

**CITY AND COUNTY OF SAN FRANCISCO
BOARD OF SUPERVISORS**

BUDGET AND LEGISLATIVE ANALYST

1390 Market Street, Suite 1150, San Francisco, CA 94102

(415) 552-9292 FAX (415) 252-0461

POLICY ANALYSIS MEMORANDUM

To: Supervisor Breed
From: Budget and Legislative Analyst
Date: March 13, 2014
Re: Economic Impact of Graffiti



Summary of Requested Action

Pursuant to your request, the Budget and Legislative Analyst has prepared a report on the economic impact of graffiti on the City and County of San Francisco. Your office requested that we determine how much the City, private property owners, Federal and state agencies and special districts that own property within the City boundaries pay for graffiti abatement and graffiti related costs annually.

For further information about this report, please contact Fred Brousseau at the Budget and Legislative Analyst's Office.

Cost of Graffiti Abatement in San Francisco

The Budget and Legislative Analyst estimates *at least* \$24.1 million in annual costs for graffiti abatement is incurred by the City and County of San Francisco, other government entities within the City boundaries, and private property owners. It should be noted that this amount likely understates the actual total since it does not include costs by certain City and County agencies that could not provide a breakdown of their costs for graffiti abatement, undocumented graffiti abatement performed by private property owners and costs incurred by Bay Area Rapid Transit District (BART), which did not respond to requests for cost information by the Budget and Legislative Analyst. Exhibit 1 presents details on the approximately \$24.1 million in estimated annual costs.

| Exhibit 1: Total Estimated Annual Graffiti Abatement Costs in San Francisco, FY 2012-13 | |
|--|---------------------|
| Entity | Cost |
| City and County of San Francisco | \$19,395,102 |
| San Francisco Unified School District | 277,800 |
| Golden Gate Bridge Highway & Transportation District | 25,000 |
| City College of San Francisco | 62,500 |
| Minimum Private Property Owners Abatement | 3,370,407 |
| Federal & State Government | 961,063 |
| Total | \$24,091,872 |

Source: Each agency listed.

City and County of San Francisco Graffiti Abatement Costs

In Fiscal Year (FY) 2012-13, graffiti abatement cost the City and County of San Francisco (“the City”) at least an estimated \$19.4 million, as shown in Exhibit 2.

| Exhibit 2: Cost of Graffiti Abatement to the City and County of San Francisco FY 2012-13 | |
|---|-----------------------|
| City Departments & Agencies | Estimated Cost |
| Municipal Transportation Agency (SFMTA) | \$15,000,000 |
| Public Works (DPW) | 3,605,256 |
| Police Department Abatement Program & Arrests (SFPD)* | 327,500 |
| Recreation and Park Department (RPD) | 299,031 |
| Arts Commission | 75,000 |
| Public Utilities Commission (SFPUC) | 65,858 |
| Port (SFPORT) | 22,067 |
| Fire Department (SFFD) | 390 |
| Total | \$19,395,102 |

Source: Each agency listed.

* This includes costs for the 201 arrests made for graffiti-related crimes in FY 2012-13 and for costs of operating the SFPD graffiti abatement program, Juvenile Alternative Works (JAWS), in which program participants paint over public property that has been vandalized and which DPW has approved to paint.

The City's costs are based on estimated annual expenses for FY 2012-13 reported by eight City departments identified by the Budget and Legislative Analyst as likely to incur graffiti abatement costs.

As shown in Exhibit 2, the Municipal Transportation Agency (SFMTA) incurs the largest costs, estimated by the Agency to be \$15 million in FY 2012-13. The second highest graffiti abatement costs estimated by City departments for FY 2012-13 were reported by the Department of Public Works (DPW). These costs are primarily for DPW staff time spent painting or washing out graffiti on the City's publically owned facilities and right-of-way assets including trees, sidewalks, city trash cans and benches that are not located in transit stations. DPW is not responsible for abating graffiti in parks or on property owned by enterprise departments. Costs for the enterprise departments are also primarily for staff and/or contractors abating graffiti.¹

Due to several data limitations, some known City costs are not included in the estimated annual \$19.4 million cost because certain departments did not have information about their graffiti-related workload or costs. The District Attorney's Office, for example, could not report the number of graffiti cases that they prosecuted in FY 2012-13. According to the District Attorney's staff, 205 vandalism cases were charged in FY 2012-13 and 125 vandalism cases were referred to the Neighborhood Courts Program; however, District Attorney's Office staff was unable to report how many of the vandalism cases were graffiti-related nor could they provide the estimated cost of each case.

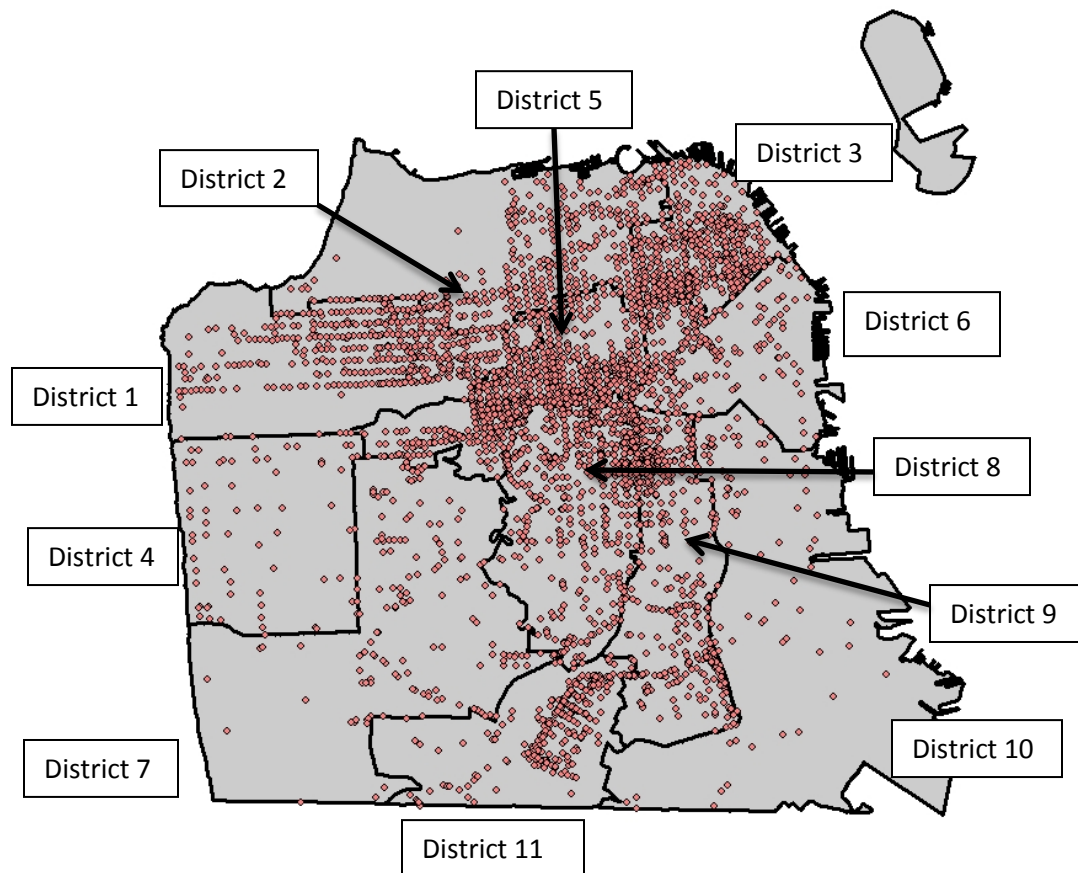
Moreover, SFMTA staff report that the estimated \$15 million in annual graffiti abatement costs does not include the costs of any service delays or missed trips due to removing buses with graffiti from their normally scheduled routes. Similarly, the Arts Commission reports that it receives approximately \$75,000 each year from the Capital Planning Committee (CPC) for conservation and maintenance of the City's Civic Art Collection (Collection) which is comprised of 4,000 objects and historical monuments and valued at \$90 million. Rebekah Krell, Deputy Director and CFO of the Arts Commission, advises that each year the entire \$75,000 is spent on removing graffiti from the Collection in lieu of other conservation efforts. Ms. Krell also noted that the funds are spent on equipment and labor to abate the graffiti and does not include Arts Commission staff time to manage or arrange the abatement activities.

DPW Graffiti Caseload

In FY 2012-13, the Department of Public Works (DPW) received 8,174 graffiti reports through San Francisco's 311 Customer Service Center. DPW does not track reported graffiti by supervisorial district; however, based on the locations of reported graffiti shown in Exhibit 3 below, reported graffiti appears to be concentrated in Supervisorial Districts 2, 3, 5, 8, and 9.

¹ Several departments such as PUC and MTA have work orders with DPW to abate graffiti on some of their properties. These work orders have been factored into DPW's costs.

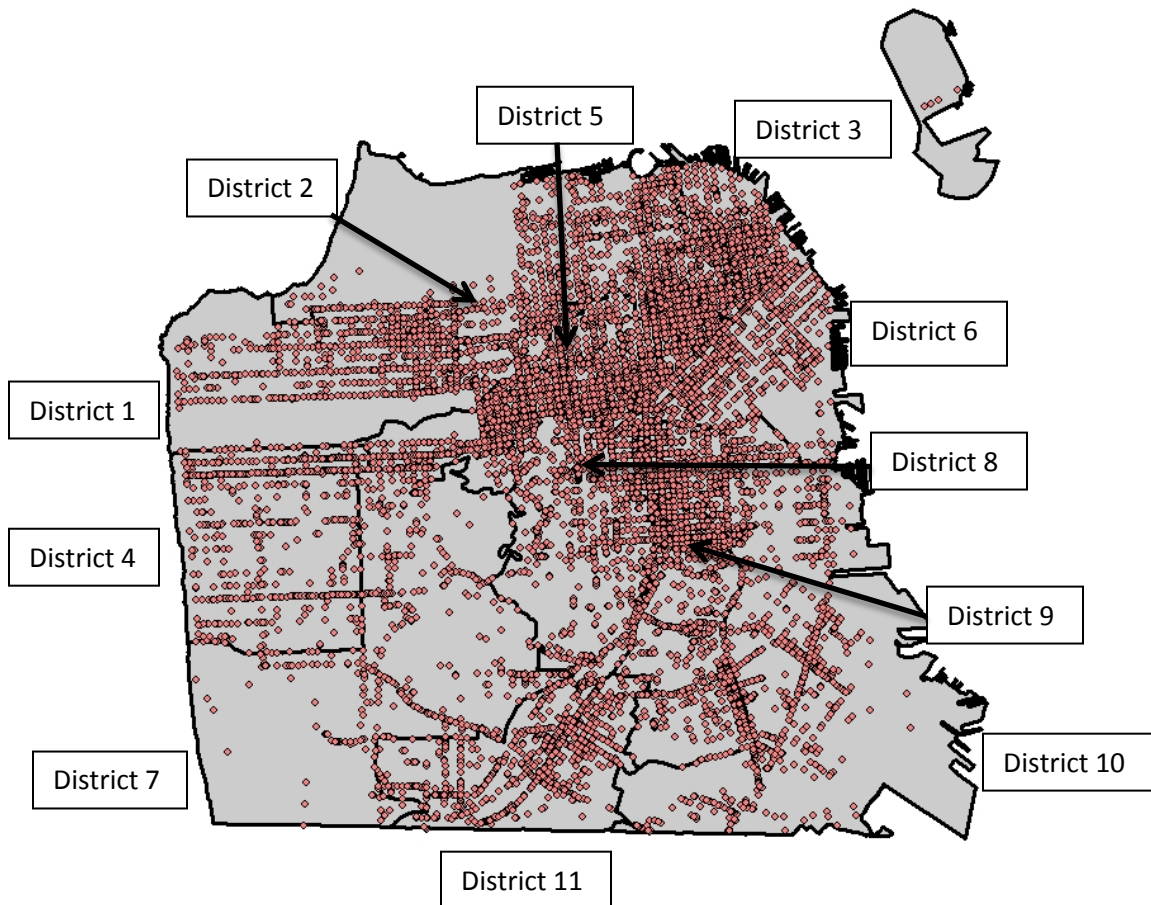
**Exhibit 3: Map of Graffiti Reported to
Department of Public Works, FY 2012-13, by Supervisorial District**



Source: Map created by the Budget and Legislative Analyst with data provided by DPW.

Exhibit 4 shows the locations of the 58,726 graffiti objects that DPW abated in FY 2012-13.²

Exhibit 4: Map of DPW Graffiti Abatements, FY 2012-13



Source: Map created by the Budget and Legislative Analyst with data provided by DPW.

Similar to graffiti reported as shown in Exhibit 3, the location of graffiti objects that were abated by DPW staff appears to be concentrated in Supervisorial Districts 2, 3, 5, 6 and 9 and the eastern border of Supervisorial District 8; however, DPW does not track graffiti abatements by supervisorial district either.

² Abated objects are located on both city owned and non-city owned property which DPW abates through work orders.

Other Government Graffiti Abatement Costs

The Federal and state government own multiple properties in San Francisco that are impacted by graffiti. The Budget and Legislative Analyst obtained estimates of \$961,063 in annual graffiti abatement costs from the U.S. Postal Service, the U.S. National Park Service, the U.S. General Services Administration, the California Department of General Services and the California Department of Transportation (Caltrans) as shown in Exhibit 5.

| Exhibit 5: Federal and State Government's Estimated Annual Costs of Abating Graffiti in San Francisco | |
|--|------------------------|
| Agency | Cost |
| U.S. Postal Service | \$823,141 ³ |
| U.S. Forestry Service | 28,500 |
| U.S. General Services Administration | 2,200 ⁴ |
| <i>Federal subtotal</i> | 853,841 |
| California Department of General Services | 4,000 |
| Caltrans | 103,222 |
| <i>State Subtotal</i> | 107,222 |
| Total | \$961,063 |

Source: Each agency listed. Costs are annual for each agency, though some were reported on calendar year basis; others on fiscal year basis.

Other local government entity annual graffiti abatement costs identified by the Budget and Legislative Analyst totaled \$365,300 as shown in Exhibit 6. These costs are comprised of \$277,800 in estimated annual costs incurred by the San Francisco Unified School District, \$25,000 in annual costs incurred by the Golden Gate Bridge, Highway and Transportation District in San Francisco only and \$62,500 in annual costs incurred by City College of San Francisco. Cost estimates were requested but not provided by BART.

³ This is an estimate based on data provided by the U.S. Postal Service, San Francisco District Maintenance. According to the Manager of the Maintenance Operation Support, the San Francisco Postal Service Maintenance Department abated graffiti from approximately 2,200 collection/relay mailboxes in the City of San Francisco in calendar year 2013. Because the Department was unable to provide data on how many mailboxes had to be completely repainted, replaced or if only minor painting was needed, the average cost was used. At minimum, the cost for paint supplies (\$58.31) and two hours of labor (\$90) for each vandalized mailbox is \$326,282 and the maximum cost to replace (\$600) all the mailboxes that were vandalized is \$1,320,000.

⁴ Only one property manager for GSA buildings was able to provide data.

| Exhibit 6: Other Local Government Estimated Annual Costs of Abating Graffiti in San Francisco | |
|--|------------------|
| Agency | Cost |
| San Francisco Unified School District ⁵ | \$277,800 |
| Golden Gate Bridge, Highway and Transportation District | 25,000 |
| City College of San Francisco | 62,500 |
| Total | \$365,300 |

Source: Each agency listed. Costs are annual for each agency, though some were reported on calendar year basis; others on fiscal year basis.

Private Sector Costs for Graffiti Abatement

In accordance with the City's Graffiti Ordinance (San Francisco Public Works Code, Article 23, Section 1300), it is against the law for a private property owner in San Francisco to allow graffiti to remain on their property. Graffiti must be removed in a timely manner at the owner's expense.

If a property owner fails to quickly remove the graffiti in a timely manner, DPW staff will issue a graffiti Notice of Violation (NOV) to the property owner. The NOV provides the owner 30 days to remove the graffiti or request a hearing. If the owner fails to remove the graffiti or request a hearing within 30 days from the date of the notice, a Blight Notification is issued along with a \$267 fine pursuant to Section 80.5 of the City's Administrative Code. The owner then has 15 days after receiving the Blight Notification to abate the graffiti. If the owner fails to abate the graffiti within 15 days, DPW or a contractor hired by DPW will abate it at the owner's expense. DPW charges a minimum of \$500 for abating graffiti on private property or they charge the actual cost to the City if it is greater than \$500.

An owner can request a hearing within 30 days of receiving a NOV to contest it. During the hearing, the property owner can present evidence and demonstrate that his or her property does not contain graffiti or can demonstrate that their property is burdened with a disproportionate share of graffiti vandalism and abating the graffiti would result in an unfair hardship.

In instances when an unfair hardship has been determined, DPW staff or a contractor can abate the graffiti at no cost to the property owner or provide the owner with paint for graffiti removal at no charge. In return, the property owner must agree in writing to paint over the graffiti within 10 City business days from receiving the paint or a new notice will be issued.

As shown in Exhibit 7, in both calendar year 2012 and 2013, Supervisorial District 9 had the highest percentage of graffiti Notices of Violation (NOVs) relative to other

⁵ This is based on data provided by the SFUSD to DPW staff.

Supervisory Districts with 23.7% and 23.5% of total graffiti NOV's, respectively. Supervisory District 2 had the lowest percentage of graffiti NOV's relative to other Supervisory Districts in calendar year 2012 and 2013.

| Exhibit 7: Number of Graffiti Notices of Violation Issued to Private Property Owners, 2012 and 2013 | | | | |
|--|---------------------------------------|-------------------------------------|---------------------------------------|-------------------------------------|
| Supervisory District | # of Notices of Violation 2012 | % Total Notices of Violation | # of Notices of Violation 2013 | % Total Notices of Violation |
| 1 | 607 | 6.3% | 513 | 4.3% |
| 2 | 156 | 1.6% | 254 | 2.2% |
| 3 | 1329 | 13.8% | 1755 | 14.9% |
| 4 | 207 | 2.2% | 285 | 2.4% |
| 5 | 1074 | 11.2% | 1135 | 9.6% |
| 6 | 1782 | 18.6% | 2384 | 20.2% |
| 7 | 167 | 1.7% | 304 | 2.6% |
| 8 | 508 | 5.3% | 703 | 6.0% |
| 9 | 2271 | 23.7% | 2770 | 23.5% |
| 10 | 748 | 7.8% | 859 | 7.3% |
| 11 | 701 | 7.3% | 824 | 7.0% |
| Unknown ⁶ | 46 | 0.5% | 12 | 0.1% |
| Total | 9,596 | 100.0% | 11,800 | 100% |

Source: Department of Public Works

The Budget and Legislative Analyst estimates that in calendar year 2013, the estimated annual costs for graffiti abatement by private property owners were \$3,370,407. This estimate is the average between estimated minimum and maximum costs to private property owners to remove graffiti. Minimum costs were determined by the Budget and Legislative Analyst to be \$685,907 which is based on the number of graffiti NOV's in 2013, the cost of a gallon of paint and paint application, which is \$45, and \$154,907 in revenue collected from Blight Notification fines in FY 2012-13 reported by DPW.⁷ The estimated maximum cost to private property owners in 2013 was \$6,054,907 which is based on the minimum price that DPW charges for removing graffiti (\$500) plus \$154,907 in Blight Notification fines. Based on these two calculations, the average annual costs for private property owners was \$3,370,407 in calendar year 2013. It should be noted that the actual cost to private property owners is likely much *higher* than the estimated \$3,370,407 because it does not capture the cost of graffiti abatement that was performed in a timely manner - prior to a property owner receiving an NOV for which there is no data. Furthermore, it does not account for the abatements that were much more expensive than DPW's minimum \$500 graffiti removal fee which are also not recorded.

⁶ DPW staff was unable to decipher based on available information the Supervisory District in which these NOV's were issued.

⁷ Based on prices from The Home Depot retrieved from homedepot.com January 27, 2014.

Property owners are also negatively impacted through reduced property values as a result of graffiti. Academic research suggests that graffiti is a symbol of community instability and deterioration and induces a fear of crime which reduces demand for homes in those neighborhoods.⁸ Moreover, existing literature has found that in general, crime has a negative effect on property values and the magnitude of the effect varies by crime type. One study conducted in London found that a 10% increase from the mean in “crimes to dwellings” (vandalism, graffiti and arson) in Inner London⁹ is associated with a 1.6% decrease in property values, or a decrease of 2,200 pounds (\$3,080) on average for an Inner London property in 2001.^{10 11}

Assuming San Francisco has a similar rate of “crimes to dwellings” per square kilometer per year,¹² and we apply the findings from the study conducted in London to San Francisco’s total assessed property value, which was a \$153 billion at the end of fiscal year 2013, a 10% increase in “crimes to dwellings” is associated with a \$2.4 billion reduction in assessed property value, a 1.6% decrease. It is important to note, however, that graffiti is just one component of “crimes to dwellings” which also includes vandalism and arson; therefore, the decreased property value attributed exclusively to graffiti is a portion of the \$2.4 billion decrease.

⁸ Gibbons, Stephen, The Costs of Urban Property Crime. *Economic Journal*, Vol. 114, No. 499, pp. F441-F463, November 2004. Available at SSRN: <http://ssrn.com/abstract=608447>

⁹ The population mean is 50 crimes per year per kilometer squared and a 10% increase equals 5 crimes per year per kilometer squared. The standard deviation is 30 crimes per year per square kilometer, therefore a one-tenth standard deviation increase is associated with a 1% decrease in property values or a one standard deviation increase in crime density is associated with a 10% decrease in property values.

¹⁰ 10% from the sample mean of 50 which equals 5 crimes

¹¹ The 2001 exchange rate from U.K. pounds to U.S. dollars was 1.4.

¹² San Francisco has approximately 46.6 vandalism crimes per square kilometer per year based on data from SFPD’s CrimeMAPS.