THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER
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Fact vs. Fiction: Response to Airbnb's Desperate Attempts to Undermine Comptroller Stringer Report

CLAIM: The Comptroller's Office incorrectly interpreted AirDNA data and came to flawed conclusions.

FACT: Our analysis employed a sound methodology similar to that used in other studies that have reached the same conclusions that we did – namely that Airbnb listings lead to higher rents.[1]

Simply put, we compared the actual increase in rents citywide to an estimate of rent increases if no Airbnb units had been listed. This is measured as the share of residential units listed on Airbnb: Unique Airbnb addresses divided by total residential units. In statistical language, the "null hypothesis" is that Airbnb listings would have no impact on rents. But we found a statistically significant effect from Airbnb listings, showing that for each percentage point increase in Airbnb listings share, rents went up by 1.58%.

In other words, if the share of residential units listed on Airbnb went up from 1% to 2%, or from 3% to 4%, average rents would be expected to increase 1.58%. Since actual rents went up by over 25%, and the share of Airbnb listings went up from 0 to about 1% of all residential units, we concluded that Airbnb listings contributed to 9.2% of the overall 25% increase. Put differently, rents actually went up overall by $6.673 billion. If there had been no Airbnb listings, we estimate rents would have gone up by $6.056 billion – or $617 million less.

Because there are many citywide factors that could influence the demand for housing, we also included control variables for such factors, including household income, population, the share of population with a college degree, and the share of the population employed. In addition, because there may be idiosyncratic factors particular to a given neighborhood or year, we used what is called a "fixed effects" model, incorporating "dummy" variables for each of the 55 neighborhoods and each year.

[1] See in particular Barron, K., Kung, E., and Proserpio, D., "The Sharing Economy and Housing Affordability: Evidence from Airbnb," (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3006832), posted July 25, 2017. For a summary of earlier studies, see Jim Edwards, "Here's exactly what Airbnb does to rent in popular cities," *Business Insider*, Oct. 26, 2016 (http://www.businessinsider.com/statistics-data-airbnb-rent-prices-2016-10)

CLAIM: The Comptroller's Office never contacted AirDNA to ask for guidance or professional expertise on how to read the data and therefore made errors in interpreting the data.

FACT: The analysis was conducted by a Ph.D. Senior Economist under the supervision of the Chief Economist. We possess all the expertise necessary to interpret the data based on accepted econometric and statistical methods, and have conducted many such analyses in the past.

CLAIM: The Comptroller's Office mistakenly took every unique listing ever uploaded onto the site as the number of listings that were active in that year.

FACT: Whether an Airbnb listing was "active" or not is irrelevant – what we measured was the average effect of Airbnb listings, without respect to duration or type. To be clear, to avoid overstating the share of units listed on Airbnb, we counted multiple listings at the same address as a single "listing."

CLAIM: The Comptroller's Office wrongly assumed that if an Airbnb rental is merely listed on the site (even if it is only available for one night in a year), it has the same effect on the residential housing market as a full-time, professionally managed listing.

FACT: The statistical test employed estimated the average effect of all types and durations of Airbnb listings. The exact duration of a booking is irrelevant and it is not necessary to assume that a listing was full time, part time, professionally managed or not. Moreover, if we had restricted our analysis to only listings of a given duration, the number of such listings would have been lower – but the effect of those listings (the coefficient) would have been larger, and thus the overall impact on rents would have been the same.

CLAIM: Almost half of all active listings are private rooms and there are over five times more single-listing hosts than multi-listing hosts, and 65% of properties are managed by hosts with just one listing. Thereby the Comptroller's report ignores relevant information.

FACT: Again, the hosting type is irrelevant – our findings show the average effect of all listing types and durations. Airbnb does not make this level of detail publicly available. So if Airbnb wants to make the argument that this is a relevant factor, they should hand over the data so that their claims can be independently reviewed.

CLAIM: The Comptroller's Office did not pay for the data they used from AirDNA and is wrongfully using it.

FACT: We did what any user can do on AirDNA's site, which is create an account and access the data, for free. No payment was asked for or made to use the data.

CLAIM: Use of any other data in this report should be questioned.

FACT: All other data in the report was from the U.S. Census Bureau's American Community Survey, one of the gold standards for this type of research.

CLAIM: The Comptroller's Office is blaming New York City's affordable housing crisis on Airbnb when really, it's been growing for years and years.

FACT: Our report explicitly stated that Airbnb was responsible for 9.2% of the increase in housing costs – not 100%. The recent increase in the supply of rental housing, and evidence of softening of rents, is welcome news. Our analysis covered 2009 to 2016, and by that time, the damage by Airbnb to affordability was already done.

We are not disputing the right of homeowners or renters to lawfully rent space in their apartments. But the lack of transparency and enforcement in this industry is resulting in abuses that are undeniably and measurably impacting affordability in our City.