

# Economic and regeneration impacts of Croydon Tramlink

J. Siraut

*Colin Buchanan and Partners*

## Abstract

Wider economic benefits beyond direct transport benefits are often claimed *ex ante* for major transport infrastructure projects. However, assessments of these benefits are rarely considered in official *ex post* evaluations. This paper considers the evidence of wider benefits of the new generation of light rail and tram schemes being developed especially in respect on Croydon Tramlink in Greater London. In particular, it examines the demographics and social profile of users, its impact on local employers and unemployment along the route, the effect on residential property prices, its impact on inward investment and perceptions and image of areas served. The analysis is based on both surveys of key stakeholders along the line of route and empirical analysis of economic indicators at the local level. The paper goes on to draw conclusions as to how to maximise the economic, social and regenerative impacts of future rapid transit schemes.

*Keywords: economic impact assessment, regeneration, tram, evaluation, social inclusion, Croydon Tramlink.*

## 1 Economic and regenerative impacts of Croydon Tramlink

Wider economic benefits beyond direct transport benefits are often claimed *ex ante* for major transport infrastructure projects. However, assessments of these benefits are rarely considered in official *ex post* evaluations. This paper examines the wider economic and regenerative impacts of Croydon Tramlink which opened in 2000 serving various local centres in South London.

### 1.1 Literature review

There is an extensive literature relating to the various wider economic impacts of light rail and tram schemes in Europe and North America. A significant



proportion of this literature is summarised in Royal Institute of Chartered Surveyors (2002) and Transportation Research Board (2002). However, there is no consensus about the nature or scope of the wider economic and regenerative impacts of public transport infrastructure projects. In part this is due to the differing nature of the towns and cities served and the type of service operated. It also reflects a lack of information on the marginal improvement in accessibility that the new public transit system provides and hence the absolute increase in accessibility that it brings.

The factors that have been identified as influencing whether and to what degree light rail/tram systems impact on the wider economy tend to fall under the following headings: transport impact; user characteristics; demographics; nature of area served; complementary transport policies; and complementary economic and regeneration policies. Each of these factors is examined below in relationship to both Croydon Tramlink and other light rail and tram schemes.

## 1.2 Transport impacts

For a tram system to have any significant wider economic impacts it must first have a significant transport impact. To be successful in transport terms the system must carry large numbers of passengers efficiently, reliably, speedily and safely. If it does this it will also tend to lead to a reduction in the growth of road traffic congestion and increase the use of public transport. In turn increased public transport use tends to lead to a concentration of economic activity in core areas served by its stops or stations. This concentration of economic activity has been demonstrated as a key driver of economic development and innovation in economic cluster theory. Concentrated economic activity (in its widest sense) also brings a degree of “buzz” to an area, enhancing its image and leading to further investment, so starting a virtuous circle. From a user’s perspective Tramlink is extremely successful carrying some 16m passengers a year of whom around 20% have transferred from cars. It is extremely reliable and receives very high customer satisfaction ratings.

## 1.3 User characteristics

Table 1 shows that nearly half of the journeys on the system relate to commuting to work or travel in the course of work, a fifth are for shopping/personal business, an eighth for education and a twelfth for leisure/recreation. It is apparent that the tram falls somewhere in between bus and underground use in terms of journey purposes. It is less work orientated than the underground and less shopping orientated than the bus. The one area where it underperforms both bus and underground is in terms of leisure which may reflect proportionately fewer leisure destinations served by the network. With regard to gender and age breakdown, use of the tram better reflects the population as a whole than either bus or underground. This is shown in tables 2 and 3.



Table 1: Journey purpose in London by mode.

Journey purpose	Percentage of total trips -				
	Croydon Tramlink	Bus use in outer London	Underground	National rail	Car
Work	48.5	31	55	64	29
Shopping/Personal business	19.8	31	14	11	37
Education	13.9	11	5	4	2
Leisure	8.1	27	26	21	32
Other	9.7				

*Source: Transport for London*

Table 2: Gender breakdown of London public transport users.

Gender	Percentage of total trips -		
	Croydon Tramlink	Bus use in outer London	Underground
Female	53.6	59	48
Male	46.4	41	52

*Source: Transport for London*

Table 3: Age breakdown of London public transport users.

Age group	Bus	Underground	Tram	London population
16-19	15	4	12	6
20-24	11	17	13	11
25-34	16	40	25	23
35-59	27	33	36	36
60+	31	5	13	24

*Source: Transport for London*

## 1.4 Demographics

Changing demographics can have a major impact on development potential. Families with children tend to migrate to low density suburbs while single person households and childless couples tend to be attracted to city centre locations and are often high frequency public transport users. A number of cities with light rail schemes have found increased interest in building high density residential developments in the central area or close by, often adjacent to transit stops. This has occurred in North American cities and in Manchester. With the growing number of single person households and childless couples this favours transit systems. Since Tramlink opened local estate agents report a noticeable trend of attracting young childless professionals to the area who work either in Croydon or more generally commute on into central London.

## 1.5 Nature of transit system

The impact of any transit system will depend on the marginal increase in accessibility that it delivers. Tyne & Wear Metro was principally a conversion of



an existing high frequency heavy rail system and delivered only limited improvements in accessibility. Its wider impact was therefore minimal. South Yorkshire Supertram was a completely new system with extensive on street running with minimal priority. This resulted in lower running speeds and therefore initially offered less than anticipated benefits over bus or car journey times. It did, however, operate in areas previously not well served by public transport and therefore helped to improve both their accessibility and image.

The greatest impact of a new transit scheme is likely to arise in the case of a system that has its own segregated running track and operates in an area or on a corridor not previously served by heavy rail. The least impact comes in areas where there is a straight conversion from heavy to light rail. Tramlink is a mixture of the two being in part a conversion from an existing heavy rail line (albeit with a fairly limited services) but also with considerable on street running and serving major housing estates that previously were poorly served by public transport.

### 1.6 Nature of area served

The type of area served and hence the role of public transport in those areas will also have a major impact on the wider role of transit systems. In densely built up metropolitan areas such as central London public transport is vital to the functioning of the city. A high proportion of residents use public transport not only to commute to work but for leisure and shopping trips. Easy access to the public transport system is therefore important to both businesses and individuals and is a key factor in determining property values.

Tramlink serves a population of some 180,000 of whom 92,000 are economically active, defined as in work or seeking work. Of those of working age 83% are economically active. Of the economically active approximately 5,000 are unemployed giving a route unemployment rate of some 6%. There are about 101,000 jobs located along the route highlighting the degree of in commuting to the area. A third of the areas served by the tram were classified as being in 20% least accessible areas in London before the tram opened.

### 1.7 Complementary transport policies

The absence or presence of complementary transport policies can have a major impact on the success of light rail/tram systems. These can include:

- Provision of car parking at light rail/tram stops to promote park and ride;
- Integrating light rail/tram with other forms of public transport via ticketing, interchanges, timetabling;
- Traffic management;
- Pedestrianisation of roads served by light rail/tram; and
- Control and reduction of car parking in central areas served by light rail/tram.

Where measures such as these are taken as in Strasbourg patronage can be positively impacted. However, in Sheffield patronage on the system was badly



affected by competition from the deregulated buses and the lack of priority measures in the on street running sections. Nevertheless, unless there is a willingness by people to change their mode of transport then some of these policies will not work. Some US cities with very high car use, for example, found that restricting car use just led to people changing their destinations to the disbenefit of city centre retailers rather than transferring to the new light rail system.

### **1.8 Complementary wider policies**

The impact of any particular transport schemes can either be nullified or facilitated by other policies undertaken by national and local government. There are many examples of authorities missing opportunities in this respect.

Between the time that the route of the South Yorkshire Supertram was agreed and its opening major changes were made to housing policy in the city most notably the demolition of high density estates adjacent to the line. These estates were either not replaced or replaced at a far lower density. In Tyne & Wear government money was provided to improve road links and other regeneration activities in areas not served by the Metro thereby attracting development and investment to these sites. Dublin has given planning permission to low density housing developments close to stops on LUAS (the new light rail system presently being built) thereby undermining the densities which may have been achieved.

On a more positive note other authorities have allowed higher development densities for sites served by light rail stops. As a result demand for development has been such that a number of US cities have allowed park and ride sites to be closed and replaced by high density housing.

New transit schemes can be major employers but rarely has the opportunity been taken to train local unemployed people to take up the new posts as they come available. Neither has much thought been given to provide training to those in deprived areas who now have the opportunity to access employment opportunities outside their areas. In essence few government agencies have thought about the potential benefits that new transit schemes can bring and adapted their policies to make best use of them.

### **1.9 Serving regeneration sites**

A conflicting story emerges when it comes to serving regeneration areas. To be successful a light rail scheme needs to serve densely populated or developed areas. Serving great areas of dereliction does not deliver patronage. Others argue that serving such areas provides an opportunity for a light rail scheme to deliver wider benefits by encouraging developments to locate on these brownfield sites. The Beckton extension of the Docklands Light Railway highlights both the benefits and disbenefits of this argument. Following the success of developments in the Isle of Dogs the extension was built with the aim of kick starting development in the Royal Docks area. However, development was far slower than anticipated with the result that patronage on the extension was relatively



low. Over time though the extension has undoubtedly attracted new investment into the area that otherwise would not have gone ahead.

South Yorkshire Supertram also served derelict regeneration areas in the Don Valley. After the service started there was a marked reduction in vacant land and buildings and increases in offices, housing and car parking in both the Upper and Lower Don Valley. In effect the tram increased developer confidence in the area even if occupiers of the developments were not major tram users.

When a scheme is under construction and opens in relation to the property cycle will also determine the scale of its wider regeneration impact. If this occurs as the property market is coming off the bottom of the cycle then the impact will be far greater than if it coincides with the peak and subsequent decline.

### **1.10 Commercial and retail development**

Mass public transport schemes tend to support strongly centralised commercial and retail centres as they allow higher numbers of people to access them than is possible by private transport. For site acquisition reasons it is also easier to redevelop commercial rather than residential areas of cities. In virtually all case studies the provision of new light rail schemes helped to maintain or re-establish the city centre's retail and commercial position. In the case of Newcastle this even happened despite the building of Gateshead Metro Centre (which is not served by the Metro) and helped to retain the former's position ahead of its new competitor. However, the same situation does not apply to Sheffield where Meadowhall (which is also served by tram and heavy rail) is ranked higher than the city centre. In part the issue is the strength or otherwise of the central area and its ability to survive the disruption caused during the construction phase. This was limited in Newcastle as the new construction works in the city centre were under ground but extensive in Sheffield where the city centre was already weak.

Docklands Light Railway and Manchester Metrolink extension to Eccles through Salford Quays, the old dock area of Manchester, have shown that light rail schemes can assist the regeneration of areas that were previously derelict. While the regeneration of Salford Quays is not as dependent on light rail as much as London Docklands its ability to attract high density executive housing is. House prices in Salford Quays are now twice the level of similar properties in the rest of the city.

### **1.11 Residential development**

Land accumulation for private residential redevelopment is difficult and this tends to limit such development along the route of new transit systems especially where the system is a conversion of an existing heavy rail route serving well established localities, for example, Tyne & Wear Metro and the first section of the Manchester Metrolink. Where there is space available for development, for example, Don Valley in Sheffield, Becton on the Docklands Light Railway and Salford Quays on Manchester Metrolink extensions new residential development has been facilitated. Vienna S Bahn has had considerable impact with population



growth and development concentration in those areas served by the light rail system with stagnation or even decline in those areas not served. In North America, where land tends to be more readily available there have been numerous examples of high density residential development being attracted to transit served locations.

However, there has also been resistance from existing residents to increasing development often densities resulting in new developments being refused permission. This has been especially the case in the US.

There are a large number of factors that determine property prices of which accessibility is only one. Previous research into the effect of transport on property prices has, not surprisingly, concluded that enhanced public transport has an impact where it is the principle or an important mode of transport (for example, in London and the South East) and has no or minimal impact in locations where private transport is dominant (that is, most other parts of the UK).

To assess the impact of Tramlink on property prices it has to be assumed that the other factors that determine price levels have not changed their relative importance over the time frame being studied and that any difference in property prices between areas served by Tramlink and those not are solely down to the tram. This is obviously an over simplifying but necessary assumption.

In Croydon property prices in areas served by the tram rose by 4% more than those that are not off both during construction and after opening. The increase after was larger than that before. This would suggest that there was some anticipation of the opening of the line and the effects have been even more pronounced after opening. In other areas served by the tram there has been no discernible difference in the movement of property prices vis a vis areas not served.

Compared to London as a whole, property prices in the Boroughs served by the tram rose more slowly than average before it opened while since opening they have risen faster most notably in Croydon.

### **1.12 Impact on individuals**

Tramlink benefits individuals by improving their accessibility to a wide range of destinations. The biggest beneficiaries are those who previously were unable to use other modes of transport or when previously used modes were less frequent, reliable, slower or required changes.

The fact that Tramlink is fully accessible has radically improved the accessibility of those with mobility impairments who live along the route. According to the mobility impaired themselves it has enabled them to access employment opportunities, community facilities, retail centres, social welfare and leisure facilities that previously they often could not access independently. Whilst, they form only a small proportion of mobility impaired passengers the number of wheelchair users on the system is a highly visible indicator of the benefits provided by Tramlink.

By providing a fast, frequent and reliable service Tramlink has also radically improved access for areas previously poorly served by public transport, most



notably, in the New Addington area. This has enabled the local Job Centre to place residents in employment as far afield as Wimbledon.

### **1.13 Impact on employers**

The benefit that employers have obtained from Tramlink depends on the nature of their organisation, the skills they are looking to recruit and their location. Employers that recruit lower skilled workers have benefited from an extension to their catchment area especially into New Addington and from the tram's long operating day.

Employers along the route have also noted it is now easier to recruit staff from further a field especially in those areas were previously poorly served by local public transport. Employers use the tram to attract staff not only by advertising on it but also in newspaper adverts.

An interesting benefit highlighted by some employers has been a more punctual workforce thereby raising productivity. These points highlight the tram's reliability. Other employers have found it easier to second or transfer staff between sites along the route thereby improving flexibility and allowing development opportunities for staff, one example being a major multiple retailer.

### **1.14 Impact on businesses**

The majority of businesses in the Croydon area regard Tramlink as having a positive impact on their business, helping to raise their profile, increasing customer numbers and business activity.

Tramlink is most visible in Croydon and has brought renewed confidence to the area. It is evidence that major changes can occur at a local level and represents a strong marketing tool to convey Croydon as a place with drive, ambition and a "Can do" philosophy. Major developments are now taking Tramlink into account and high profile office based employers have recently moved in, quoting high accessibility as a key factor in their choice.

Whilst the retail sector was negatively impacted during the construction period, footfall in Croydon centre was supported by Tramlink during major retail redevelopment. In addition contrary to initial fears, it has not generated a drift of shoppers to Croydon at the expense of other centres along the route.

### **1.15 Conclusion and lessons for future systems**

As expected Tramlink's impacts as perceived by stakeholders are varied and very difficult to quantify. However it is clear that it has had the following impacts:

- Radically improved orbital access across South London;
- Markedly raised the profile of Croydon but not other centres served by the system;
- Assisted in attracting high profile inward investors to Croydon;





- Facilitated some commercial development along the route;
- Attracted young professionals to the area leading to a slight increase in property prices;
- Made recruitment marginally easier and improved productivity through better punctuality;
- Improved the job prospects of the unemployed residents of New Addington;
- Improved the accessibility of the mobility impaired and socially excluded especially in New Addington and to a lesser extent at Phipp's Bridge;
- Maintained footfall in central Croydon during major retail redevelopment;
- Enabled the upgrading of a number of retail outlets within Croydon; and
- Benefited the residents of the areas it served broadly in line with their age and gender, that is, the benefits have not been biased towards any particular group.

It has, however, had less of an impact on other centres such as Wimbledon but it has not led to the downturn of smaller centres which was a concern when the system was being planned and built.

To maximise the benefits of future systems, besides ensuring that it offers a high quality transport service and integrates to other transport systems, the areas to be served need to ensure that:

- They use the goodwill and feel good factors generated by new light rail/tram schemes to aggressively market their areas;
- Training schemes are put in place to enable residents to take up the employment opportunities that become available to them through improved accessibility;
- The system is highly visible and associated stops are of a high quality; and
- Planning policies facilitate appropriate residential and commercial developments around tram stops.

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