

Date: December 4, 2020

To: Patrick Foye

Chief Executive Officer

Metropolitan Transportation Authority

From: Mateo Hysa

Engineering Student at City College of New York

Subject: Proposal for a change in the type of turnstiles utilized in public transit

### Purpose

The purpose of this proposal is to request the authorization to introduce a different type of turnstile in the MTA to help prevent people from evading fare by hopping the turnstile while offering those that are disabled a way to enter the train station besides using the emergency exit.

### Summary

The MTA has always faced issues relating to people evading fare, as the public becomes more frustrated by the increasing price of a ride. The MTA increased the cost per ride approximately every two years. Seeing as the majority of people that use public transportation in New York City can not afford to travel any other way, that majority often tries to find ways to avoid paying for the fare as a whole, which means that they will hop the turnstile or enter through an emergency exit door.

The hopping of turnstiles has lost the city hundreds of millions of dollars and continues to do so. I suggest that we introduce a new gate that does not give people the opportunity to evade fare while allowing access to people that are disabled or in a wheelchair. The gate would react to

an MTA card swipe and open, only big enough for one person at a time. This will eliminate the need to keep emergency doors open and stop people from hopping the turnstile.

The gate would utilize technology that is already in place in some train stations where people can use their bank or credit cards to pay for the fare. Upon receiving a signal the gate will open on one side and close as that person enters a small area only large enough for an average person. The first gate will then close and the gate that allows riders to enter the station will open, and the cycle will continue.

### Introduction

It is in the best interest of the MTA to identify ways to reduce the amount of people that are able to enter train stations without having to pay. Many subway stations are not monitored by MTA workers or police offices all day, thus giving people more opportunities to get away with evading fare. If someone is caught evading fare, they are given a \$100 fine, which, in my opinion, is not enough. This fee is not enough to scare people into paying the fare as many people still hop the turnstile.

New York State has lost an estimated \$200 million as a result of people evading fare in the past year(Colon 1). \$200 million is a huge amount considering the fact that a ride on the MTA costs \$2.75 as of today. Reducing the amount of money that is lost each year is the primary goal that I am trying to accomplish by introducing a new turnstile.

The structure of the gate will be large enough so that no person can climb under and/or jump over it and it will provide a large enough space so that people with disabilities are able to enter the station through the pathway(Petrie 11). Although the full body turnstile may seem like a more efficient way to minimize the amount of money lost due to fare evaders, the full body turnstile does not prevent people from using the turnstile at the same time. Additionally,

emergency exit doorways are not only used during emergencies as subway riders, including myself, have utilized the emergency door because it provides an easy path when compared to the annoying full body turnstiles. If a new gate system is introduced, people can then be fined for utilizing the emergency exit door when there is no need for the door.

As mentioned in the summary, the MTA continually increased the cost of fare. Increases in fare are usually a result of inflation and the necessity to improve and maintain the conditions of the train stations. However, according to a scientific study, , “a 10% increase in the fare raises evasion by 2 percentage points”(Troncoso 1). This demonstrates the impact that the price of fare has on fare evaders. While the increase in price cannot really be stopped or slowed down, the way that the MTA manages people evading fare and the accessibility of the turnstiles can change.

#### Proposed Task

Remove all of the hoppable turnstiles with gates that only allow one rider at a time, or introduce these gates in newly refurbished stations and offer 24 hour service of stations that still have the hoppable turnstiles.

##### Task 1: Offer 24 hour service to stations with hoppable turnstiles

- If there are police officers or MTA workers at a station, people will hesitate to evade fare
- They will be more aware of the severity and likely pay the fare
- But this does mean that more workers will have to be paid

##### Task 2: Increase the fine that comes with hopping the turnstile.

- Increasing the fine will make people think twice about hopping
- They will be risking a lot by hopping the turnstile instead of just paying the small fee for fare

- There could also be some other repercussions such as community service.

Task 3: Introduce the New gate technology to stations that have to be renovated or refurbished

- The gate technology will likely eliminate the fare evasion in the station that they are installed, but they will likely not fit the budget of the MTA if they were to be introduced at large
- The system will cost hundreds of millions of dollars not to mention the lost revenue when stations or trains are closed down while construction is taking place

Task 4: Utilize cameras to record all turnstile activity

- Cameras will help authorities identify violators
- They can also be used to scare passengers into paying the fare.

#### Work Cited

Colon, Dave. "MTA Will Spend \$249M On New Cops to Save \$200M on Fare Evasion." *StackPath*, Streetsblognyc, 14 Nov. 2019, [www.masstransitmag.com/home/article/11303444/innovative-ways-to-stop-mass-transit-fare-evasion](http://www.masstransitmag.com/home/article/11303444/innovative-ways-to-stop-mass-transit-fare-evasion).

Petrie, Joe. "Make Sure Riders Pay Their Fare Share." *StackPath*, Mass Transit, 7 Mar. 2014, [www.masstransitmag.com/home/article/11303444/innovative-ways-to-stop-mass-transit-fare-evasion](http://www.masstransitmag.com/home/article/11303444/innovative-ways-to-stop-mass-transit-fare-evasion).

Troncoso, Rodrigo, and Louis de Grange. "Fare Evasion in Public Transport: A Time Series Approach." *Transportation Research Part A: Policy and Practice*, Pergamon, 6 May 2017, [www.sciencedirect.com/science/article/abs/pii/S0965856416308795](http://www.sciencedirect.com/science/article/abs/pii/S0965856416308795).

