



# Case Study: London

In the 1960s the UK government pursued information on managing increasing congestion in London. In 1964 the Smeed Report, a feasibility study of area-wide congestion pricing, concluded congestion pricing would improve traffic conditions. Additional studies proposed congestion pricing throughout the 1970s - 1980s, yet Londoners did not find the idea publicly and politically acceptable at the time. However as public transit performance declined in the 1990s, another study in 1995 encouraging congestion pricing appealed to the city. In 1999 UK legislation enabled congestion pricing introduction and Mayor Ken Livingstone led the initiative for central London's pricing structure. Before congestion pricing was implemented 90% of London residents supported the program because of traffic conditions, travel times, and air pollution.<sup>1</sup>

Since 2003, drivers traveling in an 8.5 square mile area of central London have been assessed a flat daily fee when driving within the designated zone on weekdays. Prior to adoption, funding for public transport was unreliable and congestion levels in central London were extremely high. Between 2002 and 2014 Transport for London data shows that car traffic entering central London fell by 39%. In 2017, the London Assembly Transport Committee conducted a survey of over 1,000 people to determine public opinion on traffic congestion and the congestion pricing program in London. The survey indicated most Londoners continue to support congestion pricing, but voice concerns on the daily price. The London Assembly found that 48% of their survey respondents supported the pricing program, but 54% of respondents said the price was too high.<sup>2</sup>



London Congestion Pricing Zone (Source: Transport for London)

## What is Congestion Pricing?

Congestion pricing involves charging a fee to drive downtown during busy hours. It is one of the most effective tools we can use to get traffic moving, increase street safety, clean the air, and make our transportation system more equitable.

## How To Get Involved

Please help guide us as we seek to make congestion pricing a tool to advance equity in San Francisco.

## Contact Us

**San Francisco County Transportation Authority**  
1455 Market Street, 22nd Floor  
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### Project Manager:

Colin Dentel-Post, Senior Planner

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### CITATIONS

- 1 Tri-State Transportation Campaign – Road Pricing in London, Stockholm, and Singapore – January 2018
- 2 London Assembly – London Stalling: Reducing traffic congestion in London – January 2017
- 3 Transport for London Congestion Charge Discounts and Exemptions <https://tfl.gov.uk/modes/driving/congestion-charge/discounts-and-exemptions?intcmp=2133>
- 4 Ibid
- 5 The Conversation – London congestion charge: what worked, what didn't, what next, April 2019 <https://theconversation.com/london-congestion-charge-what-worked-what-didnt-what-next-92478>
- 6 Ibid



## London's Congestion Pricing Program

### Population:

7.3M      8.7M      ↑ 19%  
2003      2020      % change

### Program Launch:

2003

### Traffic:

↓ 30%

### Greenhouse Gas Emissions:

↓ 12%

### Annual Net Revenues:

£137M  
(USD \$182.1 million)

### Transit Ridership:

↑ 38%

### Pricing:

£11.50  
(USD \$15.05)

Flat fee to drive within  
designated zone

### Pricing Hours:

Monday - Friday  
7am to 6pm

no charge between  
Dec. 25 - Jan. 1

### Discounts:

These require online registration with the Transport for London website and supporting documents.<sup>3</sup>

- Residential discount – a 90% discount on the congestion price
- Blue badge holders (disabled placard) – 100% discount
- Vehicles with 9+ seats – 100% discount
- Clean vehicle discount – 100% discount for vehicles meeting Euro standards
- Motor tricycles – 100% discount if the tricycle is one meter or less wide and 2 meters or less long.
- Roadside recovery vehicles – 100% discount

## Key Findings

Most recently, the Mayor of London and London Assembly have reformed the congestion pricing structure to reflect modern concerns. The rise of ride-hailing vehicles has increased congestion in cities again. London's congestion pricing structure recently changed from exempting both taxis and ride-hailing vehicles to only exempting taxis. Trips by taxi and ride-hailing vehicles as the main mode of journeys increased by 9.8% between 2015 and 2016 alone – and 29.2% since 2000.<sup>5</sup> Today, more than 18,000 different ride-hailing vehicles enter the congestion pricing zone each day, with peaks on Friday and Saturday nights.<sup>6</sup> Going forward, the congestion price on ride-hailing vehicles will help reduce congestion issues within the designated zone.

## What other cities can learn from London

Other cities should learn from London's efforts to periodically evaluate its congestion pricing. Reoccurring analysis to assess traffic patterns, greenhouse gas emissions, transit ridership, and annual net revenues help cities track the effectiveness of their programs and identify areas for adjustment and/or improvement.

### Exemptions – no price:

These do not require registration with Transport for London if the vehicle is recorded at the Driver and Vehicle Licensing Agency.<sup>4</sup>

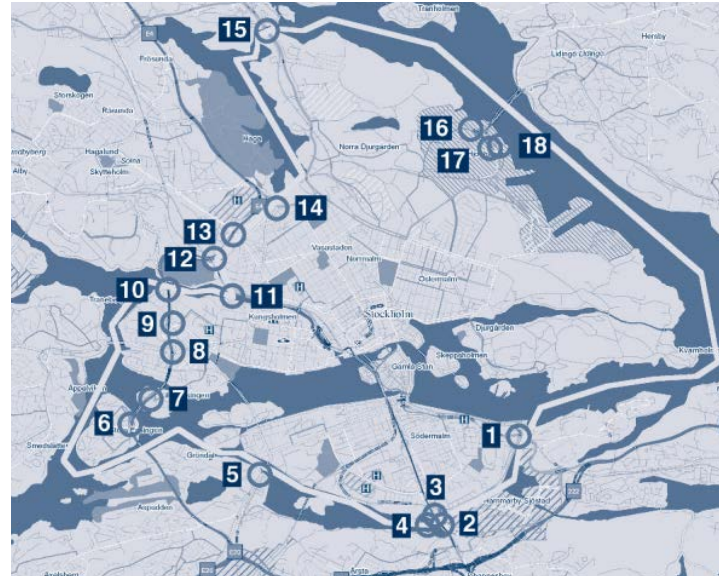
- Two-wheeled motorcycles, sidecars, and mopeds
- Emergency service vehicles
- Vehicles used by disabled people that are exempt from the Agency's vehicle tax and have a 'disabled' taxation class.
- Taxis



# Case Study: Stockholm

In 2003 Stockholm’s City Council adopted a proposal to conduct a congestion pricing pilot program to address increasing congestion in the city center. One year later, the Swedish Parliament passed the pilot program for a 2006 start date despite lack of political and public support. Prior to its introduction, 2/3 of residents opposed the proposal. Yet as congestion declined by 30 - 50% during the pilot program, 2/3 of residents voted by referendum in favor of making the program permanent.<sup>1</sup> The permanent program launched in January 2007 with fees directed toward bridge maintenance and public transit improvements.<sup>2</sup>

The congestion pricing pilot program was first implemented in 2006 for a total of seven months. The pilot program consisted of three parts: expanding public transit, constructing park-and-ride facilities, and congestion pricing in the city center. To provide alternatives to driving while implementing the pilot program, Stockholm expanded its public transit system by purchasing 197 new buses, adding 16 new bus lines, and expanding service on existing routes.<sup>3</sup> The congestion charge combined with expanded public transit resulted in a significant reduction of congestion. The congestion charge combined with expanded public transit resulted in a significant reduction of congestion. Through the next decade, Stockholm’s population increased by 10% while the city’s traffic levels reduced by 22%.<sup>4</sup>



Stockholm Congestion Pricing Zone (Source: Access Magazine Political and Public Acceptability of Congestion Pricing 2011)

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## CITATIONS

- 1 TransForm – Equity in Road Pricing, March 2019
- 2 Tri-State Transportation Campaign – Road Pricing in London, Stockholm, and Singapore – January 2018
- 3 Dr Muriel Beser Hugosson and Dr Jonas Eliasson – The Stockholm Congestion Charging System: An Overview of the Effects After Six Months – 2006
- 4 Greenlight: Next Generation Road User Charging for A Healthier, More Livable, London: Published by Centre for London – April 2019
- 5 Swedish Transport Agency – Stockholm Congestion Taxes Modified on January 1, 2020 <https://www.transportstyrelsen.se/en/road/Congestion-taxes-in-Stockholm-and-Goteborg/congestion-tax-in-stockholm/stockholm-congestion-taxes-modified-on-1-january-2020/>
- 6 TransForm – Equity in Road Pricing, March 2019
- 7 Ibid



## Stockholm's Congestion Pricing Program

### Population:

1.9M      2.4M      ↑26%  
2007      2020      % change

### Program Launch:

2007  
(permanent program)

### Traffic:

↓22%

### Greenhouse Gas Emissions:

↓14%

### Annual Net Revenues:

1.3B KR  
(USD \$155 million)

### Transit Ridership:

↑5%

### Peak Season Pricing Late Spring - Autumn:

11 - 45 KR  
(USD \$1.16 - \$4.75)  
135 KR (\$14.25)  
per day maximum

### Off-Peak Pricing Winter - Early Spring:

11 - 30 KR  
(USD \$1.16 - \$3.17)  
105 KR (\$11.09)  
per day maximum<sup>5</sup>

Charged when entering and exiting through a congestion price gate.

### Pricing Hours:

Monday - Friday, 6am to 6:30pm

includes charging during first week of July only (the rest of July is not priced), includes some days before public holidays.

### Exemptions or Discounts:

Emergency vehicles and buses with a total weight of at least 14 tons, motorbikes, and mopeds do not pay. Persons with a Swedish parking permit for people with disabilities can apply to the Swedish Tax Agency to exempt a vehicle. Businesses can deduct the tax as a cost by notifying the Swedish Tax Agency.

## Key Findings

After the completion of Stockholm's initial seven-month pilot, the city examined equity impacts of the congestion pricing program. The city learned:

- high-income individuals were affected more than low-income individuals
- relatively few drivers paid the maximum of congestion charges, although they did pay occasionally
- young and low-income individuals benefited from lower transit fares
- travel times in the central areas of the city were shorter and with a lower percentage by car<sup>6</sup>

To determine their conclusions, researchers examined varying income levels of Stockholm residents and non-residents, number of trips, travel times, and mode share. Researchers looked at below average, average, and above average discretionary incomes to determine how the congestion pricing program affected users. They found that higher income people take more priced trips because they live in or near the inner city.

To ensure equitable outcomes with congestion pricing, Stockholm considered how the net revenues collected from the program would benefit all users. By providing alternatives to driving, people traveling by transit would not bear the congestion price. Additionally, the revenues collected from the congestion pricing program that were used on public transit resulted in reduced fares for all users benefiting young and low-income individuals the most.

## What other cities can learn from Stockholm

Stockholm's congestion pricing program demonstrates the importance of pilot programs and expanding transit service. By implementing the congestion pricing program as a pilot and increasing transit service when the pilot was launched, Stockholm gained more public support and acceptance.  $\frac{2}{3}$  of Stockholm residents were opposed to congesting pricing prior to the pilot program, however once residents saw the results,  $\frac{2}{3}$  of Stockholm residents voted to make congestion pricing permanent.<sup>7</sup> In engaging the community during the pilot and providing them benefits for using transit compared to driving, Stockholm reduced traffic congestion in the pricing area.



# Case Study: New York City

New York City has seen several congestion pricing proposals since 2006. In 2014, former Traffic Commissioner Sam Schwartz proposed a “Move New York” plan focused on geographic and income inequity. Schwartz proposed a congestion pricing program that would support transit and provide travel discounts to low-income New Yorkers, but the plan did not pass state legislation. Continuing concerns over declining public transit infrastructure, subway delays, and slower driving speeds led to another congestion pricing program proposal in 2018. Known as the “Fix New York City Advisory Panel Report,” the plan directly linked congestion pricing to public transit investments for outer boroughs and suburbs before implementing a cordon price.

At the end of 2018 the bipartisan city/state Metropolitan Transportation Sustainability Advisory Group released a report recommending congestion pricing to fund public transit which gained support from both Governor Cuomo and Mayor de Blasio. Now, New York City is turning to London and Stockholm as success stories to inform its own efforts to carry out congestion pricing. As the first U.S. city to pursue congestion pricing, New York is planning for a phased approach to implement congestion pricing for travel within Manhattan.

Phase one focuses on investing in transit connections between the Central Business District and outer boroughs and suburbs. Phase two places a surcharge on taxis and for-hire vehicle trips within the District.<sup>1</sup> Beginning in February 2019, New York began charging \$2.50 for taxis and \$2.75 for private ride-hailing vehicles for single users. For shared ride-hailing rides, the charge is \$0.75 per customer. Phase three will finalize the congestion pricing zone and charge private autos traveling in Manhattan’s Central Business District below 60th street. This final phase is set to roll out by 2021 and is expected to raise between \$810M and \$1.1B annually to invest in the public transit system.<sup>2</sup>



NYC Congestion Pricing Zone (Source: Regional Plan Association – Congestion Pricing in NYC September 2019)

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## CITATIONS

- 1 Seattle Congestion Pricing Study Phase 1 – Engagement and Communications Best Practices White Paper, May 2019
- 2 TransForm – Equity in Road Pricing, March 2019
- 3 Tri-State Transportation Campaign – Road Pricing in London, Stockholm, and Singapore – January 2018



## New York City's Congestion Pricing Program

### Population:

8.55M  
2020

### Traffic:

Reduction estimated between 58,000 to 59,000 fewer auto trips (varies by which charging scenario is chosen)

### Program Launch:

2021  
(phase three private auto congestion pricing)

### Greenhouse Gas Emissions:

~ 7%

### Transit Ridership:

↑ TBD

### Annual Net Revenues:

anticipated  
\$810M - \$1.1B

### Pricing:

suggested between  
\$3.06 - 9.18

varies by time of day, passenger vehicles may only be charged once daily for entering or remaining in the zone

### Exemptions or Discounts:

Emergency vehicles and drivers with disabilities will be exempt. Residents of the zone with incomes less than \$60,000 per year will receive a tax credit equal to the amount paid in congestion charges. Any other additional exemptions, credits, or discounts are to be determined.

## Key Findings

While the congestion pricing design is still in the works, New York City anticipates their pricing program to reduce congestion through a varied price scheme. The Regional Plan Association, an advocacy and urban research organization has developed a toolkit for implementing congestion pricing in New York. The Association recommends that the system should charge higher costs when congestion is the greatest, larger vehicles should be charged more, and exemptions should be as limited as possible to ensure congestion reduction and revenue goals are met. Additionally, New York can follow four principles to implement a successful program similar to London's and Stockholm's: significant investment in transit before and during the implementation of congestion pricing; reinvestment of generated revenues into public transit; dynamic tolling to change driver behavior; and information campaigns for the public.<sup>3</sup>

## What other cities can learn from New York City

New York City has made the most progress to advance a congestion pricing program among U.S. cities. The New York model was created to develop a revenue stream to fund the city's subway system and reduce auto trips. Other North American cities should watch New York to learn best practices to inform their own programs.

NYC Congestion Pricing Proposed Signage  
(Source: HDR Engineering, Inc. 2019)

