

*STATE of the SUBWAYS  
REPORT CARD*



*NYPIRG Straphangers Campaign  
September 2015*

**A NYPIRG Straphangers Campaign Report**

**STATE OF THE SUBWAYS REPORT CARD**

**September 2015**

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# I. Findings

What do subway riders want?

They want short waits, trains that arrive regularly, a chance for a seat, a clean car, and understandable announcements that tell them what they need to know. That's what MTA New York City Transit's own polling of rider satisfaction measures.<sup>1</sup>

This "State of the Subways" Report Card tells riders how their lines do on these key aspects of service. We look at six measures of subway performance for the city's 20 major subway lines using recent data compiled by MTA New York City Transit.<sup>2</sup> Some of the information has not been released publicly before on a line-by-line basis. Most of the measures are for all or the last half of 2014.

Our Report Card has three parts:

First, a comparison of service on 20 lines as detailed in the attached tables.

Second, we give an overall "MetroCard Rating"<sup>3</sup> to 19 of the 20 major lines.<sup>4</sup>

Third, the report contains one-page profiles on each of the 20 lines. These are intended to provide riders, officials and communities with an easy-to-use summary of how their line performs compared to others.

This is the seventeenth Subway Report Card by the Straphangers Campaign since 1997.<sup>5</sup>

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<sup>1</sup> New York City Residents' Perceptions of New York City Transit Service, 1999 Citywide Survey, prepared for MTA New York City Transit.

<sup>2</sup> The measures are: frequency of scheduled service; how regularly trains arrive; delays due to car mechanical problems; chance to get a seat at peak period; car cleanliness; and in-car announcements. Regularity of service is reported in an indicator called *wait assessment*, a measure of gaps in service or bunching together of trains.

<sup>3</sup> We derived the MetroCard Ratings with the help of independent transportation experts. Descriptions of the methodology can be found in Section II and Appendix I. The rating was developed in two steps. First, we decided how much weight to give each of the six measures of transit service. Then we placed each line on a scale that permits fair comparisons. Under a formula we derived, a line whose performance fell exactly at the 50th percentile in this baseline would receive a MetroCard rating of \$1.75 in this report. Any line at the 90th percentile of this range would receive a rating of \$2.75, the current base fare.

<sup>4</sup> We were unable to give an overall MetroCard Rating to the system's three permanent shuttle lines — the Franklin Avenue Shuttle, the Rockaway Park Shuttle, and the Times Square Shuttle — because data is not available. The G line does not receive a MetroCard Rating, as reliable data on crowding for that line is not available.

<sup>5</sup> No Report Card was issued in 2013 given concerns about the impact of Superstorm Sandy on the subway system. That was also the case in 2002 following the attack on the World Trade Center. As a result, the Straphangers Campaign has issued subway Report Cards seventeen times in nineteen years.

Our findings show the following picture of how New York City's subways are doing:

**1. The best subway line in the City was the 7 with a MetroCard Rating of \$2.15. The 7 was ranked number one for the second year in a row and for the eighth time out of our seventeen State of the Subways report cards.** The 7 ranked highest because it was the best in the system on frequency of service and subway car cleanliness — and also performed above average on two other measures: delays caused by mechanical breakdowns and seat availability at the most crowded point during rush hour. The line did not get a higher rating because it performed below average on regularity of service and subway car announcements. The 7 runs between Times Square and Flushing-Main Street in Queens.

**2. The 5 and the B tied as the worst performers in the subway system, with a MetroCard Rating of \$1.45 each.**

a) The 5 performed with the worst regularity of service and was below average on two other measures: delays caused by mechanical breakdowns and seat availability during rush hour. The line did not get a lower rating as it tied for best in the system on subway car announcements and performed near average on frequency of scheduled service and subway car cleanliness. The 5 operates between Flatbush Avenue-Brooklyn College in Brooklyn and Eastchester-Dyre Avenue in the Bronx.

b) The B performed below average on three measures: amount of scheduled service; delays caused by mechanical breakdowns; and subway car announcements. The line did not get a lower rating as it performed at the system average on subway car cleanliness; and above average on regularity of service and seat availability during rush hour. The B operates between Brighton Beach in Brooklyn and 145th Street in Manhattan or Bedford Park Boulevard in the Bronx.

**3. Systemwide, for 20 lines, we found the following on three of the six measures we can compare over time: car breakdowns, car cleanliness and in-car announcements.**

**a) The car breakdown rate worsened from an average mechanical failure every 153,382 miles to every 141,202 miles comparing the 12-month period ending December 2013 to December 2014 — a loss of 7.9%.** This continues a trend: In our 2014 report, we found an 11% increase in subway car breakdowns. We found that thirteen lines declined (1, 3, 4, 5, 6, 7, A, B, D, F, M, N and Q), and seven improved (2, C, E, G, J/Z, L and R.)

**b) Subway cars rated clean remained unchanged at 92% in both our 2014 and 2015 reports.** We found that eleven lines declined (1, 3, 5, A, C, F, J/Z, L, M, N and R); six improved (4, 6, 7, D, G and Q) and three remained unchanged (2, B and E).

**c) Accurate and understandable subway car announcements declined very slightly, going from 92% in our last report to 91% in the current report — a decrease of 1.1%.** We found six lines improved (4, 7, A, C, G and N), eight declined (3, 6, B, D, F, J/Z, Q and R) and six did not change (1, 2, 5, E, L and M).



#### 4. There are large disparities in how subway lines perform.

**a) Breakdowns:** The E had the best record on delays caused by car mechanical failures: once every 577,045 miles. The C was worst, with a car breakdown rate nearly ten times higher: every 66,382 miles.

**b) Cleanliness:** The 7 line had nearly a perfect score at 98%. The dirtiest line — the L — had 13% of its cars rated moderately or heavily dirty.

**c) Chance of getting a seat:** We rate a rider's chance of getting a seat at the most congested point on the line. We found the best chance is on the F, where riders had a 67% chance of getting a seat during rush hour at the most crowded point. The E ranked worst and was much more crowded, with riders having only a 28% chance of getting a seat, nearly three times worse.<sup>6</sup>

**d) Amount of scheduled service:** The 6 and 7 lines had the most scheduled service, with two-and-a-half minute intervals between trains during the morning rush hour. Several lines ranked at the bottom including the B, C and M, with nine- or ten-minute intervals between trains all through the day.

**e) Regularity of service:** The D, J/Z and L line had the greatest regularity of service, arriving within 25% of its scheduled interval 82% of the time. The most irregular line was the 5, which performed with regularity only 67% of the time.

**f) Announcements:** Five lines — the 2, 4, 5, E and N lines — had perfect performance for accurate and understandable announcements made in subway cars, missing no announcements and reflecting the automation of announcements. The B line was worst, missing or garbling announcements 23% of the time.

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<sup>6</sup> The most recent crowding data available is drawn from New York City Transit's Year 2013 Cordon Count. Crowding conditions listed above may not accurately reflect patterns observed as of the printing of this report.

**Table One**  
**BEST to WORST: 2015 STRAPHANGERS CAMPAIGN**  
**METROCARD RATINGS**

7	\$2.15
E	\$1.95
1	\$1.90
J&Z	\$1.90
L	\$1.85
F	\$1.80
D	\$1.75
N	\$1.75
6	\$1.70
Q	\$1.70
3	\$1.65
4	\$1.65
M	\$1.60
2	\$1.55
R	\$1.55
A	\$1.50
C	\$1.50
5	\$1.45
B	\$1.45

## Table Two

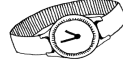
# HOW DOES YOUR SUBWAY LINE RATE?



**Straphangers  
Campaign  
MetroCard  
Rating**



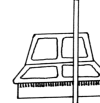
**Scheduled Frequency**



**Regularity of Service**



**Breakdowns**



**Seat  
Availability**



**Cleanliness**



**Announcements**

*Scheduled minutes  
between trains during  
morning rush*

*Scheduled minutes  
between trains at  
noon*

*Scheduled minutes between  
trains during evening rush*

*How often trains arrive without  
bunching or gaps in service*

*Number of miles  
traveled between car  
breakdowns*

*Chance of getting a  
seat during rush hour*

*Percentage of subway cars  
with clean seats and floors*

*Percentage of in-car  
announcements which are  
accurate and  
understandable*

<b>1</b>	\$1.90	3:00	6:00	4:00	80%	every 110,604 miles	44%	92%	79%
<b>2</b>	\$1.55	6:30	7:30	6:45	72%	132,668	36%	92%	100%
<b>3</b>	\$1.65	6:00	8:30	6:45	77%	210,212	39%	94%	83%
<b>4</b>	\$1.65	4:30	7:30	4:24	71%	119,138	34%	92%	100%
<b>5</b>	\$1.45	5:00	8:30	5:45	67%	134,541	33%	91%	100%
<b>6</b>	\$1.70	2:30	4:00	3:18	69%	83,702	31%	93%	95%
<b>7</b>	\$2.15	2:30	5:00	2:30	76%	201,123	59%	98%	86%
<b>A</b>	\$1.50	4:45	10:00	4:45	70%	89,220	38%	94%	86%
<b>B</b>	\$1.45	8:45	10:00	9:15	80%	96,114	51%	92%	77%
<b>C</b>	\$1.50	9:15	10:00	10:00	81%	66,382	50%	93%	81%
<b>D</b>	\$1.75	6:15	10:00	6:45	82%	194,260	47%	93%	78%
<b>E</b>	\$1.95	4:00	7:30	4:00	74%	577,045	28%	93%	100%
<b>F</b>	\$1.80	4:45	7:30	5:00	71%	204,157	67%	90%	92%
<b>G</b>	*	6:30	10:00	10:00	81%	92,039	*	94%	86%
<b>J&amp;Z</b>	\$1.90	5:00	10:00	5:00	82%	156,873	40%	95%	94%
<b>L</b>	\$1.85	4:30	6:00	4:00	82%	92,572	30%	87%	99%
<b>M</b>	\$1.60	8:45	10:00	9:25	79%	341,863	43%	89%	99%
<b>N</b>	\$1.75	7:15	10:00	7:30	81%	359,284	34%	88%	100%
<b>Q</b>	\$1.70	7:15	10:00	7:45	80%	359,951	31%	90%	99%
<b>R</b>	\$1.55	7:30	10:00	7:30	81%	167,780	31%	89%	86%
<b>System Average</b>		5:44	8:24	6:13	79%	141,202	40%	92%	91%

\*G line receives no MetroCard Rating as comparable crowding data is not available.

Table Three  
BEST to WORST SUBWAY LINES  
by SERVICE/PERFORMANCE MEASURE

Rank (from Best to Worst)	Amount of Scheduled Service	Regularity of Service	Breakdown Rate	Chance of Getting a Seat	Interior Cleanliness	In-Car Announcements
1	7	D	E	F	7	2 4 5
2	6	L	Q	7	J&Z	E N
3	1	J&Z	N	B	3 A G	
4	L	R	M	C		
5	E	C	3	D		
6	4	G	F	1	6 C D E	L M Q
7	F	N	7	M		
8	A	Q	D	J&Z		
9	5 J&Z	B	R	3		6
10		1	J&Z	A	1 2 4 B	J&Z
11	2 3	M	5	2		F
12		3	2	N		7 A G R
13	D	7	4	4		
14	N	E	1	5	5	
15	Q R	2	B	Q	F Q	
16		4	L	R		3
17	G	F	G	6	M R	C
18	B	A	A	L		1
19	M	6	6	E	N	D
20	C	5	C		L	B

Table Four  
BEST and WORST:  
STRAPHANGERS CAMPAIGN METROCARD RATINGS  
1997-2015

	BEST	WORST
2015	7	5 B
2014	7	2
2012	Q	C
2011	J & Z	2 C
2010	7	C
2009	7	C
2008	L	W
2007	1	C W
2006	6	N W
2005	6	N
2004	6	N
2003	L	5
2001	Q	C
2000	7	5
1999	7	A B M
1998	7	N
1997	7	B

## II. Summary of Methodology:

The NYPIRG Straphangers Campaign reviewed extensive MTA New York City Transit data on the quality and quantity of service on 20 subway lines. We used the latest comparable data available, largely from 2014.<sup>7</sup> Several of the data items have not been publicly released before on a line-by-line basis. MTA New York City Transit does not conduct a comparable rider count on the G line, which is the only major line not to go into Manhattan. As a result, we could not give the G line a MetroCard Rating, although we do issue a profile for the line.

We then calculated a MetroCard Rating — **intended as a shorthand tool to allow comparisons among lines** — for 19 subway lines, as follows:

First, we formulated a scale of the relative importance of measures of subway service. This was based on a survey we conducted of a panel of transit experts and riders, and an official survey of riders by MTA New York City Transit. The six measures were weighted as follows:

Amount of service	
• <i>scheduled amount of service</i>	30%
Dependability of service	
• <i>percent of trains arriving at regular intervals</i>	22.5%
• <i>breakdown rate</i>	12.5%
Comfort/usability	
• <i>chance of getting a seat</i>	15%
• <i>interior cleanliness</i>	10%
• <i>adequacy of in-car announcements</i>	10%

Second, for each measure, we compared each line's performance to the best- and worst-performing lines in this rating period.

A line equaling the system best in 2014 would receive a score of 100 for that indicator, while a line matching the system low in 2014 would receive a score of 0. Under this rating scale, a small difference in performance between two lines translates to a small difference between scores.

These scores were then multiplied by the percentage weight of each indicator, and added up to reach an overall raw score. Below is an illustration of calculations for a line, in this case the 4.

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<sup>7</sup> See Appendix I for a complete list of MTA New York City Transit data cited in this report.

<b>Figure 1</b>				
<b>Indicator</b>	<b>4 line value including best and worst in system for 5 indicators</b>	<b>4 line score out of 100</b>	<b>Percentage weight</b>	<b>4 line adjusted raw score</b>
Scheduled service	AM rush—4 min, 30 sec; noon—7 min, 30 sec; PM rush—4 min, 24 sec	69	30%	21
Service regularity	71% (best—82%; worst—67%)	26	22.5%	6
Breakdown rate	119,138 miles (best—577,045 miles; worst—66,382 miles)	10	12.5%	1
Crowding	34% seated (best—67%; worst—28%)	14	15%	2
Cleanliness	92% clean (best—98%; worst—87%)	45	10%	4
Announcements	100% adequate (best—100%; worst—77%)	100	10%	10
Adjusted score total				<b>4 line—45 pts. (after round.)</b>

Third, the summed totals were then placed on a scale that emphasizes the relative differences between scores nearest the top and bottom of the scale. (See Appendix I.)

Finally, we converted each line’s summed raw score to a MetroCard Rating. We created a formula with assistance from independent transit experts. A line scoring, on average, at the 50th percentile of the lines for all six measures would receive a MetroCard Rating of \$1.75. A line that matched the 90th percentile of this range would be rated \$2.75, the current base fare. The 4 line, as shown above, falls at a weighted 45th percentile over six measures, corresponding to a MetroCard Rating of \$1.65.

New York City Transit officials reviewed the profiles and ratings in 1997. They concluded: “Although it could obviously be debated as to which indicators are most important to the transit customer, we feel that the measures that you selected for the profiles are a good barometer in generally representing a route’s performance characteristics... Further, the format of your profiles...is clear and should cause no difficulty in the way the public interprets the information.”

Their full comments can be found in Appendix I, which presents a more detailed description of our methodology. Transit officials were also sent an advance summary of the findings for this year’s State of the Subways Report Card.

For our first five surveys, we used 1996 — our first year for calculating MetroCard Ratings — as a baseline. As we said in our 1997 report, our ratings “will allow us to use the same formula for ranking service on subway lines in the future. As such, it will be a fair and objective barometer for gauging whether service has improved, stayed the same, or deteriorated over time.”

However, in 2001, 2003, 2004, 2005, 2008, 2009, 2010, 2011, 2013 and 2014, transit officials made changes in how performance indicators are measured and/or reported. Transit officials rejected our request to re-calculate measures back to 1996 in line with their adopted changes. As a result, in this report we were forced to redefine our baseline with current data, and considerable historical comparability was lost.

Also due to changes in the measuring and/or reporting of data by Transit officials, it was necessary to make modest adjustments to the MetroCard Rating calculation and scale—as was the case in several earlier State of the Subways reports. In selecting this scale we attempted to create a single measure which we felt accurately and fairly represents the relative performance priorities listed in our original 1996 poll of riders, community leaders and independent transit experts.



### III. Why a Report Card on the State of the Subways?

Why does the Straphangers Campaign publish a yearly report card on the subways?

**First, riders are looking for information on the quality of their trips, especially for their line.** Our profiles seek to provide this information in a simple and accessible form. Our profiles have pressed NYC Transit to do likewise.

**In recent years, the MTA has gone forward and backward on providing detailed performance measures on a line-by-line basis.**

For example, in 2011, when current MTA Chairman Tom Prendergast was the President of New York City Transit, he created a “key performance indicator.” The KPI is a line-by-line composite that evaluates three basic measures of service. Unfortunately, the KPI has not caught on, as the measure does not allow for meaningful comparisons and is not easily understood.

In 2009, the MTA began posting monthly performance data for subway car breakdowns by each of the 20 subway lines. However, sometime in 2013, the MTA stopped reporting this information, saying they found the blended measure inaccurate. It was not replaced.

Our Report Card has coincided with an uptick in the public’s desire for “transparency” in government. The MTA’s “big data” – on-time service, for example – allows for complex analyses only recently possible. Unfortunately, these transparency initiatives move slowly. For example, in four years we have not succeeded in getting data on the nature of transit riders’ complaints. The Straphangers Campaign believes that should change.

**Second, our report card provides a picture of how the subways are doing. Riders can consult our profiles and ratings and see how their subway line compares to others.** For example, this report warns riders of the steady deterioration of subway car breakdown rates. Future performance will be a challenge given the MTA’s tight budget. We will be watching.

**Lastly, we aim to give communities the information they need to win better service.** We often hear from riders and neighborhood groups. They will say, “our line has got to be worst;” or “we must have the most crowded trains;” or “our line is much better than others.” For riders and officials on lines receiving a poor level of service, our report will help them advocate.

Our reports can be found online at [www.straphangers.org](http://www.straphangers.org), as can our profiles. We hope that these efforts — combined with the concern and activism of many thousands of city transit riders — will win better subway and bus service for New York City.

The background of the slide is decorated with several overlapping circles of different colors. These circles contain white or grey numbers and letters. Visible elements include: a purple circle with the number '7', a red circle with the number '1', an orange circle with the letter 'D', a blue circle with the letter 'E', a green circle with the letter 'G', a green circle with the number '6', a large grey circle with the letter 'L' in the center, a red circle with the number '3', a blue circle with the letter 'A', a yellow circle with the letter 'R', a brown circle with the letter 'J', a green circle with the number '4', a yellow circle with the letter 'Q', an orange circle with the letter 'B', and a small red circle with the number '2' at the bottom right.

# PROFILES OF 20 SUBWAY LINES

## Straphangers Campaign



## SUBWAY LINE PROFILE

The 1 line ranks tied for 3rd best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers  
Campaign  
MetroCard Rating**



**\$1.90**

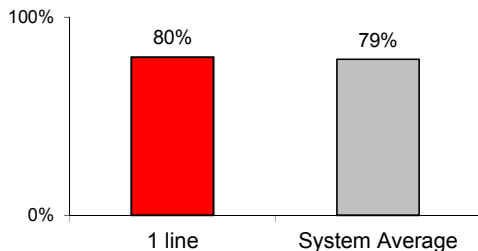
### The 1 line is scheduled to come more often than most subway lines...

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>1 line</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

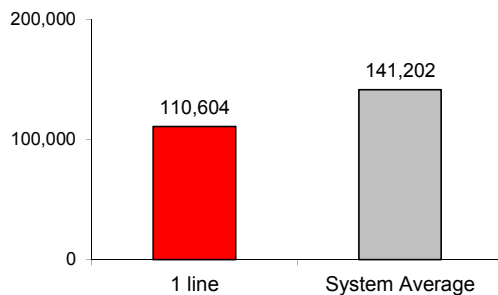
### and arrives with near-average regularity.

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



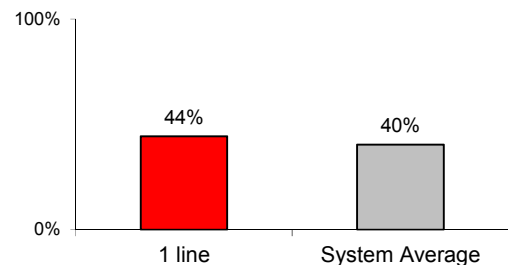
### Cars on the 1 break down more often than those on the average line.

miles traveled between delays caused by  
mechanical failures, 2014



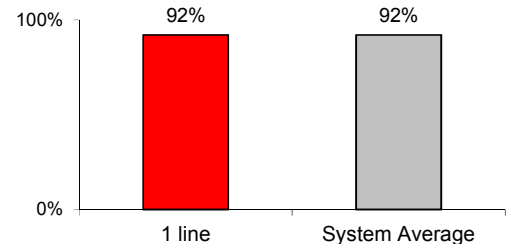
### You're more likely to get a seat on the 1.

% of passengers with seats at most crowded point  
during rush hour



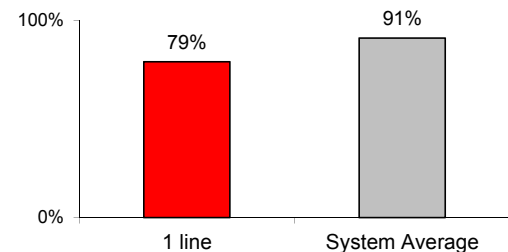
### The 1 line is as clean as the average line...

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



### but performs well below average on in-car announcements.

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## 2 SUBWAY LINE PROFILE

The 2 line ranks tied for 14th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers  
Campaign  
MetroCard Rating**



**\$1.55**

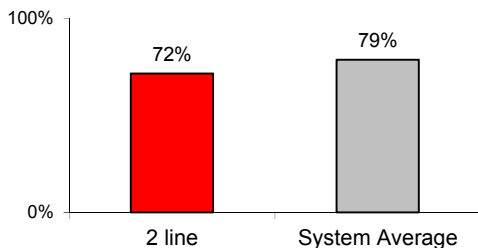
**The 2 line has an average amount of scheduled service...**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>2 line</b>	<b>6:30</b>	<b>7:30</b>	<b>6:45</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

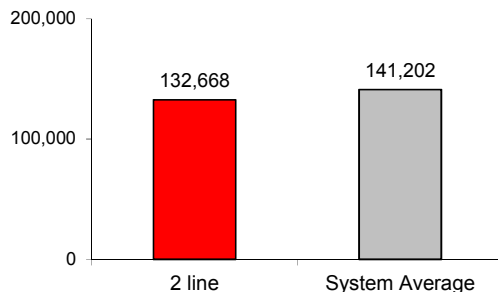
**but arrives with regularity less often than the average line.**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



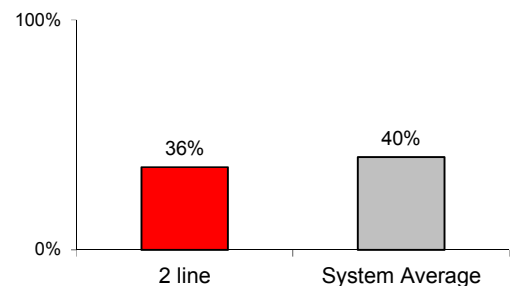
**Cars on the 2 break down more often than those on the average line.**

miles traveled between delays caused by  
mechanical failures, 2014



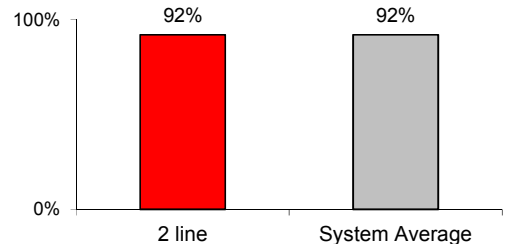
**You're less likely to get a seat on the 2.**

% of passengers with seats at most crowded point  
during rush hour



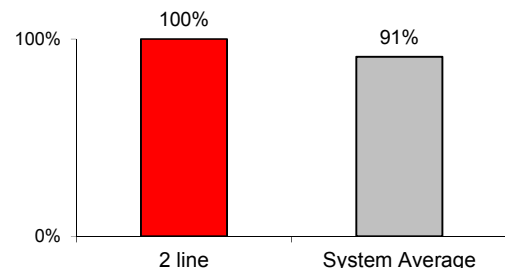
**The 2 is as clean as the average line...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**and performs perfectly on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## 3 SUBWAY LINE PROFILE

The 3 line ranks tied for 11th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers Campaign MetroCard Rating \$1.65**

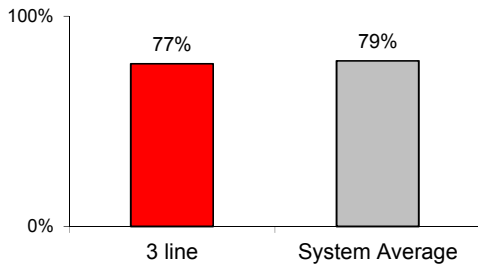
**The 3 line has an average amount of scheduled service...**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>3 line</b>	<b>6:00</b>	<b>8:30</b>	<b>6:45</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

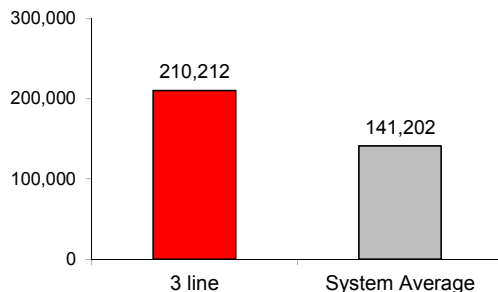
**but arrives with below-average regularity.**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



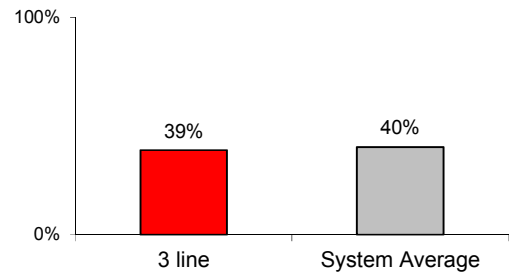
**Cars on the 3 break down less often than those on the average line.**

miles traveled between delays caused by  
mechanical failures, 2014



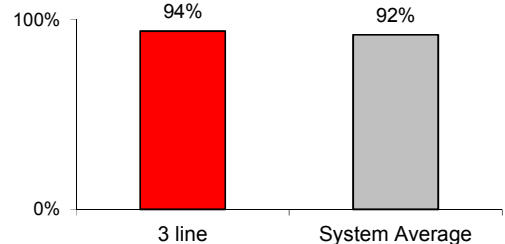
**You have an average chance of getting a seat on the 3 line.**

% of passengers with seats at most crowded point  
during rush hour



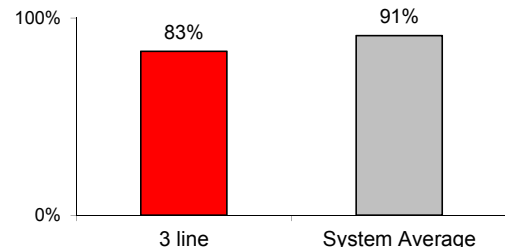
**The 3 is cleaner than the average line...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**but performs below average on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

## Straphangers Campaign



## SUBWAY LINE PROFILE

The 4 line ranks tied for 11th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers  
Campaign  
MetroCard Rating**



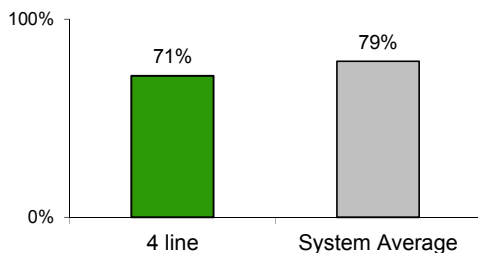
### The 4 line is scheduled to come more often than most subway lines...

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>4 line</b>	<b>4:30</b>	<b>7:30</b>	<b>4:24</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

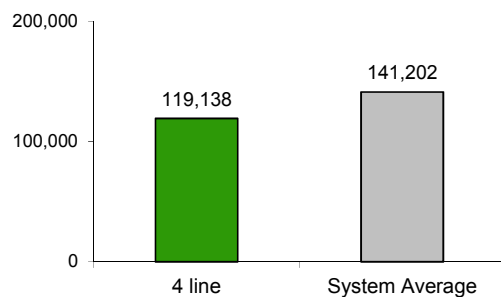
### but arrives with below-average regularity.

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



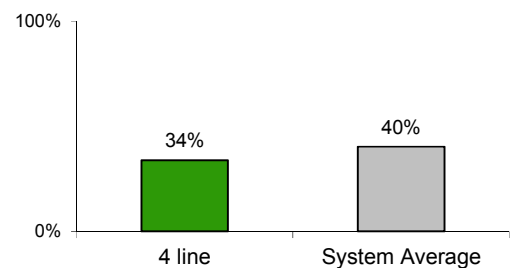
### Cars on the 4 line break down more often than those on the average line.

miles traveled between delays caused by  
mechanical failures, 2014



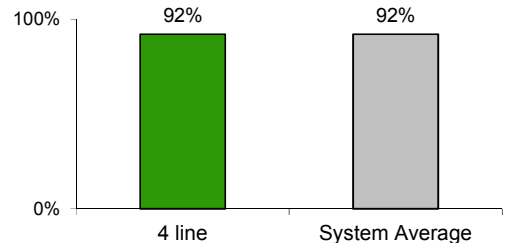
### You're less likely to get a seat on the 4.

% of passengers with seats at most crowded point  
during rush hour



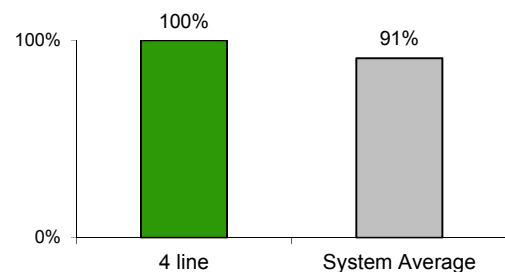
### The 4 is as clean as the average line...

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



### and performs perfectly on in-car announcements.

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## 5 SUBWAY LINE PROFILE

The 5 line ranks tied for worst of 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers  
Campaign  
MetroCard Rating**



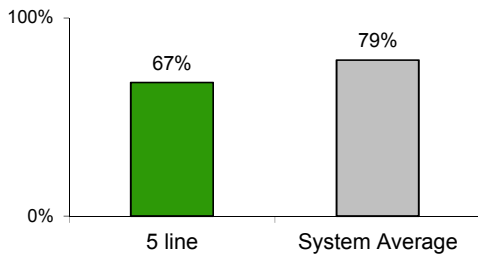
**The 5 line is scheduled to come more often than most subway lines...**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>5 line</b>	<b>5:00</b>	<b>8:30</b>	<b>5:45</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

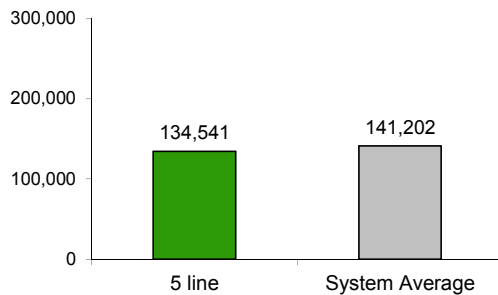
**but arrives with regularity less often than any other line in the system.**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



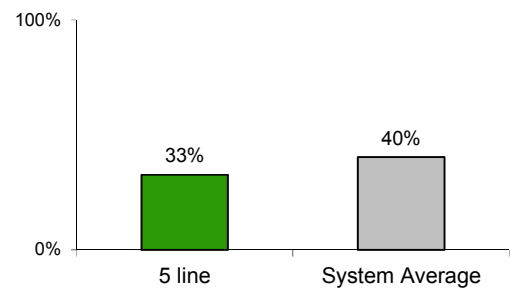
**Cars on the 5 break down more often than those on the average line.**

miles traveled between delays caused by  
mechanical failures, 2014



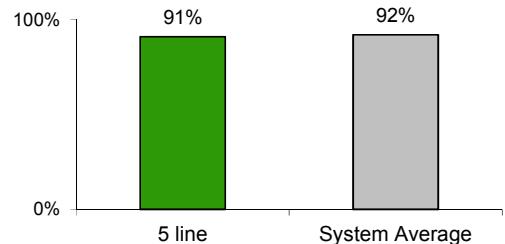
**You're less likely to get a seat on the 5.**

% of passengers with seats at most crowded point  
during rush hour



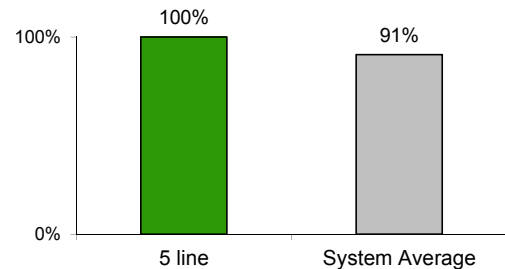
**The 5 line is about as clean as average...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**and performs perfectly on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**



## Straphangers Campaign

# 6 SUBWAY LINE PROFILE

The 6 line ranks tied for 9th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

Straphangers  
Campaign

MetroCard Rating **\$1.70**



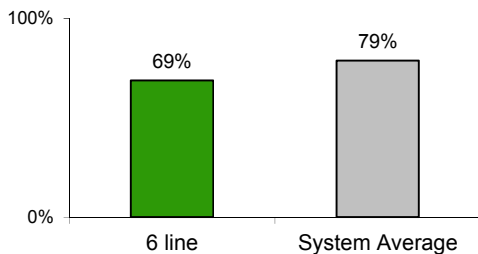
### The 6 has much more scheduled service than the average line.

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>6 line</b>	<b>2:30</b>	<b>4</b>	<b>3:18</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

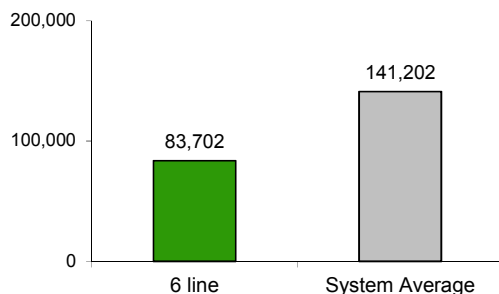
### The 6 arrives with regularity well below the system average...

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



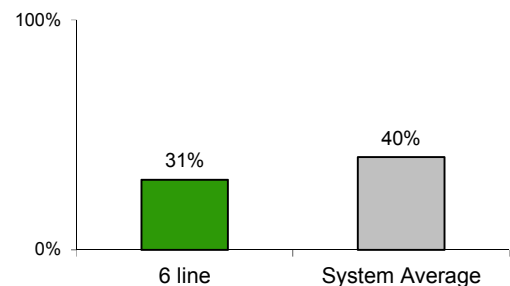
### and its cars break down much more often than those on the average line.

miles traveled between delays caused by  
mechanical failures, 2014



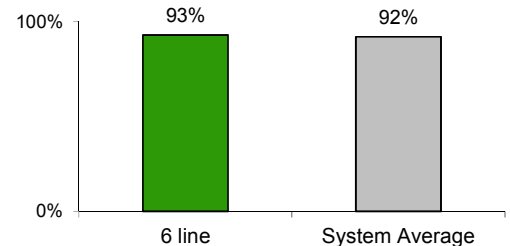
### You're less likely to get a seat on the 6.

% of passengers with seats at most crowded point  
during rush hour



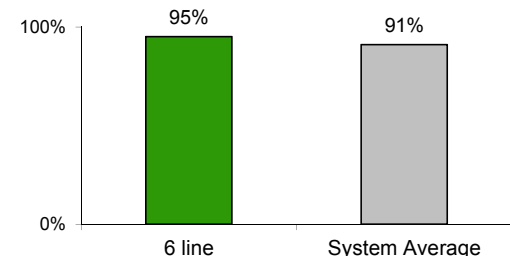
### The 6 is about as clean as the average line...

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



### and performs above average on in-car announcements.

% of cars with correct announcements as defined by  
NYC Transit



Questions about your line? Suggestions? Complaints? -- Call 511



# Straphangers Campaign

## 7 SUBWAY LINE PROFILE

The 7 line ranks best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers  
Campaign  
MetroCard Rating**



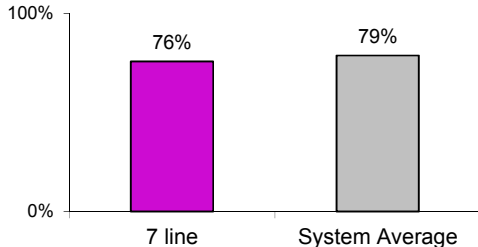
### The 7 has the the most scheduled service of any subway line.

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>7 line</b>	<b>2:30</b>	<b>5</b>	<b>2:30</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

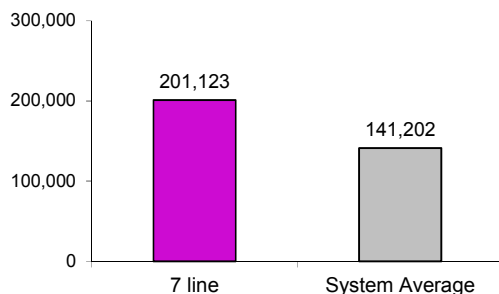
### The 7 line arrives with below-average regularity...

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



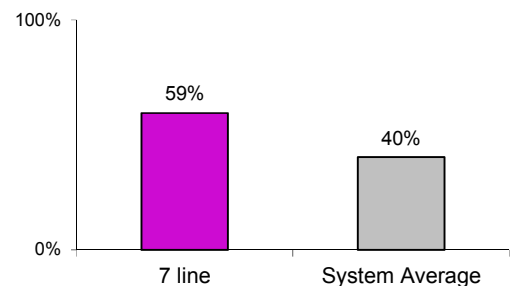
### but its cars break down less often than those on the average line.

miles traveled between delays caused by  
mechanical failures, 2014



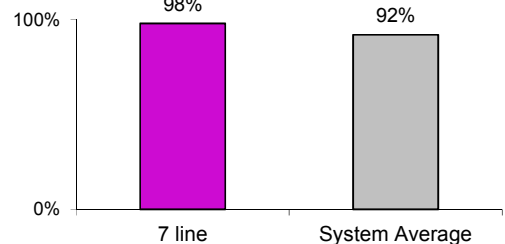
### You're much more likely to get a seat on the 7.

% of passengers with seats at most crowded point  
during rush hour



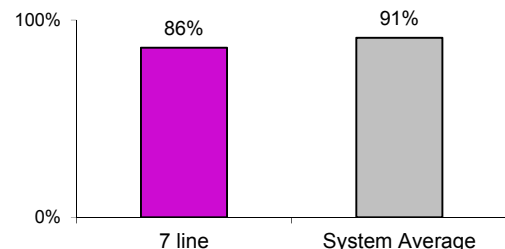
### The 7 is the system's cleanest line...

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



### but performs below average on in-car announcements.

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## A SUBWAY LINE PROFILE

The A line ranks tied for 16th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers Campaign MetroCard Rating \$1.50**

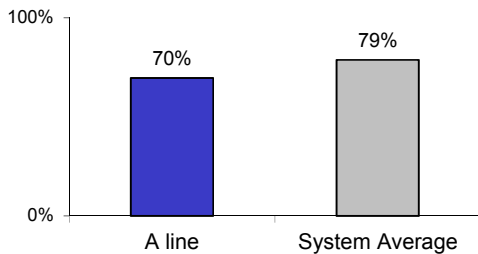
### The A has more rush-hour but less midday service than the average subway line.

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>A line</b>	<b>4:45</b>	<b>10</b>	<b>4:45</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

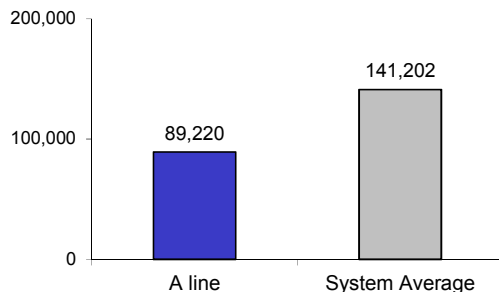
### The A arrives with regularity less often than the system average...

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



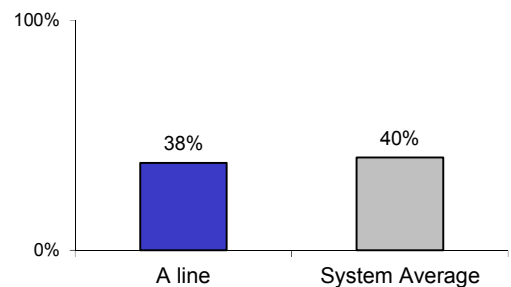
### and its cars break down more often than those on the average line.

miles traveled between delays caused by  
mechanical failures, 2014



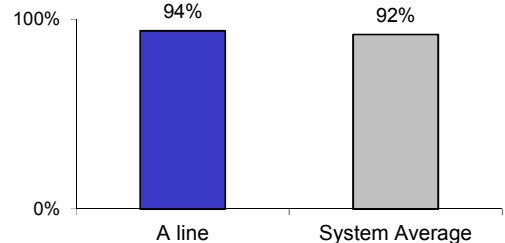
### You're less likely to get a seat on the A.

% of passengers with seats at most crowded point  
during rush hour



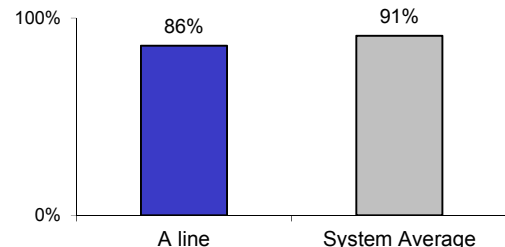
### The A is cleaner than the average line...

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



### but performs below average on in-car announcements.

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## B SUBWAY LINE PROFILE

The B line ranks tied for worst of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers  
Campaign  
MetroCard Rating**



**\$1.45**

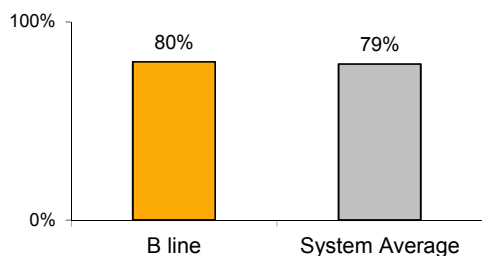
**The B line has a below-average amount of daytime service, and doesn't run at night.**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>B line</b>	<b>8:45</b>	<b>10</b>	<b>9:15</b>	<b>-</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

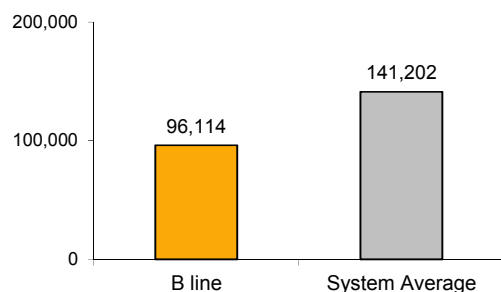
**The B arrives with near-average regularity...**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



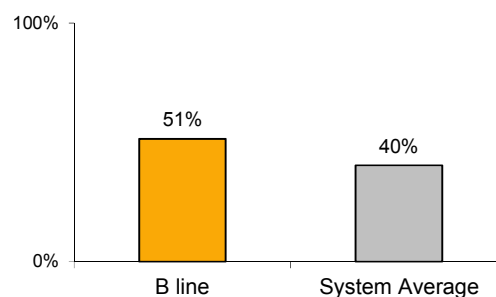
**but its cars break down more often than those on the average line.**

miles traveled between delays caused by  
mechanical failures, 2014



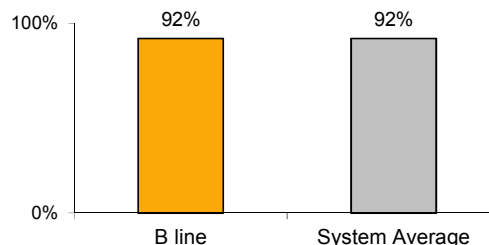
**You're more likely to get a seat on the B.**

% of passengers with seats at most crowded point  
during rush hour



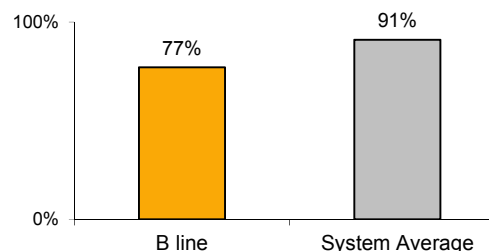
**The B is as clean as the average line...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**but it performs worst on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## SUBWAY LINE PROFILE

The C line ranks tied for 16th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers Campaign**  
**MetroCard Rating \$1.50**

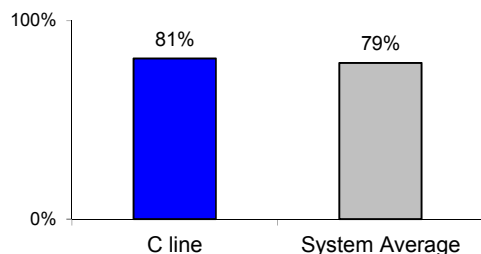
### The C line has the least amount of daytime service, and doesn't run at night.

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>C line</b>	<b>9:15</b>	<b>10</b>	<b>10</b>	<b>-</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

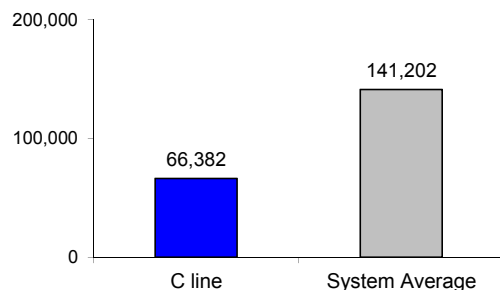
### The C arrives with above-average regularity...

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



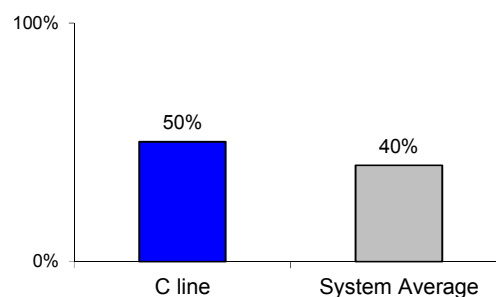
### but its cars break down more often than those on all other lines.

miles traveled between delays caused by  
mechanical failures, 2014



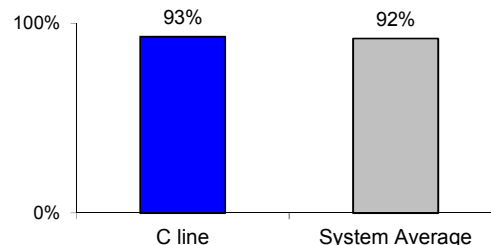
### You're more likely to get a seat on the C.

% of passengers with seats at most crowded point  
during rush hour



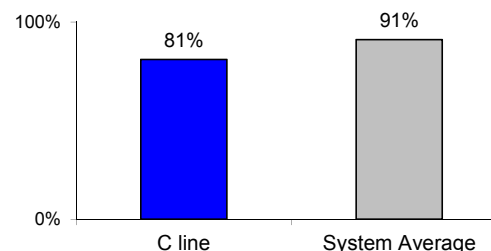
### The C is about as clean as average...

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



### but it performs below average on in-car announcements.

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## D SUBWAY LINE PROFILE

The D line ranks tied for 7th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers  
Campaign  
MetroCard Rating**



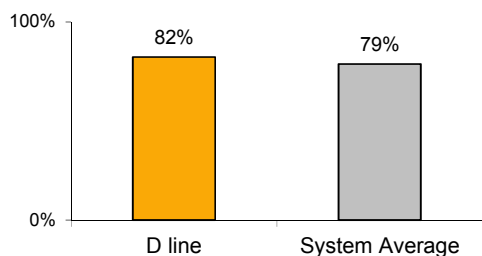
**The D line has a below-average amount of scheduled service.**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>D line</b>	<b>6:15</b>	<b>10</b>	<b>6:45</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

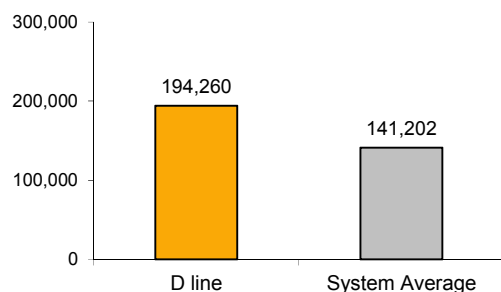
**The D is the system's most regular line...**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



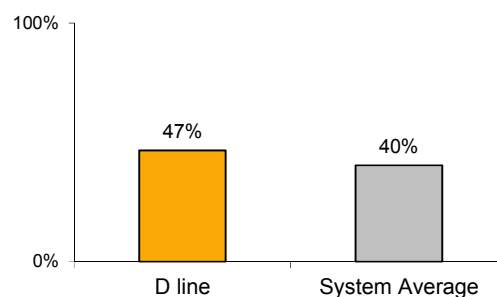
**and its cars break down less often than those on the average line.**

miles traveled between delays caused by  
mechanical failures, 2014



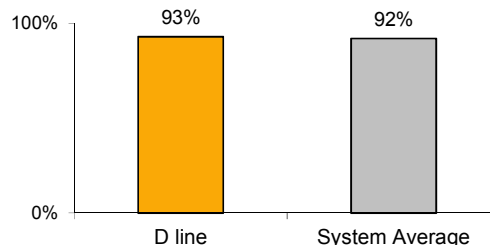
**You're more likely to get a seat on the D.**

% of passengers with seats at most crowded point  
during rush hour



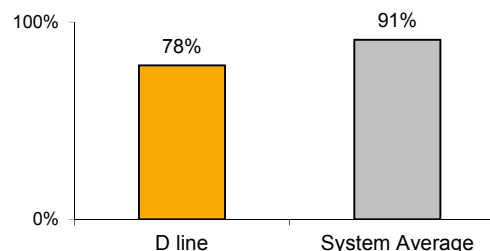
**The D is about as clean as the average line...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**but it performs well below average on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign



## SUBWAY LINE PROFILE

The E line ranks 2nd best of 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).



**Straphangers  
Campaign**

**MetroCard Rating**

**\$1.95**

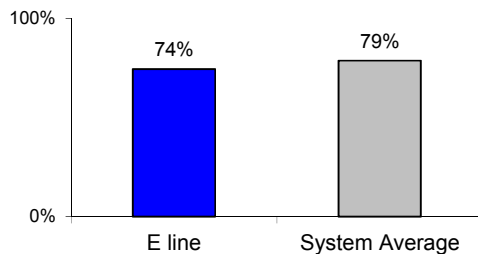
**The E line has an above-average amount of scheduled service...**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>E line</b>	<b>4</b>	<b>7:30</b>	<b>4</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

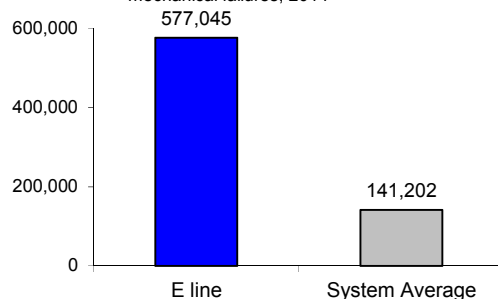
**but arrives with regularity less often than the average line.**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



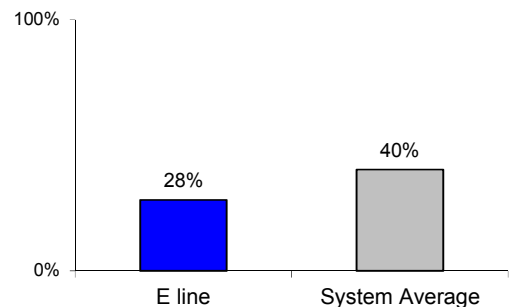
**Cars on the E break down less often than those on any other subway line.**

miles traveled between delays caused by  
mechanical failures, 2014



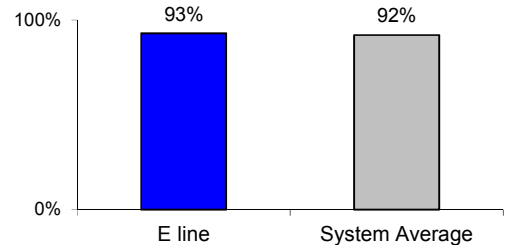
**You're least likely to get a seat on the E.**

% of passengers with seats at most crowded point  
during rush hour



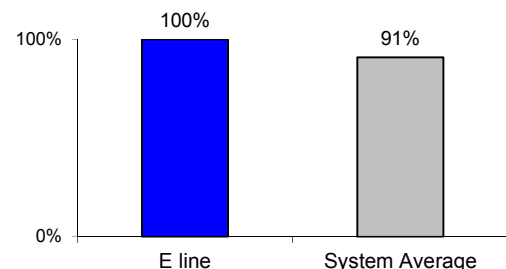
**The E is about as clean as the average line...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**and it performs perfectly on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## F SUBWAY LINE PROFILE

The F line ranks 6th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

Straphangers  
Campaign  
MetroCard Rating



\$1.80

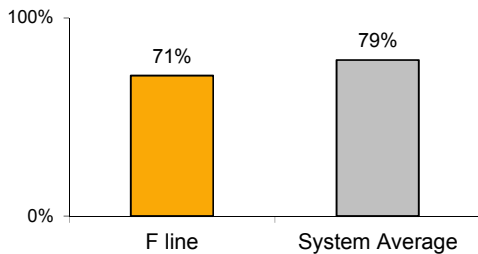
### The F line has an above-average amount of scheduled service.

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>F line</b>	<b>4:45</b>	<b>7:30</b>	<b>5</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

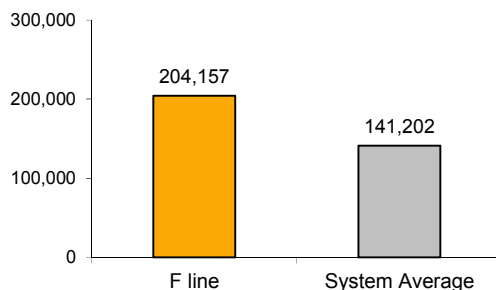
### The F arrives with below-average regularity...

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



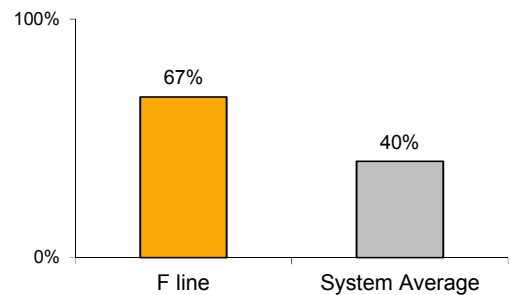
### but its cars break down less often than those on the average line.

miles traveled between delays caused by  
mechanical failures, 2014



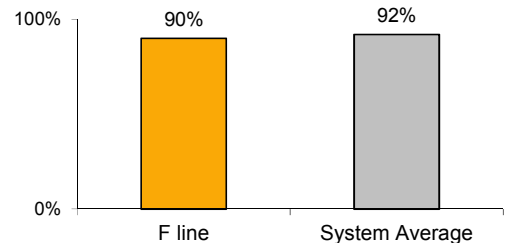
### You're most likely to get a seat on the F.

% of passengers with seats at most crowded point  
during rush hour



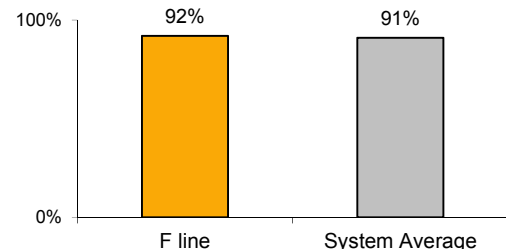
### The F is less clean than the average line...

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



### but performs near average on in-car announcements.

% of cars with correct announcements as defined by  
NYC Transit



Questions about your line? Suggestions? Complaints? -- Call 511



# Straphangers Campaign

## G SUBWAY LINE PROFILE

The G line profile is based on the MTA New York City Transit information below. (There is no MetroCard Rating for the G. Its data on crowding can not be compared to other lines.) Full methodology is available at [www.straphangers.org](http://www.straphangers.org).

**Straphangers  
Campaign  
MetroCard Rating**



**No  
Rating**

**The G line is scheduled to come much less often than most subway lines...**

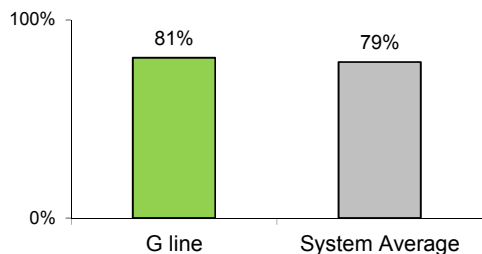
scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>G line</b>	<b>6:30</b>	<b>10</b>	<b>10</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

*Reliable crowding data for the  
G line is not available.*

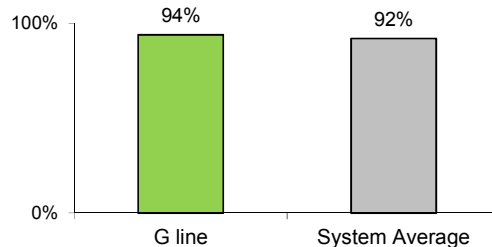
**but arrives with above-average regularity.**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



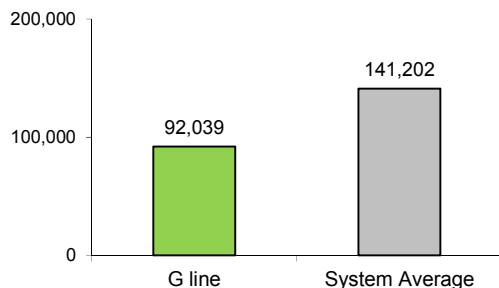
**The G line is cleaner than the average line...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



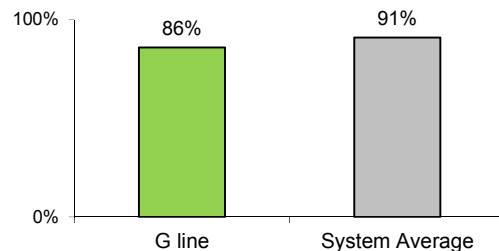
**Cars on the G break down more often than those on the average line.**

miles traveled between delays caused by  
mechanical failures, 2014



**but performs below average on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**



# Straphangers Campaign

## J/Z SUBWAY LINE PROFILE

The J/Z lines rank tied for 3rd best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers Campaign MetroCard Rating \$1.90**

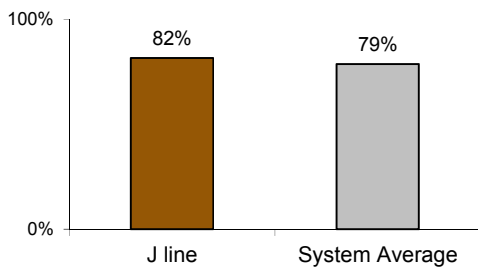
**The J & Z lines have more rush-hour but less midday service than the average line.**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>J line</b>	<b>5</b>	<b>10</b>	<b>5</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

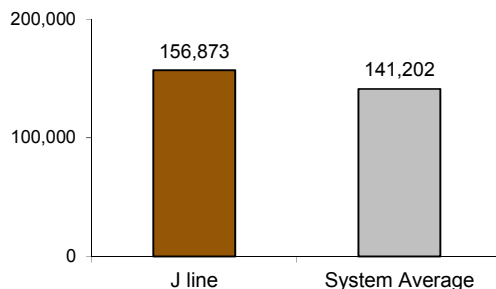
**The J & Z arrive with above-average regularity...**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



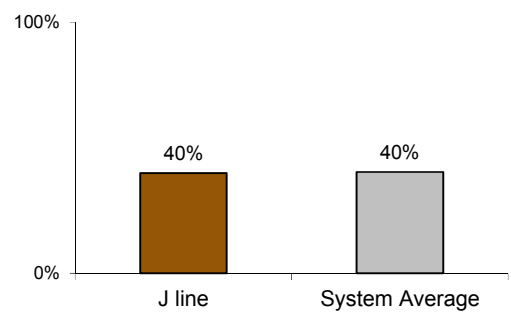
**and their cars break down less often than those on the average line.**

miles traveled between delays caused by  
mechanical failures, 2014



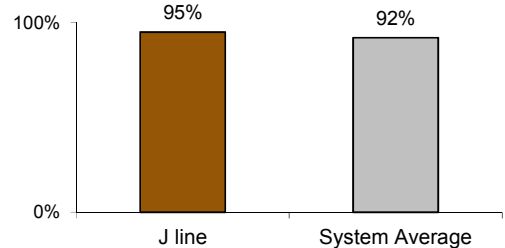
**You've an average chance of a seat on the J & Z.**

% of passengers with seats at most crowded point  
during rush hour



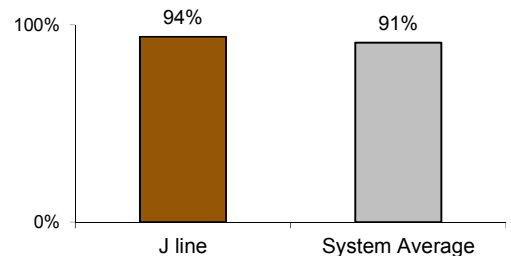
**The J & Z are cleaner than average...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**and perform above average on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## L SUBWAY LINE PROFILE

The L line ranks 5th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

Straphangers  
Campaign  
MetroCard Rating



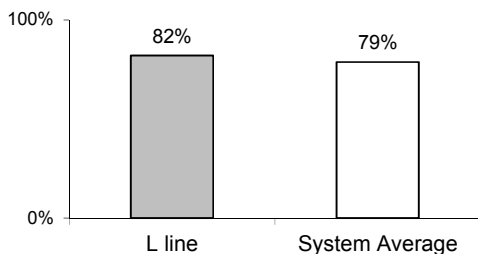
**The L line is scheduled to come more often than most subway lines...**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>L line</b>	<b>4:30</b>	<b>6</b>	<b>4</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

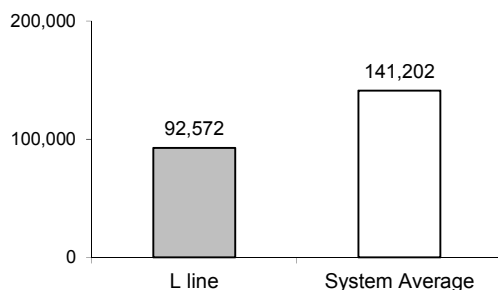
**and arrives with above-average regularity.**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



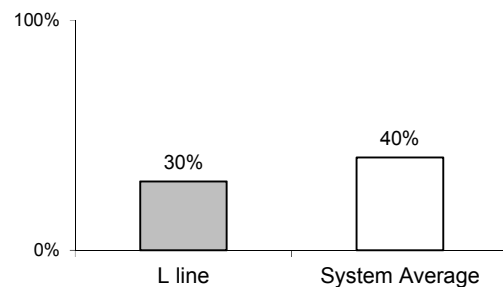
**Cars on the L break down more often than those on the average line.**

miles traveled between delays caused by  
mechanical failures, 2014



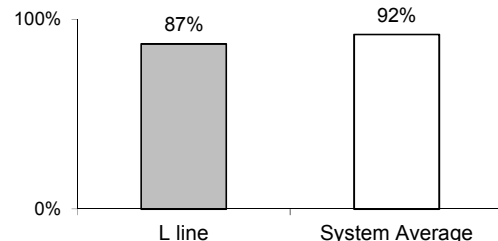
**You're much less likely to get a seat on the L.**

% of passengers with seats at most crowded point  
during rush hour



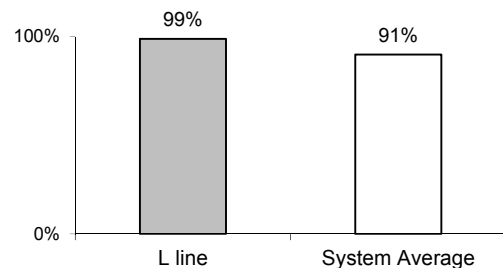
**The L line is the least clean in the system...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**but it performs nearly perfect on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## M SUBWAY LINE PROFILE

The M line ranks 13th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers Campaign MetroCard Rating \$1.60**

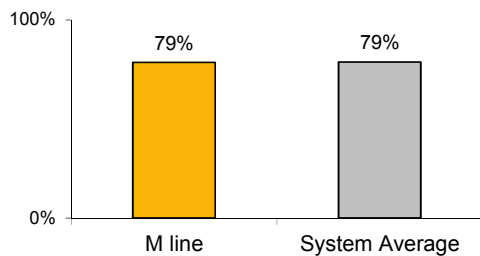
**The M line is scheduled to come much less often than the average line.**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>M line</b>	<b>8:45</b>	<b>10</b>	<b>9:25</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

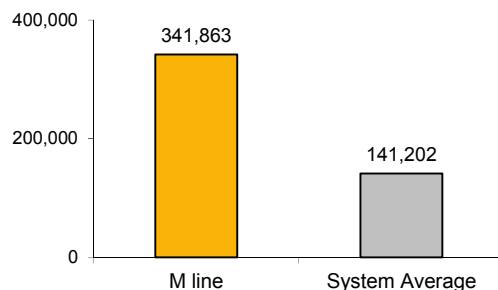
**The M arrives with average regularity...**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



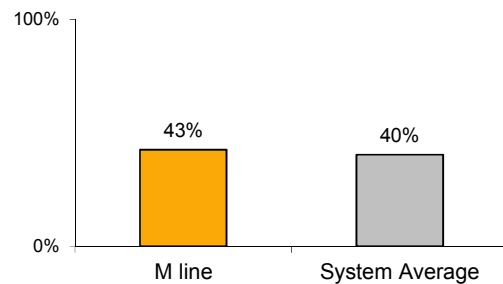
**and its cars break down less often than those on the average line.**

miles traveled between delays caused by  
mechanical failures, 2014



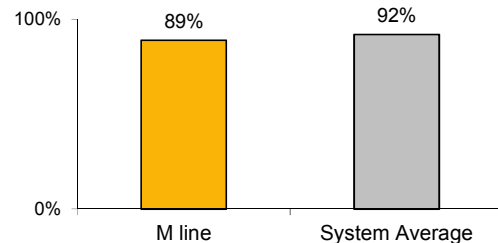
**You're more likely to get a seat on the M.**

% of passengers with seats at most crowded point  
during rush hour



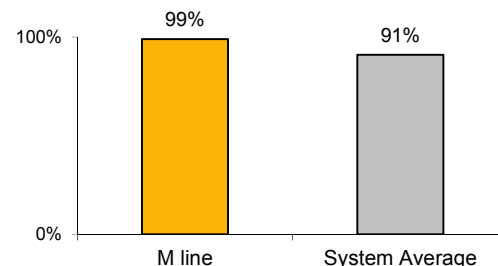
**The M is less clean than the average line...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**but performs nearly perfect on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

## Straphangers Campaign

# N SUBWAY LINE PROFILE

The N line ranks tied for 7th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers  
Campaign  
MetroCard Rating**



**\$1.75**

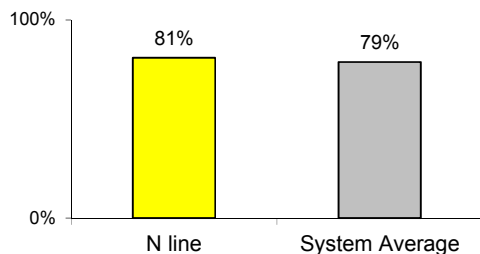
**The N line is scheduled to come less often than most subway lines...**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>N line</b>	<b>7:15</b>	<b>10</b>	<b>7:30</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

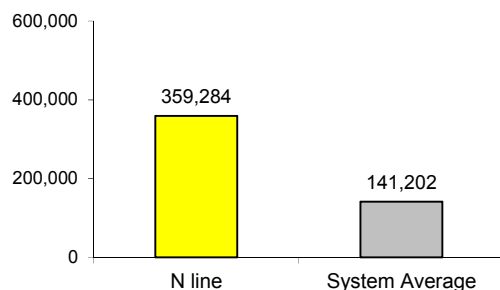
**but arrives with above-average regularity.**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



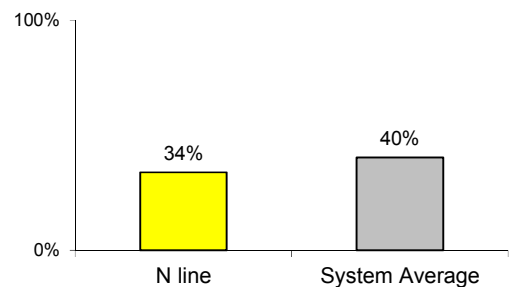
**Cars on the N break down much less often than those on other subway lines.**

miles traveled between delays caused by  
mechanical failures, 2014



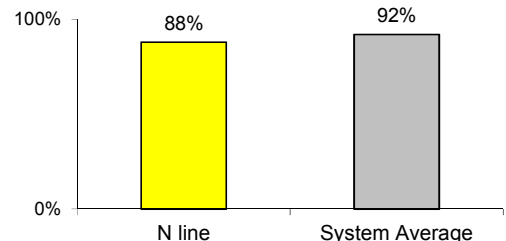
**You're less likely to get a seat on the N.**

% of passengers with seats at most crowded point  
during rush hour



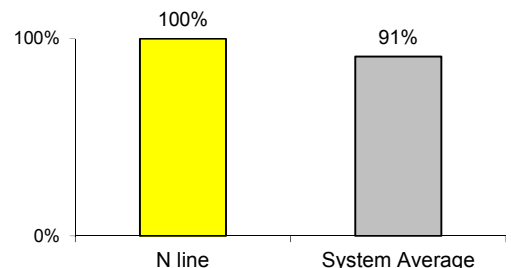
**The N line is less clean than average...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**but performs perfectly on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

# Straphangers Campaign

## Q SUBWAY LINE PROFILE

The Q line ranks tied for 9th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).

**Straphangers Campaign**  
**MetroCard Rating \$1.70**

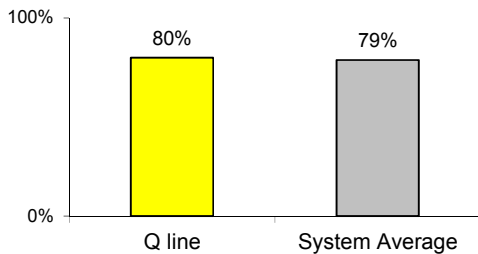
**The Q line is scheduled to come less often than most subway lines...**

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>Q line</b>	<b>7:15</b>	<b>10</b>	<b>7:45</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

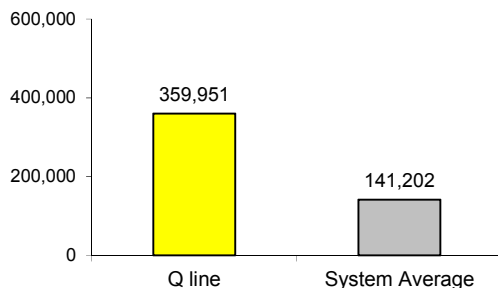
**but arrives with near-average regularity.**

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



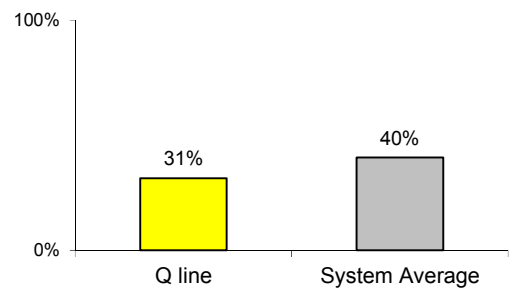
**Cars on the Q break down much less often than those on the average line.**

miles traveled between delays caused by  
mechanical failures, 2014



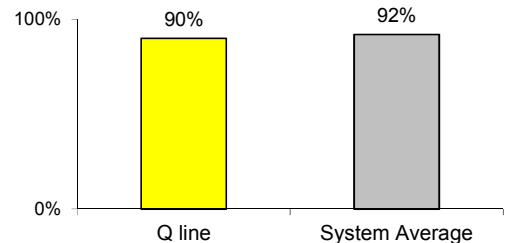
**You're less likely to get a seat on the Q.**

% of passengers with seats at most crowded point  
during rush hour



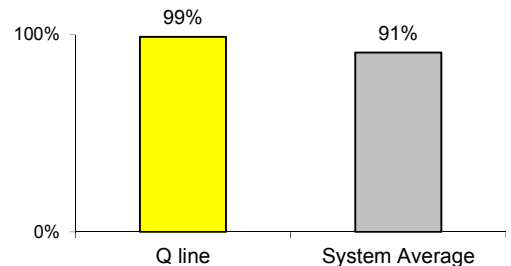
**The Q line is less clean than average...**

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



**but it performs nearly perfect on in-car announcements.**

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

## Straphangers Campaign

# R SUBWAY LINE PROFILE

The R line ranks tied for 14th best of the 19 subway lines rated by the Straphangers Campaign. Our ranking is based on the MTA New York City Transit data below, using a method described at [www.straphangers.org](http://www.straphangers.org).



**Straphangers Campaign MetroCard Rating \$1.55**

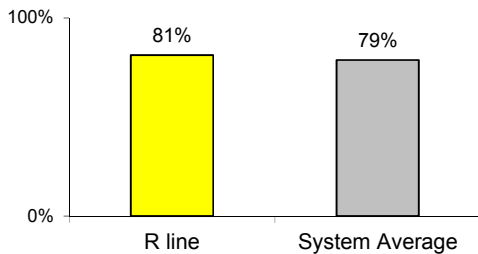
### The R line is scheduled to come less often than most subway lines...

scheduled minutes between weekday trains  
as of December 2014

	AM Rush	Noon	PM Rush	Overnight
<b>R line</b>	<b>7:30</b>	<b>10</b>	<b>7:30</b>	<b>20</b>
<b>System Average</b>	<b>5:44</b>	<b>8:24</b>	<b>6:13</b>	<b>20</b>

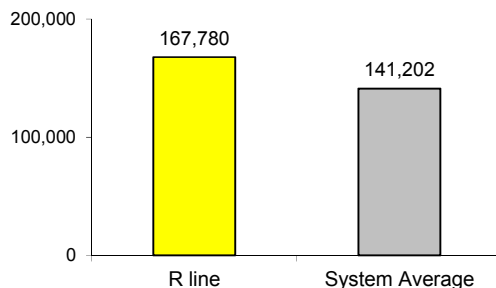
### but arrives with above-average regularity.

% of trains arriving at regular intervals  
--weekday "wait assessment"--  
between 6 am and midnight



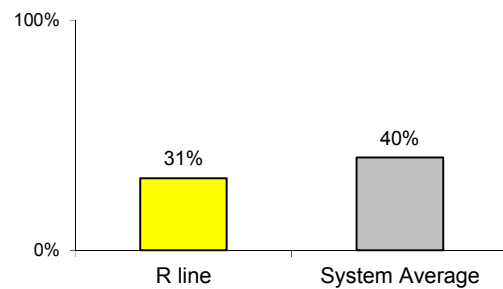
### Cars on the R break down less often than those on the average line.

miles traveled between delays caused by  
mechanical failures, 2014



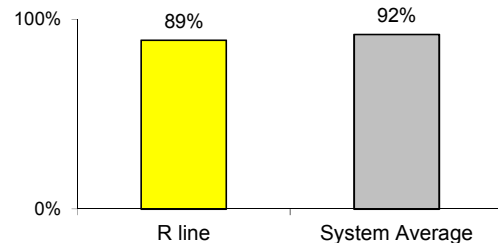
### You're less likely to get a seat on the R.

% of passengers with seats at most crowded point  
during rush hour



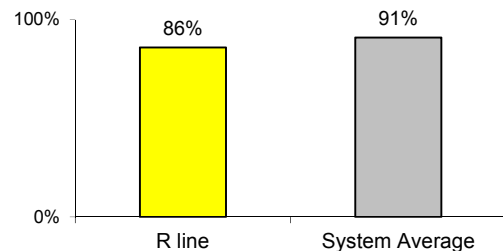
### The R line is less clean than most...

% of cars with 'light or no interior dirtiness' as defined  
by NYC Transit



### and also performs below average on in-car announcements.

% of cars with correct announcements as defined by  
NYC Transit



**Questions about your line? Suggestions? Complaints? -- Call 511**

## **Appendix I: Detailed Methodology**

### **How We Developed Our Profiles and MetroCard Ratings**

This appendix describes in detail the methodology used by the NYPIRG Straphangers Campaign to develop our profiles of New York City subway lines and our MetroCard Ratings.

Essentially, we reviewed six measures of transit performance compiled by MTA New York City Transit, presented them in concise, one-page, rider-friendly profiles, and then gave a MetroCard Rating based on their overall performance. We chose these six measures — which are fully described below — for several reasons. This included their importance to riders, as reflected in New York City Transit’s polling of riders and in our own survey of 38 transit experts. Additional factors included the availability, reliability and comparability of the data.

The MetroCard Rating was developed in two steps, explained more fully below. First, we decided how much weight to give each of the six measures of transit services in our profiles. Then we placed each line on a scale that permits fair and consistent comparisons. Under that formula, a line whose 2014<sup>8</sup> scores fell on average at the 50<sup>th</sup> percentile of lines for all six performance measures would earn a 2015 MetroCard Rating of \$1.75. Those scoring at the 90<sup>th</sup> percentile would receive a rating of \$2.75, the current base fare.

#### **1. Presenting New York City Transit Data to Riders**

We decided to report data in the form of concise one-page profiles for each subway line. That met our goal of presenting the information in a way that would be easily understandable to the riding public.

Below is a description of each of six measures of transit performance that we used. We have listed the published sources of the data; if no published source is listed, we received the data from MTA New York City Transit in electronic form. In 1997, New York City Transit officials reviewed a draft version of the profiles and concluded:

Although it could obviously be debated as to which indicators are most important to the transit customer, we feel that the measures that you selected for the profiles are a good barometer in generally representing a route’s performance characteristics...Further, the format of your profiles...is clear and should cause no difficulty in the way the public interprets the information.<sup>9</sup>

An advance summary of the findings for the 2015 State of the Subways report was provided to MTA New York City Transit.

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<sup>8</sup> Data on scheduled service, service regularity, breakdown rate, interior cleanliness and in-car announcements was taken from MTA New York City Transit 2014 sources. On crowding, we cite the 2013 MTA NYCT cordon count — the most recent data available at the time of this report’s preparation. For the sake of brevity, we refer to data from sources cited in this report as ‘2014 data.’

<sup>9</sup> The draft included the same six measures of service as the final version. Transit officials did note that for some lines, “it may be more useful to present the profiles by corridor rather than individual route...especially for such high-volume corridors as the Lexington Avenue express.” (Source: Letter, to Gene Russianoff, staff attorney, Straphangers Campaign from Lois Tendler, Acting Chief of Operations Planning, MTA New York City Transit, April 17, 1997.) Since all the data we use is broken down by line, we felt the profiles should reflect this.

### *A. Scheduled headways*

We measured amount of service based on the scheduled “headways” between trains for weekday morning rush, afternoon rush and midday hours. Headways are the number of minutes scheduled between train arrivals. For example, the 4 line is scheduled to arrive every four minutes, thirty seconds during the weekday morning rush. Because virtually all subway lines operate at the same interval — 20 minutes — during late night hours, we did not include overnight headways in our analysis. This approach allowed us to include the B and C—two train lines that do not regularly operate during overnight hours.

For our profiles, we decided to have the morning and afternoon rush hour intervals each contribute 40% to the overall headways measurement; midday headways account for the remaining 20%. We felt that this fairly reflected the relative use of service. For any line which has different scheduled intervals for northbound and southbound trains, the average headway was considered. Due to changes in the way MTA New York City Transit reports its headway data, the amount of scheduled service figures cited in this report may not be comparable to those published in our 16 previous reports. System average data was calculated by averaging data by time period from the 20 lines measured in this report.

(Source: Subway Service Frequency (Headway in Minutes) by Route and Time of Day—effective: December 7, 2014—A and B Divisions. Received from Division of Operations Planning, Department of the Executive Vice President, MTA New York City Transit.)

### *B. Regularity of Service*

Regularity of service measures the adherence of *actual* intervals to *scheduled* intervals between trains. A line with a *low* regularity, for example, would show either gaps in train service during some portion of the day, and/or train bunching at others.

In 2001, MTA New York City Transit created a new measure of this indicator, called *wait assessment*:

*The percentage of service intervals is no more than the scheduled interval plus 2 minutes during the hours of 6 a.m. to 9 a.m. and 4 p.m. to 7 p.m., or plus 4 minutes during the hours of 9 a.m. to 4 p.m. and 7 p.m. to 9 p.m.*

In 2008, transit officials modified this definition:

*[Wait assessment] is the percent of instances that the time between trains does not exceed schedule by more than 2 minutes (peak) or 4 minutes (off-peak). The reporting time is 6:00 a.m. to midnight.*

This reporting time (6 a.m. to midnight) represents a departure from the reporting time used by transit officials between 2001 and 2007. Further, 2009 data was published as 12-month, rather than 6-month, rolling averages.



In 2010, transit officials changed the definition again:

*Wait assessment (WA), which is measured weekdays between 6:00 a.m. - midnight is defined as the percent of actual intervals between trains that are no more than the scheduled interval plus 25%.*

(Source: Subway Weekday Wait Assessment, 12-Month Rolling (6 a.m. to midnight), January-December, 2014. Received from the Office of the President, MTA New York City Transit.)

### *C. Mean distance between failures (MDBF)*

MTA New York City Transit states that MDBF measures subway car reliability and “is calculated as revenue car miles divided by the number of delay incidents attributed to car-related causes.” In this report we cited data for the 12-month moving average for the period ending December 2014.

The system average quoted is the 2014 “fleet average” published in the February 2015 MTA New York City Transit Committee Agenda, available at [http://web.mta.info/mta/news/books/pdf/150223\\_1000\\_transit-bus.pdf](http://web.mta.info/mta/news/books/pdf/150223_1000_transit-bus.pdf).

(Source: MDBF [Mean Distance between Failures] Analysis and Mileage, by-line Twelve-month Moving Average, December 2014, Rail Control Center, Department of Subways. Received from the Office of the President, MTA New York City Transit.)

### *D. Chance of getting a seat*

We developed a formula to calculate the chance of being able to get a seat at the most crowded point on each line. First, we identified each line’s “instance of greatest crowding” using New York City Transit’s 2013 *Weekday Cordon Count*. We did this by isolating for each line the most crowded 1-hour interval at the most crowded point entering or exiting Manhattan’s Central Business District (CBD). Then we divided the number of seats on all cars on each line by the number of passengers during that 1-hour interval. For example, the 1 line was at its most crowded point exiting the CBD, uptown at 59<sup>th</sup> Street / Columbus Circle, between 5:00 p.m. and 6:00 p.m. on the day the count was taken; the average number of passengers counted was 97.03 per car. Cars on the 1 line are of the class R62-A, a 51-foot A-subdivision car with 43 seats. Thus the ratio of the number of seats to the total number of passengers per car would be 43/97.03 or 44%. This figure, 44%, represents the chance that a rider will be able to get a seat on a train at the 1 line’s most crowded point entering/exiting the CBD, during the most crowded 1-hour weekday interval. In cases where more than one car class was used on a line, we evaluated crowding based on the seating guidelines for the predominant type of car used on the line. As the G line does not enter the CBD, passenger loading data is not included in MTA New York City Transit’s cordon count. For this reason, we report no crowding data for the G line in this report, and subsequently, calculate no MetroCard Rating for the G. System average data was calculated by averaging the ‘chance of getting a seat’ scores of 19 lines cited in the cordon count.

(Source: *Year 2013 Weekday Cordon Count*. Received from the Office of the President, MTA New York City Transit.)

## *E. Passenger Environment Surveys: Cleanliness and Announcements*

New York City Transit conducts a periodic “Passenger Environment Survey” (PES) to measure the quality of the transit environment experienced by riders. It does this for subway cars, stations and buses and releases the results semi-annually. The PES is performed by “surveyors who are specifically trained for this function and who have no direct association with the departments affected by the survey evaluations. The surveying of...subway cars is conducted throughout each quarterly recording period to the extent necessary to depict a ‘representative’ sample of NYC Transit’s vehicles.”<sup>10</sup> Our profiles represent the first time that PES findings have been presented to the public on a line-by-line basis. We included PES ratings on cleanliness and announcements because New York City Transit's own surveys of rider opinion show both are of major concern to riders.

### *(1) Interior cleanliness*

The PES includes a rating on the cleanliness of the interior of subway cars while in passenger service. It defines a car with a light degree of dirtiness as one with “occasional ‘ground in’ spots, but generally clean.” Interior cleanliness in our profile was measured as the sum of the total percentage of cars with “no dirtiness of car floors and seats,” and those with “a light degree of dirtiness of car floors and seats” during the last six months of 2014.

(Source: Passenger Environment Survey, Subway Car Results by Route, Second Half 2014. Received from the Office of the President, MTA New York City Transit.)

### *(2) Adequacy of routine in-car announcements*

In-car announcements are also monitored in the Passenger Environment Survey. Our profiles note the average percentage of cars with adequate “routine in-car announcements” for the last six months of 2014. PES rates announcements as adequate if they are “understandable” and “correct.” Such announcements would include at least four of the five following items:

- next station announced;
- transfer options, if applicable;
- route designation announced (either letter or number corresponding to a train line);
- next station announced; and
- “stand clear of the closing doors” announced.

This represents a change in PES methodology made in the third quarter of 2000.

(Source: Passenger Environment Survey, Subway Car Results by Route, Second Half 2014. Received from the Office of the President, MTA New York City Transit.)

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<sup>10</sup> Source: MTA New York City Transit *Passenger Environment Survey*, Third Quarter, 1996, p. 1.

## 2. Developing a Straphangers Campaign MetroCard Rating

We decided to include one overall rating for each of 19 subway lines. The rating is intended as a shorthand tool to summarize all of the information reported in the profiles and to allow for comparisons among lines.

As described below, under the formula used, a line whose 2014 scores fell on average at the 50<sup>th</sup> percentile of all lines for all six performance measures would receive a 2015 MetroCard Rating of \$1.75. A line which matched the 90<sup>th</sup> percentile of this range would receive a line rating of \$2.75. However, some lines that ranked high on some measures of performance may have received only an average MetroCard rating due to poor relative performance in other areas. (See Figure 1.)

Some riders may find this scale too generous, believing that performance levels should be far better than they are now. Other riders, who value transit service over other ways to travel in New York City, may believe the subways and buses to be a bargain.<sup>11</sup>

**The MetroCard rating does not seek to make a subjective value judgment of the worth of subway service.** It is not based on economic factors, such as the cost of providing service or comparisons to the costs of other modes of transportation. Instead, it is only a yardstick that permits a simple and direct ranking of subway lines.

### *A. Ranking Subway Performance Indicators*

We used two sources of information to formulate a scale of the relative importance of various subway line performance indicators. First, the Straphangers Campaign conducted a poll of 38 transit experts, activists and members of the riding public. We asked them to rank eight indicators of subway performance that opinion polls indicated were of major concern to riders. Second, we examined MTA New York City Transit's own rider opinion surveys. One performance indicator, crime, ranked high in both the Straphangers Campaign's poll and in the MTA rider surveys, but could not be included in the profile project because applicable data was not available on a line-by-line basis. A second measurement, "enroute schedule adherence," (commonly referred to as "on-time performance") was dropped from consideration because New York City Transit made changes to its definition and to the time periods surveyed.

Three lines — the Grand Central, Franklin Avenue and Rockaway Shuttles — were dropped from consideration because not all six measures of service were available for these lines. Due to the lack of reliable crowding data for the G, no MetroCard Rating was calculated for that line.

The remaining 19 subway lines were evaluated on the basis of six indicators, all regularly measured by New York City Transit on a line-by-line basis. Each measure was assigned a percentage weight based on the priorities expressed by those polled as follows; the measures are grouped by the type of indicator:

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<sup>11</sup> For example, in critiquing an earlier draft of our profile, transit officials said: "After all, what alternative mode of transportation along Lexington Avenue can even remotely compare at a cost of \$1.50 to the speed, frequency, and we dare say, reliability of the subway service." (Source: Letter, April 17, 1997, to Gene Russianoff, staff attorney, Straphangers Campaign from Lois Tendler, Acting Chief of Operations Planning, MTA New York City Transit.)

Amount of service	(total: 30%)
<i>Scheduled headways</i>	30%
Dependability of service	(total: 35%)
<i>Regularity of service</i>	22.5%
<i>Mean distance between failures</i>	12.5%
Comfort/usability	(total: 35%)
<i>Chance of getting a seat</i>	15%
<i>Interior cleanliness</i>	10%
<i>Adequacy of in-car announcements</i>	10%
	(total = 100%)

Data and/or specific calculations on three of these indicators — chance of getting a seat, interior cleanliness and in-car announcements — had never before been released to the public on a line-by-line basis.

### *B. Calculating the MetroCard Rating*

In our first five surveys, 1996 performance data served as a baseline. As we said in our 1997 report, Line Ratings “will allow us to use the same formula for ranking service on subway lines in the future. As such, it will be a fair and objective barometer for gauging whether service has improved, stayed the same, or deteriorated over time.”

However, in 2001, 2003, 2004, 2005, 2008, 2009, 2010, 2011, 2013 and 2014, transit officials made changes in how performance indicators are measured and/or reported. The Straphangers Campaign has unsuccessfully urged MTA New York City Transit to re-consider its new methodologies, because of our concerns about the fairness of these measures and the loss of comparability with past indicators. Transit officials also have rejected our request to re-calculate measures back to 1996 in line with their adopted changes. As a result, in this report we were forced to redefine our baseline with current data, and considerable historical comparability was lost.

Due to these changes by New York City Transit in the measurement and reporting of data, we have established a new baseline this year — largely 2014 data published in this report — against which we hope to be able to compare future performance.

### *C. 2015 MetroCard Ratings*

19 lines were rated on a linear scale for each of the six measurements used. A line in 2014 equaling the system best would receive a score of 100 for that indicator, while a 2014 line matching the system worst would receive a score of 0. Thus all lines in this report received a score for each measurement between 0 and 100. The lines’ scores were then multiplied by the respective weights assigned each indicator. The six adjusted scores were then added up (see Figures 1 and 2), which use the 4 line as an example.

The summed totals were then placed on a logarithmic scale. This scale emphasizes the relative differences between scores nearest the top and bottom of the scale, and ensures that a small

difference in performance between any two ‘average’ lines translates to a small difference between scores. Our method reflects the odds, rather than the percentage chance, of any train on a given line meeting a basic level of satisfaction.<sup>12,13</sup>

Finally, we converted the scale to a dollar-based line rating, to offer riders a simple basis for comparisons among lines.<sup>14</sup> We calibrated this scale so that a line whose 2014 scores fell on average at the 50th percentile of all lines for all six performance measures would receive a rating of \$1.75. A line which matched the 90th percentile of this range would be rated \$2.75. Each figure was then rounded to the nearest 5¢. In selecting this scale we attempted to create a single measure which we felt accurately and fairly represents the relative performance priorities listed in our original 1996 poll of riders, community leaders and independent transit experts. The actual scale used to convert summed raw scores to line ratings is shown on the following page, with the 4 line as an example. (See Figures 2 and 3.)

Because of changes in data reporting at New York City Transit, 2015 Straphangers Campaign MetroCard Ratings cannot be compared to ratings given in previous State of the Subways reports.

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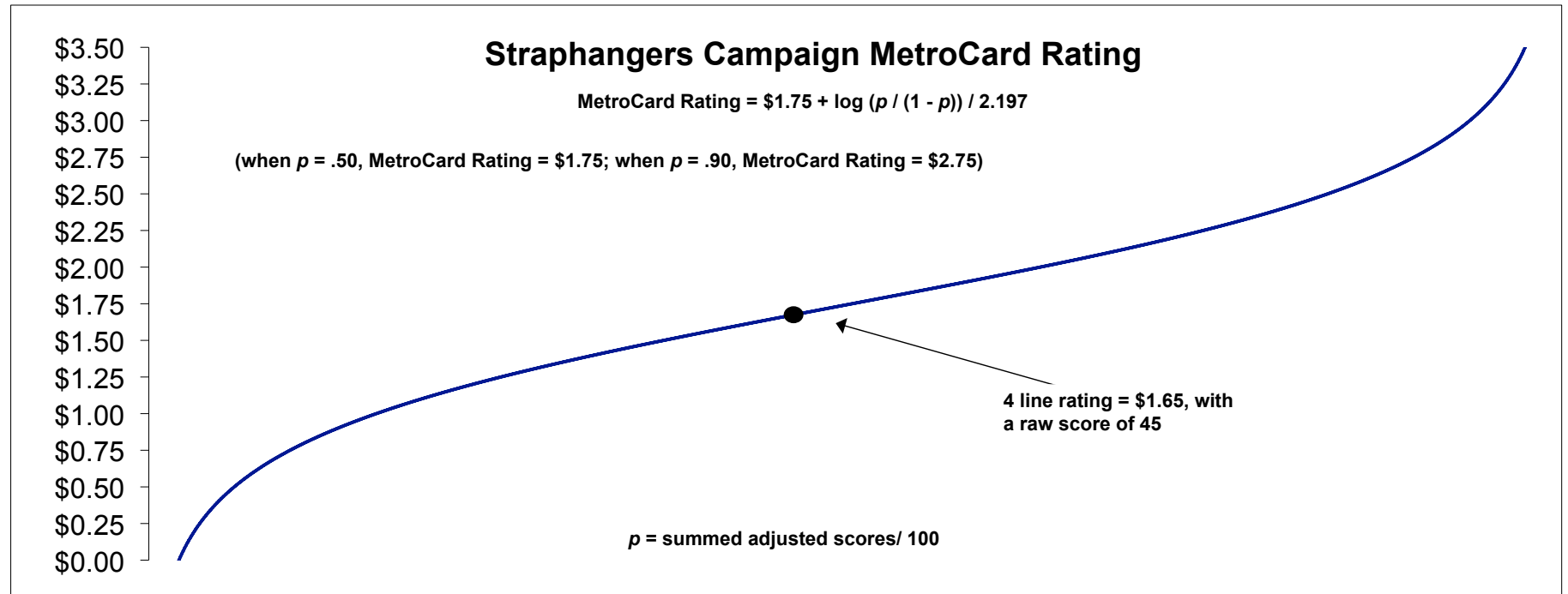
<sup>12</sup> J. H. Aldrich and F. D. Nelson, *Linear Probability, Logit and Probit Models*. Sage Publications, 1984.

<sup>13</sup> G. Henderson, H. Adkins and P. Kwong, “Subway Reliability and the Odds of Getting There on Time,” *Transportation Research Record 1297: Public Transit Research: Management and Planning*, 1991, p. 10-13.

<sup>14</sup> This rating method is similar to the “hedonic” method of ranking items based on user satisfaction, as originally developed by Sherwin Rosen. (Source: S. Rosen, “Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition,” *Journal of Political Economy* 82, p. 34-55.)

Figures 2 and 3: Sample Straphangers Campaign MetroCard Rating

Indicator	Highest rating in system—2014	Lowest rating in system—2014	4 line value	4 line score	Percentage weight	4 line adjusted score
Scheduled Service	7 line	C line	rush hours approx 4 min, 30 sec; noon — 7 min, 30 sec	69	30%	21
Service Regularity	82% regular	67% regular	71% regular	26	22.5%	6
Breakdown Rate	every 577,045 miles	every 66,382 miles	every 119,138 miles	10	12.5%	1
Crowding	67% seated	28% seated	34% seated	14	15%	2
Cleanliness	98% clean	87% clean	92% clean	45	10%	4
Announcements	100% adequate	77% adequate	100% adequate	100	10%	10
<b>Summed adjusted score</b>		<b>4 line -- 45 pts (after rounding of all weighted indicator scores) -- tied for 11th best in system</b>				



## Appendix II: Credits

Since 1979, the NYPIRG Straphangers Campaign has been a leading voice for New York City's millions of daily subway and bus riders. The Straphangers Campaign is a project of the New York Public Interest Research Group, Fund (NYPIRG).

The 2015 State of the Subways Report Card was made possible by the effort of many people.

The profiles and MetroCard Ratings were designed by Matt Glomski and Gene Russianoff of the Straphangers Campaign in collaboration with Li Howard, who designed the original profile mastheads. Marty DeBenedictis of NYPIRG consulted on the management of data, and provided technical assistance and website support. Matt Glomski analyzed data for the report. Gene Russianoff wrote the report.

Campaign Coordinator Cate Contino supervised editing, production, photography for the cover photo, research support and handled a thousand other details. Former Campaign Field Organizer Jason Chin-Fatt provided additional assistance.

Steven Romalewski, former director of NYPIRG's Community Mapping Assistance Project (CMAP), helped develop the profile criteria and refine our approach.

Special thanks to former NYPIRG Executive Director Rebecca Weber, NYPIRG Executive Director Blair Horner, Deputy Director Marvin Shelton and Assistant to the Executive Director Meaghan Cleveland-O'Connor, for their assistance during many phases of the report.

The methodology for the profiles and the MetroCard Ratings were originally developed in close consultation with the University Transportation Research Center (UTRC) at City College. We are indebted to the analytic skills of Yuko Nakanishi and Robert Paaswell, the director emeritus of UTRC. At the start of our project, we received expert and generous guidance from the late Gary Henderson, who headed past efforts at the MTA Inspector General to improve MTA performance measures.

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