opportunities will have been created (Crossrail Ltd, 2014). With the construction of Crossrail, over 57,000 homes will be built and 3.25 million square meters of commercial space will be developed (Crossrail Ltd, 2014). Property values near the stations are expected to rise from 20 to 25 percent in the suburbs and central London respectively.

Crossrail plans two main construction goals. The first is to develop new stations that will be constructed along the central route at Paddington, Tottenham Court Road, Bond Street, Farringdon, Liverpool Street, Whitechapel, and Canary Wharf in central London. Central London has a long history with railway design that ranges from the Brunel-designed Paddington station, through Charles Holden's Tube stations of the 1920s and 1930s to the revival of St. Pancras International. The plan is to modernize this design legacy and create cost-effective stations that are fit for the 21st century and that support the local communities. The Crossrail railway route map in Figure 6 (below) displays the rail and air connections through London and surrounding communities. The blue sections represent the brand new sections of the railway, and the pink sections indicate the improvements of already existing stations.

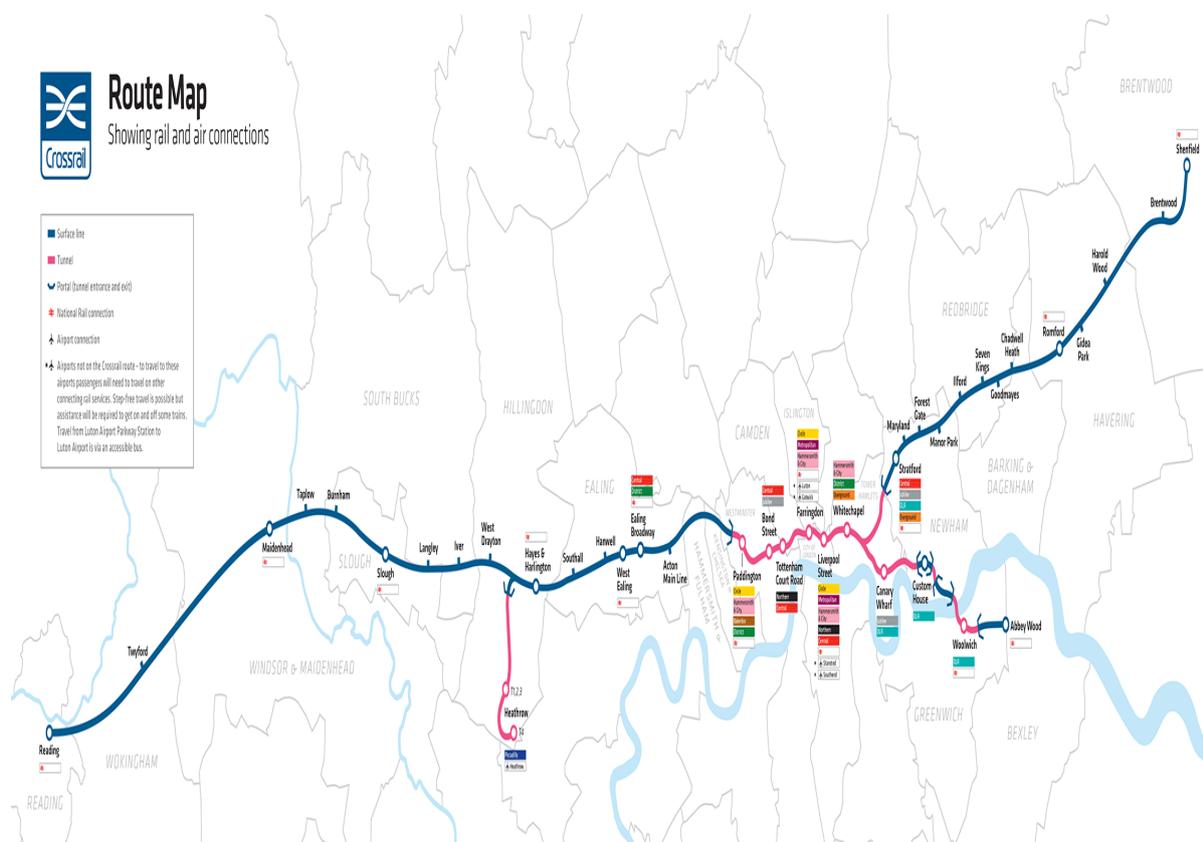


Figure 6. Railway Route Map (Crossrail Ltd, 2014)

The second goal of Crossrail is to construct new twin-bore tunnels as well as to develop and renovate existing networks. The twin-bore tunnels will cover 21km under central London that will connect the services on the Great Eastern, Great Western and North Kent mainlines in order to decrease the traveling time and improve the transportation in London. Network Rail is responsible for the design, development and delivery of the parts of Crossrail that are on the existing network, covering 90km of track and 30 stations from Reading in the West to Abbey Wood and Shenfield in the East (Pugh, 2013). Three main renovations include the construction of ramps, longer trains, and new transport links within the Tube, Thames link, National Rail, DLR and London Overground. The London Transportation Route Map, shown below in Figure 7, displays the connection between Crossrail and the London Underground in 2020. Figure 8 gives a closer view of the proposed line in 2020, which is shown as the double purple line on the map.

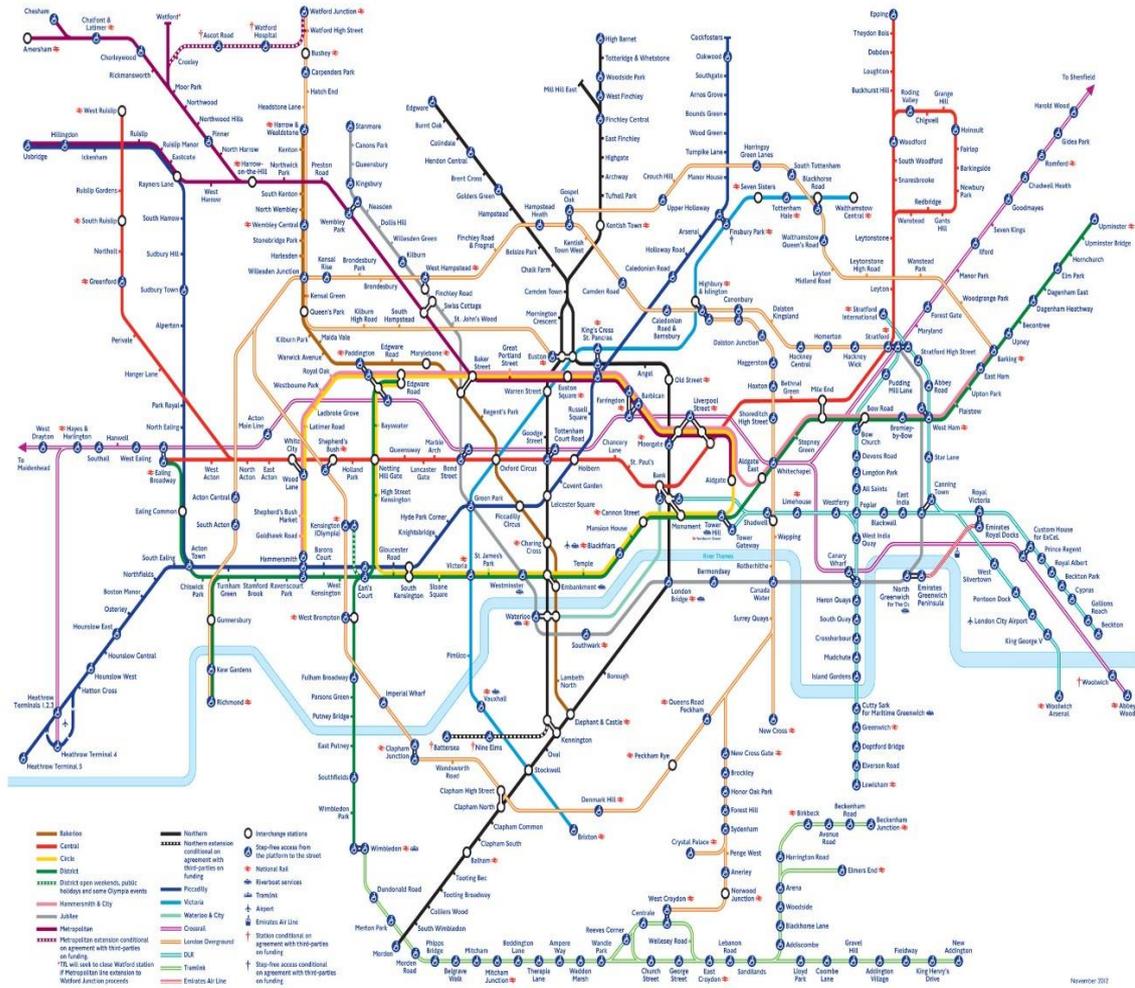


Figure 7. Proposed London Transportation Route Map, 2020 (Crossrail Ltd, 2014)



Figure 8. Crossrail Map for Central London, 2020 (Crossrail Ltd, 2014)

Crossrail initiated its Community Investment Program in 2009. The CIP is the first program in the United Kingdom that requires all the contractors employed by Crossrail to design their own unique and appropriate projects to benefit the communities where they are working through their skills, knowledge, and resources. A large construction project has the capability to greatly influence local communities and also negatively impact these local areas, with impacts often lasting years after a project's completion. Crossrail decided to initiate the CIP in an effort to help local communities promote economic growth, educational foundations, job opportunities, environmental improvement, and a higher standard of living. The CIP, if carried out successfully, can diminish some negative effects that arise from construction and instead enable projects that benefit both the construction companies, as well as local residents. Therefore, our primary task was to develop an effective and systematic evaluation in order to track and assess the long-term influence of Community Investment Programs on local communities. We anticipated that the development of a standardized evaluation process for the community impacts of CIP projects could also encourage participation and add a more meaningful dimension to the work of its contractors.

2.2 Crossrail Community Investment Program

As we have stated, the CIP was conceived as a series of sub-projects that could support initiatives in local communities. More than 20 different projects have already been designated and put into practice in eight communities: Westminster, Islington, Hackney, Newham, Greenwich, Tower Hamlets, Kensington & Chelsea, and Hammersmith & Fulham. The Crossrail CIP Regional Map in Figure 9, below, demonstrates the kinds of projects that have been completed in the respective regions.

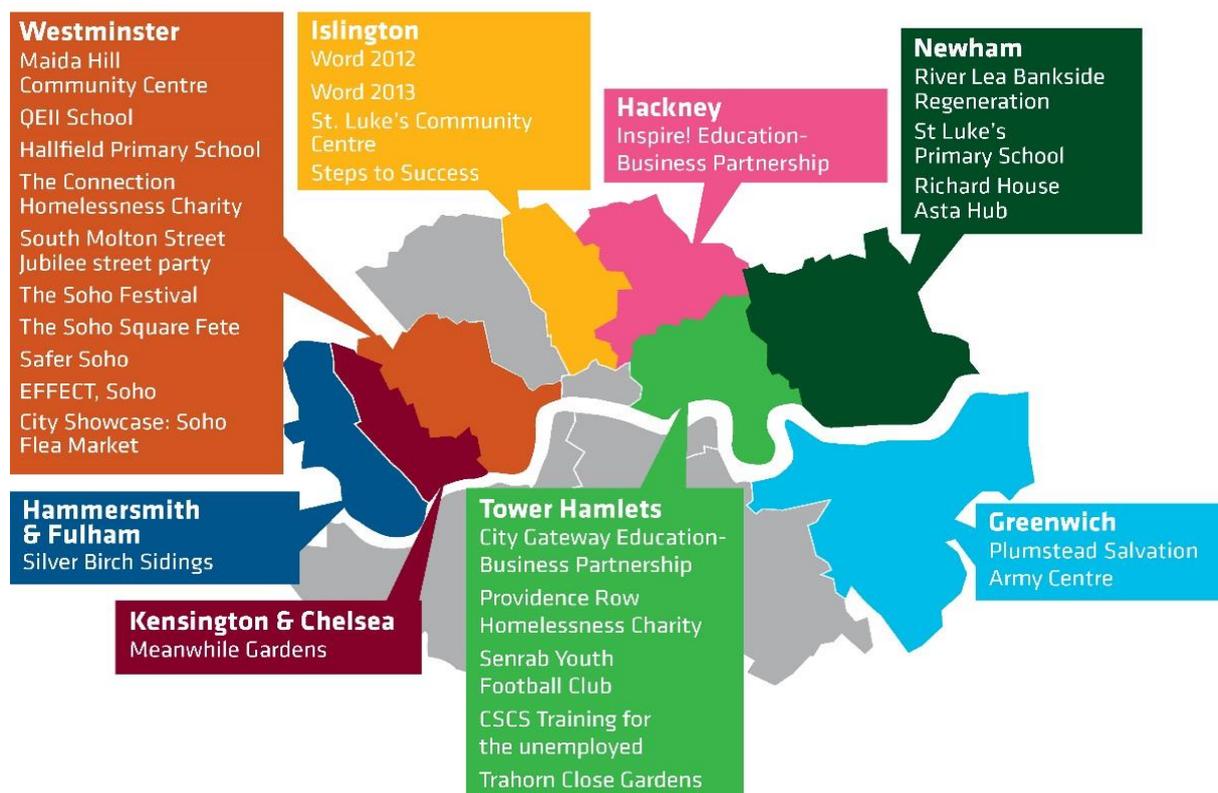


Figure 9. Crossrail CIP Initiatives Map (Crossrail Ltd, 2014)

Some of the projects that have been developed work with school programs, employment opportunities, and other programming for neighboring communities. However, the Crossrail Community Investment Program is a much smaller project than its railway construction. Currently only a small portion of the population is able to enjoy the benefits from the CIPs and few contractors are actively involved in this program. In order for more contractors to be involved and to expand the influence of this program, a feasible assessment system would help contractors to clearly understand their responsibility and community investments. Also, evaluating the impacts on local areas of Community Investment Programs can improve the program's effectiveness. Therefore, finding comprehensive indicators for diverse types of Community Investment Programs and designing practical assessments to evaluate the programs' inputs and outcomes are significant in terms of making future programs become more sustainable and long-lasting.

2.3 Corporate Social Responsibility and Community Investment Programs

To understand how to evaluate meaningful partnerships between industry and communities, we looked to the idea of social responsibility as part of an organizational strategy. Over the past several decades, corporate social responsibility (CSR) has grown from an abstract notion into a complex and multifaceted concept that is vital to today's corporate decision-making processes (Cochran, 2007). The idea of CSR can be viewed as a potential theoretical support to understand the origin and motivation of completing Community Investment Programming. In addition to economic responsibilities, CSR argues that managers of corporations and institutions have social responsibilities to society because the modern large firm has learned that there are benefits to being perceived by the general public as being invested in the wellbeing of humanity. These actions give the impression that they are better neighbors and have a stake in their communities. Taking an interest in social responsibility can motivate large companies to launch public services program.

There are mainly three different ways to accomplish corporate social responsibility. One of the pioneering aspects of corporate social responsibility is to develop its own unique corporate philanthropy (Cochran, 2007). Also, it is standard for firms to make indirect philanthropic contributions that can improve the overall health of the larger society or the local communities within a certain expertise. Finally, large companies can make direct donations to universities, local operas, or any other worthy social service causes.

It is often noted that many economic investments have social returns, while many social investments have economic returns once the company understands the strategies in philanthropy and community investment. One example worth mentioning is the IT company, Cisco, which has contributed networking equipment to schools in its region since 2001 (Porter and Kramer, 2002). However, these schools did not have the expertise required to manage the donated hardware. Thus, some Cisco engineers decided to train teachers to maintain the equipment and engaged some students to learn the skills in advance. At that time, Cisco realized it was important to have the training in this specific area because of the large demand of IT jobs. Consequently, the company provided more opportunities in schools, later establishing their own academies all over the world in economically challenged

communities with the support of the United Nations. Within five years, Cisco established 10,000 academies and graduated over 115,000 students with a relatively minor investment of \$150 million (Cochran, 2007). With an insightful investment, Cisco provided communities and local residents with more educational opportunities and jobs, as well as further developing the economies of these communities. Also, the Cisco Company benefited greatly from their investment by adding to their own work force.

2.3.1 The Mechanism of Corporate Social Responsibility: Where Should the Money and Time Go?

Understanding how to apply corporate social responsibility into practical projects can be a way to achieve great success in community investment like Cisco. It is also important to understand the mechanism and transformation from philanthropy to strategic philanthropy. Porter and Kramer point out, “competitiveness today depends on the productivity with which companies can use labor, capital, and natural resources to produce high quality goods and services” (2002). Productivity depends on having workers who are educated, safe, healthy, decently housed, and motivated by a sense of opportunity. To achieve a better environment and more community investment, quality and expectations must be raised.

Porter and Kramer state that it is hard for company to simply throw money towards a good cause (2002). It is important for companies to develop social investment programs to benefit the affected communities and build a positive image. One suggestion is for firms to find specific areas on which they want focus. Usually, the relationship between corporate social responsibility and profitability is complex and closely connected. Firms can benefit from socially responsible actions through how they are perceived by employees, customers, governments, and media. However, corporate social investment programs are in great decline with reasons easily comprehensible. Companies continuously see them as a no-win situation with both critics demanding even higher levels of “corporate social responsibility” and investors apply relentless pressure to maximize short-term profits (Porter and Kramer, 2002). In order to solve the dilemma, strategic social investment is required. Therefore, in order to

manage the socially responsible investing (SRI) to achieve Corporate Social Responsibility (CSR), three main broad strategies including Screening, Social advocacy, and Community Investment are used (Cochran, 2007). Studying screening, social advocacy, and community investment, gives a deep understanding of corporate social responsibility.

The idea of *Screen* is one of the important strategies to help develop long-term social investment programs. There are two types of screening: positive and negative screening. Positive Screen investment means funding firms, organizations, or events that are viewed as socially responsible. Examples of such organizations include Herman Miller, IBM, and Timberland that are ranked in the top of the ethical and socially responsible firms (Cochran, 2007). Negative Screen investment can mean the investment in firms or organizations in countries with human rights violations or repressive regimes, for example possibly excluding firms that operate in tobacco, gambling, defense, and nuclear power industry.

Secondly, Social Advocacy can be demonstrated by analyzing the Investor Network on Climate Risk (INCR), which is an organization of 60 institutional investors that are concerned with climate change (Cochran, 2007). This organization holds conferences, funds research, and advocates in the area of climate change because all alias companies that have their investment benefit or products that are vulnerable to the risks posed by climate change. By relieving the intensity of these environmental problems such as climate change, these companies not only contribute to the society, but also protect their products and future profit.

The final strategy is community investment which firms often focus their investments on areas such as non-profits, cooperatives, small businesses, community facilities, schools and affordable housing in local areas. The principle behind community investment is to make investments that will strengthen local communities. However, the community investment can also include the previous two strategies with a much smaller, but long-term scale.

Unlike other companies and organizations, Crossrail, as a large infrastructure project in London, will end in 2018. Thus, it is very hard for this government funded construction project to provide long-term and large monetary investments to other long existing and profitable firms and companies. In order to leave sustainable legacies and to achieve unlimited long-term influence in this limited time period, Crossrail chose to launch both volunteer and donation based Community Investment Program to fulfill its Corporate Social

Responsibility. In addition, Porter and Kramer (2002) also suggested that there are at least ten different benefits of community investment:

1. Revealing central concerns in communities
2. Grasping the integrated and regional urban problems in sustainability
3. Enabling the measurement of outcomes as well as changes in process and policy
4. Allowing an analysis of outcomes at different scales of a neighborhood, city, and region
5. Setting the community's own priorities
6. Choosing its own goals
7. Creating the ability to focus on positive and negative changes
8. Paying attention to maintenance
9. Addressing key issues from an unbiased standpoint
10. Including qualitative as well as quantitative measures

As Crossrail has selected this strategy, evaluating the inputs as well as the outcomes of Community Investment Programs now becomes very important. However, community investment in its diverse forms is very hard to measure and evaluate, as community investment is not simply involved in monetary contribution but volunteer participation. Therefore, setting up an effective way to measure community investment is important and urgent.

2.3.2 How does a Company Evaluate its Community Investment?

Indicators and measurements for the community impact have been used in other similar case studies. Understanding the social and community impacts requires the use of the correct indicators. In general, indicators should clarify the outcomes and make them either observable or measurable (Community Stabilization Report, 2014). According to Community Stabilization Report (2014), the indicators and measurements should have following characteristics including engaging, affordable, specific, understandable, relevant and evenhanded.

The first characteristic of a good indicator is engagement with the community, which means that the importance of the indicator should be understood and people in the community should accept the usage of the indicator. These indicators should also be feasible and affordable for organizations and companies without a large budget. More importantly, all indicators should be understandable and specific for what is being measured and what data is being collected. For example, the Community Stabilization Report (2014) divides its outcomes and indicators into four major categories including image, market, physical conditions, and neighborhood management. The Potential Indicators for Stabilization Outcome in Figure 10, below, demonstrates stabilization outcomes and their corresponding indicators.

Potential indicators and data sources for stabilization outcomes				
	Image	Market	Physical Conditions	Neighborhood Management
Outcomes	<ul style="list-style-type: none"> Neighborhood has a strong positive image that attracts neighborhood friendly investment. People inside and out of the neighborhood are confident in its future. 	<ul style="list-style-type: none"> Additional foreclosures are reduced. Market value is stabilized or restored. Neighbors and neighborhoods are inoculated against future poor lending and borrowing practices 	<ul style="list-style-type: none"> Property maintenance standards are maintained on all property. Vacant property is returned to neighborhood friendly use. 	<ul style="list-style-type: none"> Neighborhood is well managed by a strong network of neighbors. Neighbors and others feel safe in the neighborhood. Neighbors have a sense of control over the future of the neighborhood
Indicators	<ul style="list-style-type: none"> People's reporting of image and confidence Investment in repair and improvement Physical appearance of pride and confidence 	<ul style="list-style-type: none"> Rate of foreclosure Sales volumes of homes Sales Prices of homes Rate of subprime mortgage lending 	<ul style="list-style-type: none"> Physical appearance Number of vacant structures Use of formerly vacant structures 	<ul style="list-style-type: none"> Resident reporting of feelings of community and safety and control over future Physical appearance of pride and confidence Resident participation in community efforts

Figure 10. Potential Indicators for Stabilization Outcomes (Community Stabilization Report, 2014)

The stabilization outcomes requires that people should be confident both inside and out of the neighborhood; market value is stabilized; vacant property is returned to the neighborhood; and finally people feel safe in their neighborhood. As Figure 4 gives some specific outcomes in each category, and it also provides corresponding indicators to measure these outcomes. Stakeholders' reporting of confidence indicates the confidence improvement in image category; sales prices of homes shows the stabilization of market value; number of vacant structures in physical conditions examines how much vacant property is returned; and residents' reports of safety and control in the community addresses the local safety issues in neighborhood management. Also, the data collected by these indicators should be trustworthy and consistent over time.

In the report, both quantitative and qualitative indicators and outcomes are used in order to evaluate the stabilization in the community. Quantitative measurements are important in evaluating any program because these markers can provide direct and specific outcomes for the audience. Quantifiable indicators rely on numbers and rates involved in the final outcomes. Qualitative indicators are a kind of indirect measure, yet they are equally important as quantifiable indicators. Qualitative indicators that measure performance, perceptions, and social engagement are particularly important for community investment, as CIPs often benefit a specific group of people and improve the quality of life in the community.

According to Pretty and Caccioppo (1990), community impacts can be understood as outcomes that a person or a group of people has on another group of people. When community organizers are heavily invested in some events, issues, or activities, the chance for them to process or provide a fair argument might be decreased (1990). Often the source of an idea will greatly influence the attitude of the affected recipients. In the case of the Crossrail initiative, contractors who deliver the CIPs should not interfere with the outcomes and feedback of the program. Also, the social impacts of these programs on local residents and the affected recipients should be gathered and analyzed. Thus, getting feedback from affected recipients and finding qualitative indicators that can show stakeholder response in terms of wellbeing or perception of change is a vital component in this project.

The process can begin by finding indicators that reveal the attitude of people in the community and contractors. The key attribute of social impact is this attitudinal position or opinion of each individual in the group. This attribute can be used to classify the population into subgroups holding different opinions. Therefore, understanding the confidence, willingness of engagement in community investment, interest, and happiness could potentially become important before and after factors that can evaluate the outcomes of community investment and the level of success. In sum, both quantitative and qualitative outcomes and indicators are required to fully evaluate CIPs in order to achieve sustainability and encourage long-lasting results.

2.4 Case Study on Outsourcing of Public Services to Non-profit Organizations

NPM refers to the New Public Management funding model for a non-profit organization, which allows non-profit organizations to gain financial support and accomplish community investments for government and large companies. Here we present this comparative case study for this model of community investment, and describe what happens when major companies in the UK and Australia outsource community investment. By evaluating the efficiency of funding usage, the working conditions of employees in non-profit organization, and the quality and effectiveness of the social services, the study shows the existing problems and weaknesses of outsourcing community investments and other social services. Although Crossrail does not outsource its community investments, studying this case assists us in understanding the process of evaluating a social investment program and analyzing its outcome.

NPM studied the outcome of outsourcing to the non-profit sectors in both the UK and Australia (Evans and Shields 2002). The same concept of a “new public governance” to achieve an efficient public community investment has been applied in these two countries. However, different characteristics of NPM, including the difference between government and nonprofit sectors, the marketing strategies and management techniques in delivering services, achieving efficiency, and getting the value and maximum improvement from these

community projects leads to various outcomes in these two countries (Cunningham, Baines and Charlesworth, 2014).

In Australia, a mixed economy of welfare started from NPM-based reform in the 1980s, yet the country always relied on non-profit organization to deliver social services including community investment through different dimensions like child welfare, disability services, aged services, and education (Cunningham, Baines and Charlesworth, 2014). This social service is also provided by the public sectors in other nations. According to *The Report on Government funding, Employment conditions, and Work Organization in Non-profit Community Services, A Comparative Study* (Cunningham, Baines and Charlesworth, 2014), the state and federal government funding of these services has expanded significantly over the last decade with increased contracting. Government funding in Australia increased from \$10.1 billion in 1999–2000 to \$25.5 billion in 2006–07, and today this sector is the largest provider of government-funded social services (Productivity Commission, 2010). When the government decides to outsource public services to a non-profit organization, it first requires funding, and passes all the funding to the non-profit organization of their choice. On average, the Australian government spends 70 percent of their expenditures on funding non-profit organizations that plan, deliver, and organize community investment and other social services for large companies and the government itself. However, NPM in Australia is now facing problems of inadequate funding, which is constraining the efficiency and effectiveness of the sector and exacerbated by the accumulated impact of no assessment from either state or federal government to supervise the flow and the expenditure.

A specific example in Australia to indicate the problem is a government shifting to a “client-directed” or individualized funding from a federal funding on National Disability Insurance Scheme (Cunningham, Baines and Charlesworth, 2014). The government decreases the total funding and this new type of funding is used to empower clients and careers by allowing them to hire a licensed or accredited provider (Productivity Commission, 2010). This scheme directly leads to the problem of inadequate funding that diminishes the quality of service and restricts the ability of providers to react to the changing needs of clients. While cutting off the funding, their ability to recruit and retain experienced staff and to encourage the participation of workers decreases. Usually, there is a 20-50 percent difference in wage

between the non-profit organization and the same functional government sector (Cunningham, Baines and Charlesworth, 2014). Also, workers and staff in non-profit organizations often face a struggle to establish and gain recognition for their organization from the public and or from the industry, yet they are paid relatively low wages. Even when their organization is recognized as an accredited organization, the indexation from state and federal funding bodies still lead to the minimum wage. Furthermore, in order to maintain the organization, these workers cannot bargain for the benefits from the government and enterprise to raise the pay of employees. Therefore, outsourcing community investment and other social services to non-profit organizations discourages people from working for these non-profit organizations.

The UK has shown concerns for the future of the non-profit organizations early enough, as its government is controlling and taking responsibility for many different public and community services provided by non-profits. However, the study indicates that the UK has now moved to the outsourcing of non-profit organizations or sectors at an accelerated pace over recent decades and tried to create an economy of welfare. Their organization seems more business-like as the government is changing its regulations according to legalistic contracts, greater performance management and auditing, and preferences toward commercial private sector's practices. Although in the UK, outsourcing community services and public improvement emphasizes its cost-saving advantage and ability, the services delivery is dependent on its accountability and engagement.

Over the past ten years, the UK government has attempted to increase the sector's income by 33 percent. The highest proportion of government income is now received by social care organizations, totaling £4.2 billion in 2006/07 (Cunningham, Baines and Charlesworth, 2014). Regardless, the non-profit sector continued to experience the insecurity of funding throughout Labor's period in office and this trend also raises the suspicion about the sustainability of the sector, as the UK coalition government reduces public expenditure. Now, both UK and Australia are seeking methods to solve the problems and increase effectiveness and efficiency of the current community and public services that are conducted by the non-profit organization.

Furthermore, by conducting individual interviews and participant observations in both Australia and the UK national charities, the Australian national charity (CharityAus) has found its beliefs and commitment coming into an uneasy alliance with the imperative to operate in this lean business fashion because the funding from state and federal governments in Australia was insufficient to cover the costs (Cunningham, Baines and Charlesworth, 2014). However, the national charity in the UK is showing more engagement in a competitive tendering condition that it is difficult for non-profit organizations in the UK to get long-term community investments. Because of its competitiveness, outsourcing the public service projects can lead to the cross-subsidization of programs. Due to this condition, a short term outsourcing option is often preferred as organizational policy and government regulation emphasized that individual programs must break-even and all the funding has to be targeted and access to organizational reserve which make NMP more limited than before (Cunningham, Baines, and Charlesworth, 2014).

In terms of efficiency of funding use, the program NPM in both Australia and the UK is not successful. The study shows that the funding environment was challenging and some relations with funders were short-term with no evaluation and funders can rapidly withdraw its resources and funding when its priorities change. Relations with other purchasers were more partnership based due to short-term funding and increases in the cost of living. Based on the results of the average quality of working conditions in non-profit organizations and social services, outsourcing community investment also shows many problems and disadvantages. Without sufficient funding and long-term community investment programs, non-profit organizations often pay less attention to the welfare of their employees and the quality of their community investments. The performance measures utilized by those non-profit organizations, to a great extent, were in the areas of cost efficiency, quantity, and effectiveness of their programs, which were used simply to satisfy legislative requirements and manage programs. In other words, those important qualitative community investment indicators and quantitative measures related to sustainability, environment, employees' attitude and welfare, and social responsibility measures are ignored. In fact, the efficiency and the effectiveness of the program can decrease significantly without evaluating these important aspects.

In many ways, the study indicates that outsourcing community investments and other social services are unsuccessful. Therefore, as a long-term social investing project, the Crossrail Community Investment Programs should be handled by the company and contractors directly, instead of by short-term inefficient outsourcing to some non-profit organizations. Also, while establishing assessments to evaluate different community investment programs, we should not only assess the effectiveness and efficiency of the program and the use of budgets, but also pay attention to its influence on participants, including Crossrail employees and contractors and local residents. When predicting outcomes and finding indicators, we should think comprehensively and seek for ways to evaluate the program's sustainability and environment impacts as well.

2.5 Summary

Crossrail, as one of the largest infrastructure projects in London, wants to leave its community investments for a long-term scale like the railway construction in order to benefit future generations. Without careful research on a community's background before starting an investment program and without a detailed analysis of its outcomes after the delivery, any community investment can easily fail and become a waste of money, time, and human resources. Thus, establishing comprehensive assessment system is very significant and useful to improve the efficiency and effectiveness of Community Investment Programs. Also, according to our two previous case studies, we understand a theoretical background of Corporate Social Responsibility and how to deliver community investments in strategies. More importantly, we realize that containing both quantitative measurements and qualitative indicators can evaluate different aspects of the community investment's impacts on the local area. On one hand, quantitative measurements allow us to analyze numbers and ratios accurately, which give contractors and local residents a direct understanding of the efforts and improvements. On the other hand, qualitative indicators address the indirect improvements, including participants' attitude, welfare, and perception. Understanding these indirect improvements is also an essential part for Community Investment Programs to

achieve success. As we consider all these influential factors, outcomes, and indicators, our assessment system can be feasible to apply to such a wide range of Community investment Programs and last for a long period of time.

Chapter 3 Methodology

The main goal of our project was to develop new efficient assessments to evaluate the impacts of the Crossrail CIP on local communities and to encourage more of Crossrail's contractors and employees to design and deliver successful CIP in the future. This goal was accomplished through research methods including site assessments, online surveys, semi-standard interviews, and first hand observation. In order to accomplish this, we needed to first understand what benefits an effective CIP can bring to its residents. The results from an Initiation Workshop Survey conducted with contractors in January 2014 indicated that an effective CIP should have a long-lasting legacy that can bring sustainability goals into the local communities. These programs should be delivered in diverse formats and require not only monetary investment but also donations of time, knowledge, effort, and collaboration with local organizations. Moreover, while those Community Investment Programs are beneficial to its residents, they should also have a positive influence on the contractors and volunteering staff.

Therefore, we had four objectives for the successful completion of our goal:

1. Identify and evaluate five communities that have been already affected by Community Investment Programs in terms of their environment and their collaborative relationship with the local contractors.
2. Understand the experiences of contractors engaged in Community Investment Programs including the challenges that they faced and the motivation they had while designing and delivering their Community Investment Programs.
3. Understand the expectations of local residents and people who were influenced by Community Investment Programs in order to recognize the areas in which community engagement can be improved.
4. Discover the potential outcomes and compile a set of corresponding indicators that can be used to create an evaluation tool for Community Investment Programs and contractors.

Our detailed implementation plan to accomplish these objectives is outlined in greater depth below.

3.1 Objective 1. Identify and evaluate five communities affected by CIPs

The Crossrail Community Investment Program was involved in eight different communities, including Hammersmith & Fulham, Kensington & Chelsea, Westminster, Islington, Hackney, Tower Hamlets, Newham, and Greenwich. Adding the City of London and Camden, would bring the total to ten communities along the new railway construction. In order to evaluate program initiatives, we gathered background information in each community to understand its environmental, economic, and social baseline by some archival research on each of the communities and performing site assessments.

Before going to the construction sites, our team conducted archival research. With permission, we looked through actuarial records, Crossrail archives, and official documentary records on the local communities to gather information about population data. Upon commencing work at Crossrail, we had access to internal information associated with the projects in the Community Investment Program. We were provided with a portion of clause in the work contracts, in which contractors agree to contribute to the Crossrail Community Investment Program (see Appendix A). We also researched each borough in order to gain a better understanding of the communities, and what Community Investment Programs could aim to improve in each district. Data pertaining to the borough's education system, economy, health, housing conditions, and level of job qualification, was compiled to allow us to understand the site in detail.

Our team used unobtrusive observations to conduct our research on site and completed our site assessment checklists (see Appendix B). According to *Qualitative research methods for the social sciences* (Berg, 2004), “unobtrusive measures actually make up a particularly interesting and innovative strategy for collecting and assessing data. In some instances, unobtrusive indicators provide access to aspects of social settings and their inhabitants that are simply unreachable through any other means” (p. 156).

We visited eight different construction site, including Paddington, Whitechapel, Tottenham Court Road, Liverpool Street, Bond Street, Woolwich, Victoria Dock Road, and Wallasea Island and filled out the site assessment checklist for five main community. Through site assessments, we focused on the relationship between the local residents and the

Crossrail construction projects. We met with contractors, walked around the community, and gathered first-hand observations by visiting the construction sites in order to study the working environment for each of the stations under the direction of different contractors. Studying the work site was significant because it allowed us to understand the interaction between local communities and the construction projects. Photography, recordings, and personal notes were used to further document our findings.

3.2 Objective 2. Understand the Experiences of Contractors Engaged in CIPs

The second objective pertained to the influence of the Community Investment Programs on participants from Crossrail including contractors and employees. These contractors were essential to the programs as they designed, conducted, and took part in the Community Investment Programs. Therefore, we developed an online survey for the contractors and employees (see Appendix C), as well as a interviews guideline (see Appendix E) for the face-to-face interviews with six different contractors to understand what they enjoy about delivering Community Investment Programs, the motivation they receive from Crossrail to participate in Community Investment Programs, and the primary challenges that contractors face during design, delivery, and participation.

Since we studied the employees and contractors in Crossrail, this online survey facilitated gathering a good, unbiased sample. Compared to mail surveys, personal surveys, and telephone surveys, online surveys have the advantage of flexibility, timeliness, convenience, ease of data entry and analysis, question diversity, low administration cost, ease of a follow-up survey, large sample sizes, required completion of answers, and capability (Evans and Mathur, 2005). The Crossrail email alias and online group-chart were useful ways for us to deliver the survey in order to obtain a higher response rate. Since timeliness was vital for our team, we relied on online surveys in order to yield faster results and to generate real-time data (Evans and Mathur, 2005).

The potential weaknesses of an online survey include the possibility of our emails being perceived as junk mail, a respondent's lack of online experience, technological issues,

unclear answering instructions, low response rate, and security issues. To moderate these potential weaknesses, we sent out a brief email with the URL link to our survey, using percentages to ensure demographically balanced panels. We also made sure that our online survey had simple and clear instructions, standard colors and screen dimensions, and limited number of contacts. By conducting this survey, we were able to gather data relevant to the views and opinions of the contractors of Community Investment Programs. This data informed us about interest levels of employees and contractors as well as any recommendations or concerns about Community Investment Programs when they design, deliver, and participate in these programs.

3.3 Objective 3. Understand the Expectations of Local Residents and Areas That Need to be Improved

While initially studying the contractors and Crossrail employees, we realized that affected residents could be more directly linked to these programs and could provide us with important feedback. Therefore, we conducted paper surveys for the residents in the community affected by Crossrail and its Community Investment Program in order to understand the residents' perspective on these programs. 50 paper surveys were distributed to Whitechapel's library and Swanlea School, which are central places that had been affected by Whitechapel's Community Investment Programs (see Appendix D). In addition, we created a separate paper survey for primary students in the Swanlea School (see Appendix G). We rephrased the questions and the format in order to give the local students a better understanding. We also participated in some of the Community Investment Programs including Book Buddies in St. Luke's Primary School and Arts for All Program to speak with primary school students who are affected by these programs.

While researching the programs, we also conducted interviews of officers from local authorities. We developed an interview guideline for one of the officers from Islington borough council (see Appendix F). Using the online survey results; we developed keywords and core questions for semi-standard interviews. The semi-standard interview is a

combination of standard and unstandardized interview methods (Berg, 2004). These semi-standard interviews required the development of predetermined questions and conversation themes. These interviews allowed us to focus on topics and the predetermined questions that helped us further our investigation of researching the positive and negative effects of the Community Investment Program. These conversationally orientated interviews also created a friendly and comfortable environment for contractors and employees. During our interviews with contractors, we gathered information and data related to Community Investment Programs that they have initiated. Contractors were asked their opinion of the program and how they could improve their own personal contributions as well as the structure of the program itself. We also interviewed officers from local authorities to understand the strengths and weaknesses of the community as well as need-finding in their respective community.

3.4 Objective 4. Discover the Outcomes and Compile a Set of Corresponding Indicators

After interviewing contractors and local authority officers and conducting surveys on contractors and their employees as well as affected residents, we were able to analyze our data and compile a set of corresponding indicators. We interviewed eight of the contractors from Paddington, Whitechapel, Tottenham Court Road (TRC), Bond Street, Liverpool Street, Victoria Dock Road, North Woolwich, and Wallasea Island. These interviews and site visits gave us a varied background and understanding of the community and the Community Investment Programs in their respective areas. With the online surveys conducted for the contractors and the employees we were able to understand their focuses and interests with their Community Investment Programs and their motivations behind them. After conducting surveys with a sample of residents in the Whitechapel community including students, teachers, and other local residents, we were able to gauge which age groups and areas most of the citizens recommended contractors to focus on with their Community Investment Programs. We were also able to discover the strengths and weaknesses in the community as well as their level of need by interviewing local authority representatives.

Through analyzing all of these results from interviews and surveys from contractors, employees, residents, students, teachers, and local authorities, we were able to compile a set of indicators. We also divided the Community Investment Programs into different categories according to different inputs and outcomes to finally form a clear and convenient evaluation to use.

3.5 Summary

In sum, we conducted interviews of members of multiple communities affected by the Community Investment Program to develop an understanding of their views on the program. After conducting these interviews, we were able to compose a survey from the gathered information to distribute to communities in order to collect multiple opinions of affected residents. Then, as we analyzed the results of the survey and personal interviews, we generated a narrow range of questions to ask in the focus group. However, we decided not to conduct a focus group as lack of attendance and awareness of the Community Investment Program were apparent.

Throughout our research and data collection, we gathered data that was both qualitative and quantitative. Although both types of data are vital to the analysis to establish a systematic evaluation of the Community Investment Program for Crossrail's contractors, the qualitative data was the most important in the design of the evaluation methods. The interviews with contractors, local officers, and residents were key to the collection of our qualitative data. Finally, all of the data we collected was stored in a password-protected laptop, and destroyed upon completion of the project.

Chapter 4 Results and Discussion

In this chapter, we present our results organized according to our project objectives, and discuss general patterns that we identified in the results.

During the course of our research, we visited eight construction sites, including Paddington, Bond Street, Tottenham Court Road (TCR), Farringdon, Liverpool Street, Whitechapel, Victoria Dock Road, North Woolwich and Wallasea Island; we conducted interviews with six contractors, and delivered about 200 online surveys to contractors and employees. We also visited and delivered surveys to some of the local schools and organizations that have been greatly influenced by the Crossrail Community Investment Program and completed the site assessment checklists for five different communities. In addition, we interviewed a local authority officer who works closely with Crossrail contractors on the delivery of Community Investment Programs in Islington. Collectively, all of the analyzed data and results helped us understand the Community Investment Programs from different perspectives.

4.1 Objective 1. Identify and Evaluate Five Communities

The first objective of our project was to identify and evaluate five communities that have already been affected by Community Investment Programs in terms of their environments and their collaborative relationships with the local contractors. We conducted archival research on the populations and demographics of each borough associated with Crossrail according to the London 2011 census in order to develop a better understanding of the status of each borough and the economic standings of its residents before site visits. Other research from Ofsted School Reports (Ofsted, 2012) and London's Poverty Profile (MacInnes & Kenway, 2009), provided information about the quality of primary and secondary schools and unemployment rates for each borough. This information allowed us to assist in the determination of which type of Community Investment Program a contractor should implement in an affected community (see Appendix H).

In order to accomplish this objective, we also consulted colleagues from our department and searched through the Crossrail database to find sites that would be most useful to our project. Together, we visited eight different stations under construction. However, due to our limited schedule, we completed site assessment checklists for five communities; Paddington, Whitechapel, Tottenham Court Road, Bond Street, and Liverpool Street. We also interviewed each of the contractors on site. With site assessment checklists, first-hand observation, and interview results, we were able to create tables to briefly describe various community environments. We also provided a detailed description for some of the important Community Investment Programs and addressed some of the important outcomes. These five community programs are profiled below.

4.1.1 Paddington

Community Description	CIPs	CIPs Description	Outcome
Both residential housing and commercial businesses exist. The main influence factor is noise. A road is blocked because of	Education Program in Hallfield Primary School	Paddington contractors worked with the school to improve students' reading skills and provided role models for them. Contractors and employees went to school once or twice a week. Students read novels or textbooks aloud to these volunteers. These volunteers corrected their pronunciation and explained the material that the students struggled with.	Students' reading skills and level of understanding increased dramatically according to teachers' feedback. Also, by giving them presentations about careers and teaching them how to present, many students became more confident while

the construction.			talking and presenting.
Some of the immigrants in this community neither speak English nor hold jobs. Most of	Bathroom Construction In Hallfield Primary School	The contractor provided construction materials and workers to construct new bathrooms for Hallfield Primary School.	The new and clean bathrooms improved the school environment. It improved the school's facilities, where the school did not have the finances to do so.
their children attend local schools. There is a large disparity between income levels in the community.	Help Local Women's Protection Shelter	The program helped expand the local women's protection shelter accommodations for those who suffered from domestic violence. The contractor also partnered with Sainsbury and Hilton Hotels, donating resources they need for daily life as well as cooking meals for them during Christmas in 2013. The contractor also delivered some programs that allowed these women to recognize domestic violence and how to handle it correctly.	This CIP helped support the local charitable organization for women who suffer from domestic violence. The donation provided them short-term supplies but the educational programs gave these women a long-term awareness of domestic violence.
	Goldfinger Factory	The contractor works with Goldfinger Factory to train deprived residents in various skills	This program reduces the number of unemployed residents

		and qualifications, including carpentry, metal working, and obtaining CSCS cards.	and provides them with opportunities to learn new skills.
Working partner	Waterside Partnership, a charitable organization helping local areas establish a community investing plan on structured consultation with local interest, analysis of problems, and priorities of local people. This organization provided information about the aspects that should be improved in the local community and shared all the community investment information completed in the local area.		

4.1.2 Whitechapel

Community Description	CIPs	CIPs Description	Outcome
Most residential housing is directly above the tunnelling works and they are greatly impacted by construction and the noise. Schools and businesses nearby are affected during the day and the residents are	Support Local Youth Football Program	Based on the community environment and local condition, the contractor sponsored young aspiring football players' trip to Sweden to the Youth World Cup.	Many young children took part in the football training program to further develop football skills. This football training program started in 1961 and reduced the number of youths involved in drug dealing and anti-social behaviour in this community.
	Idea Store in Whitechapel local library	The Whitechapel contractor helped this program extend library's operating	The whole program took part in a national competition and won an adult education award.

<p>affected during the night. It is a very diverse community. According to Whitechapel's contractor, the composition of the population is 51 percent white, 33.4 percent Bangladeshi, 3.4 percent Black African and 2.7 percent Black Caribbean.</p>		<p>hours for more local residents to study, relax, and read. Also, the library started to offer some free training and general education courses, such as commercial analysis, cooking, sewing, health and safety, marketing, and IT.</p>	<p>Many local residents acquired jobs after taking courses from the program. Some non-English speakers improved their communication skills as they received the opportunity to practice their English in the library. Whitechapel library is now an important place for local residents to spend time. People are willing to come to read, learn, and converse.</p>
Working partner	Local Charities		

4.1.3 Tottenham Court Road (TCR)

Community Description	CIPs	CIPs Description	Outcome
The construction site is in the center of London and	Short-term Financial Support for Local Events	Tottenham Court Road site financially supported many different events. It provided museums, festivals, and local markets with	These local events and organizations received direct support from the contractor. Crossrail also gained a positive

<p>near Soho and Chinatown areas. This contractor</p>		<p>equipment. The contractors also provided electricity for a local flea market this year.</p>	<p>reputation in the local area as banners and logos of Crossrail and contractor were allowed to be displayed.</p>
<p>has a relatively large budget for its Community Investment Programs. This site has been under construction for three years and its Community Investment Programs</p>	<p>Educational Program in Local Community</p>	<p>Engineers from the site went into the schools to present to students about safety issues near the construction site. The contractor also initiated an educational program which allowed primary school students to build the station models or draw the tunnel boring machine (TBM). One of the drawings from these students became the actual design for the real TBM. The student who was chosen named the TBM.</p>	<p>All the students who participated in the program received certificates. One of the students got the chance to name the tunnel boring machine. Students visited the site several times and were presented on many different and interesting topics about construction and engineering. Many students became more interested in science class because of the program.</p>
<p>focus more on the local residents and businesses. In this area, there are many recording studios so the</p>	<p>Site Open Day</p>	<p>The site invited many local residents to visit the construction area. They tried to take the mystery away by showing residents the tunnels in a safe manner to display the specific works under their properties.</p>	<p>Local residents understood the program more and were willing to support the program. Crossrail also earned a positive reputation, which can create a win-win situation for both local residents and contractors.</p>

<p>site is conscious of noise. Therefore, before any large noise interruption and large construction actions, the contractor gives notice to these studios.</p>	<p>Support the House of St. Barnabas</p>	<p>The contractor worked with the House of St. Barnabas, a local Charity affected by Crossrail's construction. This charity helps the homeless receive employment opportunities. The contractor supports the organization with both donations and volunteers.</p>	<p>The number of people hired increased after initiating the program. More homeless people participated in the program. Also, within the Soho area, many young adults have drug addiction problems. The program allows them to find jobs and develop new interests to prevent drug addiction.</p>
<p>Working partner</p>	<p>Local Charities</p>		

4.1.4 Bond Street

Community Description	CIPs	CIPs Description	Outcome
<p>Bond Street site is located in one of the busiest areas. The May Fair area in Bond Street is the most affluent</p>	<p>Prince's Trust Scheme</p>	<p>The contractor helped unemployed individuals aged from 18 to 25 obtain CSCS cards that qualify their skills to work on construction sites. The program allowed young people to take part in the training and to</p>	<p>After two weeks' training, seven out of eleven participants passed the final presentation and earned the job. The program aimed to solve the</p>

section in London. However, it also contains the deprived communities of Westminster.		give a final presentation to contractors who offered jobs.	unemployment problem in the local community.
	Construct the Community House	The Bond Street contractor offered volunteers to decorate the Community House and the garden. The contractors also provided free paint.	The program largely improves the environment of the Community House increases the usage rate.
	St. Martins-in-the-Fields	St. Martins-in-the-Fields is a soup kitchen in the community that provides food for the homeless.	The program addressed the issue of homelessness through providing meals.
Working partner	Waterside Partnership Local Charities		

4.1.5 Liverpool Street

Community Description	CIPs	CIPs Description	Outcome
The Liverpool Street construction site is in an overwhelmingly business district. It is adjacent to the UBS building and amidst other businesses as well. There are not many residents in	Inspire Charity	Employees volunteered to help teach classes and work with the teenagers. The contractor also provided a monetary donation to this program.	The Inspire Charity works with teenagers and provides insight and guidance on topics, such as alcohol and drugs, physical and mental health, and bullying.
	Arts for All	Volunteers helped run the program that	Arts for All provides youths and adults a

Liverpool Street, and the few that reside there are typically affluent and are not in need of community investment. Because of this, the contractor		allowed children some stress-free time as well as providing their parents with assistance.	space to partake in art without the stress of a grade or the need of a curriculum. It is a safe and fun place for students to go after school.
at Liverpool Street is working and delivering CIPs in neighbouring boroughs.	Red Bridge Children's Hospice	The contractor improved the facilities of the children's hospice to help improve the atmosphere surrounding the patients.	The children's hospice is a place that works to help keep children with long-term illnesses comfortable throughout their treatment.
Working partner	Local Charities		

4.2 Objective 2. Understand the Experiences of Contractors Engaged in CIPs

Our second objective was to gather an understanding of the contractor's experiences and the challenges that they faced throughout their delivery of Community Investment Programs. As mentioned in Chapter 3, we had access to internal information associated with the projects in the Community Investment Program. We were provided with a portion of the clause in the work contracts in which contractors agree to contribute to the Crossrail Community Investment Program (see Appendix A). The contract's clause concerning the requirements is vague and does not elaborate on the implementation of Community Investment Programs. It mentions that specific criteria and associated rubrics to measure impacts as well as guidelines were included in "Appendix 9C" and "Appendix 9D". However, we were unable to gain access to those contract appendices. According to our sponsor, the rubric does not provide specific indicators and detailed evaluation methods. There were no requirements listed in the

portion of the contract that we were provided with concerning the quantity of monetary donations as well as volunteer hours.

Based on our interviews with eight different contractors, we realized that contractors often had different motivations to design, organize, and participate in the Crossrail Community Investment Programs. The main motivations included fulfilling contract's requirement, diminishing the negative effect on local communities due to construction work, maintaining good relations in the community, and enjoying helping people in need in local areas. During the delivery, lack of time and budget often became the biggest challenges for contractors to maintain a long-term program. In some boroughs, it is hard to establish a long-term relationship with local charities and organizations. Working with national charities does not necessarily benefit local communities due to the fact that not all of the donations would be distributed to their local community affected by Crossrail's construction, which would be difficult to explain to local residents regarding community investment in their area. Therefore, choosing the right charities and organizations to work with was also a big challenge for contractors.

Many contractors mentioned that they often received feedback from participants through internal surveys, interviews, and cooperating organizations. During the Community Liaison Panels, people are normally very happy when they hear about the Community Investment Programs that have been completed in the local area, especially with regard to education according to one Paddington contractor. However, few contractors actually sought formal feedback from volunteers, as all the employees and contractors had matters that took precedence. One of the contractors from TCR said that it is very hard to get evaluation forms or additional surveys from volunteers on site because of their work schedule. Most of the sites have the twenty-four seven policy as tunneling construction often requires a continuous and consistent work schedule. From the contractors' perspective, there are different conditions existing on various sites. Some contractors prefer volunteer based CIPs and encourage more employees to participate in the program by recording their volunteering hours. Other contractors with a larger budget initiate more donation based CIPs. According to our interviews, all contractors have a positive attitude toward CIPs as they can not only

benefit local communities, but also improve the relationship between construction sites and local community members.

When conducting our online survey of Crossrail’s contractors and employees, we sent out approximately 200 surveys and received a total of 139 responses. The approximate 70 percent response rate and the large sample size ensure that the results of the online survey are representative and credible. Three main regions of employee responses came from Canary Wharf (37.41%), Paddington (21.58%), and Whitechapel (13.67%). We also received a few surveys from employees from Bond Street, Custom House, Farringdon, Liverpool Street, Mile End, Tottenham Court Road, and Wallasea Island.

From these results, we discovered that roughly 71.74% of employees have heard about the Crossrail Community Investment Program. When prompted about their involvement in the Community Investment Program, the percentage of respondents that had participated in the Community Investment Program dropped to 47.42 percent. Most of Crossrail’s contractors and employees who had participated in Community Investment Programs before ranked their response as a four on a scale of one to five, from not useful to very useful. There were 47 people who answered this question and only 21.28 percent of these people believe the Crossrail Community Investment Program is very useful. Figure 11 displays this result.

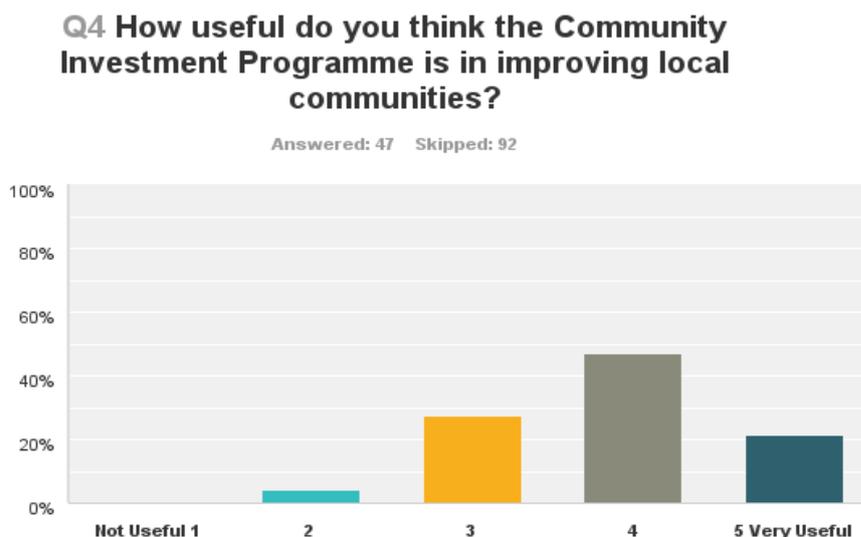


Figure 11. The Usefulness of Community Investment Programs

When answering questions about the delivery regularity of Community Investment Programs, most respondents replied with occasionally (36.96%), regularly (23.91%), and

often (8.70%) in their contracts. However, there are still 8.70 percent of employees who indicated that Community Investment Initiatives were never delivered near their sites, and 2.17 percent indicated that initiatives were rarely delivered near their sites. Figure 12 displays this result.

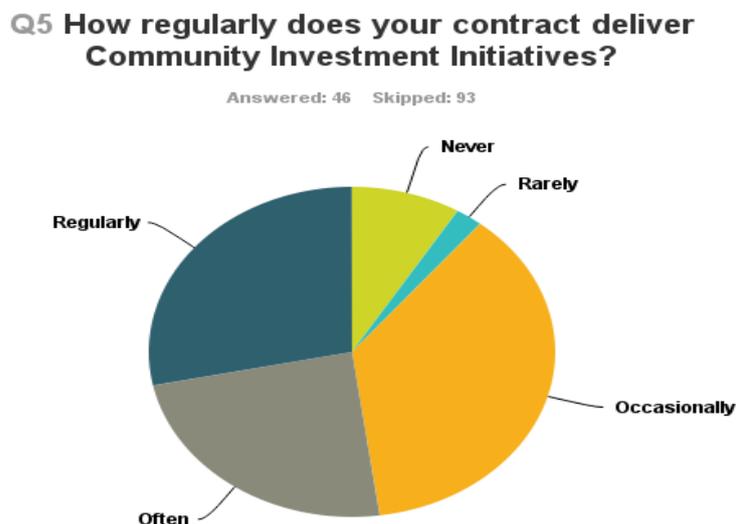


Figure 12. The Frequency of Community Investment Program Delivery

While asking contractors and employees about the amount of their personal involvement in Community Investment Programs, 43.48 percent of respondents answered “occasionally” and 30.43 percent of respondents answered “regularly”. The results are displayed in Figure 13 below.

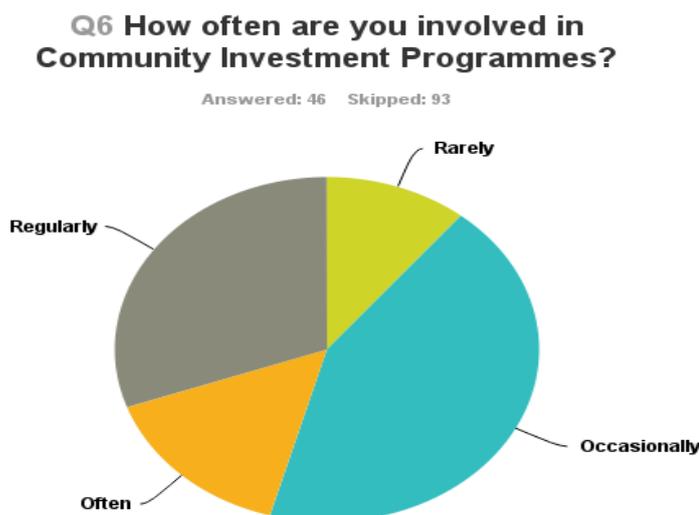


Figure 13. The Frequency of Community Investment Program Participation

One issue we were concerned with was employee enjoyment in participating in the Community Investment Program as it pertains to the quality of their delivery. A strong majority of the employees responded that they enjoy participating in these programs with 88.89 percent. When asked about types of programs they prefer in their area, the percentages relating to education, renovation, social welfare, and economic development were all quite similar. However, in terms of rankings, most employees preferred programs related to renovation, social welfare, economic development and then education. In this question we allowed respondents to choose other areas or types of programs they prefer. The type of projects they preferred were environmental projects, which fall under renovation, and community festivals, which fall under social welfare. The following Figure 14 depicts this result.

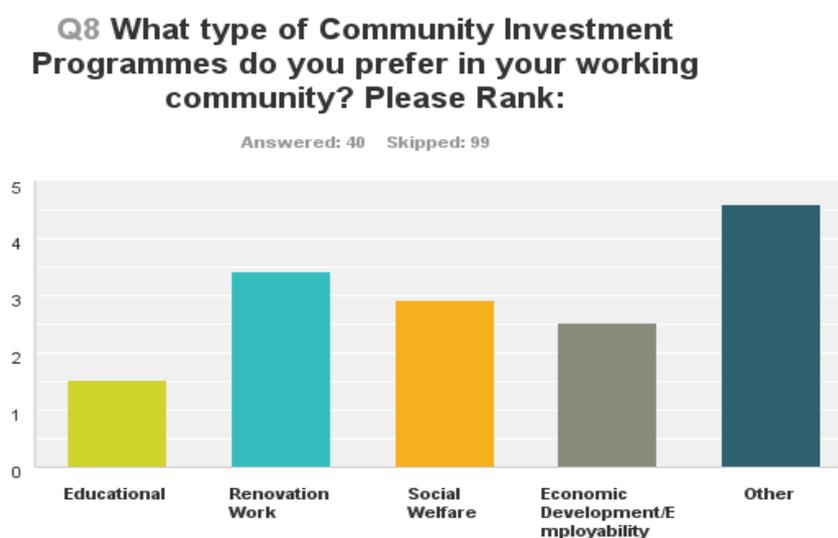


Figure 14. The Preference of Different Types of Community Investment Programs

In order to increase awareness of the Community Investment Program, we asked employees how they would like to learn about these programs. A majority of the respondents preferred Crossrail Internal Communications (57.69%) and the Crossrail website (46.15%). Some employee suggested email notifications as well. Figure 15 depicts this result.

Q13 How would you like to learn about this programme?

Answered: 26 Skipped: 113

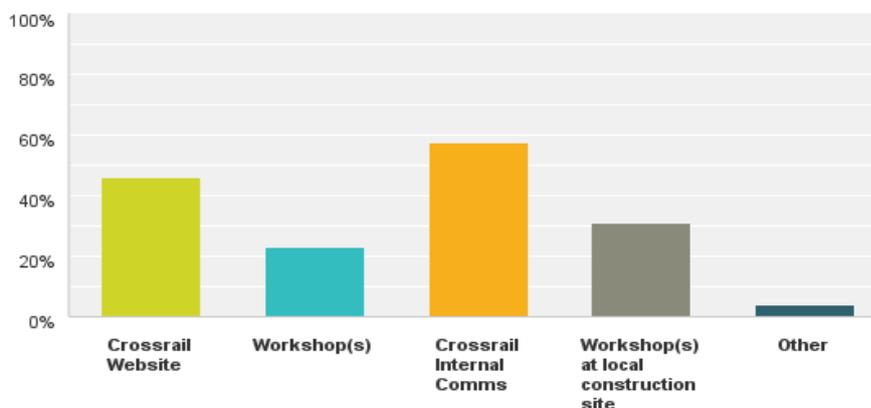


Figure 15. The Preference of Methods of Notification

We asked the employees if they were interested in designing, organizing, or participating in Community Investment Programs and discovered that 39.34 percent of employees wanted to only participate in these programs. The following Figure 16 shows this result.

Q15 If you would like to participate in the programme, what part would you want to be involved in?

Answered: 61 Skipped: 78

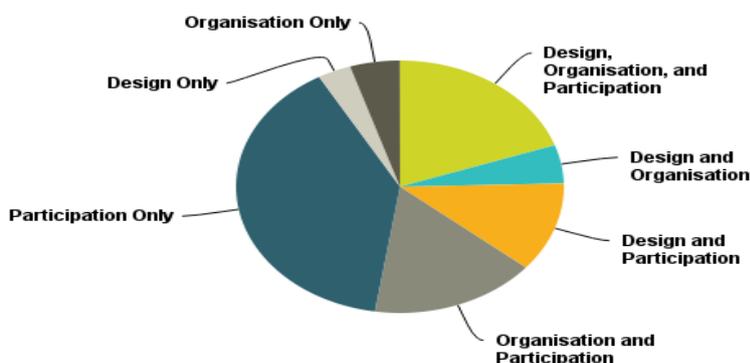


Figure 16. The Preference of CIPs Involvement

Ninety percent of Crossrail's employees said that the Community Investment Programs they are involved with provide a positive impact on the community. Many of their comments to this question when asked to describe the positive impact related to education programs, career development, bringing the community together, and providing a legacy. One of the respondents wrote in terms of bringing a legacy, stating "Awareness raising of Crossrail and

the legacy it is bringing and will leave behind...more than a railway (Online Survey, Respondent 54)." Another employee mentioned "Community Investment Programs should focus on sustainable and long-term programs that can be started by Crossrail but owned and continued by engaged community members and groups (Online Survey, Respondent 20)." Many of the answers referred to some of the key words, including *sustainable*, *long-term*, and *legacy*. Another respondent who wrote about education and careers said, "Our guided reading program that we spent time with is so rewarding and seeing the children progressing in ability can be nothing but positive to the local community (Online Survey, Respondent 31)." Survey results indicated that contractors and employees did realize the importance of spending more time in Community Investment Programs instead of purely making monetary donations.

4.3 Objective 3. Understand the Expectations of Local Residents and Areas That Need to be Improved

Our third objective was to determine what local residents expected and wanted to see improved within their community. We accomplished this through our surveys of local residents and the interview with a local official in Islington. We gained a deep understanding of the local communities through surveying and interviewing local residents. The topics covered by our surveys included the awareness of the Community Investment Program, areas in the community that need the most improvement, and target group within the population. Then, we delivered surveys to the Swanlea School and Whitechapel library, as well as the community panel at the Paddington site.

After sending out 50 surveys to Whitechapel's Idea Store and the Paddington Community Panel, we received a total of nine completed surveys. Our team analyzed the results of our survey and concluded that residents would like to see Community Investment Programs that target mainly children and young adults. Through their survey answers, we discovered that they wanted to see programs that involved free education courses, job training, and job opportunities. Helping young people and providing more training programs in the community were the key findings from the survey. One of the residents from the

Paddington site mentioned in the survey that, “Events such as Open Doors and visit into the emerging station are very popular and feasible (Residents Survey, Respondent 9)” when giving the suggestions for future Community Investment Programs. Another Whitechapel resident talked about “Community Cohesion (Residents Survey, Respondent 2)” and that holding some large social community events can be a good way to establish connections among local residents and to bring a long-term friendly relationship between local residents and contractors.

We also distributed twenty five surveys to the students and teachers of the Swanlea School. We recognized that it was a primary school, and adapted our survey to fit the comprehension level of the students there. The survey that we distributed to the teachers was the same as those distributed to the local residents and community members. This survey was intended to gather feedback from those impacted by the Community Investment Program, to help determine the impacts that it has on the community. Although we attempted to gather this feedback, when we tried to collect the surveys, none of them had been filled out due to the school’s schedule and priorities.

We also had the opportunity to interview Tony Brown, one of the local governmental officials in Islington, to learn more about the Community Investment Program from his perspective. He elaborated that the contractor in Islington supports one of the biggest events in the borough called Word Festival. This event allows four main charities to bring different activities to encourage reading and writing. A sequence of events sponsored by the contractor and Crossrail helped establish the internal relationship in the community. Word Festival targeted many special groups of people in the community, including young single mothers, the elderly and disabled persons. With the contractor’s support, the Word Festival has already become a long-term program, as 2013 is the third year this event has occurred. The scale of the program has increased and more people are influenced by these events. During our interview with Mr. Brown, he said, “The word Festival is now becoming a culture in this community and more and more people are willing to participate in this event. You can see participants’ performance improve and they became more and more confident.”

4.4 Objective 4. Discover the Outcomes and Compile a Set of Corresponding Indicators

Our final objective was to discover the potential outcomes from Community Investment Programs and to derive a set of indicators to display these outcomes. In order to do this, we evaluated all the previous Community Investment Programs and divided them into different categories. We found common points in these programs and also separated them according to their inputs and outcomes in various areas. We analyzed these programs based on their diverse contents and their inputs of volunteers or donations. Based on our research and discussion, we realized that qualitative and quantitative indicators are both important. Here we provided a list of indicators and a detailed table of outcomes and indicators, which are presented in greater depth in Chapter 5, Recommendations and Conclusion.

Quantitative indicators:

- Number of hours spent in CIPs
- Number of volunteers that participated in CIPs
- Number of in-kinds donations, including products, used office equipment or furniture, use of company premises, and provision of free advertising space in a publication or a website and free professional services.
- Amount of money donated in CIPs
- Number of public facilities, gardens, and activity centers established by CIPs
- Number of community participants
- Usage rate of facilities in the community
- Number of people who earned jobs through CIPs

Quantitative indicators:

- Confidence level
- Reputation of Crossrail and contractors
- Social awareness
- Skills and job qualification
- Learning interest

-
- Feeling of safety in the local community
 - Feeling of happiness
 - Feeling of engagement
 - Feeling of comfort in the local environment

4.5 Discussion

According to the 6 interviews, 9 paper survey responses, and 139 online survey responses, we concluded that Community Investment Programs can actually diminish the negative effects that the construction might have on the local community, and change local residents' perspective towards Crossrail. Many key words, such as “legacy” and “long-term,” appeared several times from responses of contractors, residents, and the local authority officer. Community Investment Programs involved in job training, young employability, and children enlightenment were recommended most for future programs. All of the results from our surveys to the residents portray that the four main aspects for the future Community Investment Program, education, renovation, social welfare, and economic development, are the most significant areas that need to be improved and addressed. Currently most of the Crossrail contractors and employees have developed a good understanding of the Community Investment Programs. However, our team was surprised by the limited awareness of Community Investment Program among local residents based on the responses from our paper survey.

From the interviews, we found that most contractors have not actively sought feedback from volunteers and participants because of their work schedule. However, data from the online survey shows that people would like to see the outcomes and learn more about the Community Investment Programs from Internal Communications and the Crossrail website. These results made it clear that showing potential outcomes of programs in different areas and providing indicators was necessary.

Previous Community Investment Programs have covered a wide range of areas. As we divided these programs into education, renovation, social welfare, and economic

development, we were able to identify both quantitative and qualitative indicators. Without a clear expectation of outcomes and an explicit categorization of projects, it was hard for contractors to design, implement, and evaluate these programs efficiently.

Finally, in terms of a feasible delivery method, Crossrail website and Internal Communications seemed to be preferred by contractors and Crossrail employees, based on the results of our survey. This finding prompted us to create a webpage where Crossrail can collect all information and materials regarding their Community Investment Programs.

Chapter 5. Recommendations and Conclusion

From our data collection and analysis, our team developed a set of recommendations for tracking and evaluating the outcomes of new and existing Community Investment Programs initiated by Crossrail's Contractors and Crossrail Ltd. Our recommendations are separated into six different sections:

- I. Recommendations for all Crossrail Community Investment Programs,
- II. Outcomes and Indicators for Community Investment Programs Related to Education,
- III. Outcomes and Indicators for Community Investment Programs Related to Renovation and Refurbishment,
- IV. Outcomes and Indicators for Community Investment Programs Related to Social Welfare,
- V. Outcomes and Indicators for Community Investment Programs Related to Economic Development,
- VI. Application of Assessments and Indicators into Practice.

These recommendations can be used both by Crossrail and Crossrail's contractors to evaluate the outcomes of future and on-going Community Investment Programs.

5.1 Recommendations

5.1.1 Recommendations for all Community Investment Programs

We recommend that each Community Investment Program implemented by a Crossrail Contractor follow the core mission established by the initiative to be sustainable, long lasting, and provide a legacy to the community.

Currently, Crossrail requires their contractors to deliver programs to “bring a lasting benefit to the communities in which they are working” (Crossrail Ltd, 2014). Community Investment Programs should be sustainable, which means that these programs should be continued and consistent for a long period. After the completion of Crossrail's new railway

system in 2019, some of volunteer and donation based programs should have the ability to operate on their own or find new long-term partners without being dependent on continued funding from the contractors. The influence of these Community Investment Programs should be long-lasting. Community members and residents should ideally consistently benefit from the outcomes of the program. Therefore, if a project is not able to continue to operate independently at the same level of performance, then they should at least encourage a long-lasting impact. In addition, they should provide a legacy for the future generations of the community where Community Investment Programs are initiated, even after the Crossrail construction project is completed and the contractors are no longer involved.

- **Divide Community Investment Programs into four categories, including education, renovation and refurbishment, social welfare, and economic development.**

After we compiled the outcomes and indicators into a list, we realized that dividing these indicators and outcomes into distinct categories would significantly improve the clarity and feasibility of the evaluation. Analysis of previous and on-going Community Investment Programs from eight different contracts revealed that most of programs could be divided into four different categories, as described previously: education, renovation and refurbishment, social welfare, and economic development. These four categories were chosen according to detailed examination on the results of surveys and interviews with contractors, employees, local residents, and the local authority officer who care about CIPs. Each of the four categories matches the communities' needs. Community Investment Programs can also belong to multiple categories.

- **Require Crossrail and contractors to track the inputs of their Community Investment Programs.**

Analysis of the interview results with contractors indicates that each Community Investment Programs have measureable inputs, including the number of volunteers,

volunteering hours, money, and products. Tracking inputs can provide Crossrail and contractors effective quantitative indicators to evaluate Community Investment Programs.

5.1.2 Outcomes and Indicators for CIPs Related to Education

- Use outcomes and indicators: Education (see Figure 17).

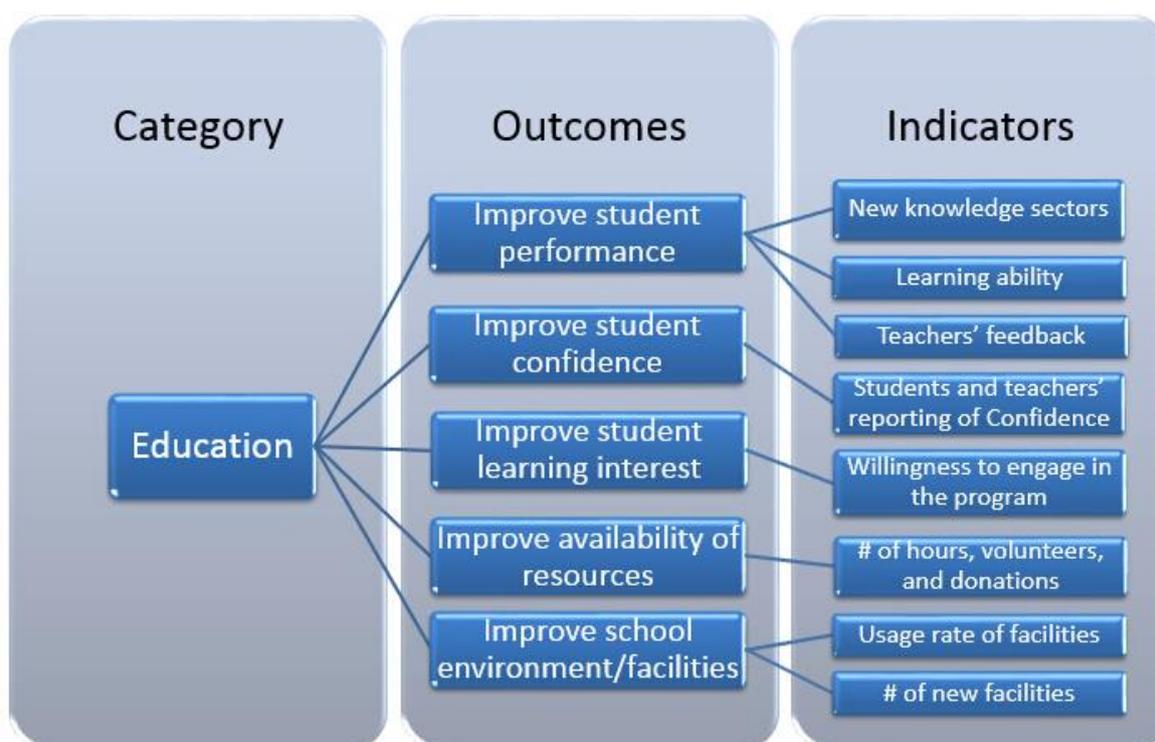


Figure 17. Educational CIP Outcomes and Indicators

According to interviews with contractors and corresponding site visits, we found that there were a large number of projects initiated by Crossrail's contractors focusing on improving aspects of education. Contractors often volunteer to assist with student learning, to construct new school facilities, or to donate money or materials to schools to assist with their educational programs. Many residents show an interest in improving educational availability, diversity, and quality, as well.

The main outcomes of educational Community Investment Programs include improvements to students' performance, learning interests, school environment and facilities, and an increase in the availability of resources. Indicators are different ways to measure the

outcomes of Community Investment Programs. In order to improve the availability of resource and allow more students to benefit from the Crossrail Community Investment Program, the number of hours, volunteers, and donations into the program should be measured. To understand the improvement in students' confidence level, reporting of confidence level is an important qualitative indicator to use. Furthermore, feedback from teachers and volunteers can respond to the improvement of students' confidence level. The willingness to engage and learn is another indicator to depict the improvement in student learning interest. Tools that we can use to acquire these indicators include student or teacher surveys, feedbacks from parents and teachers, small focus groups or interviews before and after the program, observations, and rating scale for the environment and facilities.

5.1.3 Outcomes and Indicators for CIPs Related to Renovations and Refurbishment

- **Use outcomes and indicators: Renovations and Refurbishment** (see Figure 18).

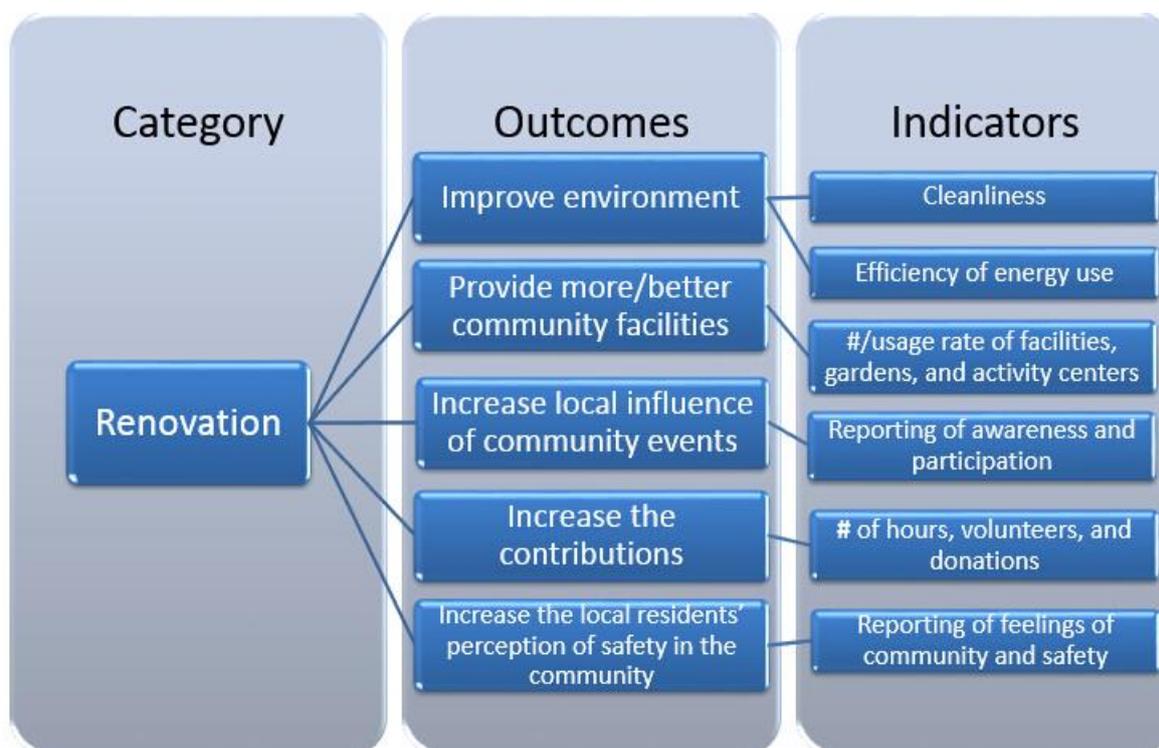


Figure 18. Renovations and Refurbishment CIP Outcomes and Indicators

Based on the analysis of surveys from local residents and our research, the outcomes of renovations and refurbishment should improve the local environment, provide more or better community facilities, increase the awareness of local community events, and increase safety conditions. There are many indicators that can be used, including reported awareness, level of participation, feeling of safety in the community, and the number of facilities, gardens, and activity centers. These indicators can be generated through residents' surveys, reports, focus groups, interviews, program records, and observations conducted in the community. These outcomes and indicators can ensure that each renovation project will be sustainable and be able to be maintained on its own after completion of Crossrail. All renovation and construction work should be long-lasting in the community and bring a legacy for future generations.

5.1.4 Outcomes and Indicators for CIPs Related to Social Welfare

- Use outcomes and indicators: Social Welfare (see Figure 19).

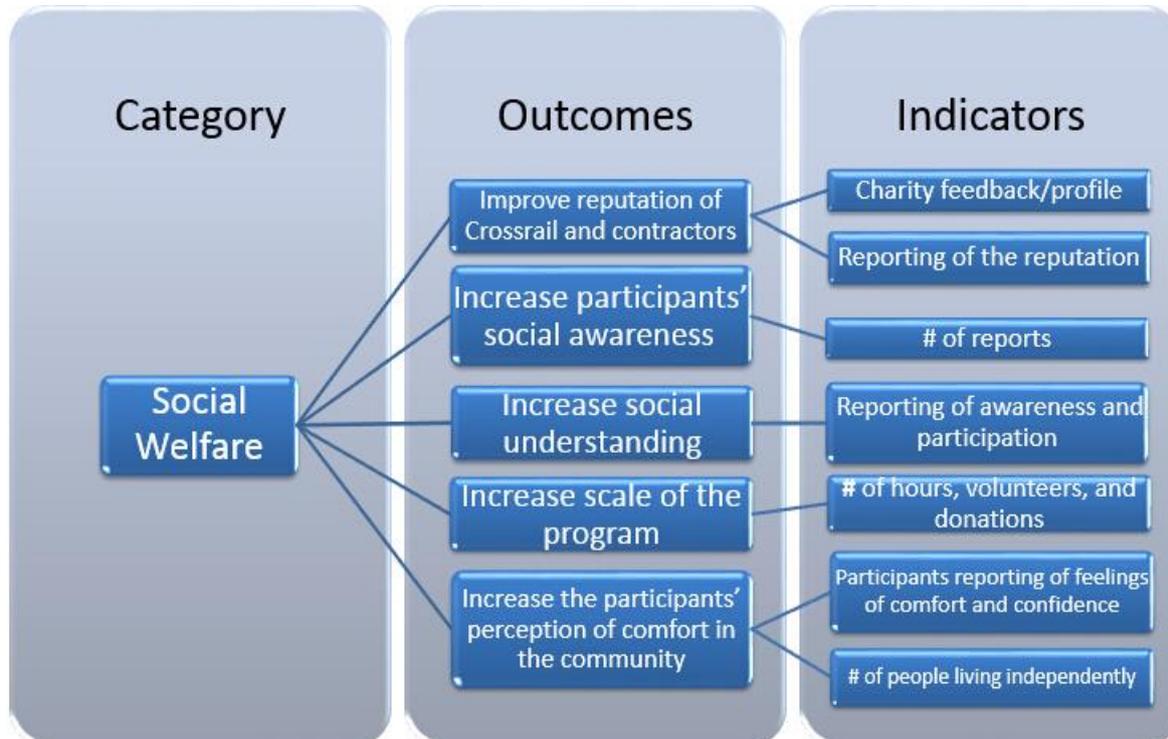


Figure 19. Social Welfare CIP Outcomes and Indicators

Social Welfare includes Community Investment Programs that voluntarily or financially support social issues such as homelessness, legal support, domestic violence, the elderly, and the disabled. The local contractors can work with local charities or organizations, homeless hostels, community centers, or churches on a long-term scale. The contractor involved in initiating this Community Investment Program might promote the partner organization, as well.

As a result of volunteer based delivery of programs relating to social welfare, there should be feedback and evaluations from either the contractor or the charity with which they are working, about residents receiving help from the volunteers and the improvements pertaining to their social welfare. One important outcome can be to improve the awareness of the social issue that is addressed in the Community Investment Program. Also, the Community Investment Program should also improve the reputation of the charity that contractors are working with as well as the construction site. As the contractor works with different charities, it is important to provide benefits for charities to allow them to continue to benefit members of the community or participants for a long time period. In this manner, after the partnership has ended after construction has been completed, the charity will be well known within the local community and will continue to operate at the same level without the contractor's engagement. The program itself should also provide a long lasting, sustainable, and positive influence in the community. As the contractors are working with a targeted community, seeking feedback through organizations and charities will be beneficial. Receiving indirect information from volunteers about those groups of participants can also bring an understanding of the program improvement.

If a program is donation-based rather than volunteer-based, the program must have the same outcomes as a program that is volunteer-based. The contractor may donate money or supplies but the outcomes must be the same and they must receive evaluations and feedback as well. The outcomes and indicators might be more quantitative compared with volunteer based programs. The contractor must ensure that any money or donation of materials or products should be put back into the local community or nearby communities rather than on a national level when working with larger charities or organizations. Tracking the scale of the

program, including number of participation, volunteers, and corporate organizations is useful in evaluating the impacts.

5.1.5 Outcomes and Indicators for CIPs Related to Economic Development

- Use outcomes and indicators: Economic Development (see Figure 20).

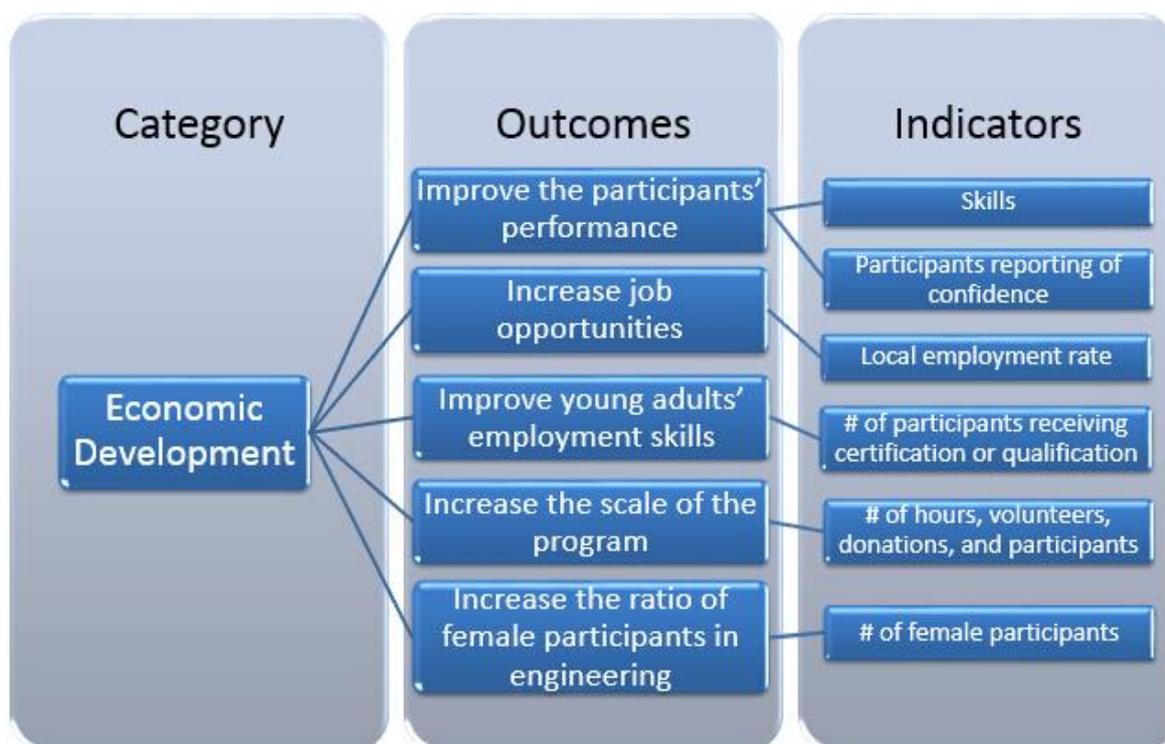


Figure 20. Economic Development CIP Outcomes and Indicators

Economic development includes all the programs that help economic regeneration and job creation. Contractors should be encouraged to provide job training programs and presentations and educate individuals with training and careers related to construction and engineering as well as help with CV's, interview skills, and CSCS cards.

The outcomes of economic development types of Community Investment Programs can be to improve the participants' performance, which can be indicated through the new skills that participants have acquired and participants' reporting of confidence before and after the program. Also, one of the outcomes can be to increase job opportunity in the local community. Corresponding indicator should be the number of unemployed people in the

borough, which can usually be provided by borough council. Number of female participants can be a significant indicator for Community Investment Programs, especially in the construction and engineering fields. The contractor can also see the willingness to engage and adapt through the change in number of participants through the years.

5.1.6 Application of Assessments and Indicators into Practice

- **Require all new Crossrail contractors to fill out a site assessment checklist to encourage a deeper understanding of the community's background.**

During the past seven weeks, we visited eight different sites and assessed five separate communities based on our site assessment checklist (see Appendix K). Completing site assessments allows new contractors to develop a deeper understanding of the community. It is essential for contractors in order to establish a respectful relationship between construction sites and local communities. More importantly, with knowledge about the local community, future Community Investment Programs can truly satisfy the necessity and requirement in the community. Contractors can match the most suitable Community Investment Programs from all four main categories, which allows the program to become a sustainable legacy that can bring a long-lasting influence on the local residents and community members. Also, site assessment checklist, as one part of the evaluation, provides a record of the local community before starting any program.

- **Require all Crossrail contractors to establish goals, and to predict potential outcomes before delivery, track outcomes during the program, and document all accomplishments and results after completion.**

All the contractors should establish goals and predict potential outcomes based on the type of Community Investment Programs they initiate before delivery (see Appendix I). The CIP outcomes and goals checklist is provided for contractors who have no documentary base

to use as an example (see Appendix J). During the program, they should track the programs' outcomes using all listed indicators in that particular category. After the completion of the program, contractors are required to document the accomplishments and results for further analysis or report. Contractors who have their own format for doing these three steps can keep their own ways. Predicting and tracking before and after the program allow contractors and Crossrail to see the outcomes and improvements easily.

- **Provide access for Crossrail contractors to the CIP webpage to get a comprehensive understanding of the indicators and evaluation methods in each category.**

During our seven weeks of research, we established a webpage for a better delivery of our evaluations and indicators. The webpage is modeled after the Crossrail webpage, which can be updated for future development. It provided examples of previous successful CIPs that brought communities sustainable and long-lasting benefits. It posts all the detailed instruction about the four main categories of Community Investment Program with its own potential outcomes and indicators in a clear table (see Appendix L). We also provided tools to obtain indicators, but contractors are allowed to choose their own methods as long as they find indicators to reflect the impacts of Community Investment Programs on the local areas. This webpage also provides all the links to our PDF files, including our site assessment checklist, goals and outcomes checklist, previous surveys, final report, and final presentation. The website can be used by contractors and CIP and Community Relations Managers for a better understand of the evaluation system. Also, local residents can look at the website to acquire more information about Community Investment Programs and provide advice and suggestions. Currently our website is not accessible to the public, by request of our sponsor, because it will be connected to the Crossrail Internal Share Point in September after further development. However, we displayed the web page through screen shots (see Appendix M)

5.2 Conclusion

Crossrail's initiative to set up Community Investment Programs across London has set a new precedent for community engagement. As a necessary component of this success, post-assessment evaluations processes will ensure the quality and integrity of each Community Investment Program whether it pertains to education, renovation and refurbishment, social welfare, or economic development. By using the site assessment checklist we provided contractors who plan to initiate Community Investment Programs with a method to assess the community and determine which areas to improve. Each contractor will be given a Goals and Outcomes checklist to keep track of their Community Investment Programs and ensure the requirements are fulfilled. This checklist will track their goals and desired outcomes in accordance with the recommendations we provided to help organize and steer contractors in the right direction when delivering Community Investment Programs. Instructions, information, and resources on our recommendations and conclusions, and checklists can be found on the website. The website is easy to access for contractors and Crossrail employees and has links to sample survey questions, checklists, successful examples of previous Community Investment Programs, and our final report. We suggest that Crossrail's Community Relations Department and Crossrail Contractors, follow our Site Assessment Checklist, Goals and Outcomes Checklist, and follow our Recommendation Charts to ensure a well-delivered Community Investment Program that is sustainable, long lasting, and provides a legacy. These programs can be related to arts and science clubs, solving teaching or learning problems, increasing the usage rate and teaching value of certain facilities such as libraries or computer labs, and improving the school environment. Local residents also believe contractors who choose to volunteer must donate a certain amount of hours and volunteers over the course of each year. The contractor can also provide site visits and trips for interested students or give a presentation and project to students at the school in the future.

Within seven weeks, we visited eight sites and assessed five of the nine new Crossrail Construction Stations in greater detail. We interviewed their respective contractors, residents, and local authority officers on the conditions of the community and their Community

Investment Programs. However, Crossrail's Construction spans over 100km of tunnels and stations through London where community conditions vary throughout the boroughs. It will be important to assess the remaining sites and their programs and to test the results of our system and recommendations moving forward. We suggest Crossrail and future researchers engage with additional Community Investment Programs, and perhaps use focus groups comprised of affected residents to more deeply assess needs and outcomes. Finding more efficient ways to deliver our evaluations and indicators would be a great topic for future study as will continuing to enhance the website and incorporate the webpage into Crossrail's website to use as a resource for contractors and the Community Relations Department. With these comprehensive indicators and outcomes and the feasible assessment system, the efficiency and effectiveness of the CIP will be greatly improved and more contractors and employees will be encouraged to participate in the program. Crossrail's commendable mission to offset the negative consequences of construction will more than pay off with these meaningful, sustainable, and long-lasting Community Investment Programs initiated in communities affected by Crossrail.

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Appendix A: Community Relation Clause



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Part 9 – Community Relations

9.1 Introduction

Community relations and publicity on the Project is the joint responsibility of the *Employer*, the *Project Manager* and the *Contractor*. The Works Information sets out the *Employer's* minimum requirements for compliance with the Project policies and procedures relating to community relations and publicity.

The *Employer's* community relations and publicity activities are discharged by the *Employer's* Community Relations Team under the direction of the following functional managers:

- the *Employer's* Head of External Affairs for any matters relating to contact with the media and liaison with parliamentarians and members of the London Assembly;
- the *Employer's* Head of Stakeholder Engagement for any matters relating to the operation of the Public Helpdesk (Helpline) and inclusivity and/or the *Employer's* community relations policy matters; and
- the *Employer's* Area Community Relations Managers for all contacts with local residents groups, schools, parish councils and local authorities.

The *Project Manager* will notify the *Contractor* of the names and contact details of the *Employer's* Community Relations Team.

Any queries regarding Community Relations must be referred to the *Project Manager*. All contact with the media shall be handled by the *Employer* except with the written consent of the *Project Manager*. All telephone calls or letters from third parties received must immediately be referred to the *Project Manager* and to the *Employer's* press desk in the case of media enquiries.

9.2 *Contractor's* Community Relations Responsibilities

The *Employer* has developed a Construction Community Relations Strategy Framework in order to engage with the multiple stakeholders on the Project. The *Contractor* shall:

- ensure the *Contractor's* Community Relations Representative (and nominated delegate) is fully conversant with local demographics and culture and briefs Site staff on issues of note;
- ensure that all subcontractors and suppliers of any tier comply with all community relations legal and contract requirements, where relevant to the works;



- develop, implement, maintain and update as required a Community Liaison Plan (see 9.4 below);
- produce Information Sheets (see 9.6 below);
- produce other information bulletins and materials as appropriate, including material for periodical community information bulletins;
- cooperate with the *Project Manager*, the *Employer* and Others when liaising with property owners as required in support of meeting the requirements of this contract;
- participate in the *Employer's* education programme, in particular a proactive programme of local site safety initiatives;
- include key community relations information such as local demographics and sensitivities and provision of equality/diversity training for contracts with significant equality impacts as part of the *Contractor's* mandatory site induction;
- participate and comply with the Small Claims Scheme;
- abide by the *Employer's* complaints handling procedures;
- cooperate with the *Employer* in other activities as requested or instructed by the *Project Manager*, including (without limitation) assistance with community liaison panels, (including hosting sub-group meetings where appropriate), attending meetings with local authorities, participating in community activities (such as attendance at community events) and providing information and support resources for visitor information centres;
- demonstrate engagement as appropriate with residents of ethnic minority backgrounds, women's organisations, residents with disabilities (and/or their representatives), faith groups and lesbian, gay, bisexual and transgendered groups who may be differently affected by construction impacts, reporting such activity to the *Employer*;
- register the Site and any Working Areas with the Considerate Constructors Scheme (the Scheme) and comply with the Scheme's Code.

9.3 Community Relations Representation

The *Contractor* shall appoint a Community Relations Representative and shall also employ such additional community relations resources as may be necessary to deliver its responsibilities under this part of the Works Information.

The Community Relations Representative shall:

- be contactable 24 hours a day, 7 days a week (with a delegate/s nominated during periods of authorised leave who shall be fully capable of delivering the *Contractor's* community relations responsibilities);



- engage with the community to provide appropriate information and be the first line of response to resolve issues of concern;
- cooperate with the *Project Manager* and the *Employer* in all matters relating to community relations and publicity policy;
- cooperate with the *Employer* for communicating to the public how training and employment opportunities will be available;
- implement the *Contractor's* Community Liaison Plan and Community Investment Programme;
- manage and resolve complaints or enquiries directed to the *Contractor* from the Crossrail Public Helpdesk or *Project Manager*, initiate any necessary enforcement or corrective action on behalf of the *Contractor*, respond to the complainant within 24 hours, and advise the Crossrail Public Helpdesk of the outcome of action taken within 24 hours;
- ensure the Crossrail Public Helpdesk is supplied with the current 7 day, 24 hour duty roster for the Community Relations Representative and nominated representatives for the coming week and
- provide, for monitoring purposes, a weekly activity summary and three-month look-ahead report to the *Project Manager* for inclusion in the weekly Helpdesk report (which must specify all complaints received) and Project Community Relations 3-month look-ahead report (the look-ahead report shall include information about forthcoming works especially those that will or may have an impact on the local community, eg implementation of a new traffic management system or removal of excavated material)

The Community Relations Representative and nominated delegates shall:

- have sufficient authority to determine and initiate action on Site should it be necessary;;
- possess sufficient knowledge of the *works* and Site operations to be able to respond to complaints and enquiries in an informative way; and
- be able to deal with public complaints in a sensitive manner.

9.4 Community Liaison Plan

Within 4 weeks of the *starting date*, the *Contractor* shall produce a Community Liaison Plan in the format included in Appendix 9B and submit it to the *Project Manager* for acceptance. In the case of the first submission of the Community Liaison Plan the *Project Manager* replies within 4 weeks of the date of submission.

Any further revisions, submissions and responses shall be made within the *period for reply*.



The accepted Community Liaison Plan shall be issued to the local authorities by the *Employer* 4 weeks in advance of the *works* commencing on site.

The Community Liaison Plan shall:

- give the *Contractor's* name, site address and key contacts including the location, telephone (fixed and mobile) and fax numbers and email for the Community Relations Representative both during and outside normal working hours;
- detail the overall method for producing advance notification information;
- identify key contract details (such as scope of work, properties likely to be affected by the *works* either directly or indirectly);
- provide expected durations of phases or work, their potential impact on the local community and mitigation measures;
- identify all relevant emergency contact details;
- give details of known equality impacts (locations of schools, places of worship, elderly accommodation etc);
- demonstrate how the *Contractor* will disseminate information in an inclusive manner with specific ethnic groups, representatives of and for disabled people and gender based organisations, considering the languages spoken by the various communities affected by the *works* and the needs of people who may have a sensory impairment or learning disability when producing communication material;
- demonstrate how the access rights of disabled people will also be satisfied;
- specify details of the catchment area (as a minimum all properties within 100 metres of the *works*) to be included in Information Sheet deliveries and list other recipients of Information Sheets (e.g. ward councillors, parish councils, residents' groups, information boards at community centres, libraries and post offices, citizens advice bureau, police stations etc.);
- provide the Crossrail Public Helpdesk number;
- provide details of any expected public transport diversions, delays, planned road closures, impacts on highways, interrupted access for residents/ businesses, or other expected community disruption;
- include the contact details of the independent Crossrail Complaints Commissioner;
- give contact details of local authority officers responsible for monitoring environmental and planning matters;



- give details of how the *Contractor* will address feedback from local communities in relation to its performance of the *works*;
- provide contact details of any industry partners' key site personnel (for example Network Rail, London Underground, Docklands Light Railway, Transport for London) where appropriate; and

The *Contractor* shall review and update the Community Liaison Plan as instructed by the *Project Manager* as the *works* progress (particularly when the nature of the impacts increase) to ensure it reflects the current site conditions, reasonable advice from local authorities and provides up to date contact information. Revised plans shall be submitted to the *Project Manager* for acceptance and upon acceptance forwarded to the local authorities by the *Employer*.

9.5 Community Investment

The *Employer* is committed to ensuring the Project provides benefits to the local community through its investment and the regeneration opportunities that arise from its construction. The *Employer* also requires that as part of the wider benefits of the contract to the local community, the *Contractor* will optimise, wherever possible, any opportunities to bring benefits to the local community in addition to the benefits delivered as a result of the Responsible Procurement obligations in this Works Information..

Although the cost of such investment to the *Contractor* is not to be construed as forming part of the Defined Cost of the *works*, the *Employer* is keen to ensure that the *Contractor's* investment in the local community is coordinated, managed and diverse and contributes to a lasting legacy.

The *Contractor* shall develop a plan for such community investment and submit it to the *Project Manager* for acceptance. The *Contractor* shall invite local community stakeholders to suggest initiatives for inclusion in the Community Investment Plan.

The *Contractor* shall produce the Community Investment Plan no later than 13 weeks after the *starting date* and submit it to the *Project Manager* for acceptance. In the case of the first submission of the Community Investment Plan the *Project Manager* replies within 4 weeks of the date of submission. Any further revisions, submissions and responses shall be made within the *period for reply*, and shall be in accordance with a programme of submissions to be defined in the Community Investment Plan.

The *Contractor's* Community Investment Plan shall:

- Identify and focus on appropriate investment that has the greatest impact on the local community based on the following criteria:
 - project impact;
 - value to community, value to the Project and sustainability;



- availability of resources (internal and external);
 - political and/or cultural sensitivities;
 - achievability and measurability; and
 - duration and cost;
- encourage local community members to increase their personal and institutional capacities to mobilise and manage resources to produce sustainable and justly distributed improvements in their quality of life, consistent with their own aspirations that survive beyond completion of the Contract;
 - consider the needs of the local community as a whole in an inclusive and equal manner;
 - allow for consultation with the *Project Manager* and *Employer* to ensure that historical community knowledge informs the investment plan and there is a consistent approach across the Project;
 - avoid creating dependencies where the local community becomes reliant on others to fulfil their needs;
 - avoid reactive investments with short-term impact that whilst being legitimate and worthy are not sustainable in the longer term; and
 - develop a clear mechanism for selection using the scoring criteria included in Appendix 9C to assess the likely success of the plan and the template included in Appendix 9D for submission of plan particulars to the *Project Manager* (an example is provide in Appendix 9D).

9.6 Advance Notification of the Works

Where the *Contractor* is the Principal Contractor they will notify occupiers of properties affected by the *works* in advance of activities commencing in any given location as follows:-

The *Contractor* shall produce Information Sheets and submit them to the *Project Manager* for acceptance at least 4 weeks prior to commencement of the site activities.

The *Contractor* shall produce and distribute accepted Information Sheets to local residents and businesses as identified in the Community Liaison Plan at least 2 weeks prior to the site activities commencing.

The Information Sheets shall be printed by the *Contractor* onto standard Crossrail Public Information A4 templates, with translation boxes, in the format included in Appendix 9E. As well as the requirement to print translation boxes, a toolkit to enable information to be communicated in accordance with the *Employer's* inclusivity commitments shall be given to the *Contractor* by the *Project Manager*.



The *Contractor* shall produce an electronic copy of each Information Sheet. The *Contractor* shall ensure that each Information Sheet is supplied to the *Employer* in a form suitable to be published on the *Employer's* website at the same time as printed information sheets are hand delivered.

In the event that there are fewer than 4 weeks between the *starting date* and commencement of activities, information shall be provided as soon as practicable and with regard to the requirement to distribute Information Sheets at least 2 weeks prior to the site activities commencing.

Any activities which are likely to have an impact on the local community beyond that of normal working (e.g. delivery of large plant, weekend working for specific activities, road closures etc.), or any changes to the duration of the activities from that supplied in Information Sheets prior to the start of the commencement of site activities, will require the *Contractor* to produce additional Information Sheets, detailing the location, nature and expected duration, expected disruptions and the measures being taken to minimise or mitigate adverse impacts of these additional activities.

The *Contractor* shall ensure that where the *Employer* has given specific undertakings or assurances to provide information to the community in advance of specific work activities (for example 2 weeks notice of the passage of tunnel boring machines under properties) that these legal duties are complied with.

The *Contractor* shall:

- submit these additional Information Sheets to the *Project Manager* for acceptance 4 weeks prior to the related works commencing or in the case of emergency works or overruns, immediately after the *Contractor* is aware that these works need to take place; and
- produce and distribute accepted Information Sheets to local residents and businesses likely to be affected at least 2 weeks prior to the construction activity taking place, or in the case of emergency works or overruns, immediately after the *Contractor* is aware that these works need to take place.

The *Contractor* shall ensure the distribution of Information Sheets to the area specified in the Community Liaison Plan. It is noted that this will be the subject of performance and quality measurement and audit by the *Project Manager*. 9.7 Not Used 9.8 Not Used

9.9 Complaints & Enquiries

9.9.1 Crossrail Public Helpdesk

The *Employer* will operate the Crossrail Public Helpdesk 24 hours per day 7 days per week for the duration of the Contract to manage all complaints and enquiries from the public. The Crossrail Public Helpdesk provides a single point of contact through the Crossrail Public Helpdesk number. The *Contractor's* own helplines should not be publicised in relation to this Contract.



9.9.2 Enquiries and Complaints Received by the *Contractor*

The *Contractor* shall develop and implement a procedure for receiving and responding to complaints which shall include: a description of roles and responsibilities; investigation of complaints; response times and method of response; and of recording corrective and preventive actions taken. The *Contractor* shall submit the complaints procedure to the *Project Manager* for acceptance prior to the start of work.

The *Contractor* shall log and notify all enquiries and complaints received from the public or any other organisation or authority to the Crossrail Public Helpdesk and the *Project Manager*. The *Project Manager* shall specify the format in which logs are to be made.

The *Employer* will operate a complaints monitoring system to record and track complaints received.

The *Contractor* shall respond promptly to complaints or other enquiries notified via the Crossrail Public Helpdesk. .

9.9.3 Crossrail Complaints Commissioner

An independent Crossrail Complaints Commissioner has been appointed for the Programme by the Secretary of State. The remit of the Crossrail Complaints Commissioner is to impartially and fairly investigate any case where it is alleged that the *Employer* (the Nominated Undertaker under the Crossrail Act 2008) has not satisfactorily addressed a matter raised by a complainant. This role will also include:

- acting as a mediator in unresolved disputes between the Project and members of the public;
- making recommendations to the *Employer* (Nominated Undertaker) where action might be taken to satisfactorily address complaints, resolve disputes, or mitigate against the future occurrence of complaints or disputes;
- being Registrar of the Small Claims Scheme and mediating in the event that a claim for loss or damages has been turned down by the Administrator of the Small Claims Scheme and the applicant disputes the decision (the Crossrail Complaints Commissioner can make financial recommendations if the applicant has suffered a loss or damages of up to £5000); and
- advising members of the public who are unhappy with any aspect of the construction of Crossrail Programme on who to complain to.

The *Contractor* shall provide information as requested by the *Project Manager* for the Crossrail Complaints Commissioner.



9.10 Small Claims Scheme

The *Employer* operates a Small Claims Scheme, the purpose of which is to provide for the prompt and convenient resolution of minor claims for physical damage to property up to a maximum value of £5,000 for any one occurrence, arising from the construction of the *works*. The scheme is available to householders, farmers, commercial and other organisations having an interest in land or property but not to local authorities and government departments or agencies. The *Employer* has appointed a Small Claims Scheme administrator (whose identity will be notified to the *Contractor* from time to time) who shall be responsible for administering the scheme, investigating any potential claims notified and deciding whether any resulting claims are warranted. The Small Claims Scheme does not affect a property owner's statutory rights and property owners are not obliged to use the scheme.

The *Contractor* shall provide a point of contact for the Small Claims Scheme who shall assist in enabling claims to be progressed promptly in liaison with the *Project Manager* and the *Employer*.

The Crossrail Public Helpdesk shall be the focal point for claimants under the scheme. This *Employer's* main loss adjusters who will decide whether any claim falls within the Small Claims Scheme and should therefore be passed to the Small Claims Scheme administrator for resolution.

If the *Contractor* receives a claim, or becomes aware of an incident likely to give rise to a claim under the scheme, he must immediately notify full details to the Crossrail Public Helpdesk. The *Contractor* co-operates in obtaining and providing any information required in connection with any claim.

Where the Small Claims Scheme administrator considers that a claimant is entitled to compensation in respect of a qualifying claim he shall assess the amount of compensation and, subject to the claimant agreeing to settle the claim for that amount, shall arrange for payment to be made to the claimant.

If the claimant is dissatisfied with the Small Claims Scheme administrator's assessment he may write to the Crossrail Complaints Commissioner requesting the Crossrail Complaints Commissioner to mediate in the matter. If the Complaints Commissioner is unable to resolve the claim to the satisfaction of the claimant, then the claimant may request that the claim is submitted for expert determination under the dispute resolution service of the Royal Institute of Chartered Surveyors.

Where a claim arises as the result of an event which is at the *Contractor's* risk under the contract, amounts paid to the claimant, whether determined by the small claims administrator the Crossrail Complaints Commissioner or an expert appointed under the dispute resolution service of the Royal Institute of Chartered Surveyors, will be retained from the *Contractor* in accordance with the conditions of contract.

9.11 Publicity

The *Contractor* shall not, except with the consent of the *Employer*



- make any comment to the press regarding the *works*, give interviews, allow interviews to be given, or take part in programmes relating to the *works*;
- issue press releases or other text, artists' impressions, filmed images, drawings, plans, CAD Data, photographs or similar relating to the *works* to the media;
- issue publicity material or exhibit any text, artists impressions, filmed images, drawings, plans CAD Data, photographs or similar relating to the *works*;
- publish any communications, including internet communications, relating to the *works*;
- use site hoardings or notices, or allow them to be used, for the purposes of advertising; or
- use images or text relating to the *works* for advertising/publicity purposes.

The *Contractor* shall manage the display of information on site hoarding. The *Contractor* shall:

- carry out any amendment to the information displayed as soon as practicable after receipt of notification of the amendment from the the *Project Manager*, and in any event not later than one week after receipt;
- display a plain English description of any Section 61 applications and any dispensations that have been approved by the local authority, including working hours, activities, noise control measures in place and a look-ahead of forthcoming works; and update this information at least monthly; and

The *Contractor* shall cooperate with the *Employer* and the *Project Manager* in media events, publications, film or photography shoots and press visits to the Site.

When requested by the *Project Manager* for information to respond to a media enquiry, the *Contractor* must supply the information requested within 1 hour of the request.

9.12 Appendices

Appendix 9B	Community Liaison Plan Template
Appendix 9C	Community Investment Programme Example Criteria
Appendix 9D	Community Investment Programme Template & Example
Appendix 9E	Crossrail Public Information Template

Appendix B: Site Assessment Checklist—Area Evaluation

(For our project team's own use)

Local Community:	
Contractor in charge:	

Type of Local Community

Residential	
Commercial	
Reservation	
Attraction	

NOTE: Commercial Area reflects any business centers, shopping malls, restaurants, and local markets.

Reservation reflects any green fields, parks, historical buildings and designations.

Estimated Affected Distance near Construction Site

INCLUDING:

Noise Vibration Dust-Affected Areas
Affected Public Areas and Facilities
Affected Public Transportation

0-10 m	
10-20 m	
20-30 m	
30-40 m	
40-50 m	
50-100+m	

Construction site current working task:

Any Noticeable Construction Impacts on Local Community:

Additional Comments:

Picture checklist

	Construction Site Underground
	Construction Site on Surface
	Residential Housing
	Commercial Areas
	Central Place Influenced by Community Investment Program (Before and After)
	Contractors and Employees

Appendix C: Online Survey Guideline for Contractors and Employees

We are an independent student research team from United States. We study in one of the engineering universities near Boston and we are here to help develop the Community Investment Program. Our main goal is to develop some effective benchmarks to assess the impact of CIP on local communities. The purpose of this survey is to allow us to learn more about Community Investment Program and to gather different opinions on it

We appreciate you taking the time to complete this survey to help us achieve our goal.

This survey should take no more than 510 minutes of your time. Your responses will be held in complete confidence. Your answers will be complete anonymous.

Any questions marked with an asterisk (*) require an answer in order to progress through the survey.

If you have any question about this survey, please feel free to contact Yi Sun, by email: YiSun@crossrail.co.uk.

Q1: Working Site*: _____

Q2: Have you ever heard about the Crossrail Community Investment Program*?

Yes (Go to Q3)/No (Go to Q12)

Q3: Have you ever participated in the Crossrail Community Investment Program*?

Yes (Go to Q4)/No (Go to Q15)

Q4: How useful do you think the Community Investment Program is in improving local communities*?

(Not useful) **1 2 3 4 5** (Very Useful)

Q5: How regularly does your contract deliver Community Investment Initiatives*?

Never	
Rarely	
Occasionally	
Often	
Regularly	

Q6: How often are you involved in Community Investment Programs*?

Never	
Rarely	
Occasionally	
Often	
Regularly	

Q7: Do you enjoy participating in your contract's current Community Investment Initiatives*?

Yes/No/NA

Q8: What type of Community Investment Programs do you prefer in your working community*?

PLEASE RANK:

Educational

Renovation Work

Social Welfare

Economic Development/ Employability

Other, please specify:

Q9: Do you think that the program(s) you are involved in have a positive impact on the local community*?

No/NA/Yes, please specify:

--

Q10: If you could influence the Community Investment Program, what would you recommend?

--

Q11: Do you have any other comments or ideas that pertain to the Crossrail Community Investment Program?

--

Survey Finished

Thank you for completing this survey.

Q12: Crossrail Community Investment Programme requires Crossrail contractors to donate their skills, time, money, and expertise to bring long-lasting benefit to the communities in which they are working.

Do you want to learn more about the program*?

Yes (Go to Q13)/No (Go to Q17)

Q13: How would you like to learn about this program*?

Crossrail Website	
Workshops	

Crossrail Internal Communications	
Workshops at local construction site	
Other, please specify	

Q14: Are you interested in participating in any Crossrail Community Investment Program*?
Yes/No

Q15: If you would like to participate in the program, what part would you want to be involved in*?

- Design, Organization, and Participation
- Design and Organization
- Design and Participation
- Organization and Participation
- Participation Only
- Design Only
- Organization Only

Q16: What type of Community Investment Programs do you prefer in your working community*?

PLEASE RANK:

Educational

Renovation Work

Social Welfare

Economic Development/ Employability

Other, please specify:

Q17: Do you have any other comments or ideas that pertain to the Crossrail Community Investment Program?

Survey Finished

Thank you for completing this survey.

The survey was post on Survey Monkey and the formatting was different than what is displayed in the Appendix. However, all of the content is the same.

Appendix D: Paper Survey for Affected Residents

Introduction:

The main purpose of this survey is to understand your opinion, in order to establish benchmarks to evaluate the effectiveness of the Community Investment Programme for Crossrail.

Thank you for your time.

Please select the option that applies.

- Have you ever heard about the Crossrail Community Investment Programme?

Yes/No/NA

- Do you know about the programme(s) that was/were initiated by Crossrail's contractors in your community?

Yes/No/NA

If yes, give a brief description of the programme based on your understanding?

1-5 Evaluation (1 Strongly Disagree --5 Strongly Agree) Community Investment

Programmes

- Do you agree that the Community Investment Programmes had largely affected your local community?

(Strongly Disagree) **1 2 3 4 5** (Strongly Agree)

- Do you agree that the Community Investment Programmes had a positive impact on your life?

(Strongly Disagree) **1 2 3 4 5** (Strongly Agree)

- Do you agree that the Community Investment Programmes in your local area are well designed and suited for your needs?

(Strongly Disagree) **1 2 3 4 5** (Strongly Agree)

- Do you agree that the Community Investment Programmes in your local area are well designed and suited for the community as a whole?

(Strongly Disagree) **1 2 3 4 5** (Strongly Agree)

-
- Is there anything you would like to improve or change in your local community?
 - Please briefly explain your answer.

- What groups of people do you think should be targeted in these Community Investment Programmes?
 - Please briefly explain your answer.

- Would you like to see more Community Investment Programmes to be launched in your local area? If yes, what kinds of programmes would you like to have?
 - Please briefly explain your answer.

- Any other suggestions, concerns, or comments for the Community Investment Programmes and Crossrail?

Appendix E: Guideline of Semi-standard Interview with Crossrail Contractors

Name:		Gender:	
Occupation:		Work Site:	
Contact Email Address:			

General Information Questions:

- Normal Working Hours on Site:
Monday to Friday:
Weekend:
- Please give a brief background description of your working site.

Community Investment Program Questions:

- What Community Investment Program(s) did you initiate or participate in before?
- What are the main factors that affect the decision of what type of Community Investment Programs should be implemented?
- Would you like to donate more time or more money to this program? And why?
- Do you have any budget for the program(s)? Is it a long-term budget?

If yes, ask further about where the budget comes from

Contractors and Employees' Donation	
Contractors' Donation	
Employees' Donation	
Charity Funding	
Borough Government Funding	
Other	

Please describe your program(s) in detail

- What problems did you face while trying to implement your Community Investment Program(s)?
- Have you thought about getting feedback from affected members from the community?
- How do you currently evaluate the effectiveness of your program(s)?
- Have you thought about getting feedback from employees and contractors who participated in the Community Investment Programs?
- What could have been done differently to improve the program's effectiveness and make it more beneficial to the community?

Do you and your employees enjoy being involved in the program? Why and why not?

Please explain briefly.

Appendix F: Guideline of Semi-standard Interview with Officers

Name:		Gender:	
Occupation:		Working borough:	
Contact Email Address:			

General Information Questions:

- Please briefly describe your local community.
- Community Checklist:

Large Commercial Centre	
Large Construction Site	
Local Industry	
Charity	
Residential housing	
Other	

Questions about the Local Community:

- What charities and community services are activated or completed in your local area?
- How does the borough government work with local charities and large companies to deliver Community Investment Programs and other community services?
- What groups of people do you think should be offered more help while delivering Community Investment Programs?
 - Why?
 - What programs have already been processed in order to help these people?
- What areas do you think should be improved in your local community?
 - Why?
 - What programs have already been completed to improve these areas?

Please describe your program(s) in detail

- What problems have you faced while trying to implement your program?
 - Major Challenges in delivering or asking for feed back
 - Major challenges in working with different Charities and construction companies
- How do you currently evaluate the effectiveness of local charities and Community Investment Programs?
- Have you received any feedback from residents in the local community about Charities and Community Investment Programs and from employees and volunteers who work for local charities and Community Investment Programs?

Give a brief summary.

Appendix G: Paper Survey for Students in Swanlea School

School:

Year:

Please circle the option that applies to you

- Have you ever heard about Crossrail?

Yes/No/NA

- Have you ever seen the Crossrail Logo in your local area?

Yes/No/NA

- Have you ever been curious about what Crossrail is and what do they do?

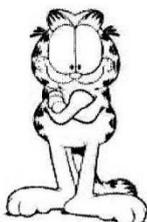
Yes/No/NA

- Have you ever participated in any event held by Crossrail?

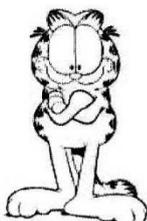
Yes/No/NA

Please circle the picture that describes your feelings.

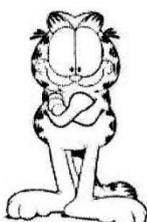
- How do you feel when you participate in Family Fun Day with Crossrail volunteers?



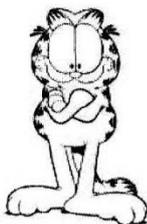
- How do you feel when you can take part in Crossrail's Open Day?



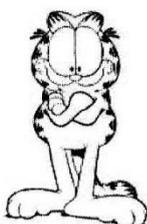
- How do you feel when you can learn about construction and engineering?



-
- How do you feel about painting, decorating, and role playing?



- How do you feel about participating in a Crossrail site tour to learn about Crossrail and to share with friends and families?



- Is there anything you would like to improve or change about the event with Crossrail's volunteers?

- Please briefly explain your answer.

- Would you like to have more events with Crossrail's volunteers in school or after school? If yes, what types of activities would you like to have, such as science, reading, arts and etc.?

- Please briefly explain your answer.

Appendix H: 2013 London Poverty Profile

Following Figure 21 displays the percentage of working aged adult who are unemployed in each borough.

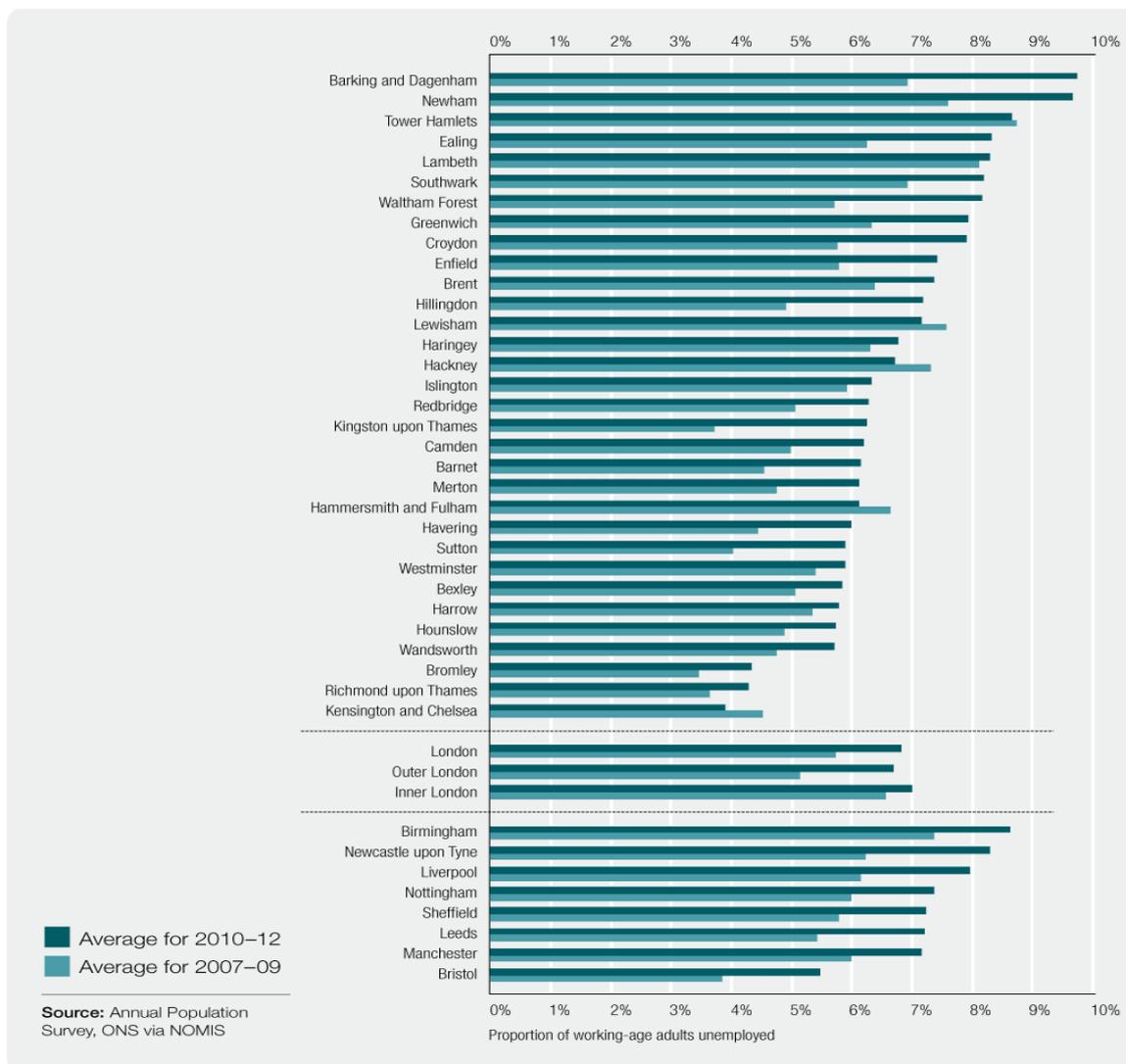


Figure 21. Proportion of Working-age Adults Unemployed

From Figure 21, we can see that the Tower Hamlet, Islington and Greenwich have the highest unemployment rate, yet the average of different borough we studied all have a relatively high unemployment rate and tend to show an increase in this proportion like Westminster. Community Investment Programs that address employability or provide some job training can be initiated more in these communities.

Following Figure 22 displays the proportion of people in low-paid work by the borough of residence.

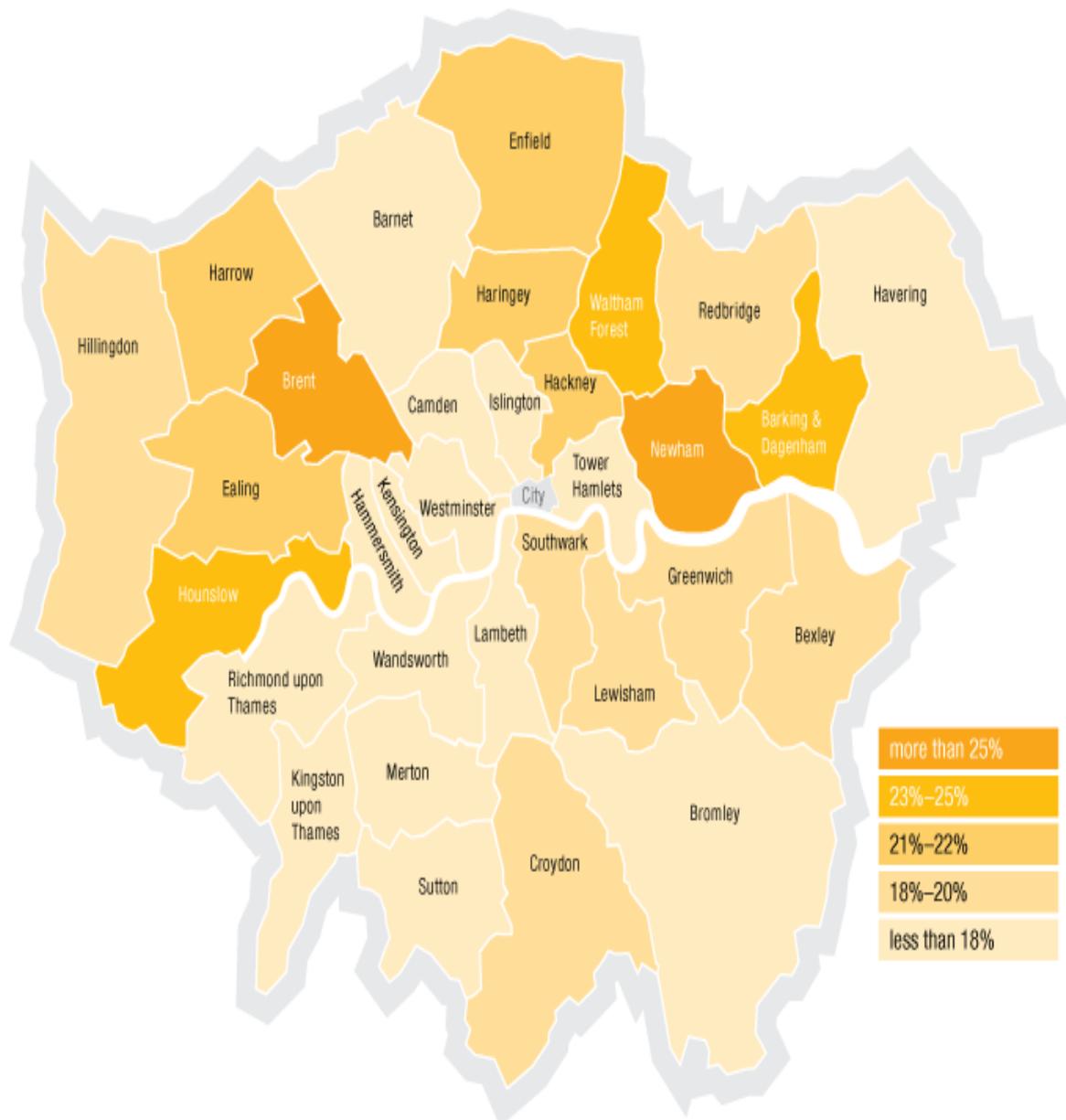


Figure 22. Low-paid Residents by borough

Figure 22 shows households accepted as homeless people by borough. Nine out of the ten boroughs with the highest proportion of households accepted as homeless are in Inner London. According to Figure 22, we noticed that most of the boroughs we studied, including Westminster, Islington, Tower Hamlets, and Kensington, actually have less than 18 percent low-paid residents, except for Greenwich and Hackney.

Following Figure 23 displays number of people who are accepted as homeless out of 1000 people in each borough.

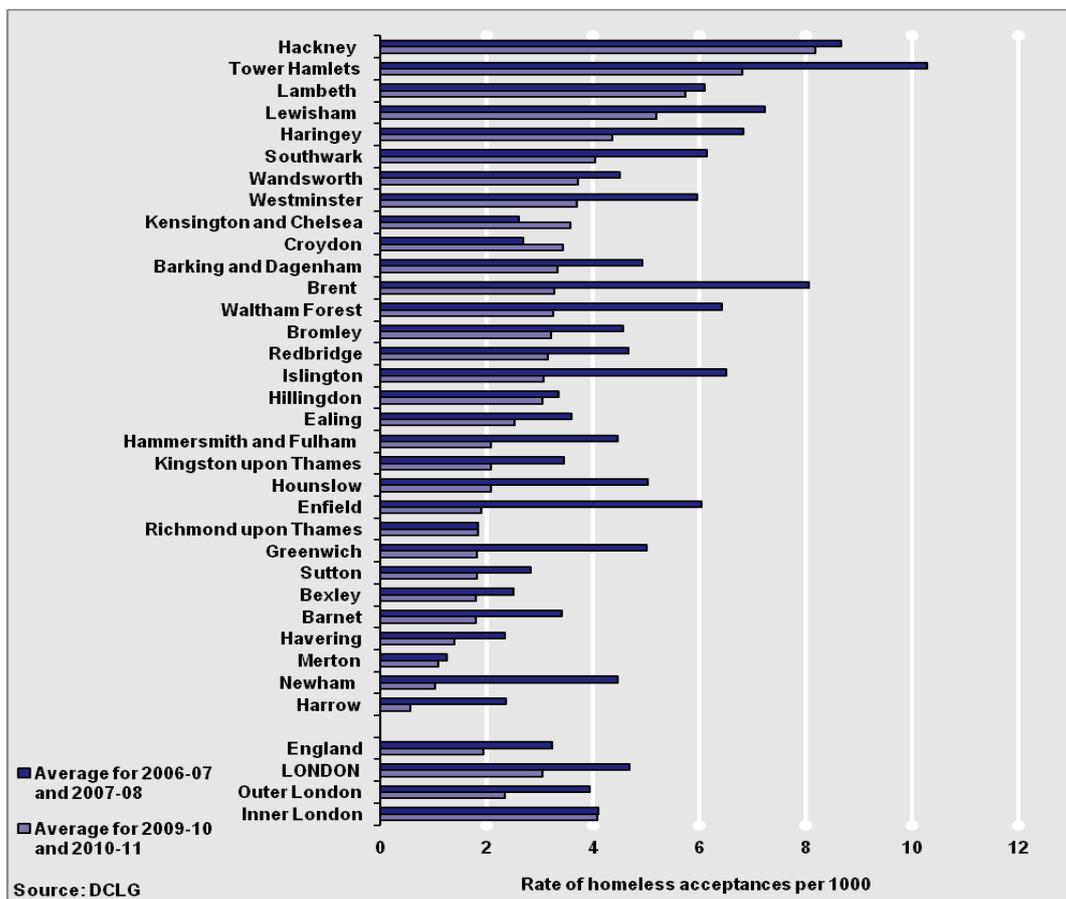


Figure 23. Rate of Homeless Acceptance Per 1000

From Figure 23, we can see there are stark differences in the proportion of households accepted as homeless across the London boroughs. The rate of homelessness in Hackney and Tower Hamlet, where the Whitechapel construction site is, is 8 times higher than in Harrow and Merton, which has the lowest average for 2009 to 2010 and 2010 to 2011. Westminster and Islington are on average, yet all the boroughs have significantly decreased the number of homeless people from 2009 to 2011.

Following Figure 24 is showing the high income wards and low income wards by borough.

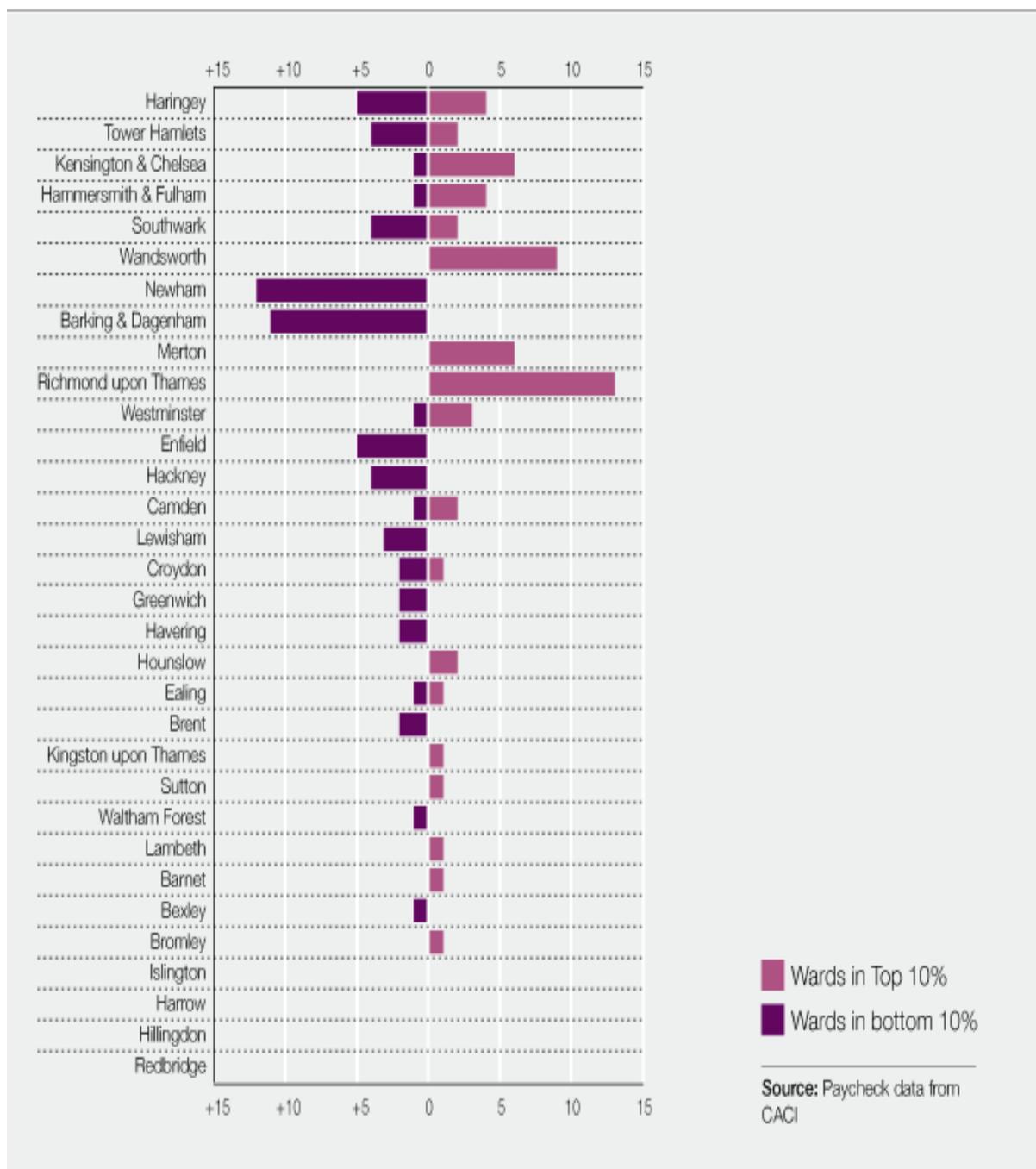


Figure 24. Income inequalities by wards within London borough

Tower Hamlets has one of the highest wards in the bottom 10 percent. Westminster, Greenwich, and Camden all have some amount of wards in bottom 10 percent. However, all these boroughs have some wards in the top 10 percent. One of the interesting findings is that Islington has no wards in the top 10 percent or the bottom 10 percent.

Following Figure 25 displays the underage pregnancy rate by borough in London and England as a whole

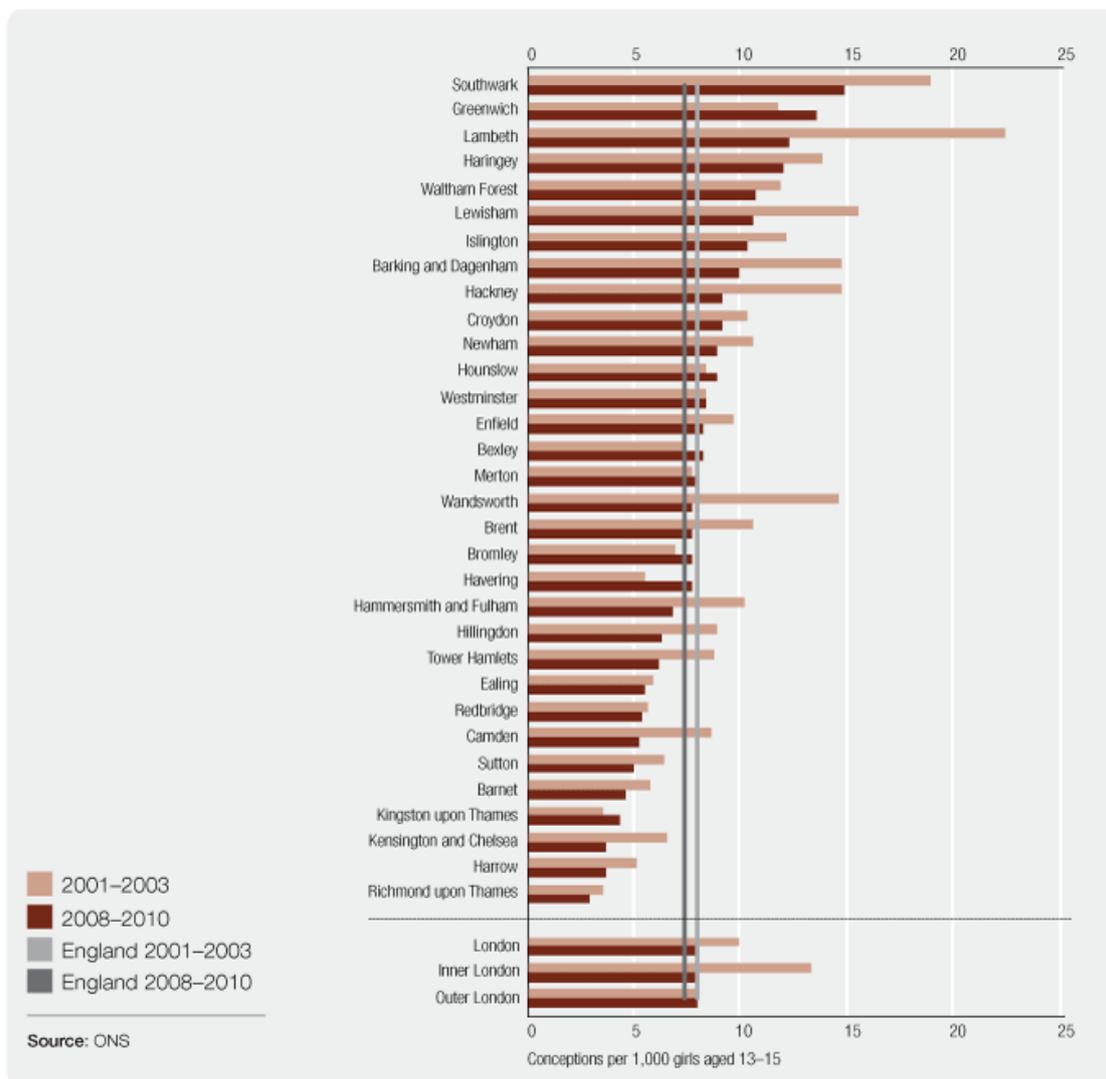


Figure 25. Conceptions per 1000 Girls aged 13-15

Figure 25 shows the number of pregnant girls who are aged from 13 to 15 per 1000. The level of underage pregnancies has fallen throughout London in the last decade. Almost all boroughs saw a fall, and the fall in London was 8 per 1000 in 2010, compared to 7.5 in England on average. Greenwich and Islington have a more serious problem than other boroughs that we studied. Other boroughs like Camden, Tower Hamlets, and Westminster have relatively lower number of underage pregnant girls from ages 13 to 15.

Following Figure 27 displays Primary School's availability in London

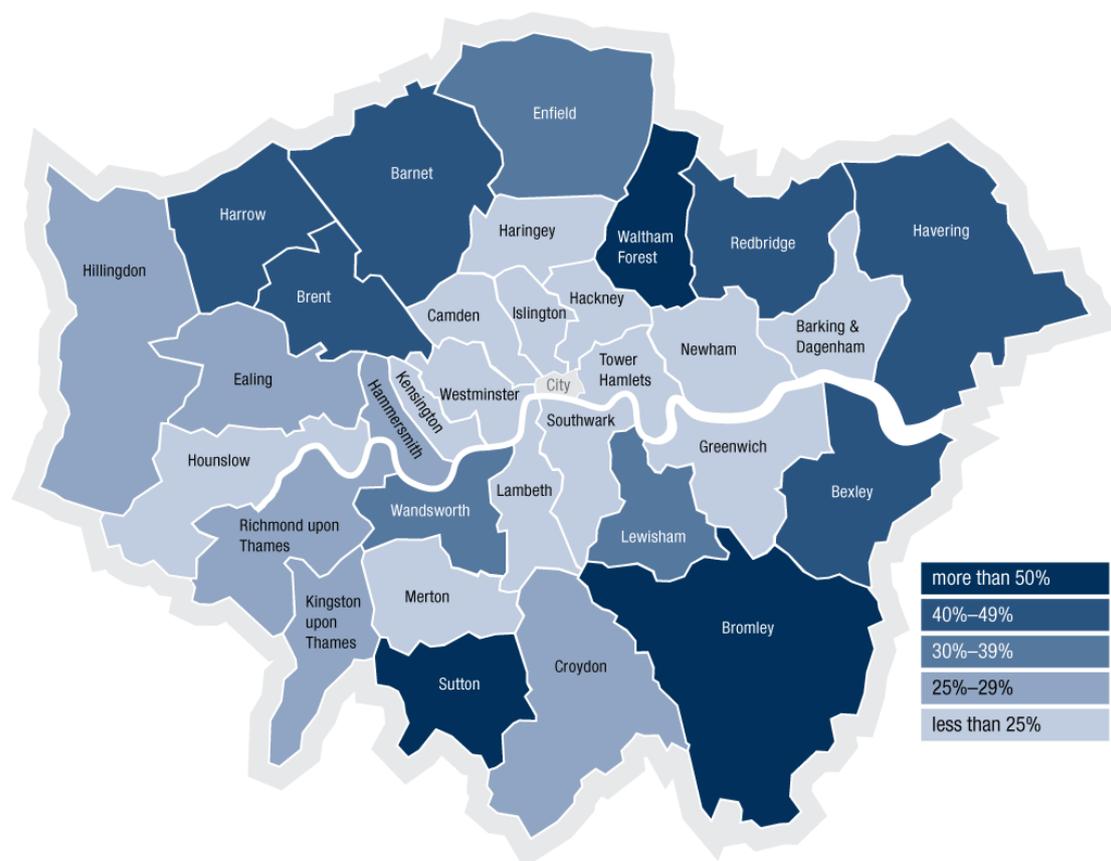


Figure 27. Primary School Availability by Borough

Figure 27 displays the availability of primary schools by borough. The map shows the proportion of schools in each borough that had no spare places or already had more children than places in 2011 to 2012. Inner London, including Westminster, Camden, Islington, Tower Hamlets, and Greenwich, have relatively small problems. They all have less than 25 percent primary schools that had no spare places or already have more children than places.

Appendix I: Preliminary CIP Questions for Contractors:

What is your goal?

How will you accomplish your goal?

What methods of evaluation will you use?

What are you putting into the CIP?

What are you getting out from it?

Appendix J: Goals and Outcomes Checklist

CIP Name:	
Type of CIP:	
Goal of CIP:	Education Requirements: Improve student performance, improve student confidence, improve student learning interest, improve availability of resources, improve school environment/facilities
Methods of delivery:	Renovation Requirements: Improve environment, provide more/better community facilities, increase local awareness of community events, increase the contributions, local residents feel safer in the community
Methods of evaluation:	Social Welfare Requirements: Improve charity's reputation, increase residents' social awareness, increase the social understanding, increase the scale of the program, targeted groups feel more comfortable in the community
Was the goal met?	Economic Development Requirements: Improve the participants' performance, increase job opportunity, increase the scale of the program, increase the ratio of female participants in engineering

Appendix K: Site Assessment Checklist—Area Evaluation

Local Community:		
Contractor in charge:		

Type of Local Community

Residential	
Commercial	
Reservation	
Attraction	

NOTE: Commercial Area reflects any business centers, shopping malls, restaurants, and local markets.

Reservation reflects any green fields, parks, historical buildings and designations.

Estimated Affected Distance near Construction Site

INCLUDING:

- Noise Vibration Dust-Affected Areas
- Affected Public Areas and Facilities
- Affected Public Transportation

0-10 m	
10-20 m	
20-30 m	
30-40 m	
40-50 m	
50-100+m	

Any Noticeable Construction Impacts on Local Community:

Areas that need to be improved in the community:

Construction site current working task:

Picture checklist

	Construction Site Underground
	Construction Site on Surface
	Residential Housing
	Commercial Areas
	Central Place Influenced by Community Investment Program (Before and After)



Sample Picture: Whitechapel
Construction Site



Sample Picture: Whitechapel
Construction Site



Sample Picture: Whitechapel
Community

Appendix L: Potential Outcomes, Indicators, and Data Sources Table

Potential Outcomes, Indicators and Data Sources for Crossrail CIPs				
	Education	Renovation & Refurbishment	Social Welfare	Economic Development
Outcomes	<ul style="list-style-type: none"> ● Improves student performance ● Improve student confidence ● Improve student learning interest ● Improve availability of resources ● Improve school environment & facilities 	<ul style="list-style-type: none"> ● Improve environment ● Provide more/better community facilities ● Increase local influence of community events ● Increase the contributions ● Increase the local residents' perception of safety in the community 	<ul style="list-style-type: none"> ● Improve reputation of Crossrail and contractors ● Increase participants' social awareness ● Increase social understanding ● Increase scale of the program ● Increase the participants' perception of comfort in the community 	<ul style="list-style-type: none"> ● Improve the participants' performance ● Increase job opportunities ● Improve young adults' employment skills ● Increase scale of the program ● Increase the ratio of female participants in engineering
Indicators	<ul style="list-style-type: none"> ● New knowledge sectors: Construction Engineering Transportation ● Learning Ability ● Teachers' feedback ● Students' and teachers' reporting of confidence ● Willingness to engage in the program 	<ul style="list-style-type: none"> ● Cleanliness ● Efficiency of energy use ● #/usage rate of facilities, gardens, and activity centres ● Reporting of awareness and participation ● #of hours, volunteers, and donations ● Reporting of feeling of community and safety 	<ul style="list-style-type: none"> ● Charity feedback /profile ● Reporting of the reputation ● # of reports ● Reporting of awareness and participation ● # of hours, volunteers, and donations ● Participants' reporting of feelings of comfort and confidence ● # of people live independently 	<ul style="list-style-type: none"> ● Skills ● Participants' reporting of confidence ● # of people into jobs in the local area ● # of participants receiving certification or qualification ● # of hours, volunteers, donations, and participants ● # of female participants.

	<ul style="list-style-type: none"> ● # of hours, volunteers, and donations ● Usage rate of facilities ● # of new facilities 			
Tools	<ul style="list-style-type: none"> ● Focus group /Interviews ● Teacher's feedback ● Student surveys ● Tracking sheet 	<ul style="list-style-type: none"> ● Borough reports ● Tracking sheet ● Safety reports ● Visual observation and rating scale 	<ul style="list-style-type: none"> ● Charity feedback ● Tracking sheet ● Focus group/Interview (CLP) ● Residents survey 	<ul style="list-style-type: none"> ● Interview/ Focus group before/after the program ● Tracking sheet ● Participants survey

Appendix M: Website



Crossrail Community Investment Program

The Community Investment Program is an initiative of Crossrail that says that all Crossrail contractors will perform Community Investment Programs in the areas that they are working. For seven weeks a group of students from the Worcester Polytechnic Institute have been working on determining benchmarks and indicators to judge the levels of success achieved by these CIP's. Their recommendations and conclusions have been compiled on this page to help contractors, Crossrail employees, and local participants assess the contributions that are being made and their impact on the local community.

Here you will find links to the following documents as well as instructions:

1. Site Assessment Checklist
2. Preliminary CIP Questions
3. CIP Goals and Outcomes Checklist
4. Outline of Benchmarks and Indicators for a Successful CIP
5. Examples of Past Successful CIP's
6. Link to Final Report

1.



Site Assessment Checklist for CIPs.docx

The Site Assessment Checklist is intended for contractors to complete before initiating a new Community Investment Program. This assessment will help guide the contractor to assess the need in the community whether it be related to education, renovation and refurbishment, social welfare, or economic development.

2.



Preliminary CIP Questions for Contractors.pdf

The Preliminary Community Investment Program Questions is intended for contractors to use once they have completed the site assessment checklist. Once the checklist is complete and the contractor has been directed towards a Community Investment Program, these questions should be completed to map out their desired outcome.

3.



Goals and Outcomes Checklist.pdf

The Goals and Outcomes Checklist is intended for contractors to use while implementing their Community Investment Program. This checklist tracks the Goal of the CIP, Methods of Delivery, Methods of Evaluation, and Outcome (Was the goal met?). This checklist also has the list of required outcomes for each type of Community Investment Program to remind contractors of program requirements.

4. Outline of Benchmarks and Indicators for a Successful CIP



Potential Outcomes Indicators and Data Sources for Crossrail CIPs.docx

The following charts displays the Benchmarks and Indicators designed for Community Investment Programs related to education, renovation and refurbishment, and social welfare, and economic development. These charts describe the outcomes and indicators (ways to measure the outcome) in an easily comprehensible manner.

5. <http://www.crossrail.co.uk/benefits/supporting-local-communities/>

Here you will find a link to Crossrail's Community Investment webpage, here you will be able to find examples of successful Community Investment Programs that have been initiated.

6. 
Crossrail Community Investment Final Report 2014.pdf

Here you will find a link to our final report. The final report includes our literature review, methods, results and discussion, recommendations and conclusion. This report includes all of the charts and checklist in this website as well.

Created by: Sean Greene, William Evangelakos, Yi Sun

Worcester Polytechnic Institute 2014

