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# INCOMPLETE STREETS

PROCESSES, PRACTICES, AND POSSIBILITIES



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# 4

## URBAN SPATIAL MOBILITY IN THE AGE OF SUSTAINABILITY

*Themis Chronopoulos*

The fall 2007 issue of the *Transportation Alternatives Magazine* highlighted “The Complete Streets Revolution.” Various articles provided overviews of how the streets of New York City were surrendered to the needs of the automobile during the twentieth century and contended that this trend was undermining the quality of urban life. The articles also underscored the determination of the contemporary city government in reversing this trend through the creation of green streets, and emphasized the important role of Transportation Alternatives (TA) in advocating Complete Streets.<sup>1</sup> The writers of the magazine viewed Complete Streets as one of three important complementary policies that sought to reduce the dominance of the automobile in urban infrastructure; the other two were congestion pricing and parking reform. Congestion pricing sought to charge drivers to enter a large portion of Manhattan while parking reform called for the elimination of free curbside parking on residential streets. According to TA, the proceeds from congestion pricing would fund mass transit (In Focus 2007).

TA magazine’s issue on Complete Streets was published a few months after Mayor Michael R. Bloomberg (2002–2013) announced a plan to make New York the most livable and sustainable city in the world, and the simultaneous release of a blueprint entitled *PlaNYC: A Greener, Greater New York* (City of New York 2007). The proposals of PlaNYC were more far-reaching than those of TA and included six general categories: Land, Water, Transportation, Energy, Air, and Climate Change. PlaNYC included no plan to charge for street parking in non-commercial areas. Moreover, there was no emphasis on Complete Streets, though proposals spread in different parts of the report resembled some elements of the scheme. However, a plan for congestion pricing was featured prominently, and in the months that followed the Bloomberg Administration promoted it with unusual fervor.

Although a year later, New York City's Department of Transportation (DOT) announced a program called "Sustainable Streets" that gradually made Complete Streets a prominent public policy feature in New York City (DOT 2008), the initial emphasis on congestion pricing is not surprising. The Bloomberg Administration accelerated the process of neoliberal urbanization in New York City under which most spheres of urban governance and urban living were increasingly permeated by the forces of commodification. Despite the encouraging signals of PlaNYC regarding environmental responsibility, the city government's main priority remained the enhancement of New York's global city status, so that it could attract more multinational corporations and affluent individuals (Brash 2011, 2012; Chronopoulos 2013). Congestion pricing was a measure originally proposed and championed by the Partnership for New York City, an organization comprised of the city's two hundred most important corporate CEOs that seeks to promote big business interests. After some lobbying, the Bloomberg Administration designed its own congestion pricing plan and tried to sell it as an environmentally shrewd smart-growth proposal that would reduce pollution, minimize automobile traffic, improve the provision of public transportation, and benefit New Yorkers of all backgrounds living in all locations of the city (Chronopoulos 2012).

This chapter examines urban spatial mobility in the age of sustainability with an emphasis on congestion pricing in London, Stockholm, and New York City. These three cities are the largest and most important urban centers in their respective countries with significance and outlook that are truly global when it comes to business and finance (Sassen 2001; Scott 2001). With the exception of Singapore, which introduced congestion pricing in 1975 (Phang and Toh 2004), London, Stockholm, and New York were the first global cities to propose such a system. Congestion pricing is a neoliberal proposal that, if implemented correctly, seeks to transform driving in certain parts of the city into an expensive undertaking that only the affluent can afford.<sup>2</sup> Given that most low-income people in large dense cities have no automobiles (Eliasson and Mattson 2006), congestion pricing generates a conflict between the middle classes and the upper classes (Chronopoulos 2012). This conflict is becoming a salient feature of neoliberal urbanization. As Jimmy Carter recently stated, many of today's middle-class people resemble Americans who lived in poverty when he was president in the late 1970s (Leff 2013). This trend goes beyond the United States and especially applies to residents of global cities in which the cost of living is becoming prohibitive for middle-class households. And while this conflict about congestion pricing itself does not involve as many low-income individuals, in such unequal societies and urban areas as the ones that have developed since the late 1970s, complementary spatial mobility proposals such as Complete Streets pose serious questions about access, inclusion, and social justice. As Aaron Golub (Chapter 3, this volume) observes, transportation planning has seldom taken into consideration excluded and marginalized populations, and the danger is that Complete Streets initiatives may be following the same path of urban exclusion.

## Neoliberalism as a political rationality

Neoliberalism goes beyond the realm of ideology and functions as a political rationality. According to Michel Foucault (2008), a political rationality operates as a normative political reason and has the capacity to organize state and society. Using this concept, Wendy Brown (2006, p. 693) argues:

While neoliberal political rationality is based on a certain conception of the market, its organization of governance and the social is not merely the result of leakage from the economic to other spheres but rather of the explicit imposition of a particular form of market rationality on these spheres.

In the realm of spatial mobility, this has profound implications. Mobility depends on prevailing power relations and restrictions in mobility can interfere with citizenship and individual rights (Cresswell 2006). However, under neoliberal urban governance, citizenship has been transformed from a possession of rights to a capacity to act (Rose 2000; Murray 2008). Powerholders guided by their period's ideological predispositions configure and organize space in ways that serve their interests (Chronopoulos 2011) and this includes the facilitation of certain types of movement and the restriction of others (Henderson 2009, 2013; Cresswell 2010).

Congestion pricing is a prime example of neoliberal political rationality. Despite the existence of other non-market mechanisms to reduce vehicular congestion in central urban areas, under a neoliberal political-economic system, the commodification of road use is presented as the only sensible and possible alternative. As Colin Leys (2001, pp. 211–212) argues:

Market-based provision of services is not just another way—allegedly more efficient—of providing public services. To be marketed they must be commodified, and commodification first transforms them into “products,” and then further transforms them into different products, serving different ends.

In that sense, urban spatial mobility with an automobile is rendered as environmentally and socially unsustainable, transformed into a transaction, and marketed as a product that in theory is governed by the forces of the free market. In practice, this type of spatial mobility becomes a privilege for affluent individuals who can afford to pay the fee and drive without experiencing interference from lower-income drivers (Chronopoulos 2012).

David Harvey (2005, p. 31) argues that above all “neoliberalization has been a vehicle for the restoration of class power.” Schemes like congestion pricing go beyond the realm of class power and enter that of class privilege, which is an expectation that the affluent develop once class power has been accomplished. Although class power achieved through the accumulation of spectacular levels of wealth is important, it is not fully realized unless its beneficiaries enjoy the privileges

that most ordinary people cannot. Under existing neoliberalism, social relations are defined through an expectation of deference under which ordinary people are obligated to defer to the elites. In most cases, the elites are able to buy such deference or at least the pretense of it. However, deference of any degree is not achieved whenever the elites drive in public roadways. Traffic rules apply to everyone and it is possible for affluent people to be delayed and inconvenienced by wage workers. Schemes like congestion pricing seek to restore class privilege to the elites in a realm that their affluence has been unable to penetrate (Chronopoulos 2012).

What has happened so far is that governments have not increased the congestion fee to levels that would exclude most middle-income drivers. This has occurred because elected officials are reluctant to relinquish the existing revenues from congestion charging and because they are fearful of potential political costs. This does not mean that congestion pricing is not a regressive tax or that it is not based on neoliberal reasoning. It means that the promises of significantly reduced congestion and cleaner air are not true. Middle-income drivers continue to pay fees while upper-income drivers still have to share the roads with them.

Congestion charging proponents argue that the scheme is successful because of a reduced number of vehicles in the congestion zones. However, this requires some qualification. In recent years most people's incomes have stagnated while the costs of owning and maintaining automobiles have increased considerably (Chapter 3, this volume). This has led to a stagnation in miles traveled that goes beyond congestion zones. This decline is not substantial enough yet to decongest city centers, despite the institution of fees. But the trend is there.

### **The implementation of congestion charging in London**

Officials designing their congestion charging plans in London were aware that opposition to the scheme threatened the electoral fortunes of local politicians, but also that this opposition declined if proceeds from congestion charging benefitted mass transit. Indeed, three MORI surveys in England (Commission for Integrated Transport 2000, 2001, 2002) found that public support for congestion charging at peak hours was only 27 percent, 37 percent, and 30 percent, respectively. However, public support increased to 39 percent, 54 percent, and 58 percent when the revenue raised from congestion charging was earmarked for mass transit. Similarly, the RCOL Working Group (2000) survey found that 67 percent of the public felt positive about congestion charging, if net revenues were used for transport improvements. The European Union's TransPrice (2000) project discovered a similar increase in support (to as much as 64 percent) when respondents were told that proceeds from congestion charging would be redistributed to improve transportation infrastructures. To be sure, drivers favored the improvement of roadways as opposed to non-drivers who preferred improvements in public transportation. Still, without public transportation improvements, popular support for road pricing schemes declined significantly.

The London congestion charge scheme began in February 2003 and covered a 22 square kilometer area in central London. The congestion charge area represented London's center of finance, entertainment, business, government, and law. Vehicles were charged a daily fee of £5 to drive or park on public roads inside the congestion charging zone between 7 a.m. and 6:30 p.m., Monday to Friday. Alternative fuel vehicles, motorcycles, vehicles for disabled people, emergency vehicles, London taxis, military vehicles, and roadside assistance vehicles were exempted from the charge. Car owners from inside the zone received a 90 percent discount. Weekends and holidays were excluded from the scheme. The main goals of the program were to reduce motor vehicle congestion, increase journey time reliability for car users, make the distribution of goods and services more efficient, and use net revenues to improve mass transit in London (TfL 2003a). These goals were achieved almost immediately. Vehicular congestion inside the zone decreased by 15 percent, mass transit was able to accommodate higher demand, car travel time improved, and mass transit also improved (*ibid.*).<sup>3</sup> When it came to the affordability of congestion charges, almost a quarter of drivers surveyed claimed that they were experiencing difficulty in paying it. In terms of geography, residents of Greater London experienced more difficulties in paying the charge than residents of Inner London, whereas borough residents were more likely to experience affordability difficulties than people living in the West End (TfL 2004b).

In London, congestion charging was implemented by Ken Livingstone, a leftist politician who was elected mayor in 2000 as an independent, because the Labour Party opposed his candidacy and expelled him. Livingstone's congestion charging was part of a comprehensive London plan (Mayor of London 2002). The plan for London argued that the local government should promote growth that is environmentally sustainable while protecting its existing residents from the underside of this growth. Livingstone's plan for London included many proposals that could be characterized as progressive, in effect, trying to combine corporate economic development with equitability and social justice. Livingstone was also aware of the neoliberal credentials of congestion charging and the dangers that such an imposition could cause to his political future. In an interview, he admitted that it was a policy that members of the Tories had been proliferating: "I was initially sceptical about the congestion tax. I was aware of the origins of the tax. It comes from the Thatcherite right. Milton Friedman and others have argued for it . . . It is a flat-rate tax, like the poll tax. It would not be the tax of first choice" (Beckett 2003). Besides its regressive nature, a congestion charging initiative was politically risky for Livingstone who would have to stand for reelection in 2004. Although members of Livingstone's administration were optimistic that once implemented, congestion charging would become popular with Londoners, the actual beginning of the program would be dangerously close to the election. Bob Kiley, Livingstone's Commissioner of Transport for London (TfL), advised him in the end of 2001 to delay the congestion charge scheme until he was reelected (Harper 2001). But Livingstone ignored that advice, tying his political career to the success and acceptability of congestion charging. He was confident that his mass transit

initiatives and his assurance that proceeds from congestion charging would be diverted to public transportation would assuage public opposition.

Toward that end, TfL implemented a number of bus improvements before and during congestion charging. In particular, TfL introduced new bus routes and larger buses; initiated faster direct service and frequency improvements of existing routes; and increased service in the evenings, nights, and weekends. In a few months, passenger capacity improvements had been introduced in 114 bus routes while there was also an emphasis on bus service reliability so that buses arrived on time and required less time to reach their destination. To improve the speed of buses, TfL enhanced driver training programs, introduced mechanisms for faster boardings, increased the number of bus lanes, intensified traffic enforcement in bus lanes, and improved infrastructure in bus stops. TfL also reduced the overall ticket cost for bus passengers (TfL 2002; 2003a; 2004a; Santos 2008). Other mass transit improvements included regular service increases in the London Underground after the central government handed it over to TfL in July 2003 and more departures in the National Rail and the Docklands Light Rail. Overall, mass transit in London improved to unprecedented degrees (TfL 2002, 2003b). Livingstone planned to continue improvements in mass transit by using the proceeds from congestion charging as well as other funds. In 2006, TfL announced a four-year plan that included the further improvement of bus service and mass transit accessibility, the development of segregated bus lanes and trams, and the enhancement of transport mode interchanges (Santos 2008). These improvements were embraced by Londoners. Passenger satisfaction reached the highest levels in the Underground's history and this with a higher ridership and more train kilometers traveled than before. Something similar happened with the other modes of transportation with London buses improving the most in terms of frequency, ridership, punctuality, and distances traveled. In 2004–2005, bus ridership grew to its highest level since 1965 (TfL 2005). An Ipsos-MORI poll in the lead-up to the 2005 general election showed that 40 percent of Londoners identified public transport as one of their defining voting issues. Nationwide polls in 2007 showed similar trends with support for congestion charging rising to 61 percent (from 49 percent) and opposition dropping to 21 percent (from 29 percent), if the revenue was invested in improving public transportation. In London, the percentages were probably higher given that its population utilized public transportation more and had consistently supported congestion charging in higher numbers than the people from the rest of the country (Klahr and Marshall 2007).

During his second term, Livingstone increased the congestion charge fee and almost doubled the congestion charging area. In July 2005, the charge was increased to £8 (TfL 2006). In February 2007, the charging zone was extended west to include Westminster and portions of Kensington and Chelsea while the charging hours were shortened by half an hour in the evening (Santos 2008). Bus and other mass transit services were improved in and around the extended zone before the new charge took place. The Western Extension did not make as much of a difference as the original congestion zone, mostly because the number of employees



in the original zone was more than one million as opposed to 170,000 in the area of expansion (TfL 2008; Santos 2008). In 2008, while running for a third term, Livingstone unveiled plans to charge 4x4 cars £25 a day and to exclude them from the 90 percent discount if they belonged to a driver from the charge zone.

In the election of 2008, Conservative candidate Boris Johnson defeated Livingstone. Congestion charging did not play a major role in this election despite Livingstone's efforts to present the scheme as a great and successful achievement and Johnson's promises to reconsider the Western Extension. Johnson did not increase the charge for drivers of 4x4 cars or for drivers from inside the cordon zone. After public consultation, Johnson removed the Western Extension of congestion charging in 2010. In 2013, he raised the congestion charge fee to £10. Although he originally appeared lukewarm to congestion charging, in 2013 Johnson announced a number of measures that would favor less polluting cars (TfL 2013).

Ten years after the introduction of congestion charging in London, the results are mixed. From a neoliberal perspective, it has been a failure. The corporate sector and the city's elites hoped for a serious reduction of middle-income drivers and higher traffic speeds. Instead, they got a small reduction in traffic and almost no congestion improvements. Transit riders believed that the proceeds from congestion charging would improve mass transit and freeze fares. As it turned out, fares increased significantly. Mass transit also improved, but mainly because of other funding sources. The environmental benefits from congestion charging were also questionable, possibly because the cordon area is small and the reduction in gridlock not as dramatic (Kelly *et al.* 2011). Indeed, the congestion of vehicles inside the cordon area declined by 15 percent in 2003 and an additional 6 percent in 2004. In the years that followed congestion stabilized and even worsened because of public works and the removal of road space for buses, bicycles, and pedestrians (TfL 2008).<sup>4</sup>

Congestion charging has not been successful in London because of its contradictions. If the scheme is to remain profitable, serious increases of the congestion fee have to be avoided. However, unless the fee rises considerably, congestion in the cordon zone will not decline in any significant way. In the beginning, the scheme's operational costs proved so high that it took three years to show a profit. Dissatisfied with the level of net revenues, Livingstone tried to increase them by adding the Western Extension despite fierce opposition. This worked, though after 2007–2008, the gross revenue begun to decline because of the economic downturn.<sup>5</sup> In 2010, Johnson eliminated the Western Extension and this made for even less revenues (Table 4.1). Meanwhile, mass transit expenditures rose sharply and so did fares. Between 2004 and 2014, when paying for a single trip in cash, bus fares increased by 140 percent and underground fares by 90 percent. When paying for a single trip with an Oyster travel card, bus fares increased by 107 percent and underground fares by 36 percent.

While congestion charging is not one of Livingstone's most meaningful accomplishments, the improvement of pedestrian, bicycle, and mass transit infrastructures

**TABLE 4.1** Annual revenue from congestion charging in London in thousands of British pounds

<i>Year</i>	<i>Revenue</i>	<i>Net revenue</i>
2002–2003	18.5	–58.3
2003–2004	186.7	45.3
2004–2005	218.1	96.4
2005–2006	254.1	106.3
2006–2007	252.4	89.1
2007–2008	328.2	137
2008–2009	325.7	148.5
2009–2010	312.6	158.1
2010–2011	286.5	173.5
2011–2012	226.7	136.8
2012–2013	222	132.1

*Sources:* TfL Annual Reports 2002–2013.

is. Many of these improvements are elements of what has become known as Complete Streets. While causal explanations are not easy to make, and the correlation between non-automobile use and improvements is not as straightforward, they chronologically developed together. If we take into consideration central London, an area larger than the congestion zone, the following trends are identified in the mode of transport that people use to enter it during the weekday morning peak between 2000 and 2010: a 57 percent increase in bus use; a 134 percent increase in cycling; a 4.4 percent increase for all combinations of rail modes; and a 51 percent decline in the number of people using the car (TfL 2011). These trends preceded the introduction of congestion charging and similar trends can be seen in the rest of London.

### Implementation of congestion charging in Stockholm

In Stockholm, the leading politician of the Social Democratic Party, Annika Billström, promised to consider environmental charges if she was elected mayor in 2002. Almost immediately, conservative parties expressed their opposition to “Social Democratic tolls.” Weeks before the election, in a televised debate Billström backed away and promised not to introduce road pricing. The election outcome was a slender majority both locally and nationally for the coalition of the Social Democratic Party, the Green Party, and the Left Party. In order to participate in the coalition, the Green Party demanded the implementation of congestion charging in Stockholm. Eager to form a national government, the leader of the Social Democratic Party Göran Persson accepted the demands of the Green Party and became the prime minister. Billström reversed her election promise, formed a local coalition with the Green and Left Parties as well, and accepted the institution of a trial of congestion charging with the possibility of making it permanent. In

response, the alliance of opposition parties along with motorist organizations demanded a voter referendum on the issue, arguing that the Social Democrats had lied to the voters during the election campaign. At the time, polls showed that an overwhelming majority of voters opposed congestion charging. In June 2003, the national government defined congestion pricing as a tax and took over the implementation of the scheme, as according to Swedish law only the national parliament can introduce taxes (Vägverket 2006). The national parliament delayed the implementation of congestion charging because of disagreements over the length of the trial. The Green and Left Parties wanted the trial to last longer. However, the Social Democrats argued that the trial should be shorter and that the referendum should be held in conjunction with the general election of 2006. In the end, the coalition parties decided to end the congestion charging trial by 31 July 2006; what they did not expect was that court challenges would delay the beginning of the trial to January 3, 2006 (Isaksson and Richardson 2009).

During the Stockholm trial, charges were imposed on vehicles passing a cordon around the inner city of Stockholm between 6:30 a.m. and 6:30 p.m. weekdays. Evenings, nights, weekends, holidays, and the day before public holidays were excluded from the charge. Vehicles were charged either entering or leaving the city center and the fee was 10 SEK, 15 SEK, or 20 SEK depending on the time of day. Vehicles that crossed the cordon boundaries multiple times paid a maximum fee of 60 SEK. Buses, taxis, eco-cars, motorcycles, diplomatic vehicles, military vehicles, emergency vehicles, vehicles with disability parking plates, and bypass traffic from the island of Lidingö were exempted, meaning that about 30 percent of vehicles did not pay the fee (Vägverket 2006). The toll zone, which covered about 30 square kilometers, had about 300,000 residents and 23,000 workplaces employing 318,000 people. About two-thirds of these employees commuted to work from outside the zone. Moreover, about 30,000 people who lived inside the zone commuted to workplaces located outside the zone (Eliasson *et al.* 2009; Schuitema *et al.* 2010). As expected, the congestion tax trial succeeded in reducing the number of vehicles crossing the cordon area and managed to dissuade less affluent drivers from entering or exiting the center of Stockholm frequently. During the congestion tax trial, the number of vehicles crossing the cordon decreased by about 22 percent. The decrease was largest in the afternoon peak (-23 percent) and smaller in the morning peak (-18 percent). Traffic inside the cordon area decreased to a lesser extent, as vehicles moving there were not charged (Eliasson *et al.* 2009). Households with high discretionary income paid nearly three times as much congestion tax as households with low discretionary income. Affluent men living in the inner city paid the most. The people who paid the most congestion tax were not necessarily the commuters driving to work from outside the cordon area, but the people with the highest incomes. This happened because affluent people drove more frequently, lived closer to the inner city, and could afford to pay the tax (Transek 2006).

As in London, the Swedish national government promoted congestion charging as one of many urban life proposals and emphasized public transportation services

and more park and ride facilities near city access roads and train stations. In fact, the public transport expansion began in the fall of 2005 and went on for 16 months. Although limited track capacity made it difficult to increase rail services during peak hours, there were some additional peak hour departures as well as lengthened trains. More than this, the transportation agency increased the frequency of non-peak train traffic. In addition, 20 of the existing bus lines were strengthened with extra departures and 14 new express bus routes were instituted. The new bus lines were direct and fast and sought to alleviate heightened public transit demand in busy areas and to make for a more comfortable commute. As it turned out, trains and the metro did not experience increased crowdedness because of the additional bus service. Finally, garages near train stations and other mass transit centers were retrofitted and extra parking spaces were created. The number of parked vehicles in park and ride garages was increased by 23 percent (Stockholmsförbundet 2006). The improvements helped to accommodate the 58 million additional mass transit journeys during the congestion tax trial. Most people who gave up their cars to take public transportation were from the municipalities around Stockholm. The average resident of Stockholm County made 350 trips in mass transit during 2006 (*The Local* 2007).

In Stockholm, the congestion charging trial would become permanent only if a majority of voters approved it. The referendum, which coincided with the general election of 2006, revealed how the congestion charge tax in Stockholm was still a controversial and unpredictable issue. The Social Democrats tried to dissociate themselves from the tax, claiming that the voters had a chance to reject the tolls and still vote for them. The Liberals and Moderates tried to equate the Social Democratic Party with road tolls and hoped that voter discontent would help them to prevail in both the local and the national elections. Yet, as public opinion in Stockholm became more positive toward congestion charges during the mass transit and vehicular trials, the Social Democrats attempted to take up the issue while opposition parties stopped talking about it. Originally, only the Stockholm municipality was planning a referendum with its leaders arguing that the cordon was located inside the city and that it was up to the city residents to decide about the charges. Several surrounding municipalities objected to this, contending that congestion taxes affected their residents as much as those who lived inside the city of Stockholm. In the end, 14 of the 25 municipalities of the county of Stockholm arranged their own referendums. The municipalities that held referendums were governed by the Alliance, and the municipalities that did not were governed by the Social Democrats. In the city of Stockholm, a majority of 53 percent voted to keep congestion charges, with 47 percent voting against. In the neighboring municipalities, a 60 percent majority voted against, and a 40 percent minority supported congestion charges. The Alliance of the Moderate Party, the Liberal Party, the Center Party, and the Christian Democratic Party prevailed in both the national and the Stockholm elections. After taking time to figure out how to interpret the outcome of the referendums, the Alliance decided to permanently reintroduce the congestion tax, but to earmark the revenues for

road improvements, so that the residents of municipalities around Stockholm would be appeased (Agius 2007; Eliasson *et al.* 2009). The Social Democrats had used the income from the congestion charge tax to fund mass transit.

Congestion charging was reintroduced in the summer of 2007. Under the permanent system the congestion fees did not increase, meaning that over time they declined in real terms because of inflation. The congestion fee became deductible from the income tax and this amounted to a 60 percent reduction of the charges. Taxis were no longer exempted from the fee after 2007 and the same applied to alternative fuel vehicles bought after 2008. The reduction of vehicles crossing the cordon remained steady. However, the real congestion measure is that of traffic volumes. Inside the cordon area they have declined by about 8–9 percent and this is not as significant (Börjesson *et al.* 2012).<sup>6</sup> For a significant decline the fee would have to increase markedly, but the government appears unwilling to take the political risk and to lose a portion of the net income.

Congestion charging has become part of the local government's branding of Stockholm as one of the greenest cities in the world. However, Karin Bradley, Anna Hult, and Göran Cars (2013) problematize this claim. For example, the city government argues that Stockholm has reduced its greenhouse gas emissions per capita, though the opposite is true. The city promotes cycling, but when compared with Copenhagen or Amsterdam, the cycle routes are irregular and dangerous. Investments in public transport focus on the central city instead of the region, making suburban residents cynical of the city's green profile, which they view as a marketing tool. Meanwhile, affordable housing is becoming more challenging to obtain, commuter trains from the suburbs are becoming more crowded, and social inclusion appears increasingly difficult to achieve.

## Congestion pricing in New York City

New York City's congestion pricing scheme remained a proposal, as it was not implemented. The proposal was devised by the Bloomberg Administration and recommended that passenger vehicles entering (or exiting) Manhattan below 86th Street be charged a fee of \$8 between 6 a.m. and 6 p.m. on weekdays. Trucks would be charged \$21 and large trucks \$42. Passenger vehicles traveling only inside the congestion pricing zone would be charged \$4. Vehicles crossing tolled bridges and tunnels would be able to deduct that toll from the congestion fee. The plan would exempt the two highways running north–south in the western and eastern parts of Manhattan as well as the approaches of all bridges and tunnels so that vehicular travel from neighborhoods outside the congestion area to other neighborhoods outside the congestion area would be possible without paying the fee. Moreover, the plan would exempt taxis, emergency vehicles, livery cars, and automobiles with disabled license plates from the fee (City of New York 2007). As this congestion pricing scheme was never implemented, there have been no concrete distributional impacts and redistributive effects. However, studies by the city administration and the state assembly indicated that the majority of the people

affected by the charge would be middle-income drivers from the boroughs outside Manhattan (Brodsky 2007).

The Bloomberg Administration's credibility over the scheme began to suffer once it became clear that the mayor had no specific plan for improving mass transit as part of congestion pricing, despite promises to the contrary. Unlike the mayor of London, the mayor of New York has absolutely no control of mass transit. Public transportation in New York City is operated by the New York City Transit Authority (NYCTA). The NYCTA is a subsidiary of the Metropolitan Transportation Authority (MTA). Chartered by the New York State Legislature, the MTA is a quasi-autonomous public authority whose 17-member board is nominated by the governor of New York and confirmed by the state senate. Only four members of the board are recommended by the mayor of New York City (Chronopoulos 2012). Despite its quasi-independence, the MTA answers to the state legislature and the governor who provide direct funding, appoint or remove board members and directors, and allow the authority to embark on capital campaigns with state-backed bonds. For various reasons that include an unfriendly local media, many residents of New York City distrust the MTA and blame it for fare increases and inadequate services. They also understand that the mayor of the city has little to do with the MTA, and when Bloomberg promised improved mass transit during congestion pricing, they did not believe him. Moreover, Bloomberg's promises to provide services in southeast Queens and other parts of the city that are not serviced by buses or trains were also considered to be exaggerations. Such promises have been proliferating since 1929 (City of New York 2007).

Nonetheless, the Bloomberg Administration continued to argue that congestion pricing was not regressive because most of its proceeds would benefit mass transit riders who tend on the average to have a lower-income than drivers. However, there was no plan for a mechanism that would channel the revenues from congestion pricing to mass transit. Moreover, in June 2007, the Republican state senators proposed the elimination of hundreds of millions of dollars of new state money earmarked for the city's mass transit, arguing that the city would have its own slush fund of congestion pricing proceeds (Hakim and Rivera 2007). Given the budget constraints that the state had been facing and the anti-city sentiment by many upstate and suburban legislators, it was possible that the funding formula from Albany would change if the city was able to spend other funds for mass transit. To make things worse, many subway lines, especially the 4, 5, and 6 trains in the east side of Manhattan, had been operating beyond capacity during rush hour. The problem was too many riders with no room in the tracks to run additional trains, meaning that many subway improvement promises would be difficult to enact (Neuman 2007). Finally, once the city administration began to face difficulties in the state assembly over its congestion pricing proposal, its members claimed the quality of mass transit provision in New York City would suffer, without the federal money earmarked for the establishment of congestion pricing. Many politicians considered this claim to be disingenuous.

Committees of the state assembly held hearings on the issue in June 2007 with many assembly members questioning the regressive nature of the proposal. The Bloomberg Administration was unable to counter the charge that congestion pricing was regressive. According to data provided by the Bloomberg Administration as well as by other government agencies, congestion pricing in Manhattan would disproportionately affect middle-income drivers from the city's outer boroughs: Queens, the Bronx, Brooklyn, and Staten Island. If set at \$8, congestion pricing would cost these drivers about \$2000 annually (Brodsky 2007). While low-income drivers would be penalized by congestion pricing even more, their numbers appeared to be not as substantial and the expectation was that they would stop driving into the congestion pricing zone. Manhattan real estate agents supported the idea and ran an advertising campaign, expecting congestion pricing to make Manhattan's high-rent districts even more exclusive and desirable (Barbanel 2007).

In the hearings, Bloomberg admitted that New York's elites would benefit from congestion pricing and argued that this is the way things work in a capitalist society. In his words, "Assemblyman Gantt talked about whether this is regressive, in the end, it is true if you charge something, those who are wealthier find it less onerous" (Brodsky 2007, p. 11). In the hearings, Bloomberg offered frequent glimpses of his view on the socioeconomic structure by saying:

I think one of the answers is we live in a capitalistic society. We use economics to encourage lots of things and there's nothing necessarily wrong with that. Those that want it more will pay more. And it is true, some people have more so that is in their benefit. But we've always done that.

*(ibid., p. 11)*

With these statements, the mayor offered an unapologetic acceptance of the class inequality inherent to congestion pricing. Despite efforts to emphasize the environmental benefits of the proposal, the distributive impact of congestion pricing dominated the hearings. Bloomberg and administration officials were also adamant in exempting taxis from the fee. According to state assembly members, this added to the regressive nature of congestion pricing. The average annual income of a taxi rider was calculated to be \$127,510, a figure that placed it above the middle class. More than this, taxis were considered to be one of the main causes of traffic gridlock in Manhattan (*ibid.*).

The state assembly also speculated that the city administration would substantially increase the congestion fee once the charging system was in place, making it even more difficult for middle-class drivers to enter the zone. This was because the mayor's report estimated that with its proposed fee scale, traffic within the congestion zone would decrease by 6.3 percent and that speeds would increase by 7.2 percent (City of New York 2007). This meant that less than one in ten automobiles driving in the Manhattan central business district would be eliminated under the plan and that speeds would increase by a mere 0.6 mph. These figures defeated the economic rationale of congestion pricing and made Bloomberg's

proposal appear like a commuter tax without any environmental or traffic benefits. In the hearing by the State Assembly, John Folcocchio, Director of the Urban ITS Center at Polytechnic University, and a supporter of congestion pricing, noted that in order to increase vehicular velocity in the congestion area by 30–40 percent, the fee would have to be set in the neighborhood of \$15–20 (Brodsky 2007).

In the end, the members of the state assembly decided to represent themselves as champions of the middle class and refused to even consider congestion pricing. This occurred after the state legislature agreed with the governor to create a 17-member commission to study Bloomberg's plan. The majority of the commission's members were appointed by the mayor and the governor; both of them had supported congestion pricing. In the beginning of 2008, the commission recommended the imposition of congestion pricing, but shortened the cordoned area. However, the state assembly, citing opposition among its members, refused to put the issue for a vote and effectively killed it (Confessore 2008).

### **The sustainable city and its discontents**

In April of 2010, while conducting field research on gentrification in Williamsburg-Greenpoint—an area of Brooklyn that has been gentrifying at least since the 1980s (Curran 2007; Marwell 2007; Chronopoulos 2013; Campo 2013)—an elderly resident who had lived there for decades, pointed to Kent Avenue (Figure 4.1) and asked: “Do you really believe that these streets are for us?” I was surprised by this question, because at the time I had not given enough consideration to the creation of Complete Streets. This resident was criticizing the Bloomberg Administration's handling of the re-zoning of the area, which went against the wishes of more than 40 neighborhood groups, as well as the majority of its residents, and Brooklyn Community District One, which is the local political subdivision. The re-zoning transformed industrial areas into residential ones and gave the green light to developers to build luxury condominiums. The opponents to the re-zoning made comprehensive counter-proposals with an important one being the requirement that developers set aside 40 percent of the new housing units for moderate-income families and reserve 50 percent of these units for existing residents of Community District One. In exchange for the inclusion of moderate-income units, developers would be able to build denser and taller structures, meaning that the number of market-rate apartments would be close to the original (Brooklyn Community Board One 2004). City agencies refused to require developers to build moderate-income apartments in their buildings and instead provided only incentives (Marwell 2007). Because of this, thousands of condominiums were built in the area, but almost none of them were moderate-income units (Hoffmann 2013). As this redevelopment unfolded, many existing residents of Williamsburg-Greenpoint feared that they would be displaced from their neighborhood because of gentrification pressures and government policies. Like this particular resident who was skeptical of the redesign of Kent Avenue, these individuals viewed Complete Streets as nothing more than government overtones toward gentrifiers. Indeed,



these neighborhood residents were experiencing what Melissa Checker (2011, p. 212) defines as environmental gentrification:

Environmental gentrification describes the convergence of urban redevelopment, ecologically-minded initiatives and environmental justice activism in an era of advanced capitalism. Operating under the seemingly a-political rubric of sustainability, environmental gentrification builds on the material and discursive successes of the urban environmental justice movement and appropriates them to serve high-end redevelopment that displaces low income residents.

Environmental gentrification has been taking place in gentrified or gentrifying neighborhoods in New York City, contributing to a series of displacements that make local residents skeptical of the language and practice of urban sustainability.

The conversation in Kent Avenue reminded me of ones that I had three years before in Bushwick, a Brooklyn neighborhood east of Williamsburg. At the time, I was researching intensified gentrification pressures in Bushwick, which were similar to what had been happening in Williamsburg–Greenpoint since the 1990s. Other than being able to rent a decent place, many of the families there considered the ability to own and maintain an automobile as one of the greatest achievements of their lifetime (Figures 4.2 and 4.3). At the time, the Bloomberg Administration was working toward the institution of congestion pricing in Manhattan. Although most of the people I encountered seldom drove in the parts of Manhattan slated



**FIGURE 4.1** A redesigned Kent Avenue in Williamsburg, Brooklyn

Source: Photograph by Themis Chronopoulos, 2010.

for congestion pricing, they felt that the city government was “out to get them” and that the mayor was “hypocritical” in his quest to brand himself as an environmentalist. Their sentiment was that the mayor was against the private automobile, unless it was used by himself or his corporate friends. Many of them mentioned news reports which criticized the multibillionaire mayor’s riding of the subway—a gesture meant to humanize a mayor considered to be as out of touch with the problems of ordinary people. They were referring to the fact that whenever the mayor decided to ride the subway to city hall, a couple of sizable Chevrolet Suburbans picked him up from his house in the Upper East Side of Manhattan and drove him 22 blocks to an express stop of the subway where he and his security detail continued their commute by train. Then the SUVs went to city hall and drove the mayor to places that he needed to go throughout the day and back home in the evening. Bloomberg, who at the time was condemning subway riders complaining of overcrowded conditions as unrealistic and bragged that he took the subway almost every day and that his commute was comfortable, could have walked to his local subway stop, which was not express and avoided the use of two king-size SUVs (Grynbaum 2007). However, this did not happen. The use of the subway was a public relations affair. With the exception of these highly publicized events during some mornings, Bloomberg seldom used public transportation, and this contributed to the cynicism that many people developed toward urban sustainability.



**FIGURE 4.2** A series of off-street garages in Bushwick, Brooklyn. With real estate values being low for many years, space was reorganized to accommodate the automobile.

Source: Photograph by Themis Chronopoulos, 2007.



**FIGURE 4.3** There are numerous apartment buildings in Bushwick like the ones that appear in this photograph without off-street parking. Indeed, the majority of automobile owners park in the street and constantly move their cars because of street cleaning. Parking late in the evening and at night becomes a difficult undertaking because there is not enough street parking. Reflecting the demographics of the area, the great majority of these car owners are Latinos and African Americans.

Source: Photograph by Themis Chronopoulos, 2007.

Like congestion pricing, Complete Streets are about spatial mobility. They should not be, because streets are more than just corridors facilitating the movement of purpose-oriented individuals, but this is how they are defined. Complete Streets are designed in a way that enables the safe movement of a diversity of users, irrespective of age and ability, along and across the street. Comprehensively designed Complete Streets include well-built sidewalks, protected bike lanes, meaningful areas for vehicular parking, accessible bus, light-rail, and metro stops, exclusive bus lanes, crosswalks, automobile lanes, and designated loading areas (McCann and Rynne 2010). To be sure, not all of these elements may be possible or needed in every street, but the idea is to include as many of them as possible. For example, the redesign of Kent Avenue—one of the busiest truck arterials of waterfront Williamsburg—meant the following: the rebuilding of the sidewalks that had been crumbling on both sides of the street; a two-way bike path along the west curb; a “floating” parking lane on the west side that was separated from the bike path; a one-way northbound vehicular lane right next to the “floating” parking lane; and a loading lane on the east curb (DOT 2009; Figure 4.2).

Unlike congestion pricing, Complete Streets initiatives are not explicitly seeking to charge their users. However, there is something unsettling about the redesign

of Kent Avenue in late 2009. During this period, luxury condominiums had either been completed or were being completed on Williamsburg's waterfront (Figures 4.4, 4.5, and 4.6). The cheapest and smallest of these units cost more than half a million dollars. It does not take much to conclude that the city government became suddenly interested in the area because of the development of these condominiums and that having a busy truck thoroughfare right outside of them was viewed as unacceptable. In this case, despite the rhetoric of user inclusiveness, Complete Streets represented an effort to provide the new affluent residents with more exclusivity and a luxury infrastructure.

Ironically, when the re-zoning of the area was challenged in 2005, the city government agreed to set aside more land for parks and to make the waterfront accessible. Nicole P. Marwell (2007, p. 91) argues that this reflected the power of an environmentally conscious middle class:

The efforts of the North Brooklyn Alliance to reshape the designs of capital on Williamsburg and Greenpoint through political engagement yielded certain concessions in the rezoning plan. It is notable that the comparatively middle-class, professional interests in Greenpoint and the Northside of Williamsburg achieved greater success in their efforts to preserve open space and waterfront access than did the low-income Latinos in the Southside who sought to secure their number-one priority: affordable housing.



**FIGURE 4.4** The waterfront development of luxury condominiums in Williamsburg, Brooklyn. More buildings are supposed to be erected, but the Great Recession slowed the process down.

Source: Photograph by Themis Chronopoulos, 2010.



**FIGURE 4.5** Luxury condominium on Kent Avenue. It is virtually located across the street from the waterfront development.

Source: Photograph by Themis Chronopoulos, 2013.



**FIGURE 4.6** Another luxury condominium on Kent Avenue

Source: Photograph by Themis Chronopoulos, 2010.

Once again, the development of sizable parkland adjacent to the new luxury developments may be inclusive, but can also be seen as an amenity for the new residents.

## Conclusion

This chapter discussed congestion pricing as a neoliberal spatial mobility proposal and its relationship to Complete Streets. Proponents of congestion pricing are also proponents of Complete Streets, because the two are viewed as ways to reverse a historical planning commitment to the automobile and to build new livable and sustainable cities. In the process, the proponents of these schemes—many of whom are progressive—ally with powerholders, whose priority is to financially benefit from the production of space. These alliances reproduce existing social injustices in the name of sustainability and environmentalism, which are transformed into market-based initiatives that favor affluent individuals in their pursuit of comfort and profit.

From the experience of London, Stockholm, and New York City, it appears that congestion pricing becomes politically viable when it includes a redistributive measure that benefits mass transit. However, long-term improvements and the affordability of mass transit because of congestion pricing appear to be as questionable as the promise of less congestion and cleaner air. In recent years, bus fares in London have increased substantially and well above the rate of inflation. In this sense, even if London designs the most comprehensive Complete Street system in the world, what does this mean in terms of bus access? The bus stops may be located in ideal locations and equipped with the latest accessibility infrastructure, but individuals with the inability to pay will still have no access to public transportation.

In the end, congestion pricing is a strategy rooted in conceptions of streets as conduits for the efficient movement of automobiles. However, livable streets should go beyond this and Complete Streets policies represent a good beginning. There is a need for a conception of streets as public spaces with far more diverse functions than the movement of automobiles or movement in general.

Julian Agyeman, Robert D. Bullard, and Bob Evans (2003) argue that environmental justice is based on the myth that environmental measures benefit everyone equally and harm no one excessively. This is a myth that needs to be deconstructed and rejected. Sustainabilities based on social justice are possible, but not when they are based on the requirements of a neoliberal political-economic system and its urban growth narratives. This possibility of social justice should begin with the community organizations that advocate measures like Complete Streets. Unless these organizations take into consideration the needs of ordinary people and understand that not everyone benefits from the neoliberal vision of sustainability, initiatives like Complete Streets will remain incomplete.

## Notes

- 1 “Complete Streets” is mostly a U.S. term that has been used almost interchangeably with “green streets,” and “sustainable streets.”
- 2 There are disagreements over what it means to implement the fee correctly. As I show, governments become addicted to the income of congestion charging and are reluctant to increase the fee to levels that will actually amount to significant vehicular congestion reductions. Neoclassical economists call for differential congestion fees, so that peak-time traffic gets diverted to other times. However, the London scheme has no differential fee and the New York proposal did not include one either.
- 3 When I use the term vehicles in this chapter, I mean motor vehicles with four wheels or more.
- 4 Average congestion in the original charging zone during 2006 was 8 percent lower than before congestion charging implementation. After that it worsened.
- 5 The net income did not necessarily decline because of a more efficient operation of the scheme.
- 6 Many observers including the authors of the article cited consider this reduction to be significant enough.

## References

- Agius, C., 2007. Sweden’s 2006 parliamentary election and after: Contesting or consolidating the Swedish model? *Parliamentary Affairs*, 60 (4), 585–600.
- Agyeman, J., Bullard, R.D., and Evans, B., 2003. *Just sustainabilities: Development in an unequal world*. Cambridge, MA: MIT Press.
- Barbanel, J., 2007. Crossing the golden line. *The New York Times*, 24 June.
- Beckett, A., 2003. Ready, Ken? *The Guardian*, 10 February.
- Börjesson, M., Eliasson, J., Hugosson, M. B., and Brundell-Freij, K., 2012. The Stockholm congestion charges—5 years on: Effects, acceptability and lessons learnt. *Transport Policy*, 20, 1–12.
- Bradley, K., Hult, A., and Cars, G., 2013. From eco-modernizing to political ecologizing: Future challenges for the green capital. In: J. Metzger and A.R. Olsson, eds. *Sustainable Stockholm: Exploring urban sustainability in Europe’s greenest city*. New York: Routledge, 169–194.
- Brash, J., 2011. *Bloomberg’s New York: Class and governance in the luxury city*. Athens: University of Georgia Press.
- Brash, J., 2012. The ghost in the machine: the neoliberal urban visions of Michael Bloomberg. *Journal of Cultural Geography*, 29 (2), 135–153.
- Brodsky, R., 2007. *Interim report: An inquiry into congestion pricing as proposed in PlaNYC 2030 and S.6068*. Albany, NY: Committee on Corporations, Authorities and Commissions.
- Brooklyn Community Board One, 2004. *Greenpoint-Williamsburg rezoning. ULURP applications: 050111ZMK, N050110ZRK, 040415MMK, 040416MMK, 040417MMK, 040418MMK. Position and recommendations*. Brooklyn: Community Board One.
- Brown, W., 2006. American nightmare: neoliberalism, neoconservatism, and de-democratization. *Political Theory*, 24 (6), 690–714.
- Campo, D., 2013. *The accidental playground: Brooklyn waterfront narratives of the undesigned and unplanned*. New York: Fordham University Press.
- Checker, M., 2011. Wiped out by the “Greenwave”: Environmental gentrification and the paradoxical politics of urban sustainability. *City & Society*, 23 (2), 210–229.
- Chronopoulos, T., 2011. *Spatial regulation in New York City: From urban renewal to zero tolerance*. New York: Routledge.

- Chronopoulos, T., 2012. Congestion pricing: The political viability of a neoliberal spatial mobility proposal in Stockholm, London, and New York City. *Urban Research and Practice*, 5 (2), 187–208.
- Chronopoulos, T., 2013. The politics of race and class and the changing spatial fortunes of the McCarren Pool in Brooklyn, New York, 1936–2010. *Space and Culture*, 16 (1), 104–122.
- City of New York, 2007. *PlaNYC: A greener, greater New York*. New York: The City.
- Commission for Integrated Transport, 2000. *The CfIT report 2000: Public attitudes to transport in England (MORI)*. London: The Commission.
- Commission for Integrated Transport, 2001. *The CfIT report 2001: Public attitudes to transport in England (MORI)*. London: The Commission.
- Commission for Integrated Transport, 2002. *The CfIT report 2002: Public attitudes to transport in England (MORI)*. London: The Commission.
- Confessore, N., 2008. \$8 traffic fee for Manhattan gets nowhere. *The New York Times*, 8 April.
- Cresswell, T., 2006. *On the move: Mobility in the modern western world*. New York: Routledge.
- Cresswell, T., 2010. Towards a politics of mobility. *Environment and Planning D: Society and Space*, 28 (1), 17–31.
- Curran, W., 2007. “From the frying pan to the oven”: gentrification and the experience of industrial displacement in Williamsburg, Brooklyn. *Urban Studies*, 44 (8), 1427–1440.
- DOT, 2008. *Sustainable streets: Strategic plan for the New York City Department of Transportation 2008 and beyond*. New York: The City.
- DOT, 2009. *Kent Avenue improvement plan: Implementation update*. New York: The City.
- Eliasson, J., Hultkrantz, L., Nerhagen, L., and Smidfelt Rosqvist, L., 2009. The Stockholm congestion-charging trial 2006: overview of effects. *Transportation Research Part A*, 43 (3), 240–250.
- Eliasson, J., and Mattson, L., 2006. Equity effects of congestion pricing: Quantitative methodology and a case study for Stockholm. *Transportation and Research Part A*, 40 (7), 602–620.
- Foucault, M., 2008. *The birth of biopolitics: Lectures at the Collège de France, 1978–1979*. Ed. M. Senellart. Trans. G. Burchell. Basingstoke: Palgrave Macmillan.
- Grynbaum, M.M., 2007. Mayor takes the subway—by way of S.U.V. *The New York Times*, 1 August.
- Hakim, D., and Rivera, R., 2007. City traffic pricing wins US and Spitzer’s favor. *The New York Times*, 8 June.
- Harper, K., 2001. Kiley tells mayor to delay road charges. *The Guardian*, 13 December.
- Harvey, D., 2005. *A brief history of neoliberalism*. New York: Oxford University Press.
- Henderson, J., 2009. The spaces of parking: Mapping the politics of mobility in San Francisco. *Antipode*, 41 (1), 70–91.
- Henderson, J., 2013. *Street fight: The politics of mobility in San Francisco*. Amherst: University of Massachusetts Press.
- Hoffmann, M., 2013. City built less than 2 percent of affordable units promised to Williamsburg. *DNAinfo New York*, 20 May.
- In Focus, 2007. A lot can happen between the lines: Completing NYC streets. *Transportation Alternatives Magazine*, 13 (4), 10–13.
- Isaksson, K., and Richardson, T., 2009. Building legitimacy for risky policies: The cost of avoiding conflict in Stockholm. *Transportation Research Part A*, 43 (3), 251–257.
- Kelly, F., Anderson, H.R., Armstrong, B., Atkinson, R., Barratt, B., Beevers, S., Derwent, D., Green D., Mudway, I., and Wilkinson, P., 2011. The impact of the congestion charging scheme on air quality in London. *Health Effects Institute Research Report*, No. 155.
- Klahr, R., and Marshall, B., 2007. *Road pricing at the crossroads: A paper reviewing new and existing public opinion research on road pricing schemes*. London: Ipsos MORI.



- Leff, L., 2013. Carter: Middle class today resembles past's poor. *The Associated Press*, 7 October.
- Leys, C., 2001. *Market-driven politics: Neoliberal democracy and the public interest*. London: Verso.
- Marwell, N.P., 2007. *Bargaining for Brooklyn: Community organizations in the entrepreneurial city*. Chicago: University of Chicago Press.
- Mayor of London, 2002. *The draft London plan: Draft spatial development strategy for London*. London: Greater London Authority.
- McCann, B., and Rynne, S., eds., 2010. *Complete Streets: Best policy and implementation practices*. Washington, DC: The American Planning Association.
- Murray, M.J., 2008. *Taming the disorderly city: The spatial landscape of Johannesburg after apartheid*. Ithaca, NY: Cornell University Press.
- Neuman, W., 2007. Some subways found packed past capacity. *The New York Times*, 26 June.
- Phang, S.Y. and Toh, R.S., 2004. Road congestion pricing in Singapore: 1975 to 2003. *Transportation*, 43 (2): 16–25.
- ROCOL Working Group, 2000. *Road charging options for London: A technical assessment*. London: The Stationery Office.
- Rose, N., 2000. Governing cities, governing citizenship. In: E. Isin, ed. *Democracy, citizenship, and the global city*. New York: Routledge, 95–109.
- Santos, G., 2008. *London congestion charging: Brookings-Wharton papers on urban affairs*. Washington, DC: Brookings Institution Press, 177–234.
- Sassen, S., 2001. *The global city: New York, London, Tokyo*. Princeton, NJ: Princeton University Press.
- Schuitema, G., Steg, L., and Forward, S., 2010. Explaining differences in acceptability before and acceptance after the implementation of a congestion charge in Stockholm. *Transportation Research Part A*, 44 (2), 99–109.
- Scott, A.J., ed. (2001). *Global city-regions: Trends, theory, policy*. New York: Oxford University Press.
- Stockholmsförbundet, 2006. *Facts and results from the Stockholm trials: Final version—December 2006*. Stockholm: City of Stockholm.
- TfL, 2002. *TfL report to the mayor on the readiness of public transport for central London congestion charging*. London: Mayor of London.
- TfL, 2003a. *Congestion charging 6 months on*. London: Mayor of London.
- TfL, 2003b. *Central London congestion charging impacts monitoring: Annual report*. London: Mayor of London.
- TfL, 2004a. *Central London congestion charging: Impacts monitoring. Second annual report, April 2004*. London: Mayor of London.
- TfL, 2004b. *MORI: Central London congestion charge social impacts surveys 2002, 2003*. London: Mayor of London.
- TfL, 2005. *Annual report*. London: Mayor of London.
- TfL, 2006. *Central London congestion charging impacts monitoring: Fourth annual report, June 2006*. London: Mayor of London.
- TfL, 2008. *Central London congestion charging impacts monitoring: Sixth annual report, July 2008*. London: Mayor of London.
- TfL, 2011. *Travel in London*. Report 4. London: Mayor of London.
- TfL, 2013. *Mayor's transit strategy*. Available from: [www.tfl.gov.uk/corporate/11610.aspx](http://www.tfl.gov.uk/corporate/11610.aspx) [Accessed 27 November 2013].
- The Local*, 2007. Congestion charge increased public transport use. *The Local*, 31 July.
- Transek, 2006. *Equity effects of the Stockholm Trial*. Stockholm: Transek.
- TransPrice, 2000. *Trans modal integrated urban transport pricing for optimum modal split*. Brussels: The European Union.
- Vägarverket, 2006. *Trial implementation of a congestion tax in Stockholm, 3 January–31 July 2006*. Borlänge: Swedish Road Administration.