More taxis mean more traffic

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There’s something for everyone,” exulted New York City taxi czar David Yassky over the December agreement between Governor Andrew Cuomo and Mayor Michael Bloomberg to expand taxi service. The disabled get 2,000 new wheelchair-accessible yellow cabs, up from around 250 at present. Outer-borough residents get the right to hail non-yellow “livery” cabs instead of having to phone for them. And the city gets a billion-dollar “one shot” from auctioning medallions for the new yellow cabs.

Oh, and all New Yorkers get something they need like a hole in the head: a permanent jolt of new gridlock from the extra taxi traffic.

No one mentioned traffic when the taxi deal was rolled out last month at City Hall and in Albany. After all, with 800,000 motor vehicles already entering the Manhattan Central Business District (CBD) each weekday, what difference could a mere 2,000 additional yellow cabs possibly make?

Plenty, it turns out. Yellow cabs spend three-fourths of each shift, around seven hours, plying CBD streets and avenues. (And of course some are active for two shifts a day.) Most private cars driven in Manhattan don’t do so for long. Even at the CBD’s notoriously labored traffic pace — now averaging 9.5 mph, up from 8 mph before the recession — the two to three miles per day logged by the average car below 60th Street occupy 15 to 20 minutes.

Adding one new medallion is thus equivalent to adding 40 private cars. Adding 2,000 of them — as the city now intends to do during the next three years — would be the traffic equivalent of adding 80,000 cars, a 10 percent increase in volume.

That 10 percent would be a big deal. The Manhattan CBD already runs so close to maximum capacity that a relatively small increase in the number of vehicles operating there makes a very considerable difference in the outcome. There’s a mathematical way to state this, but there’s also a proverb referring to straws and camels’ backs.

I’ve spent the last few years developing a computer model to analyze congestion pricing. If you put these extra cabs into the mix, the results aren’t pretty, even allowing for the replacement of some car traffic by the increased taxi traffic, as well as the divergence between peak usage periods for taxis (evenings) and cars and trucks (daytime). The model predicts that raising yellow-cab traffic volumes by 15% (the proportional increase in the number of medallions) will cause travel speeds to fall by 12%, averaged across all of Manhattan south of 60th Street from 6 a.m. to 6 p.m. weekdays.

(Details of my analysis can be found here.)

The time costs of the additional gridlock are frightening: at least $500 million a year in New Yorkers’ time consumed sitting in traffic. That’s enough to use up the anticipated billion-dollar revenue windfall from the medallion auction in just a couple of years — and it comes right out of our pockets.

The worsened quality of life and climate for business only compound the damage.

Short of scrubbing the sale of the medallions, what could New York City and State do to mitigate the traffic damage?

In theory, they could add street capacity. But the 2,000 new cabs would require 70 new “lane-miles” within the Manhattan CBD to create zero additional congestion. That would be an 8% expansion in the CBD road network, where real estate isn’t cheap. I think we can write off that idea.

Fortunately, there is a way to enable traffic to keep moving even with more yellow cabs. And that is congestion pricing.

The idea of charging cars to enter Manhattan south of 60th Street fell off the policy map four years ago, when an ambitious toll plan conceived and backed by Mayor Bloomberg died in the state legislature. Yet the merits of tolling cars driven into the CBD remain obvious. In deciding how to travel to Times Square, say, a would-be driver is cognizant of the time he will expend being slowed by other cars, but not of the far greater delays he will impose on them. My modeling indicates that these “externalized” costs average more than $100 for a typical 35-mile round-trip, with more than half of the delay costs occurring en route to and from the CBD.

Figures like these suggest that a round-trip congestion charge in the $8-$10 range could price
enough marginal trips off the road to create large time savings overall for the trips that will remain. Moreover, those toll-paying trips could furnish revenue for the cash-starved Metropolitan Transportation Authority.

Two plans for resuscitating congestion pricing have been making the rounds. A plan crafted by Sam Schwartz, a former New York City traffic commissioner renowned for his vernacular feel for city traffic, would charge $5 to drive into the Manhattan Central Business District at all times and another $5 to drive out. At the same time, Schwartz would reduce tolls now charged on MTA bridges such as the Verrazano-Narrows and Throgs Neck, because those crossings (unlike, say, the Brooklyn Bridge, which has been untolled for a century) do not deliver cars into Manhattan’s congested heart; nor are there attractive transit alternatives to driving on those bridges.

The other plan is my own. Like Schwartz’s plan, mine would charge motor vehicles driven into the CBD, though at discounted rates during non-peak hours and on weekends. My plan includes Schwartz’s “outer-borough” bridge toll relief, and it adds an exemption for any vehicle’s first trip into the CBD in any month. (Both Schwartz and I are striving to make our plans more politically palatable than Bloomberg’s.)

Either plan would net a billion dollars or more each year — which could let the MTA use hard dollars, instead of costly debt financing, for a large piece of its capital program. And, my modeling suggests, either plan would diminish private-car use sufficiently to absorb those 2,000 new taxi medallions without slowing down traffic.

Will combining the taxi deal with congestion pricing provide “something for everyone”? Not quite. But there will be many more winners and far fewer losers, than if the city adds the medallion cabs while continuing to hand out its scarce and valuable street space for free, as if it were worthless.

Congestion pricing? There is already congestion. The powers that be will enact every additional charge they can envision that doesn’t cause an immediate taxpayer revolt. 2000 extra cabs on the street doesn’t change this frustrating reality that has long existed without remedy.

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