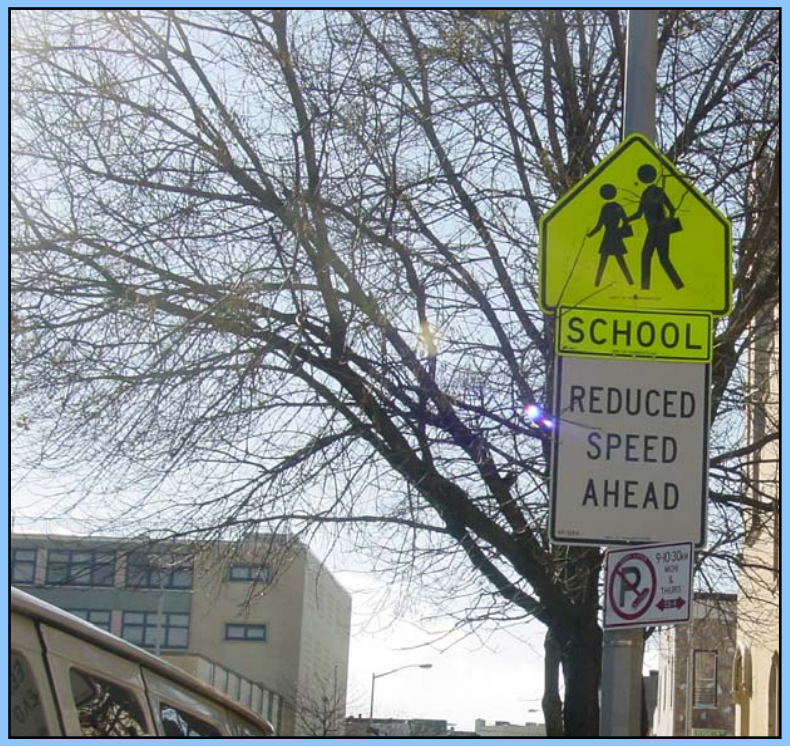
Reduced School Speed Limit
Pilot Study - Parts I & II



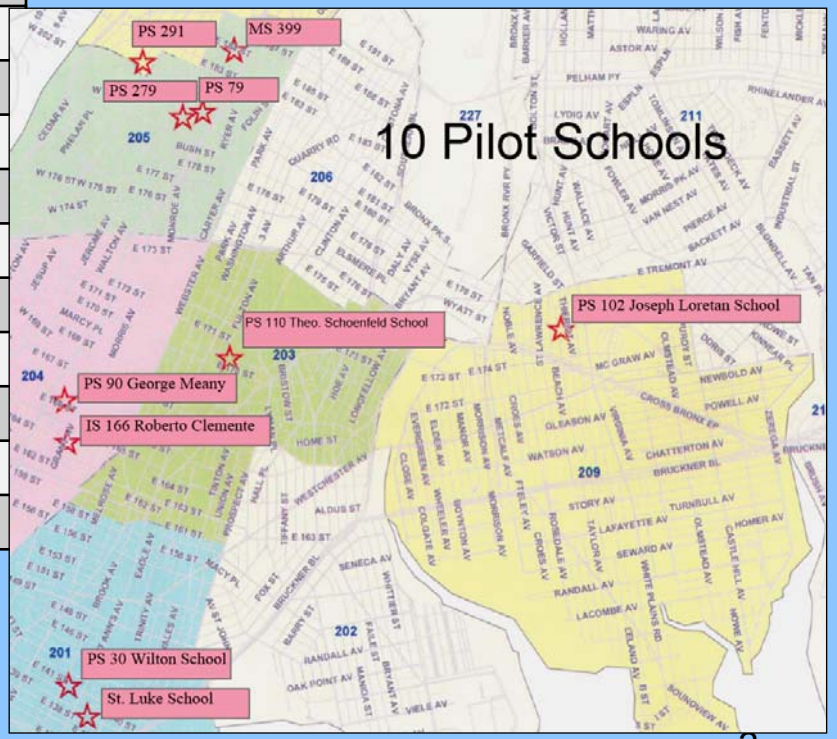
Janette Sadik-Khan
Commissioner

School Safety Engineering
June 24th, 2008

Pilot I

- **Pilot I : Began in 2005 to test reduced speed limits**
- **10 streets adjacent to schools in the Bronx**
- **8 out of 10 streets had “speed reducers”**
- **Both 20 MPH and 15 MPH zones were tested**

School	Posted School Speed Limit (MPH)	Speed Reducer (Hump)	Control at School Crosswalk
P.S. 79	15	✓	Signal
P.S. 90	20	✓	Stop
I.S. 166	20	No	Signal
M.S. 399	20	No	Signal
P.S. 30	20	✓	Signal
P.S. 102	15	✓	Stop
P.S. 110	15	✓	Signal
P.S. 291	15	✓	Stop
St. Luke	20	✓	Signal
P.S. 279	15	✓	Signal

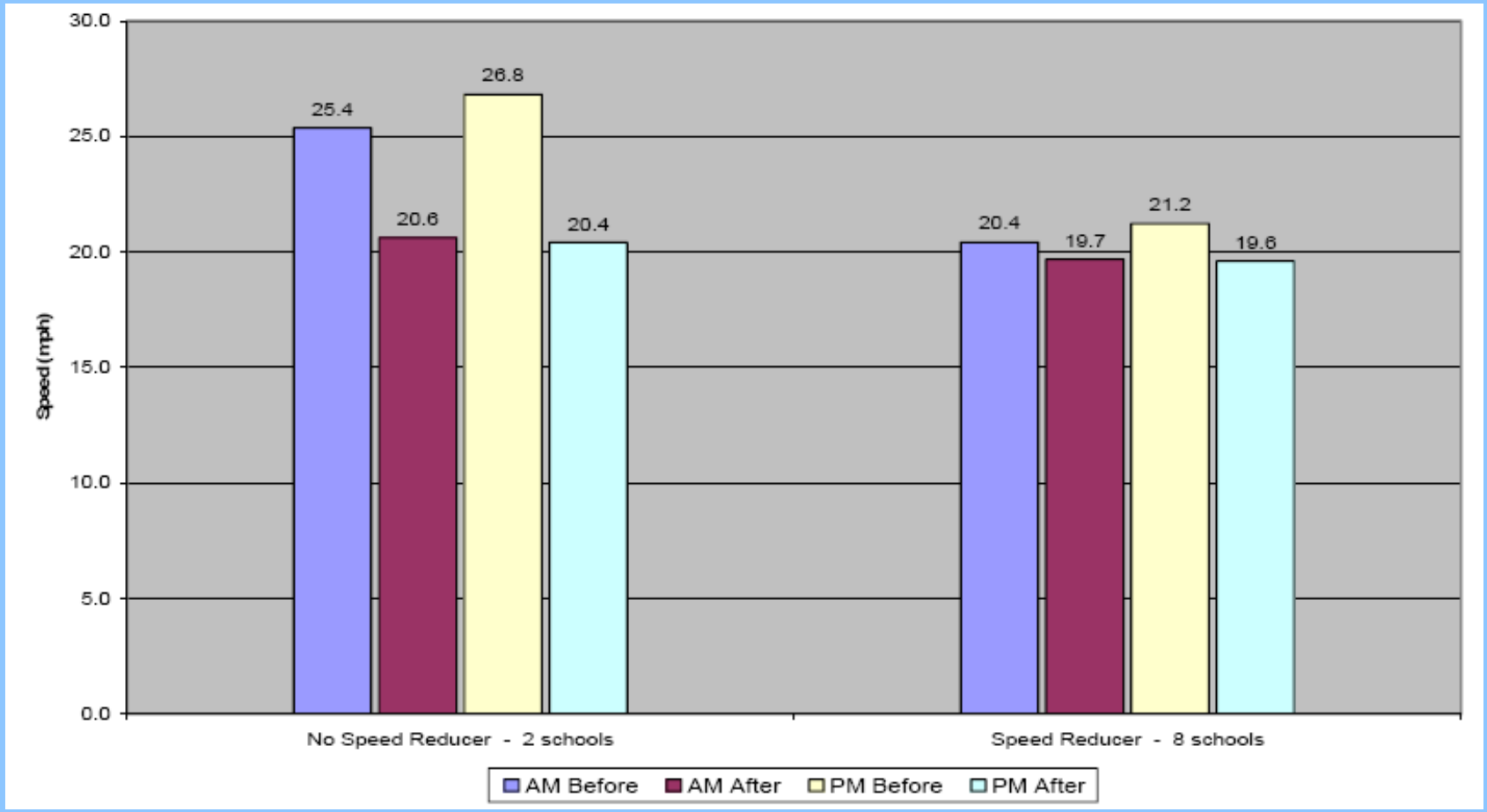


Pilot I – Preliminary Conclusions

- Reduced speed limits at schools may be effective on minor residential streets that **do not** already have existing speed reducers.
- Speed reducers are an effective tool (regardless of whether there is a lower speed limit opposed to a lower advisory speed) to ensure low speeds (~20 mph) on minor residential streets.
- Reduced speed limits, **in addition to existing speed reducers,** have *limited* value.

Future Study on streets <u>without</u> speed reducers necessary in order to make more conclusive determination of the impact of reduced speed limits on streets without speed reducers.

Pilot I - Results



Pilot II 2007

Street Criteria:

- One-way street with one travel lane adjacent to a school building
- Street not designated a truck route or bus route
- Length of block more than 200 feet
- Located in advance of a designated school crosswalk, controlled by either a traffic signal or a stop sign
- **No Speed Reducers**

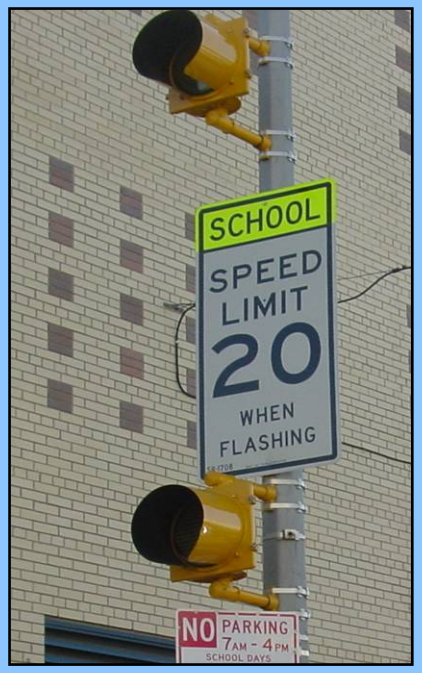
Data Collected:

- Vehicle speed and volume
- Vehicle classification and turning movements
- Pedestrian volume
- One “Before” and two “After” periods (March 2007 – December 2007)
- Two mid-week days for each period

Reduced Speed Zone: ***Test Treatment***

Each Street received...

- **Flashing beacons** during school hours 7AM – 4 PM accompanied by reduced speed limit signs -**20 MPH**
- Signs indicating **Speed Zone Ahead**
- Signs indicating **End Speed Zone**



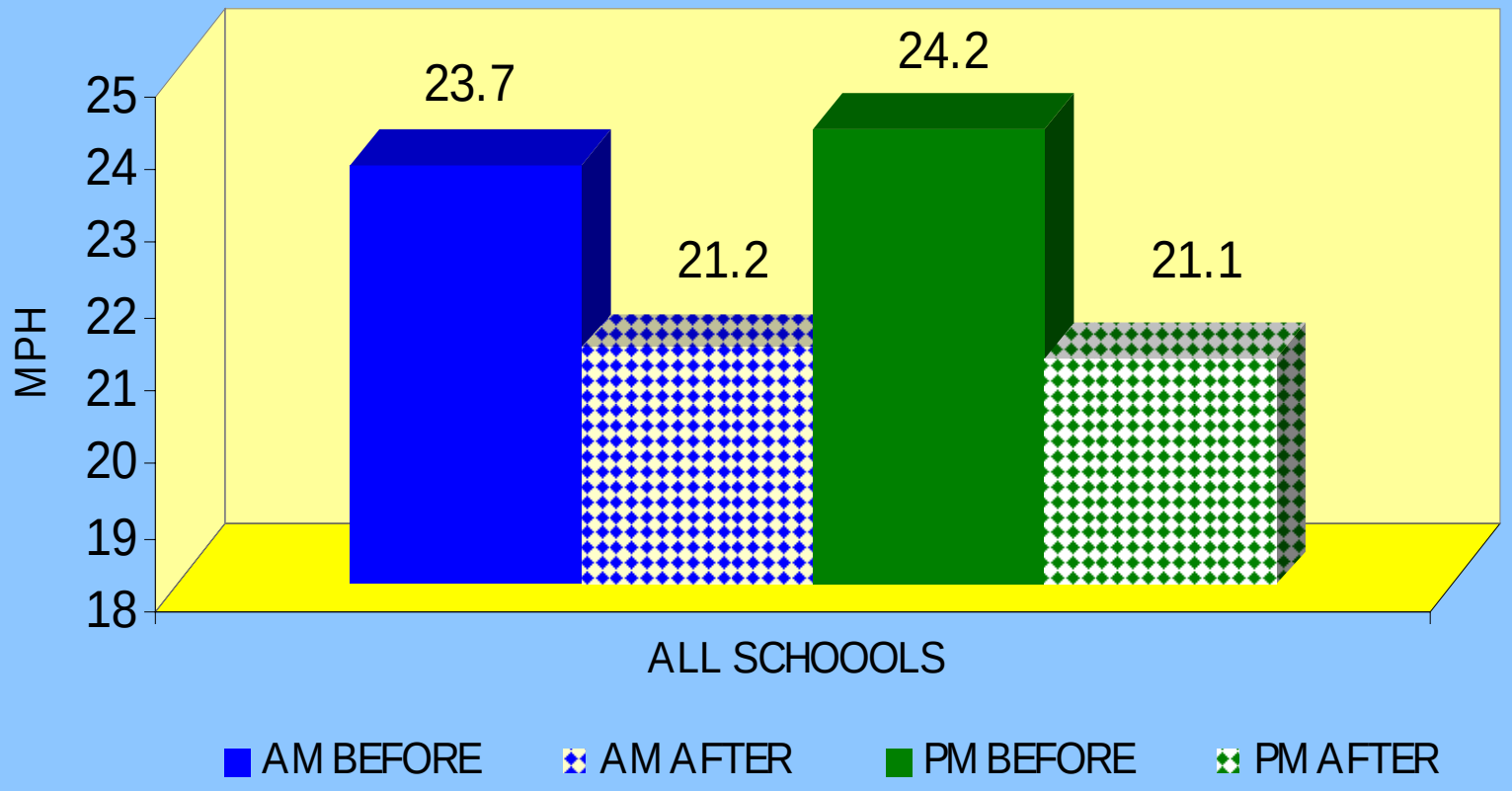
NEW YORK CITY DOT

Pilot II - Ten Schools

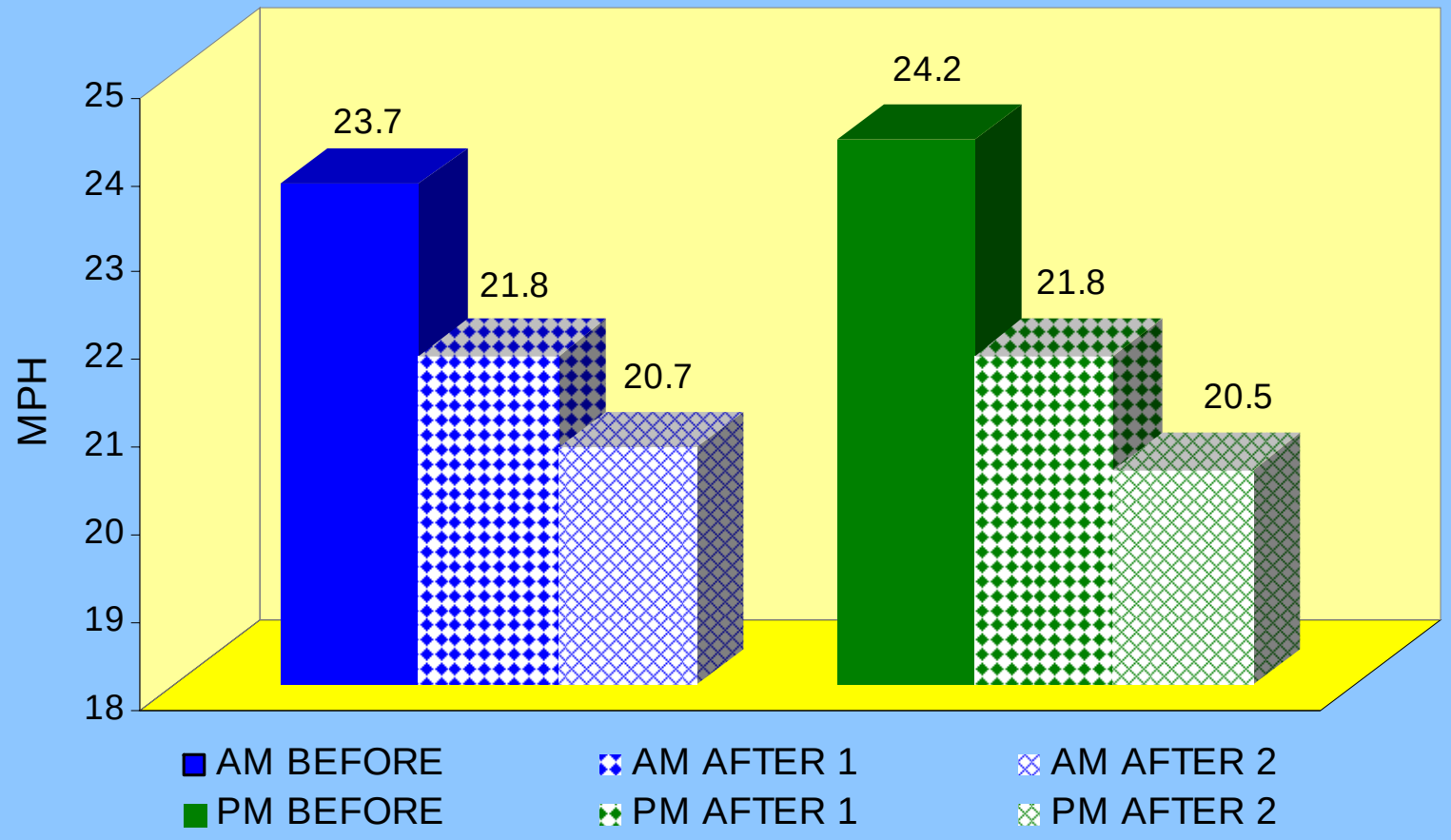
#	Boro	School	School Address	Street with Reduced Speed Limit	Type of Traffic Control at intersection with school crosswalk
1	Bronx	JHS 117	1865 Morris Avenue	Walton Avenue from Mount Hope Place to East 176th Street	Signal
2	Bronx	JHS 118	57 East 179th Street	Arthur Avenue from East 179th Street to East 180th Street	Signal
3	Bronx	MS 45	2502 Lorillard Place	Hoffman Street from East 189th Street to East Fordham Road	Signal
4	Brooklyn	IS 162	1390 Willoughby Avenue	Willoughby Avenue from Cypress Avenue to Saint Nicholas Avenue	Signal
5	Brooklyn	IS 383	1300 Greene Avenue	Bleecker Avenue from Knickerbocker Avenue to Wilson Avenue	Stop Sign
6	Brooklyn	IS/PS 299	88 Woodbine Street	Woodbine Street from Evergreen Avenue to Bushwick Avenue	Signal
7	Brooklyn	PS 123	100 Irving Avenue	Suydam Street between Irving Avenue and Wyckoff Street	Signal
8	Brooklyn	PS 86	220 Irving Avenue	Harman Street from Irving Avenue to Knickerbocker Avenue	Signal
9	Queens	PS 16	41-15 104th Street	42nd Avenue from 108th Street to 104th Street	Stop Sign
10	Queens	PS 69	77-02 37th Avenue	77th Street from 37th Road to 37th Avenue	Signal

NEW YORK CITY DOT

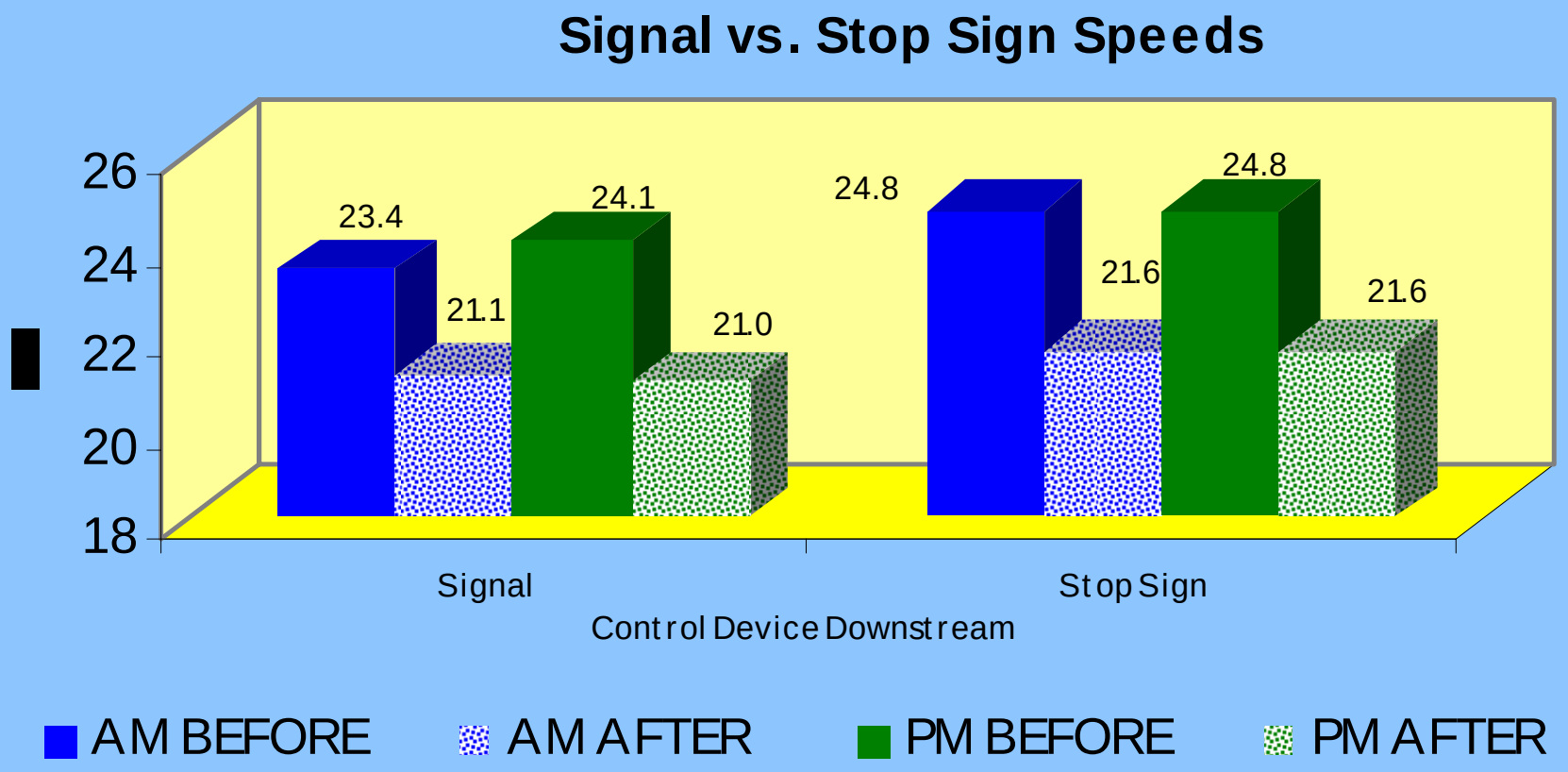
Pilot II Overall Results:
Speeds Decreased in AM and PM



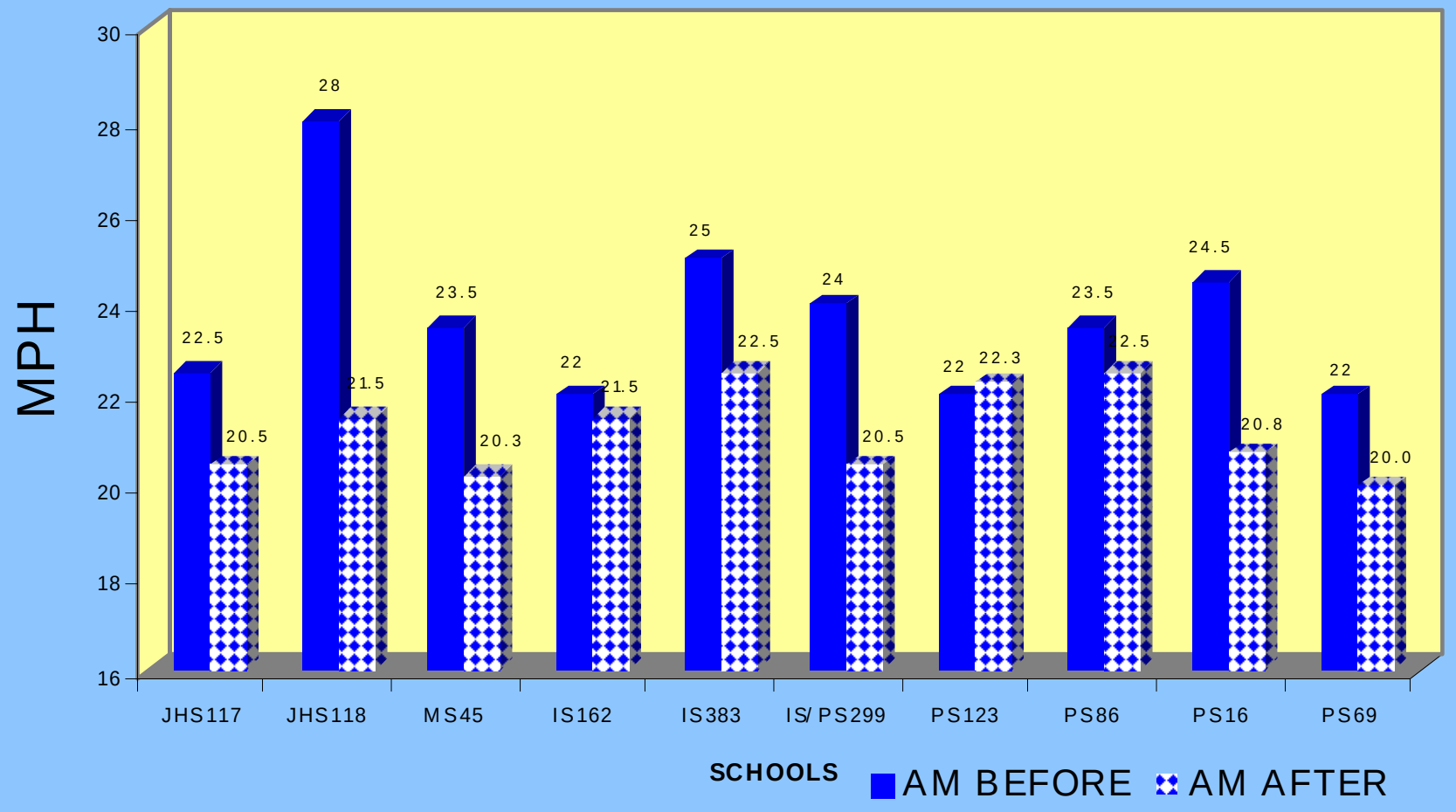
Pilot II Overall Results:
Speed Decreased Over Time



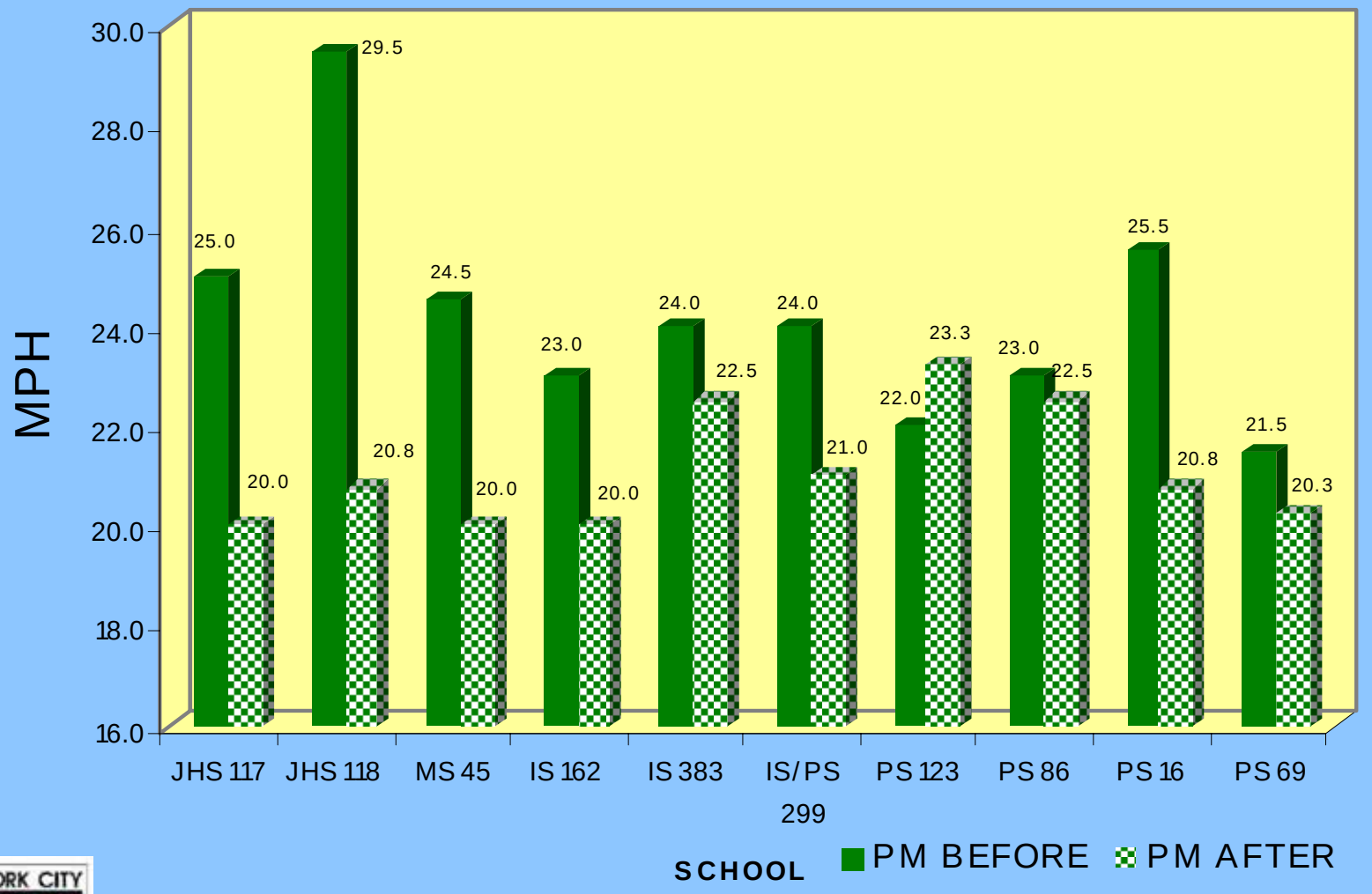
Pilot II Results:
Change by Type of Traffic Control
at Intersection Downstream



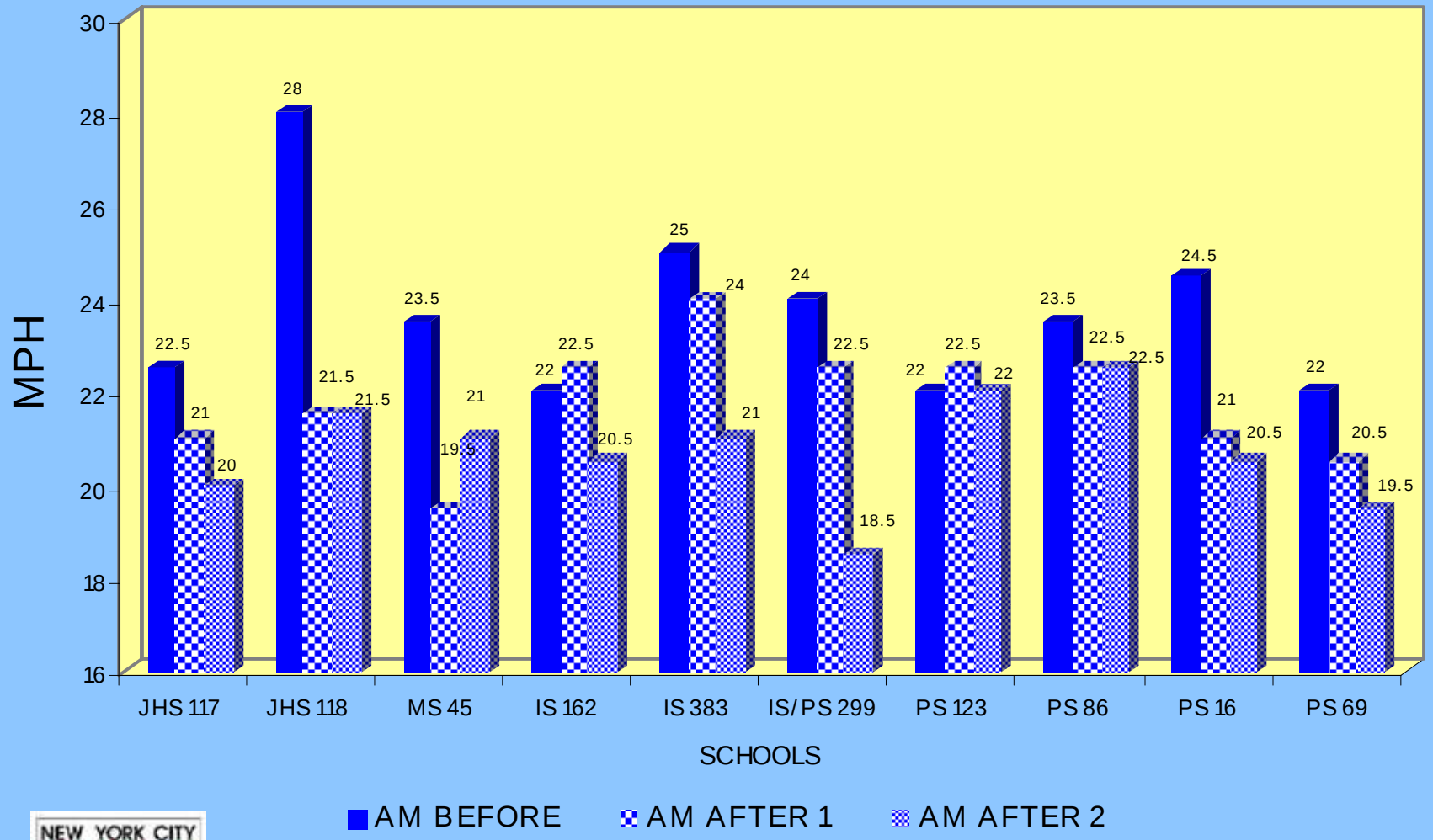
AM Speed Reduction (MPH)



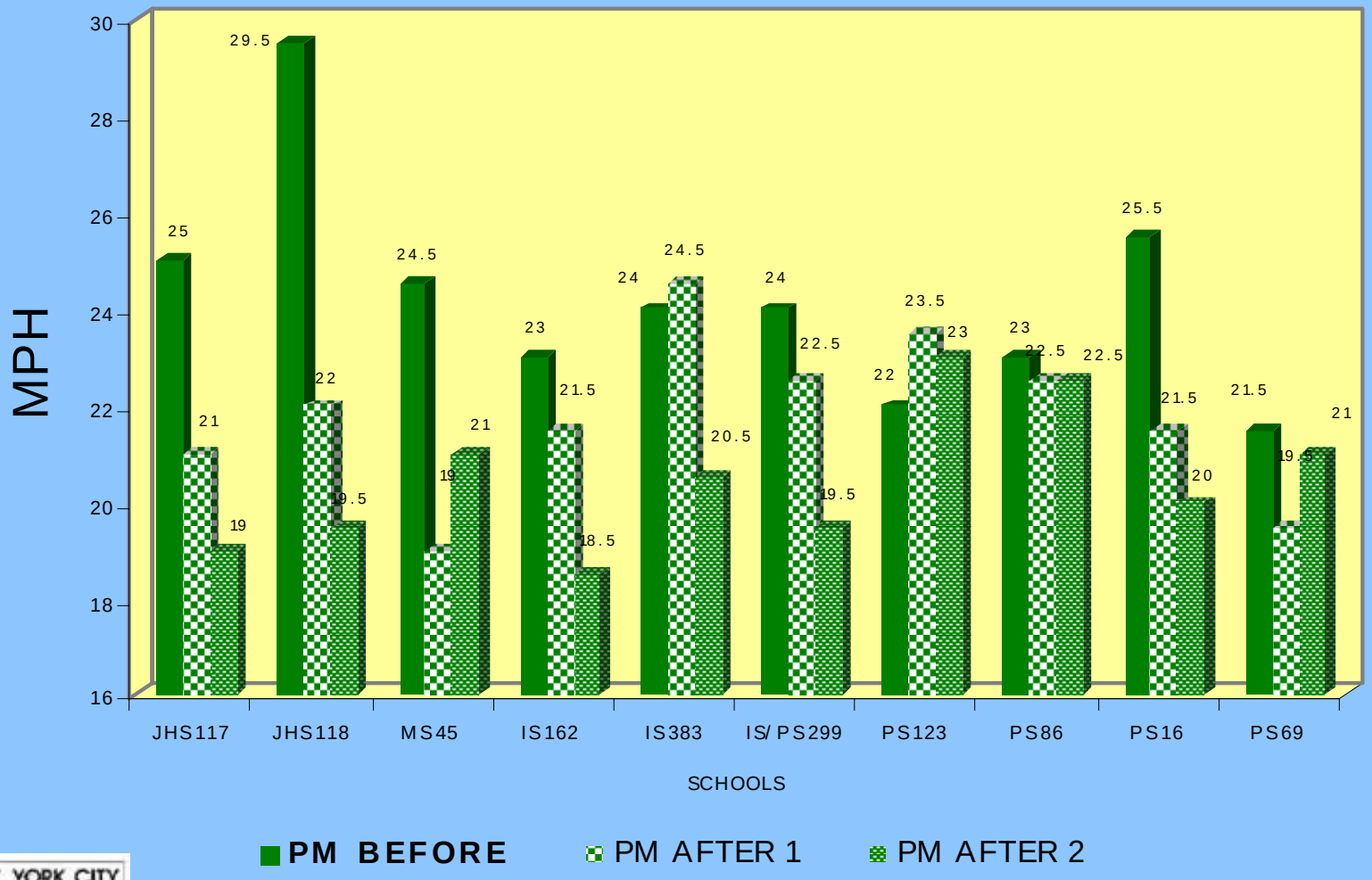
PM Speed Reduction (MPH)



AM Speeds over time (MPH)



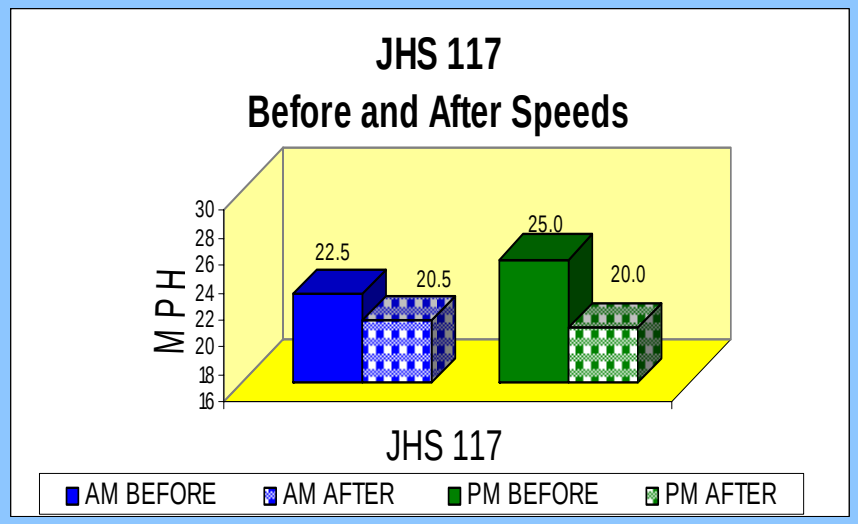
PM Speeds over time (MPH)

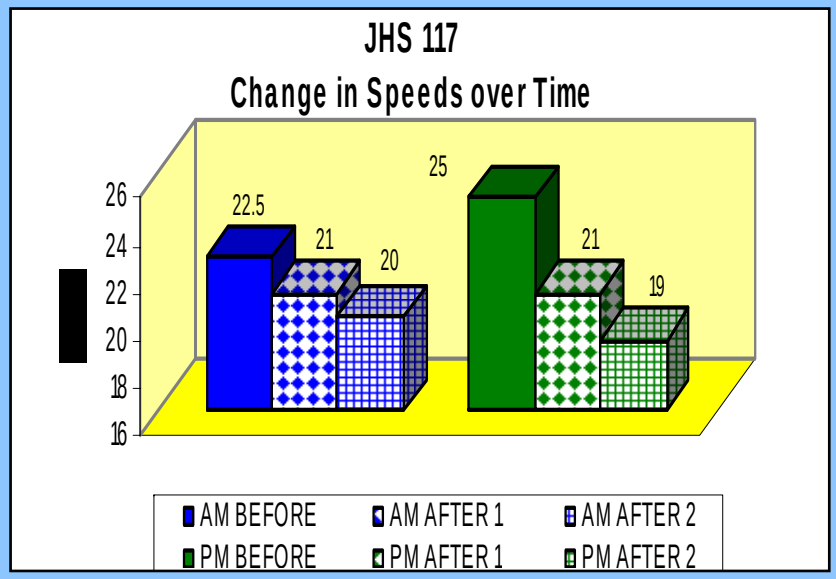


Results: **JHS 117, Bronx**

AM speeds were reduced **8.9%** **f**rom an average of 22.5 mph to 20.5 mph.

PM speeds were reduced **20%** from an average of 25.0 mph to 20 mph.

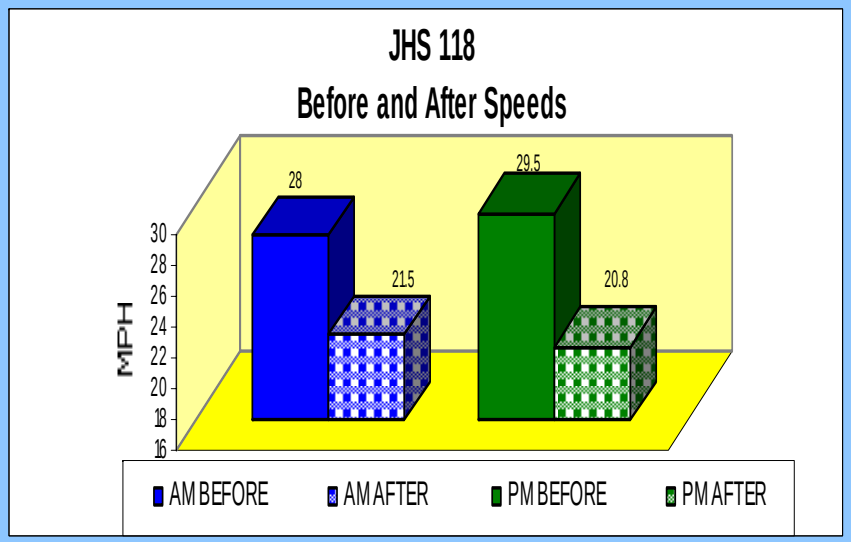


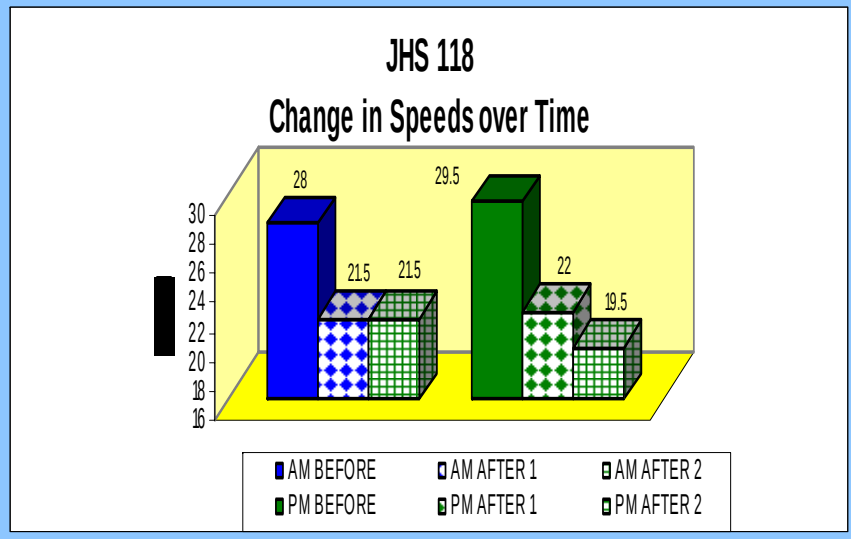


Results: **JHS 118, Bronx**

AM speeds were reduced **23.2 %** from an average of 28 mph to 21.5 mph

PM speeds were reduced **29.7 %** from an average of 29.5 mph to 20.8 mph

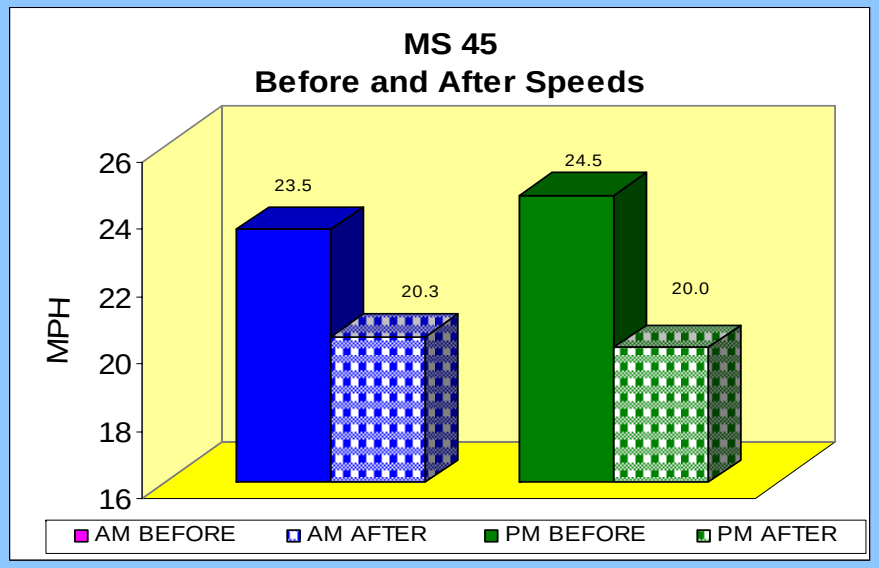


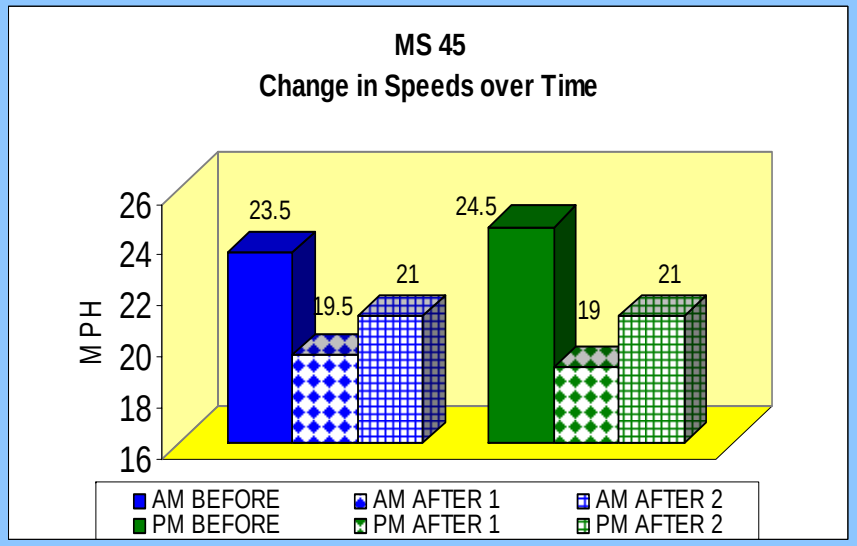


Results : **MS 45, Bronx**

AM speeds were reduced **13.6%** from an average of 23.5 mph to 20.3 mph

PM speeds were reduced **18.4%** from an average of 24.5 mph to 20 mph

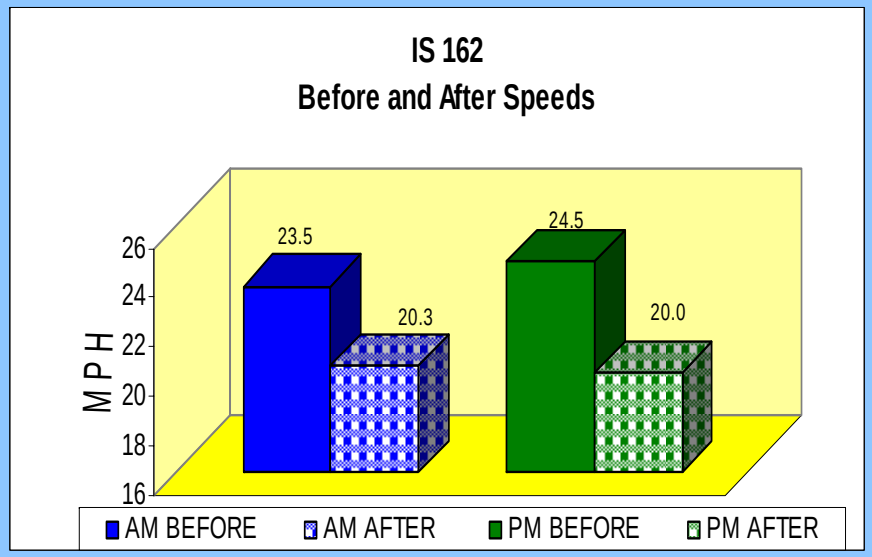


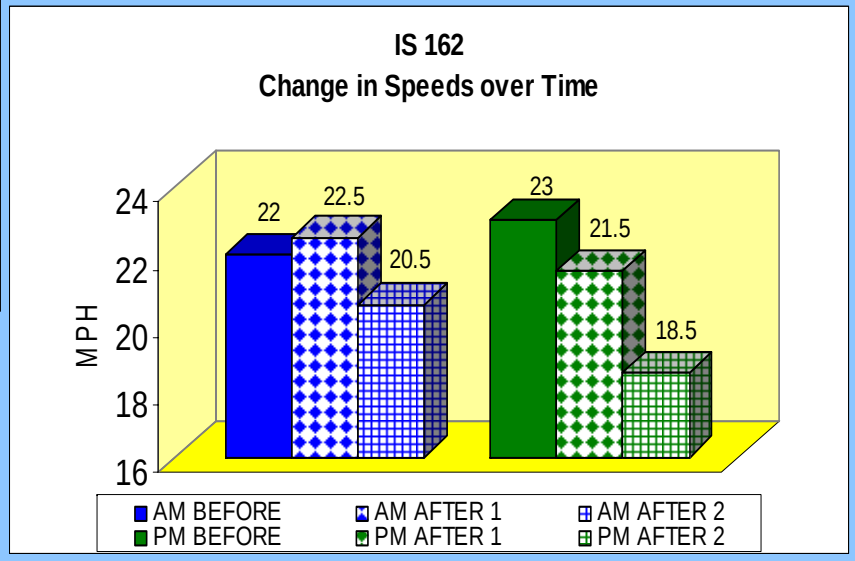


Results : **MS 162, Brooklyn**

AM speeds were reduced **2.3%** from an average of 22 mph to 21.5mph

PM speeds were reduced **13%** from an average of 23 mph to 20 mph

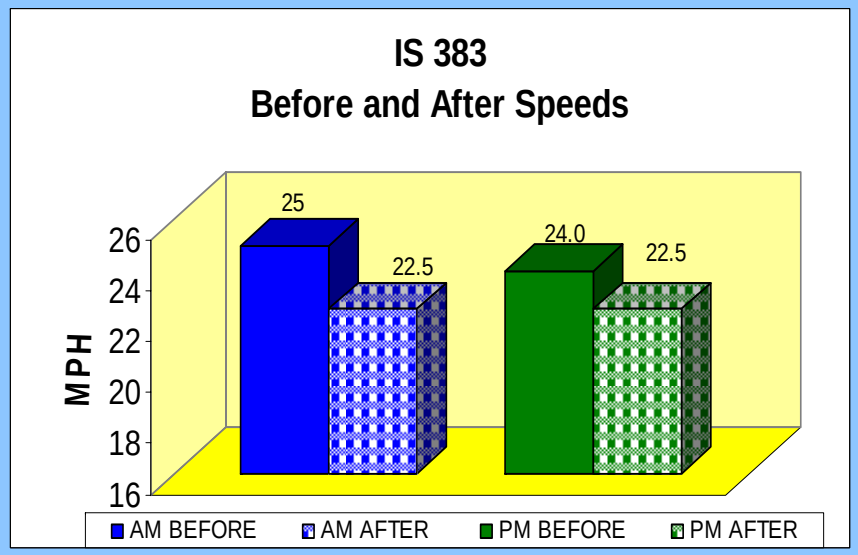


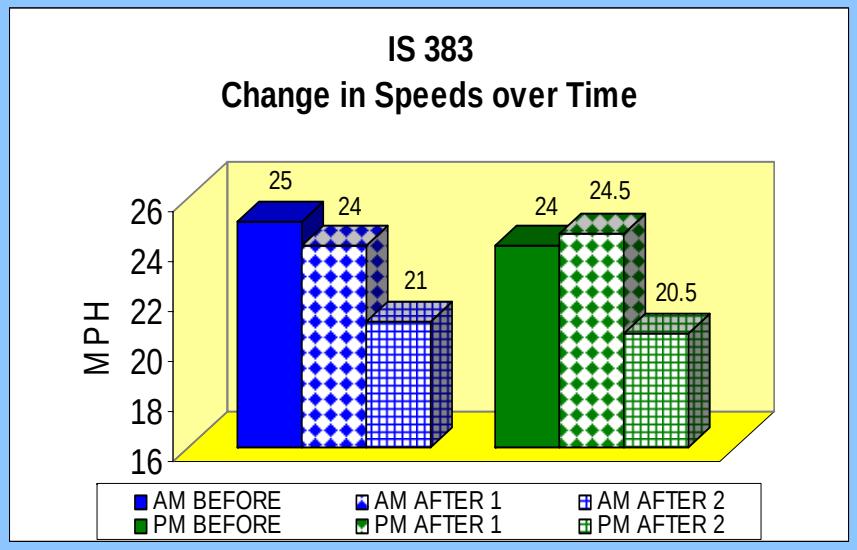


Results : **IS 383, Brooklyn**

AM speeds were reduced **10%** from an average of 25 mph to 22.5 mph

PM speeds were reduced **6.3%** from an average of 24 mph to 22.5 mph

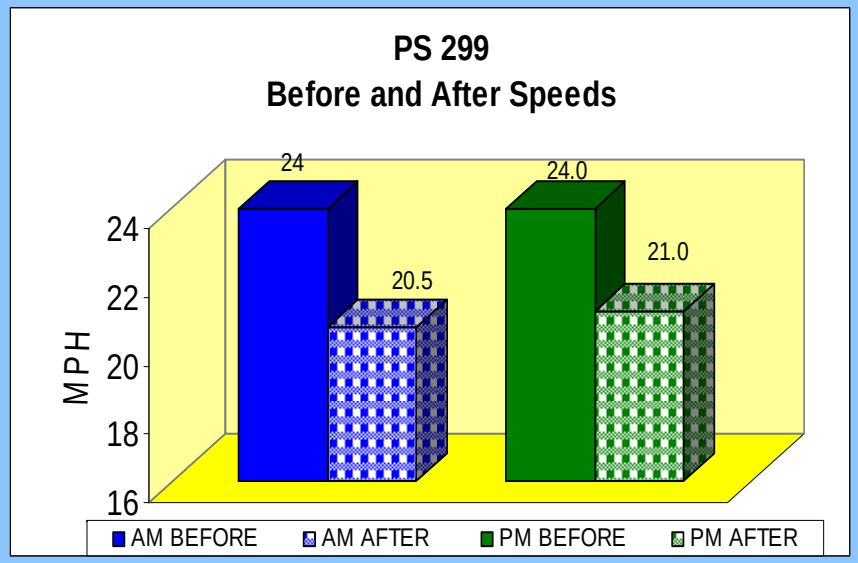


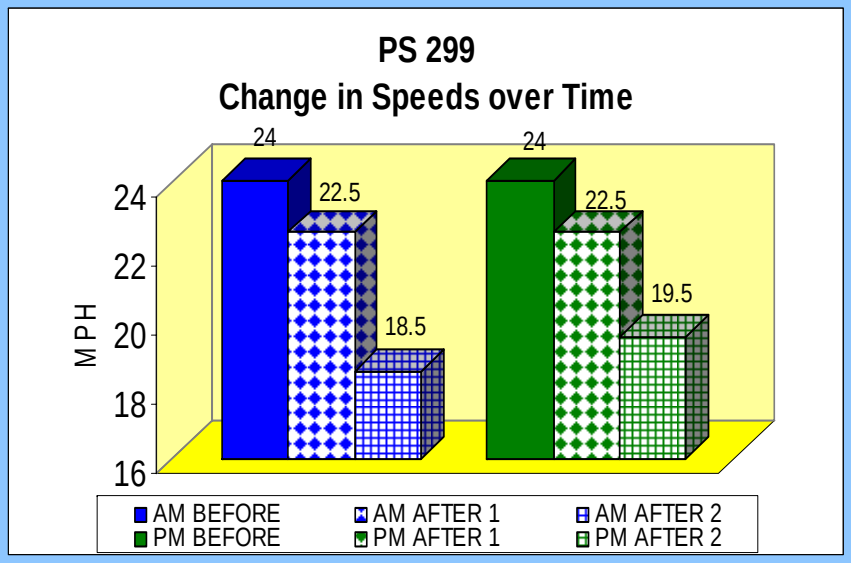


Results : **MS 299, Brooklyn**

AM speeds were reduced **14.6%** from an average of 24 mph to 20.5 mph

PM speeds were reduced **12.5%** from an average of 24 mph to 21 mph

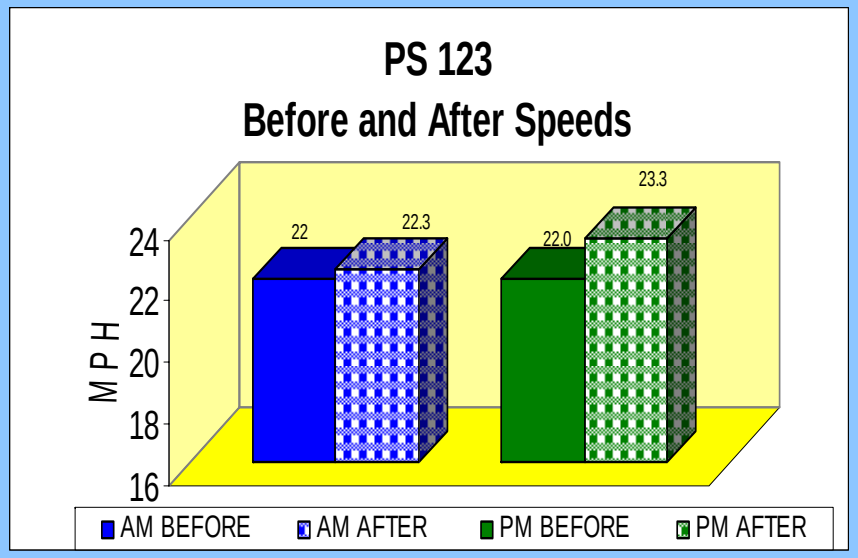


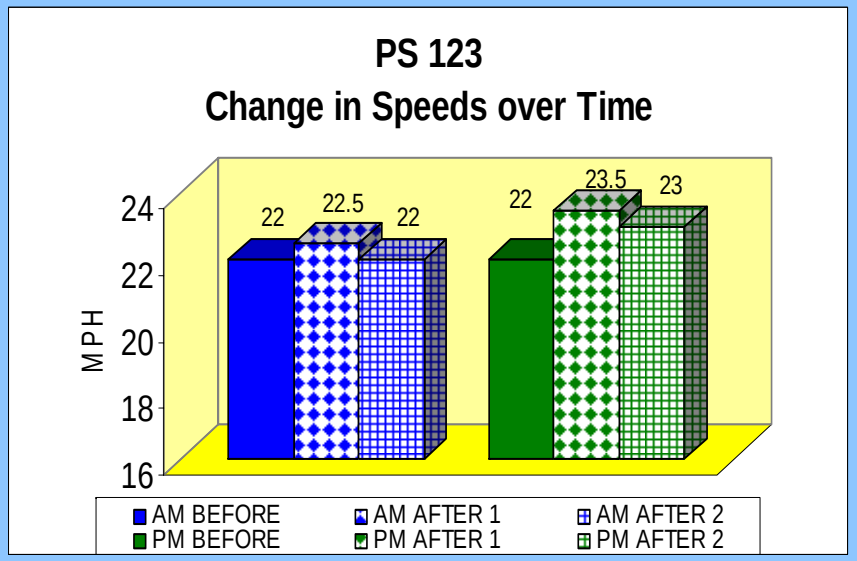


Results : **PS 123, Brooklyn**

AM speeds *increased* by **1.4%** from an average of 22 mph to 22.3 mph

PM speeds *increased* **5.9%** from an average of 22 mph to 23.3 mph

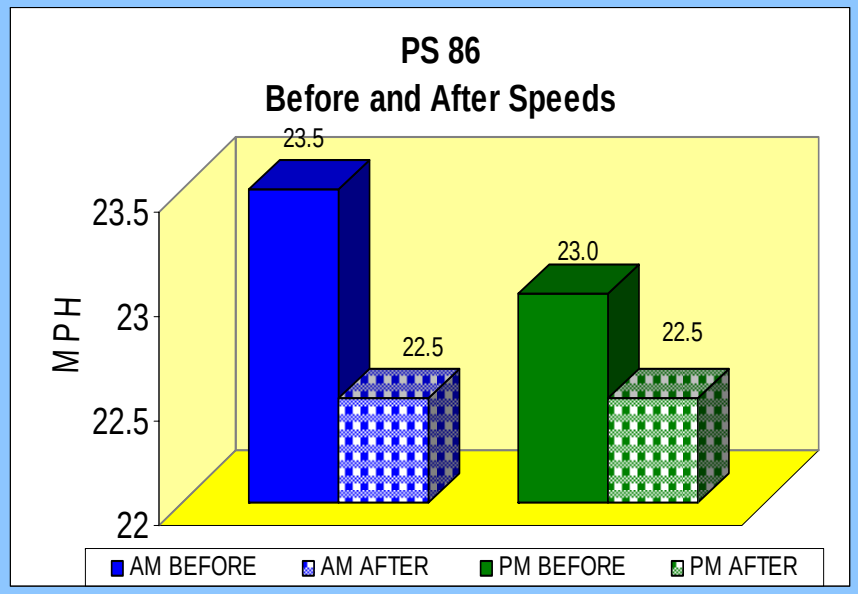


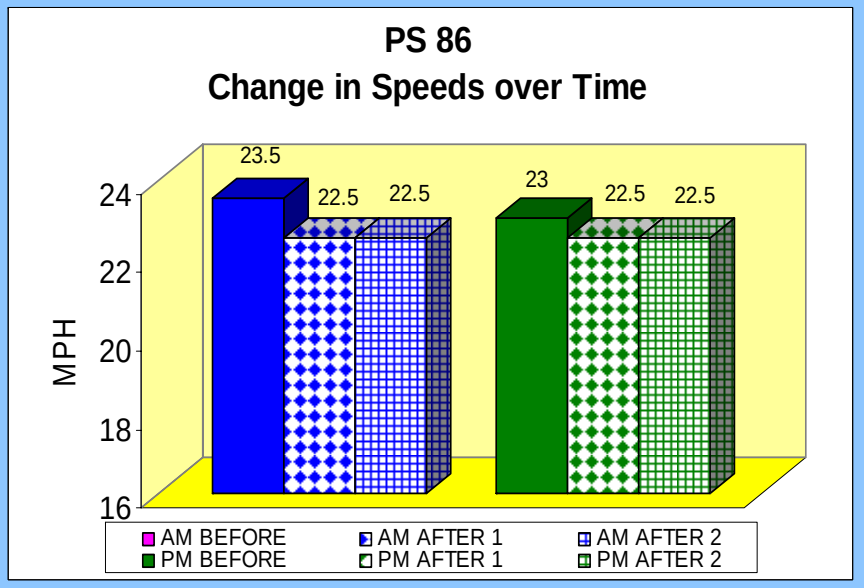


Results : **PS 86, Brooklyn**

AM speeds were reduced **4.3%** from an average of 23.5 mph to 22.5 mph

PM speeds were reduced **2.2%** from an average of 23 mph to 22.5 mph

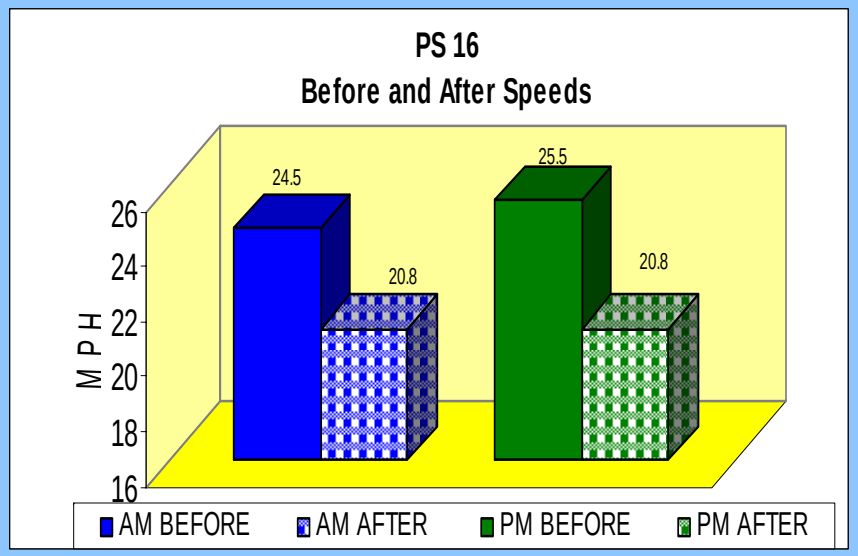


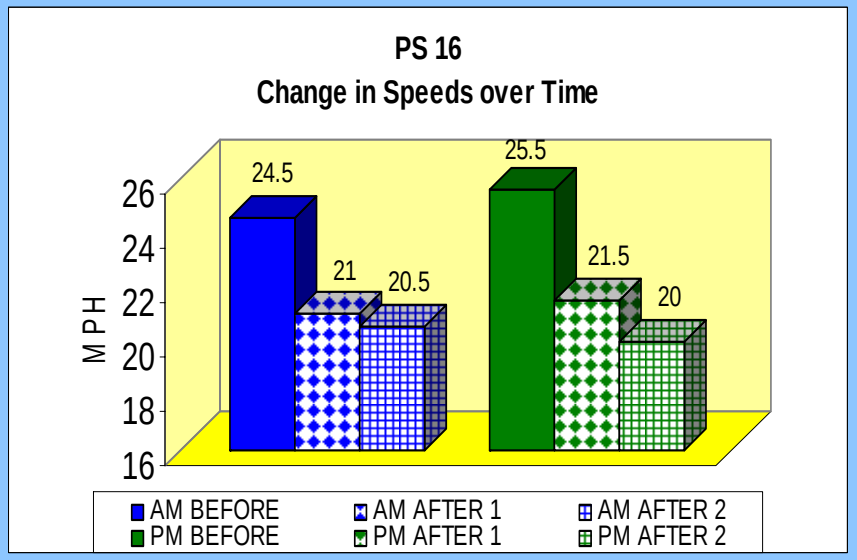


Results : **PS 16, Queens**

AM speeds were reduced **15.1%** from an average of 24.5 mph to 20.8 mph

PM speeds were reduced **18.4%** from an average of 25.5 mph to 20.8 mph

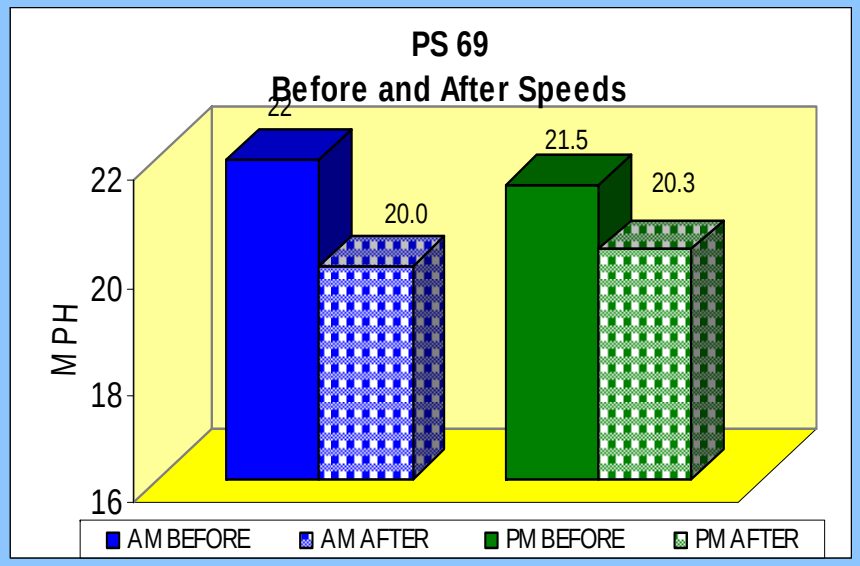


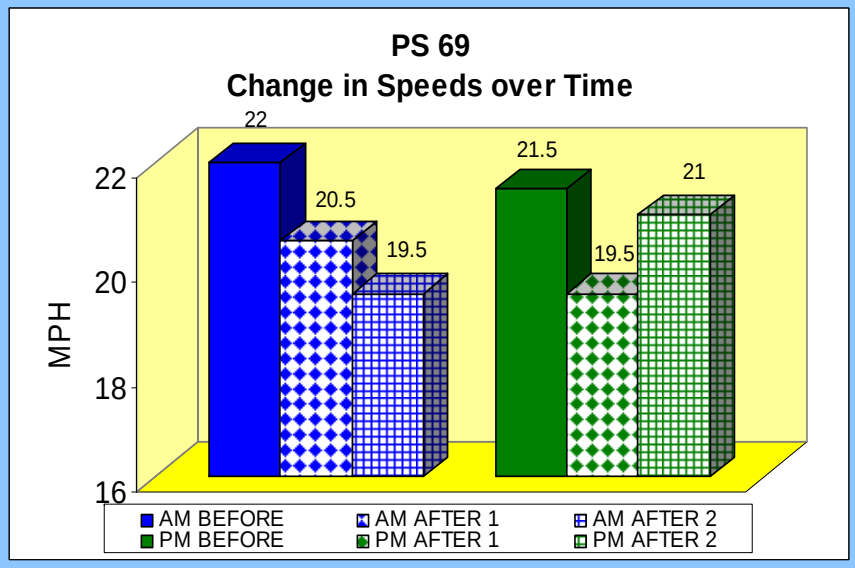


Results : **PS 69, Queens**

AM speeds were reduced **9.1%** from an average of 22 mph to 20 mph

PM speeds were reduced **5.6%** from an average of 21.5 mph to 20.3 mph





Conclusions from Pilot II

Flashing Beacons accompanied by 20 MPH reduced speed limit signs resulted in a reduction of speeds:

AM Speeds decreased overall from 23.7 mph to 21.2 mph (a 10% decline)
PM Speeds decreased overall from 24.2 mph to 21.1 mph (a 12% decline)

Speeds decreased over time:

7.8% after the 1st "after" AM speed test
12.3% after the 2nd "after" AM speed run
9.5% after the 1st "after" PM speed run
12.3% after the 2nd "after" PM speed run

→ This shows that reduction of speeds can be maintained over several months.

Traffic Control:

- On streets with downstream signalized intersections speeds decreased 9.9% and 12.9% in the AM and PM respectively
- On streets with downstream stop controlled intersections speeds decreased and 12.6% in the AM and PM.

JHS 118 had the largest decline in speed. Speeds decreased 23.2% in the AM and 29.7% in the PM.

PS 123 in Brooklyn was the only school not to show a decrease in speed. Speeds increased slightly from 22.0 mph to 22.3 mph in the AM and from 22.0 mph in the PM to 23.3 mph.