

**Testimony of Charles Komanoff**  
**Before the New York City Industrial Development Agency**  
**Re: Proposed \$80 million in subsidies for Fresh Direct, LLC and U.T.F. Trucking, Inc.**  
**February 9, 2012**

**Introduction**

My name is Charles Komanoff. I moved to New York City in 1968 and have worked professionally since the early 1970s as a public policy analyst. Over the past four decades I have applied my skills in quantification to a wide range of concerns including energy efficiency, nuclear power costs, air pollution, traffic congestion, bicycle promotion, pedestrian safety, and climate change. In the 1970s I was employed by the City's Department of Environmental Protection (then organized as the NYC Environmental Protection Administration) as a senior quantitative analyst. I have served as an expert witness in regulatory proceedings for New York City, New York State, and a dozen other states including California, Texas, Florida, Ohio and New Jersey. My professional biography and a list of my many books, journal articles, magazine articles and op-ed essays may be found at my Web Site.<sup>1</sup>

Here, I estimate traffic impacts from the proposed Fresh Direct relocation and expansion of its food assembly and distribution facility from Long Island City in Queens to Harlem River Yards in the Bronx. The proposal merits scrutiny because Fresh Direct is seeking at least \$80 million in tax reductions and other taxpayer assistance from the state. The traffic impacts warrant particular attention because the approximately 150 trucks that Fresh Direct now deploys on New York City streets, highways and bridges are already worsening traffic, depressing travel speeds and adding to congestion costs. These impacts will worsen as Fresh Direct expands its operations.

**Findings**

I estimate that if Fresh Direct relocates to Harlem River Yards and expands its facility there, its operations will result in other New Yorkers — car drivers, truckers, taxi users, bus riders — spending each day approximately 2,000 more hours stuck in traffic than they do now.<sup>2</sup> Factoring in average values of time of car commuters, freight-haulers, bus riders, et al., **the anticipated cost of the lost time caused by Fresh Direct truck traffic from its proposed Harlem River Yards facility is approximately \$52,000 per day, or \$19 million per year.**

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<sup>1</sup> [http://www.komanoff.net/komanoff\\_bio.php](http://www.komanoff.net/komanoff_bio.php).

<sup>2</sup> This 2,000-hour figure applies to vehicles, or "vehicle-hours." A car with two people or a bus with 30 passengers are each counted just once. The "person-hours" that will be spent in traffic because of Fresh Direct's operations are therefore greater.

It is useful to express these time losses and costs on a per-delivery basis. They range from a high of 19 minutes (with an associated cost of \$13) of lost time caused by a typical Fresh Direct weekday delivery from Harlem River Yards to an address in the Manhattan Central Business District (CBD); to a low of 8 minutes (and a cost of \$2.50) for a weekend delivery to a customer in northern Manhattan, Queens or the Bronx.<sup>3</sup>

Averaged over a year's operations, each Fresh Direct delivery — not each *truck*, but each *customer served* — from the Harlem River Yards facility — can be expected to cost New Yorkers, collectively, 12 minutes of time, with an associated cost of approximately \$6.30. While this cost may seem minor if examined on a one-time basis, it equates to nearly \$300 per Fresh Direct delivery truck per day. Aggregated across the company's customer base, the convenience to individual customers of receiving groceries at home results in a substantial cost for New Yorkers as a whole. Indeed, I estimate that if \$6.30 were added to the typical Fresh Direct order to compensate for the time loss caused by serving that order, the company's business would shrink by 10%.<sup>4</sup>

In effect, Fresh Direct's business model entails not just the tax breaks and other subsidies it is seeking from its application to NYCIDA, but an additional "time subsidy" of nearly \$20 million a year that New Yorkers will pay out in lost transportation efficiency and more precious seconds, minutes and hours stuck in traffic. This raises the question of whether an economic development agency should be subsidizing a venture that will undermine economic development in our city by exacerbating traffic gridlock.

### **Method**

My estimates of the time costs of locating Fresh Direct's facility in Harlem River Yards — in both minutes/hours and dollars — derive from a comprehensive model of New York City traffic that I have developed over the past 4-5 years.

The model is in the form of an Excel spreadsheet with interlinked pages ("worksheet tabs") that I have filled with "baseline" data on traffic and transit volumes and speeds at different times of day or week and by different types of vehicles (car, truck, bus, taxicab). The spreadsheet was dubbed the Balanced Transportation Analyzer by its sponsor, the late lawyer, mediator and civic advocate Ted Kheel, for the way it captures the interactivities and equilibria between the different travel modes. The BTA, as the

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<sup>3</sup> Time losses and costs vary depending on delivery location and day of week; deliveries to the CBD cause more time loss in minutes because traffic congestion is already so severe; monetary costs per minute are also higher for CBD deliveries because of the higher value of time of people living and working there.

<sup>4</sup> Adding \$6.30 to an average \$120 Fresh Direct order would raise its price by 5.3%. Applying a price-elasticity of negative two (a typical value for luxury services such as the company provides) to the price multiple of 1.053 yields a 10% loss in volume.

model has come to be known, was the subject of a laudatory profile in “Wired” magazine<sup>5</sup> and was featured last month in economics blogs at Reuters<sup>6</sup> and The New York Times.<sup>7</sup>

The BTA has many dimensions, including the ability to estimate the traffic and revenue impacts of different toll and fare structures for driving and transit.<sup>8</sup> But it is also a tool with which one can calculate the seconds, minutes and hours of delay time that one or a hundred or thousand additional vehicle trips impose on other vehicles that are on the roads at the same time. In fact, in 2009 I used the BTA to prepare such estimates for trucks operating out of Fresh Direct’s Long Island City facility. I updated the analysis this week to reflect the company’s proposed Harlem River Yards facility. Following are key assumptions in my analysis:

- 225 trucks operating daily (reflecting a 50% increase over the 150 trucks reported operating in 2009<sup>9</sup>; the 50% increase is an approximate prorating of the number of employees and square footage between the Long Island City and Harlem River Yards facilities).
- 10,500 deliveries per day (reflecting the same presumed 50% increase over the 7,000 daily deliveries reported in 2009).
- One-third each of deliveries going to (i) the Manhattan Central Business District, (ii) the Upper West or East Sides of Manhattan; (iii) other New York City destinations.
- “Congestion indices” relative to the Manhattan CBD of 0.6 for the Upper West and East Sides, and 0.4 for other destinations. These denote the extent to which a Fresh Direct truck driven or double-parked in a neighborhood outside the CBD will cause travel delays, vis-à-vis the same truck driven or parked within the CBD.
- Fresh Direct trucks deliver between 1:30 and 12:00 pm on weekdays, and between 7:00 a.m. and 9:00 p.m. on weekends and holidays.
- Each parked Fresh Direct truck renders one traffic lane unavailable for half of one short block.

Other assumptions pertaining to NYC traffic as a whole, e.g., travel speeds on CBD streets or on area highways; traffic volumes by time of day and day of week; and the value of time associated with “one vehicle” (a weighted-average composite of single-occupant cars, multi-occupant cars, empty taxicabs, occupied taxicabs, buses, and trucks of various sizes and weights); are detailed in the BTA’s various

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<sup>5</sup> Wired, “The Man Who Could Unsnarl Manhattan Traffic,” June 2010, <http://bit.ly/ahelWs>.

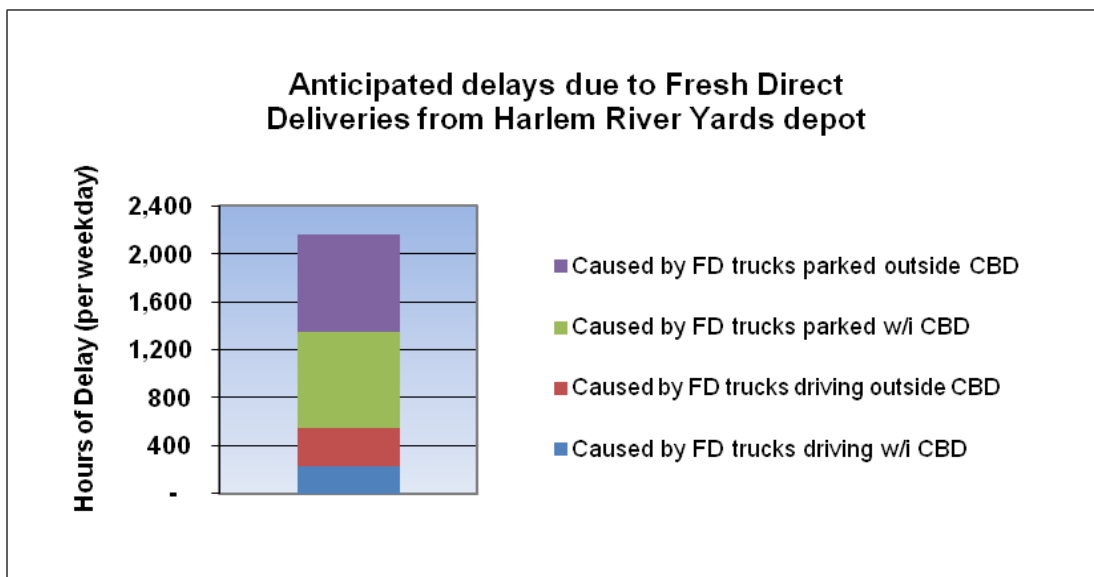
<sup>6</sup> Reuters, Jan. 20, 2012, “How the Taxi Medallion Bubble Might Burst,” <http://reut.rs/wSsS35>.

<sup>7</sup> New York Times, Jan. 30, 2012, “Traffic Jam Economics,” <http://nyti.ms/wBcRKV>.

<sup>8</sup> The BTA may be downloaded via this link: [http://www.nnyn.org/kheelplan/BTA\\_1.1.xls](http://www.nnyn.org/kheelplan/BTA_1.1.xls).

<sup>9</sup> New York Times, April 25, 2009, “Fresh Direct Will Limit Idling Time for Trucks,” available at <http://nyti.ms/zFdUX9>.

worksheet tabs. The various calculations, cell references and intermediate results for this analysis may be found in the **FreshDirect Bronx** worksheet tab which I created this week.



### Details

The chart indicates that most of the anticipated delay costs from Fresh Direct's operations from the proposed Harlem River Yards facility are associated with existing traffic having to maneuver around the company's parked vehicles, rather than being caused by the Fresh Direct vehicles themselves adding to traffic. That is a direct result of the trucks' being parked on city streets for many hours more than they are driven (I estimate a nearly 7-to-1 ratio of parked hours to driven hours). Although the company's modus operandi of parking a truck in one location and servicing many deliveries via hand trucks is less time-costly than if the same truck were driven from each delivery address to the next, the sheer physical space occupied by each parked Fresh Direct truck exacts a toll, literally, on others seeking to use the roadways at the same time.

Fresh Direct does contribute *something* for its trucks' use of New York City roads and streets. The company reportedly paid \$600,000 in city parking tickets in a recent year and may pay a similar amount in tolls.<sup>10</sup> Nevertheless, even a combined figure of \$1.2 million would be only around 1/15<sup>th</sup> as much as the \$19 million in time costs that the deliveries will generate.

It is true that in the absence of Fresh Direct service, some of the company's customers would use cars or taxicabs for some of their food shopping, generating traffic congestion. A company spokesperson cited

<sup>10</sup> The \$600,000 figure for parking tickets is anecdotal. The MTA Bridges and Tunnels toll rate for the 9-ton trucks used by Fresh Direct trucks is \$14.18, with E-ZPass. If each of the estimated 225 of the company's trucks (once it expands) paid one toll per day, every day of the year, the annual toll would be \$1.1-\$1.2 million. Since many if not most of the trucks will probably use free Harlem River bridges, the actual payment will almost certainly be less.

this tendency several years ago, claiming that “On a typical day, 140 Fresh Direct truck routes deliver 6,000-7,000 orders, reducing the number of car and taxi trips across the New York area.”<sup>11</sup> A complete accounting of traffic congestion from FreshDirect’s operations should of course estimate and net such trips from the traffic-impact figures estimated here. I suspect, however, that the impact on my figures would be slight. Throughout New York City and especially in Manhattan, where the company’s customer base is strongest, supermarkets and grocery stores are in close enough proximity to residents to make food shopping reasonably convenient by foot; and many stores employ delivery personnel who operate on foot or tricycle.

### **Environmental Justice**

Many — probably a majority of — Fresh Direct deliveries from the Harlem River Yards facility will be made to Manhattan addresses. Of those deliveries, most and perhaps all will be made by the company’s diesel trucks driving across one or more Harlem River bridges — principally the Willis Avenue, Third Avenue and Madison Avenue bridges. These bridges and their highway approaches pass through predominantly minority neighborhoods in which a majority of families are of lower socio-economic status.

With a couple of hundred diesel trucks making at least one round-trip daily on already heavily trafficked bridges, streets and highways, Fresh Direct’s operations can be expected to exacerbate what are almost certainly already disproportionate levels of asthma and other respiratory conditions in these neighborhoods. The trucks will also compound the high levels of unsafe traffic that discourage healthful physical activity such as walking and bicycle-riding.

That the health costs from the respiratory burden and suppression of physical activity are not quantified here does not mean that they are not worth analyzing and assessing. Quite the contrary, those impacts are potentially too critical to ignore. I have limited my analysis to traffic because my model is well suited to quantify it; and because the irony — or contradiction — of a government agency charged with developing business giving away precious tax dollars to subsidize business-killing traffic, cried out for analysis.

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<sup>11</sup> E-mail from FreshDirect representative Sarah Coniski, June 25, 2009. The company also stated in 2007, “We love that our trucks have become a mass transit system for food, each one replacing the many cars and cabs that would otherwise be used to bring families and food together.” See Streetsblog, <http://bit.ly/3L8Ila>.