



CITY AND COUNTY OF SAN FRANCISCO  
OFFICE OF THE CONTROLLER

B0511, COB, LU

Ben Rosenfield  
Controller

Todd Rydstrom  
Deputy Controller

May 18, 2015

The Honorable Board of Supervisors  
City and County of San Francisco  
Room 244, City Hall

Angela Calvillo  
Clerk of the Board of Supervisors  
Room 244, City Hall

RECEIVED  
BOARD OF SUPERVISORS  
SAN FRANCISCO  
2015 MAY 18 AM 11:23  
AK

**Re: Office of Economic Analysis Impact Report for File Numbers 150295 and 150363**

Dear Madam Clerk and Members of the Board:

The Office of Economic Analysis is pleased to present you with its economic impact report on file numbers 150295 and 150363, "Amending the Regulations of Short-Term Residential Rentals: Economic Impact Report." If you have any questions about this report, please contact me at (415) 554-5268.

Best Regards,

Ted Egan  
Chief Economist

cc Andrea Ausberry, Committee Clerk, Land Use and Transportation Committee



# Amending the Regulation of Short-Term Residential Rentals: Economic Impact Report

Office of Economic Analysis  
Items #150295 and #150363

May 18<sup>th</sup>, 2015



## Introduction

- The Office of Economic Analysis (OEA) has prepared this economic impact report in response to the introduction of two proposed ordinances that would modify the regulation of short-term rentals in San Francisco:
  - Item #150295, introduced by Supervisor Campos on April 14<sup>th</sup> ("the Campos legislation").
  - Item #150363, introduced by Mayor Lee and Supervisor Farrell, also on April 14<sup>th</sup> ("the Mayor/Farrell legislation").
- A short-term rental (STR) is the leasing of a residential unit for a short period. The lessor may be a unit's owner or its tenant, and is referred to in this report as a "host".
- While a segment of the city's housing has been used for this purpose since at least 1990, the development of online hosting platforms since 2005 has given the practice more prominence.
- The City clarified its regulation of short-term rentals with the passage of Ordinance 218-14 in 2014.
- That ordinance established rules regarding registration and reporting of short-term rental activity, set annual limits, and established rules for enforcement and redress.
- Major differences between Ordinance 218-14 and the proposed ordinances are set forth on the following two pages.



# Major Differences between Current Law and the Two Proposed Ordinances

Provisions	Current Law	Mayor/Farrell Legislation	Campos Legislation
Annual Hosting Days	90 for entire units, unlimited for hosted.	120	60. Platforms prohibited from listing units known to exceed the 60 day limit.
Civil Proceedings by the City	Allowable only after a complaint and Planning determination	Any time	Any time
Definition of "Interested Party"	Unit owner; HOA or resident of the building; the City; non-profit dedicated to housing	Adds permanent residents or owners within 100 feet.	Adds permanent residents, not absentee owners, within 100 feet
Private Right of Action	Allowable only after a complaint and Planning determination.	Allowable after a complaint.	Allowable after a complaint.
Criminal Penalties	Hosts' violations are misdemeanors	Same as current law.	Adds that platform violations are also misdemeanors
Registry Requirements	Host must register and remain in good standing	Same as current law	Platforms prohibited from listing units not in good standing. Planning required to notify neighbors upon receipt of completed application.



## Major Differences between Current Law and the Two Proposed Ordinances (continued)

Provisions	Current Law	Mayor Legislation	Campos Legislation
Reporting Requirements	Hosts must report annual usage as STRs.	Same as current law	Adds a quarterly reporting requirement for platforms
Privacy	Registry is a public document; host names are redacted	Host names and addresses to be redacted.	Host names and addresses to be redacted.



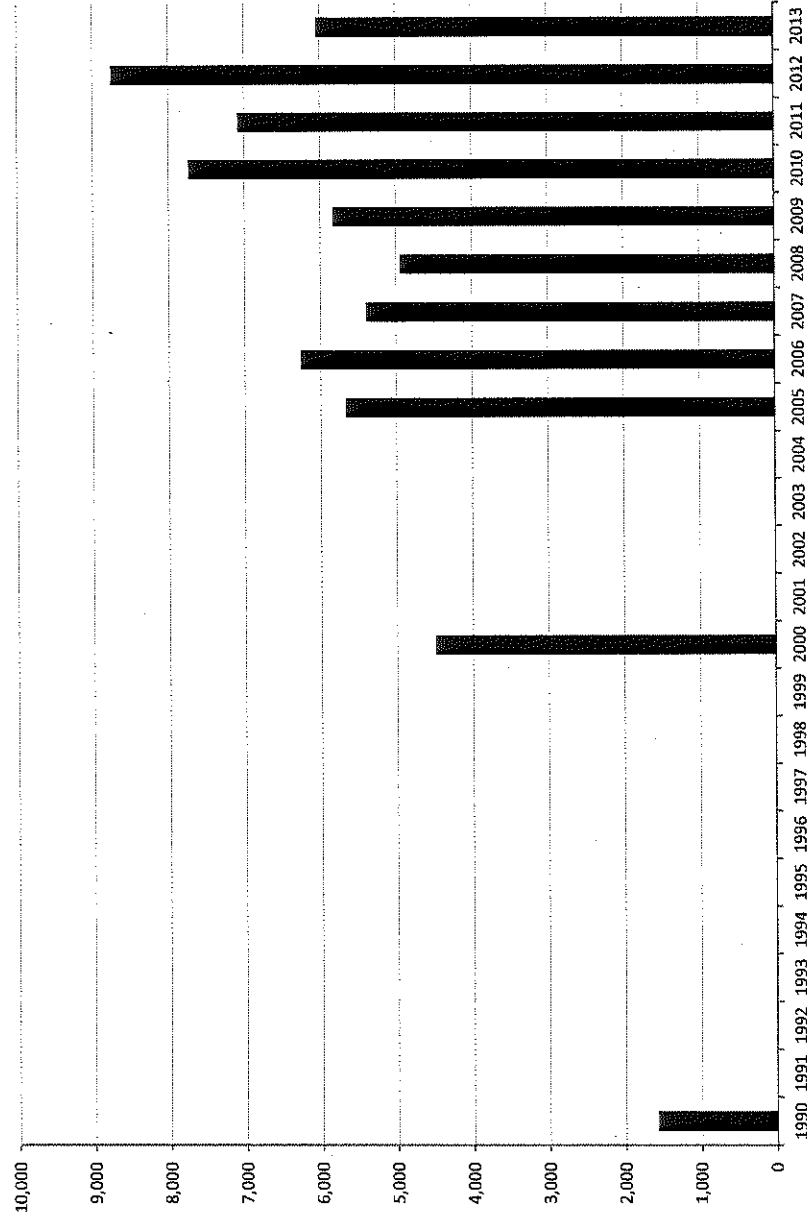
## Background

- Online hosting platforms such as Airbnb (founded 2008), VRBO (founded 1995), and HomeAway (founded 2005) have facilitated the listing of residential property for short-term use.
- Airbnb, in particular, also permits the leasing of a private or shared room, in an otherwise occupied unit.
- Hosting platforms facilitate these transactions by not only creating an online marketplace that processes the financial transaction, but by providing insurance, communication, and reviewing tools that allow both sides an opportunity to reduce their risk.
- While these platforms facilitate the short-term rental of a unit by an occupant, who either remains in, or temporarily vacates, the unit, they also facilitate a form of serial short-term renting in which the unit is never occupied by a resident, and effectively becomes a hotel room.
- In the former situation, short-term renting may increase the population density of the city, but does not affect the demand for or supply of housing for residential use.
- In the latter situation, short-term renting effectively removes the unit from the residential housing market.



## Housing Use for Tourism in San Francisco, 1990-2013

Housing Units Recorded by the Census as Vacant because of "Seasonal, Recreational, or Occasional Use" in San Francisco, 1990-2013



The chart to the left indicates the number of housing units represented as vacant in San Francisco for what the Census terms "seasonal, recreational, or occasional use. Some housing has been used for tourism since at least 1990, but the number grew rapidly from 1990 through 2012, where it peaked at 9,000 units, approximately 2.4% of the city's housing stock.

In 2013, the number dropped to 2005/2006 levels.

From the Census data, it is impossible to determine if these units are being kept off the residential market entirely, or only used for tourism reasons from time to time.





## Potential Economic Benefits of Short-Term Rentals

- Short-term rentals provide additional income to hosts, increase the City's hotel tax revenue, and increase the amount of visitor spending that occurs in the city.
- In cases when a host temporarily vacates the unit for a visitor, then the city's economy receives host income and visitor spending, but may lose resident spending, depending on where the resident relocates.
- San Francisco Travel has recently conducted an intercept survey of visitors to the city, which asked about their spending patterns and lodging type. The research found that visitors staying in short-term rentals spent (as a party) an average of \$215 per day at local businesses.
- The OEA has no information on how many residents temporarily move within the city, or outside the city, to accommodate a short-term visitor. If only 25% remain in the city, which is probably a conservative assumption, then based on the average resident household expenditures, and the mix of Airbnb rental types scraped from its website in 2014, the net increase in spending per STR unit per rental day is \$177.
- The SF Travel research indicated that STR guests spend \$95 per day for lodging, on average, which would lead to a \$13.30 per day hotel tax.
- According to the OEA's REMI model, the total economic impact of such daily spending at businesses, including multiplier effects, is \$376.



## Potential Economic Costs of Short-Term Renting

- According to the Planning Department, although Ordinance 218-14 limits the number of nights per year that a unit may be legally used for short-term rentals to 275, in practice this limit is unenforceable. This is because it is impracticable to determine whether or not a host is in their unit on a given night.
- As a result, if the incentives exist, a host may fully withdraw the housing unit from the residential market, and use it for short-term renting on a full-time basis, potentially up to every night of the year.
- If short-term renting results in the withdrawal of a housing unit from the residential market, then the reduced supply would lead to higher housing costs.
- The citywide economic harms associated with higher housing costs are fairly severe. According to the REMI model, removing a single housing unit from the market would have a total economic impact on the city's economy of approximately -\$250,000 to -\$300,000 per year. This exceeds the annual total economic benefit from visitor spending, host income, and hotel tax, given prevailing short-term rental rates.
- On a net basis, then, a housing unit withdrawn from the market to be used for short-term rentals produces a negative economic impact on the city, even if the unit generates host income, visitor spending, and hotel tax every day of the year.



## Economic Impact Factors

- In terms of the two proposed ordinances, the OEA projects that both would affect the city's economy in two primary ways:
  1. By affecting the incentive of a host to remove a unit from the housing market and devote it to short-term rental use on a full-time basis, through the annual caps that each would impose. Compared to the current regulation of short-term rentals, establishing an effective cap to maintain housing on the market would prevent housing price inflation, and would have a positive economic impact.
  2. By affecting the amount of host income, visitor spending, and hotel tax that short-term renting adds to the city's economy. Compared to current law, establishing an effective cap would reduce that spending and tend to affect the economy in a negative way.
- The analysis that follows presumes that the annual caps in each ordinance are enforceable. The OEA cannot assess the relative efficacy of the different enforcement mechanisms in each proposed ordinance.



## Methodology

- The OEA is not aware of any sources of data on the number of housing units taken off the market to be used as a short-term rental on a full-time basis, within San Francisco.
- Because we lack data on how owners and tenants actually behave in this regard, this report studies the economic incentives that a host faces, given the current state of the market for short-term rentals and rental housing. This involves comparing the income that a host could potentially receive by renting a vacant unit as a short-term rental, and as a long-term residential rental.
- We acquired data retrieved from Airbnb's and Craigslist's websites, and for data quality reasons focused on our comparison on 2 bedroom units in neighborhoods that had over 20 listings in both of the samples.
- We then estimated the income that a host would receive, by deducting various operating expenses. This allowed us to estimate an average daily income associated with short-term renting, and an average annual income associated with long-term residential renting.
- We then calculated the number of days per year that a unit would have to be in operation as a short-term rental, for its STR income to equal its annual income as a residential rental.
- A given annual cap is likely to produce a positive economic impact if it is below that break-even level. However, a cap that is far below the threshold would reduce the positive economic and fiscal benefits of short-term renting, and thus the overall economic impact, because it would limit spending, host income, and hotel tax revenue, without providing significant additional protection to the housing stock.



## Short-Term and Long-Term Rental Rates for Entire 2 Bedroom Units in 16 San Francisco Neighborhoods, 2014

Neighborhood	Airbnb		Average Price		Craigslist	
	Count	Count	Average Price	Average Price	Count	Average Price
BernalHeights		70	\$207	\$3,585	145	\$3,585
Castro/UpperMarket		74	\$252	\$4,372	222	\$4,372
HaightAshbury		45	\$250	\$3,990	179	\$3,990
InnerRichmond		25	\$222	\$3,440	223	\$3,440
InnerSunset		21	\$186	\$3,585	196	\$3,585
Marina		42	\$324	\$4,904	239	\$4,904
Mission		145	\$238	\$4,472	406	\$4,472
NobHill		30	\$273	\$4,459	267	\$4,459
NoeValley		52	\$258	\$4,135	336	\$4,135
NorthBeach		27	\$292	\$4,614	154	\$4,614
OuterRichmond		21	\$193	\$3,052	242	\$3,052
PacificHeights		29	\$307	\$5,247	313	\$5,247
PotreroHill		38	\$290	\$4,396	325	\$4,396
RussianHill		35	\$488	\$4,811	166	\$4,811
SouthofMarket		58	\$331	\$4,890	2354	\$4,890
WesternAddition		76	\$392	\$4,030	758	\$4,030



## Cost Assumptions Used in Estimating Short-Term and Long-Term Rental Income

Costs applicable to Short-Term Rental Hosts	Costs Applicable to Residential Lessors
Hosting Fee: 3% of revenue	Residential vacancy loss – 3.7% of revenue
Fixed cost of furnishing unit: 1.5% of revenue	Apartment management fee – 7% of revenue
Gas & Electric: 3% of revenue	Water – 1.5% of revenue
Cable / Phone / Internet: 1.5% of revenue	Garbage – 1% of revenue
Water – 1.5% of revenue	<b>Operating Income – 87% of revenue</b>
Garbage – 1% of revenue	Maintenance – 10% of operating income
<b>Operating Income – 88% of revenue</b>	
Maintenance – 15% of operating income	
<b>Income: 75% of revenue</b>	<b>Income: 78% of revenue</b>



## Break-Even Analysis Results

Neighborhood	Average Annual Income, Long-Term Rental	Average Daily Income, Short-Term Rental	Average Days of Short-Term Rental to Equal Long-Term Rental Income
Bernal Heights	\$33,555	\$155	217
Castro/Upper Market	\$40,921	\$189	217
Haight Ashbury	\$37,347	\$188	200
Inner Richmond	\$32,200	\$166	194
Inner Sunset	\$33,555	\$140	241
Marina	\$45,902	\$243	189
Mission	\$41,854	\$178	235
Nob Hill	\$41,734	\$205	204
Noe Valley	\$38,699	\$194	200
North Beach	\$43,185	\$219	198
Outer Richmond	\$28,568	\$144	198
Pacific Heights	\$49,111	\$230	214
Potrero Hill	\$41,148	\$217	190
Russian Hill	\$45,034	\$366	123
South of Market	\$45,767	\$248	185
Western Addition	\$37,725	\$294	129

Analysis of 2 bedroom entire apartment data from 16 San Francisco neighborhoods reveals that the average number of days that a host would need to engage in short-term renting, to equal the average income they could receive from residential renting, ranges from 123 days a year in Russian Hill to 241 days a year in the Inner Sunset.

This analysis suggests that an STR use at a maximum occupancy rate (such as 85%-90%, or 310-330 days a year) would easily exceed the break-even point in every neighborhood. For this reason, some cap is necessary to prevent a negative economic impact.

These results further suggest that both the 60-day and 120-day caps in the two proposed ordinances are conservative, and likely to eliminate the risk of withdrawal of housing units from the residential market, in the vast majority of cases. Because the Mayor/Farrell legislation would allow more short-term renting while discouraging the withdrawal of housing units, it likely has a more positive economic impact.



## Caveats to This Analysis

- Because of data limitations, the analysis in this report covers only 2 bedroom units. While the findings from these areas are fairly conclusive, it is possible that the short-term rental market places a higher value on other unit sizes, relative to the residential market.
- Secondly, this analysis also only considers the relative income that a host would receive putting an entire vacant unit into service as a short-term rental or a long-term rental. It does not compare the short-term market for private rooms, with the residential market for roommates: private rooms within residential units.
- Analysis of this second question is complicated by the fact that an owner or tenant of an occupied unit with a spare bedroom essentially faces three choices: short-term renting, finding long-term roommate, or personal use of the additional space.
- U.S. Census micro-data indicates that over 20% of San Francisco housing units have more bedrooms than occupants, and this percentage has remained relatively steady over the 2006-2013 period. The rapid increase in residential rents since 2010, and the availability of online platforms for short-term renting, have not reduced this percentage.
- For this reason, the OEA believes that if a given cap is effective at preventing entire vacant units from being removed from the housing market, it would be unlikely to be less effective at preventing a vacant bedroom from being withdrawn from the market.





## Conclusions

- Because the City has only recently required clarified its regulations regarding short-term rentals, the amount and quality of City data on the subject is very limited. It is likely that our understanding of short-term renting, and its impact, will continue to develop as more and better data becomes available.
- In particular, the OEA is unaware of any data on how many housing units are being removed from the market to be used as short-term rentals on a permanent basis. Such a withdrawal from the market would lead to a negative economic impact, notwithstanding the increased visitor spending, host income, and hotel tax that short-term renting provides.
- Without data on actual behavior, this report studied the incentives that exist to remove a vacant unit from the housing market, by comparing the income that it could earn as a short-term rental and a residential rental.
- The analysis found that the average number of days that a unit would need to be short-term rented, to create an incentive to withdraw it from the housing market, ranged from 123 to 241 days per year in different neighborhoods of the city. The annual caps in both proposed ordinances are well below these break-even points, in most neighborhoods.
- Because the Mayor/Farrell legislation allows more short-term renting while setting a cap well below the break-even point in the majority of neighborhoods, it likely has a more positive economic impact.



## Staff Contacts

Ted Egan, Ph.D., Chief Economist, [ted.egan@sfgov.org](mailto:ted.egan@sfgov.org)  
Asim Khan, Ph.D., Principal Economist, [asim.khan@sfgov.org](mailto:asim.khan@sfgov.org)

The authors thank Alex Marqusee and AnMarie Rodgers from the Planning Department for their assistance in the preparation of this report. All errors, omissions, and conclusions are solely the responsibility of the Office of Economic Analysis.

