How art theft affects museum attendance, membership, and fundraising revenue.

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Abstract: While art crime is a problem that is happening with increasing frequency, museums often have little security and do not insure their priceless pieces. Museums are already vulnerable, as the very nature of museums allows criminals to walk right in the front door and face million dollar works with nothing standing in between them. When museums are stolen from, they lose pieces of unimaginable value, so it is puzzling that further precautions are not taken. In reviewing notable art thefts throughout history there are instances where the theft and the press surrounding it benefitted the artist, owner or the piece itself. While there are certain cases of times where positives come from theft, there is little conclusive evidence or research on the area as a whole. Using a difference-in-difference regression I will test whether a large theft in 2012 had an effect on a representative group of museums financials, specifically their attendance revenue, membership revenue, fundraising revenue, and insurance payments. Results indicate that the theft had no implications on the museums financials, whether it be positive or negative. There is some evidence that the number of stolen works have an effect on museums financials, perhaps showing that larger museums differ in their financial plans.

1. Introduction

Art theft is the third largest source of criminal revenue, behind only drugs and arms[1]. While everyone can agree crime is bad and something we want to stop, in reviewing notable art thefts throughout history there are instances where the theft and the press surrounding it benefitted the artist, owner or the piece itself. For example, the Mona Lisa, one of the most well-known art pieces in the world, was actually not that famous before it was stolen from the Louvre in 1911. After news of the theft broke crowds flocked to the Louvre to see the scene of the crime, in this case the haunting empty spot on the wall, and for the first time in the Louvre's history there were lines to get in[2]. Research by Laura Evans (2015) has shown the Isabella Stewart Gardner Museum has done remarkably better financially and is more well-known now than before it suffered a massive 1990 theft that inspired books and movies. Another study by Jarrett Coomber (2013) found artists auction sales increase following a theft of one of their other pieces. It seems as if the only losers from theft are the public, who lose cultural access to the works.

While there are certain cases where benefits come from theft, there is little conclusive evidence or research on the area as a whole. While the news often reports stories of art theft, it is unknown if people's interest in art theft goes beyond reading about it. Action could be taken in the form of visiting museums, becoming members, and donating to the institution. Previous research has, at times, focused on how individual museums suffer or gain after a large theft, but there are no findings on how multiple museums are affected by

[1] Nicita and Rizzolli, "The Economics of Art Thefts: Too Much Screaming Over Munch's *The Scream*," *The Economic Society of Australia* 28, no. 4 (2010): 293.
[2] James Zug, "The Theft That Made The 'Mona Lisa' A Masterpiece," *NPR*, July 30, 2011.

theft. While one may think that the missing masterpieces would deter visitors, the media attention on thefts can actually entice visitors as well as create public sympathy and support, leading to an increase in attendance, membership, and contributions to a museum. This would challenge previous misconceptions that art theft leads to catastrophic losses for museums and would explain why museums invest little in security and insurance precautions.

I will test this idea by looking at a large art theft that makes international news and answering the question of whether museums who feature works by the same artists whose works were stolen see increases in attendance revenue, membership revenue, and fundraising revenue. Since all recent art thefts have taken place in Europe, where museums financials are private, I will be examining the effect of one of the largest art thefts in recent years from a museum in the Netherlands on a treatment group of American museums who feature artwork by artists whose work was stolen, compared to a control group of American museums who do not feature artwork by any of these artists.

2. Museum's Maximization of Attendance

Non-profit museums differ than perfectly competitive firms because they do not operate to maximize profits. Since they don't maximize profits we can assume they operate to maximize attendance and museum visitors. Some assumptions can be made about non-profit museums, that they have high fixed costs and small marginal costs since bringing one more person into the museum does not cost a lot, if anything. Non-profit museums set their ticket price equal to the average total cost so that their costs to operate are covered. Their attendance maximization is seen in Figure 1a.

After a theft, a museum will incur new costs. The museum may choose to purchase more insurance, increasing fixed costs and shifting the average total cost curve up. Museums may also choose to purchase more security, which is a variable cost, shifting the marginal cost / average variable cost curve up in Figure 1b. In this model, after the theft the ticket price is higher and the amount of attendance has fallen. While the microeconomic model may predict lower attendance, the model does not include factors such as an individual's tastes and preferences, which could include seeing or contributing to a museum that has been stolen from or features artwork by an artist who was stolen from. However, even if museums had a higher ticket price after a theft attendance may actually increase, which would be seen in my regression results through an increase in admission fees revenue.

After a theft a museum's contributions may increase due to public support and sympathy. When museums receive donations they are able to lower their ticket price and bring more people in the door. A museum that suffers a theft may have increased costs, however, if they receive more donations following the theft then their ticket price will not increase, and their attendance will not fall. In Figure 1c. a museum with increased costs, including a higher average total cost and a higher average variable cost is still able to lower their ticket price below their average total cost with the presence of donations.

3. Background and Related Literature

    a. The problem of art theft

The art market is plagued with inefficiencies and various types of crime yet continues to operate in a state of market failure. As long as this market failure continues, art theft will

continue as well, which Day (2014) notes in his study on the inefficiency of the art market. Despite these problems, buyers and sellers, including museums, seem hesitant to fix any of them. This shows a puzzling phenomenon that suggests there are some benefits to be gained from the inefficiencies, including theft. Sellers benefit from the lack of disclosure surrounding the provenance and history of the piece when it is sold. The don't ask don't tell nature of the art market creates both opportunity and rewards for theft.

A definite drive for art theft exists, and the most vulnerable to art crime are museums. Their public nature allows thieves to walk through the front door, observe the security precautions put in place or lack thereof, and plan out the robbery, noted by Chong's (2015) study on the public nature of museums and galleries. Since it seems clear that museums already face security problems due to their public nature, one would think that more protective measures would be put in place. However, security measures put in place around museums and in front of works may actually take away from the experience of a viewer, a problem that Seaton (2014) discusses in her study. Another reason is the belief that high security measures may actually signal to a thief that there are highly valuable pieces within the museum, a counter-intuitive effect Nicita and Rizzoli (2010) find in their analysis of how museums can protect themselves from theft. In this case security would do the opposite of protecting art, rather signaling to thieves that this a place worth robbing.

b. Museums Lack of Prevention Against Art Theft

Museums' collections of highly famous and well-known works of art may actually give them the belief that they are safe from theft. Masterpieces, despite their astonishing market value, are usually not a target for thieves. Thieves are more likely to go for a piece

that has lesser value and therefore is lesser known. Kerr (2014) reports in his study that smaller objects in the $10,000-50,000 range are the most vulnerable. Masterpieces still get stolen, with thieves hoping to make copies and replicas to sell, or just in the hopes of selling it discreetly in the black market. However, museums may see at least their famous masterpieces as safe from theft, perhaps explaining their lack of security.

Museums also face the option they face of insuring their pieces. This may seem like the easy decision as insurance doesn't affect the viewer's experience and also doesn't attract thieves like security might. Dobovšek and Slak (2012) report that insurance companies actually prefer to keep art insurance deals private in their paper on the significance of studying art crime. However, for many museums, which often have a strict budget, insuring all their works is simply not an option due to its high cost. Chong (2015) reports that even the Tate and the National Gallery, the two most famous art museums in the city, cannot afford insurance for their pieces. For art owners who do have the option to insure, insurance is believed to not actually be in their best interest. Nicita and Rizzolli (2010) argue that insurance can actually have the effect of incentivizing theft. The option of selling back the piece to the insurance company becomes a viable and profitable option for the thief.

c. Publicity and art theft

If a theft does happen the question is left on the best way to recover the piece. Nicita and Rizzoli (2010) find that increasing fame and knowledge of the stolen work is the best way to recover it and protect it. The increase in fame inversely decreases the black-market price and ability for the thief to resell it. The publicity surrounding a theft can also lead to benefits for the artist, whether that be the recovery of their piece or increased auction

sales. Coomber (2013) found that in some, but not all cases, auction results from five years after a theft were higher for artists who suffered a theft compared to five years before were higher. While the effect on museums as a whole is left to be explored, previous literature has examined the specific case study of how the Isabella Stewart Gardner Museum was able to turn their loss into profit. The theft resulted in an increase in membership, donations, attendance, and an overall financially solvent institution that had not existed before.

4. Data

To understand the impact of art theft on museums I will use an empirical model with data from major art institutions in the United States. This data comes from the museums' tax forms, and since they are non-profit institutions their tax forms are available for public reading online at Non-Profit Explorer[3]. The tax forms provide each institution's total revenue, as well as the percent of this that comes from contributions, and in varying cases admissions revenue, membership revenue, fundraising revenue, and insurance for each fiscal year from around the past ten years. With this information I will be able to examine how these aspects change in varying fiscal years, and I can specifically look at years where a major art theft occurred.

To control for the varying cities' population and affluence I will be including GDP per capita for each city in the regression, obtained from the Federal Reserve of Economic Data, as it can be assumed that cities with higher GDP per capita may have residents more likely to spend money on going to a museum, being a member of the museum, or contributing to

[3] https://projects.propublica.org/nonprofits/

it[4]. In addition, I will include population density for each city, obtained from the US Census, which could influence how many members or visitors a museum has[5]. I will also include the property crime rate for each city, obtained from the FBI, as this would affect a museum's purchase of insurance which I also plan on observing[6]. Another control is the region code for each area that the museum is located in given by the US Census[7]. I also include the number of total works that each of the treatment museums have by the stolen artist as a control, which was found by searching each museum's online collection. All variables measured in dollars have been adjusted to 2017 dollars with the CPI.

The majority of notorious art thefts that have occurred in the 2000s have taken place in Europe. It is much harder to find this kind of data for these private European museums, so I will examine how American institutions are affected by an art theft abroad. The effect will not be as obvious as if I was looking at museums that were directly stolen from, but I will rely on the publicity and media mentions surrounding art theft. The increasing importance of the internet and social media means that news of a theft travels quickly and vastly across the globe.

The biggest theft in the past ten years occurred in a Rotterdam gallery called the Kunsthal in October 2012. Paintings were stolen from big name artists such as Monet,

[4] https://fred.stlouisfed.org/

[5] https://www.census.gov/

[6] https://www.fbi.gov/services/cjis/ucr

[7] https://www.census.gov/geographies/reference-maps/2010/geo/2010-census-regions-and-divisions-of-the-united-states.html

Picasso, Matisse, Gauguin, de Haan, and Freud. This theft will be the one I use as my case study, as the theft was large enough and featured multiple high-profile artists to have vast news coverage. It is also the biggest art theft in the time frame where these museums have tax forms available. I will compare varying revenues and insurance payments of ten American museums that feature at least three of the artists whose works were stolen with ten American museums who do not have works by any of the stolen artists. The museums who do feature work by the stolen artists include the MFA Boston, MFA Houston, Guggenheim, Metropolitan Museum of Art, Philadelphia Museum of Art, Cleveland Museum of Art, Art Institute of Chicago, Detroit Institute of Art, Toledo Museum of Art, and Indianapolis Museum of Art. The ten museums who do not are the ICA Boston, New Britain Museum of American Art, Kemper Museum of Contemporary Art, MCA Chicago, American Folk-Art Museum, MOCA Los Angeles, Museum of Contemporary Art San Diego, Madison Museum of Contemporary Art, Whitney Museum of American Art, and the Minnesota Museum of American Art. For both groups I will examine the museums' admissions revenue, membership revenue, fundraising revenue, and insurance in the pre period, 6 years before the theft, and the post period, 5 years after the theft.

A limitation of this paper is that it exhibits sample selection bias. Since museums who have suffered thefts in recent years do not have public data available I instead had to choose a representative group of museums that feature artwork by the artists who were stolen from as the treatment group. The theft that I am examining as the shock had work stolen from major artists who are very famous, and because of this the treatment group of museums are larger, more well-known institutions. The control group includes museums

who do not feature artwork by these famous artists and for that reason they are much smaller, less known, and consequently poorer. The impact of this is that the treatment group will have larger fundraising revenue, membership revenue, admission revenue, and insurance payments simply because they are larger and more well-known institutions.

5. Empirical Analysis

I will be running a difference-in-difference regression where I compare attendance revenue, membership revenue, fundraising revenue, and insurance payments of museums who have works by the artists whose work was stolen from with museums who do not before and after the theft. A difference-in-difference regression is the best approach because the theft is the shock I am hoping to study, which already happened, and I want to see if there is any difference in the two different groups, museums who have artwork by the stolen artists and museums who do not, after the event. It is impossible to run a randomized control trial to measure art theft, as well as unethical, so a difference-in-difference regression is the best option. The treatment group is the ten American museums listed previously who feature art by at least three of the artists whose work was stolen. The control group is ten American museums who do not feature work by any of those artists. In the summary statistics in Table 1a. and Table 1c. when not controlling for anything the control group has an increase in admission revenue, fundraising revenue, membership revenue, and insurance payments. In Table 1b. and Table 1d. the treatment group had an increase in fundraising revenue and admission fees income but a decrease in membership revenue and insurance payment. We see these effects in Figure 2. When adding controls and creating the regression it would be in the form:

$$Y=\beta 0 + \beta 1*Post + \beta 2*Treat + \beta 3*Post*Treat + \beta 4*GDPperCap + \beta 5*Crime + \beta 6*PopDens + \beta 7*NWorks + \beta 8*region1 + \beta 9*region2 + \beta 10*region3 + \varepsilon$$

The coefficient of interest is β3, the coefficient on the interaction term, as it reveals the marginal effect on the treatment group following the theft. Here the Y, the dependent variable, represents the museum's attendance revenue, membership revenue, fundraising revenue, and insurance payments in each respective regression. The controls will include the GDP per capita of the city of each museum, the population density of each city, the property crime rate for each city, the number of works each museum features by the artists who were stolen from, and dummy variables for the regions given by the US Census, the region 4 dummy is left out of the regression. My hypothesis as discussed before is:

1. β3 will be positive and statistically significant for attendance revenue, membership revenue, and fundraising revenue and I will be able to reject the null that β3=0 when y=attendance revenue, membership revenue, or fundraising revenue.
2. β3 will equal 0 for insurance payments and that I will fail to reject the null that β3=0 when y=insurance payments.

6. Regression Results

My regression results reveal that the coefficient on the interaction term is not statistically significant for any of the regressions, whether the dependent variable is admission revenue, fundraising revenue, membership revenue, or insurance. In Table 2 and Table 3 we see the regression results for membership revenue, fundraising revenue, attendance revenue, and insurance as the respective dependent variables. My first hypothesis, that β3 will be positive and statistically significant for attendance revenue,

membership revenue, and fundraising revenue was proved wrong by my results. In all four regressions I failed to reject the null hypothesis that $\beta 3=0$ at the 1%, 5%, and 10% significance levels.

In the first column of Table 1 where fundraising revenue is the dependent variable the theft was not statistically significant at the 1%, 5%, or 10% level. The coefficient here reveals that if the results were significant the treatment group of museums would have seen a $268,999 increase in fundraising revenue, holding all other independent variables constant, which would have supported my initial idea. The standard deviation of fundraising revenue is $4,655,895.82, found in the overall descriptive statistics in Table 6, so the coefficient is not economically significant.

In the second regression, on admission fees revenue, the theft has no statistical effect on the treatment group of museums at the 1%, 5%, or 10% level. In this case the coefficient shows that had the results been significant the treatment group of museums would have lost $1,302,699 in admission revenue following the theft, holding all other independent variables constant, which does not support what I expected to find. The standard deviation of admission fees revenue is $5,981,790.11 and the mean is $3,953,492.87 so this coefficient is not economically significant.

In the third column on membership dues the coefficient of significance, the interaction term, is not statistically significant at the 1%, 5%, or 10% level. Had the results been significant the coefficient would have indicated that after the theft museums who featured artwork by the stolen artists had an increase in membership dues of $842,602, compared to museums who did not, holding all other independent variables constant. This result is what

I expected and would have supported my hypothesis that museums can benefit from theft. Considering the standard deviation of membership dues revenue is $6,276,352.77 the coefficient is not economically significant.

In all three cases we fail to reject the null hypothesis that $\beta 3=0$ and conclude that the theft had no statistical significance on membership revenue, admission revenue, and fundraising revenue.

My second hypothesis was that the theft would have no effect on insurance, since I believe art theft can have positive effects on museums, and therefore they would not purchase more or less insurance after news of a theft. In Table 2 the results for the regression on insurance show that the coefficient on the interaction term is -210,398, which reveals that the treatment group of museums saw a $210,398 decrease in insurance payments following the theft, holding all other independent variables constant. The standard deviation of insurance is $773,092.51 so the coefficient is not very economically significant. The interaction term is not statistically significant at the 1%, 5%, or 10% level so in this case we would fail to reject the null and conclude that the theft had no statistical significance on insurance payments.

In Table 1 we see that the number of works each museum features by the artists who were stolen from has a statistically significant positive effect on fundraising revenue, membership revenue, and admission fees revenue. In Table 2 the number of works also has a statistically significant positive effect on insurance payments. While it makes sense that museums who have more works by the artists who were stolen from are most likely bigger and therefore receive more in fundraising revenue, membership revenue, and admission

fees, and spend more on insurance payments. To control for this I ran another regression, in Table 3 and Table 4 respectively, where I dropped the two treatment groups with the largest amount of works by the artists who were stolen from. In these results the number of works were no longer statistically significant for fundraising revenue but remain statistically significant at the 1% level for admission fees income, membership revenue, and insurance payments.

7. Conclusion

In this paper I examined the effect of an art theft on a group of 10 museums who featured artwork by the artists who were stolen from. My results found that an international theft does not have any statistical effect on the fundraising revenues, membership revenues, admissions revenues, or insurance payments of American museums who feature artwork by the stolen artists. While this does not support what I expected to find, that the theft would have a positive effect on the fundraising revenues, membership revenues, admissions revenues treatment group of museums, it does not mean that we can conclusively say theft does not have a positive effect on museums. The number of works does seem to have a positive statistically significant effect on admission fees income, membership revenue, and insurance payments. This project opens the door for future research on the effect of art theft, especially if data on a museum who has directly been stolen from becomes available. This information would allow greater evaluation on how museums are affected by theft, whether that be positively, negatively, or not at all.

Figures

Figure 1a. Non-Profit Museums Optimization

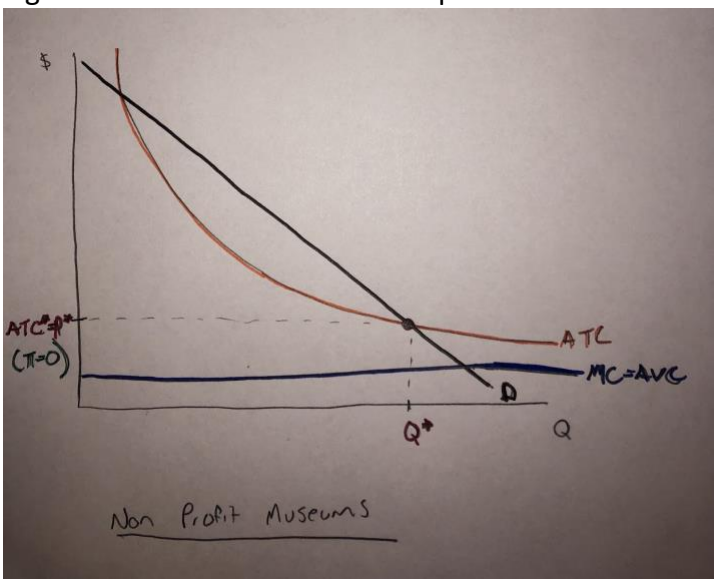

Figure 1b. Non-Profit Museums after a theft

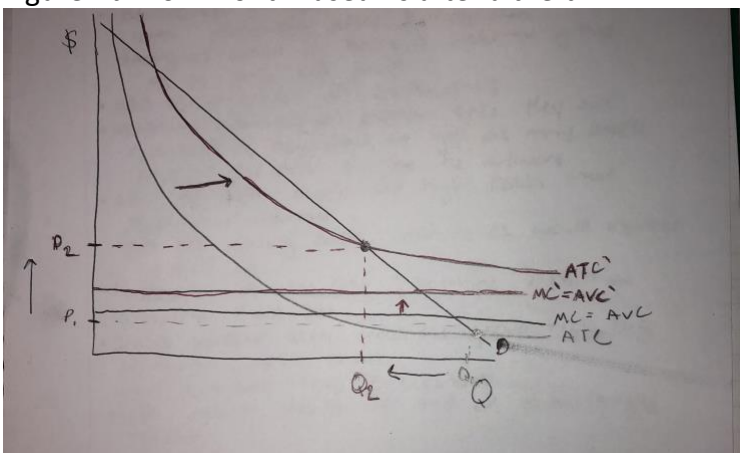

Figure 1c. Museums who Receive Donations Following a Theft

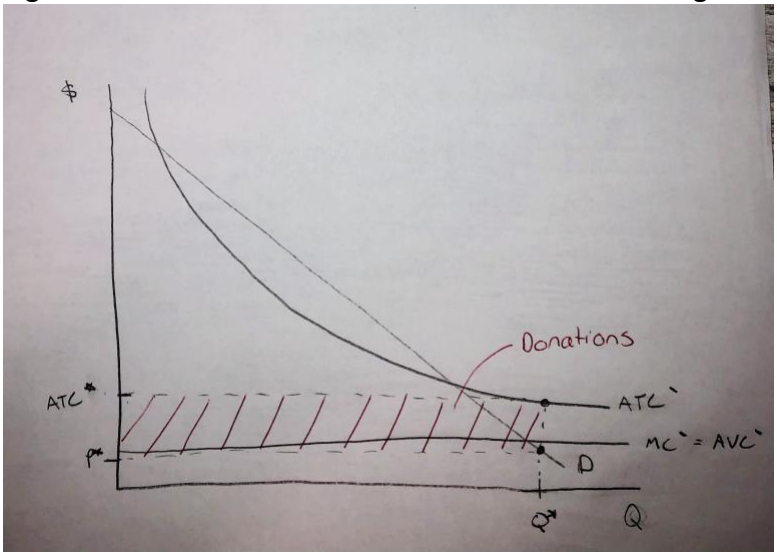

Figure 2a. Fundraising Revenue Before and After the Theft in 2012

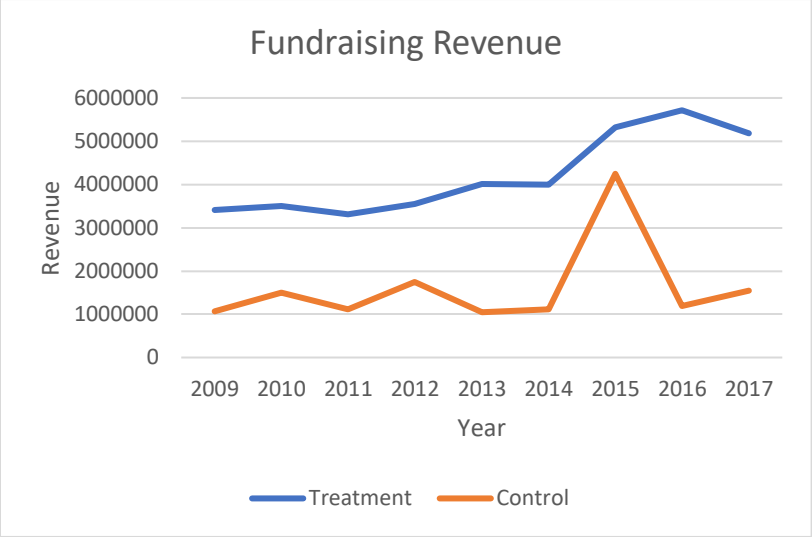

Figure 2b. Membership Revenue Before and After the Theft in 2012

Figure 2c. Attendance Revenue Before and After the Theft in 2012

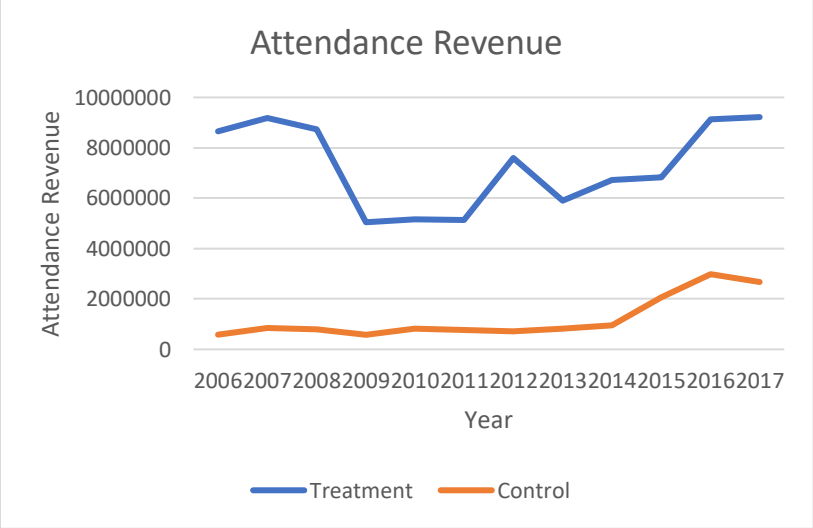

Table 1a. Summary Statistics for Control Group before Theft

Variable	Obs	Mean	Std. Dev.	Min	Max
fundraising	28	1474622	1349783	216205.5	4740011
membership	65	573282.5	749115.5	2215.279	3100730
admission	51	862420.7	966056.4	1633.709	3444223
contribution	69	1.39e+07	2.99e+07	210086.5	2.24e+08
insurance	68	214479.2	282663.1	5958.876	1165237
gdppercapita	70	69706.63	8143.846	54516.72	84936.02
propertycr	70	2694.074	698.397	1704.5	4176
popdens	70	1389.626	965.5801	234.2958	2863.719
totalrevenue	69	1.86e+07	3.59e+07	374203.7	2.35e+08
n_works	70	0	0	0	0

Table 1b. Summary Statistics for Treatment Group before Theft

Variable	Obs	Mean	Std. Dev.	Min	Max
fundraising	27	3790213	5244070	16375.21	1.76e+07
membership	59	7447643	8154545	694249.3	2.88e+07
admission	44	7263880	8572241	125921.5	3.17e+07
contribution	70	6.81e+07	5.59e+07	5076843	2.27e+08
insurance	60	1208431	1229674	92332.87	5307425
gdppercapita	70	66649.48	10303.7	46431.99	84936.02
propertycr	70	2942.836	835.3601	1704.5	4955.3
popdens	70	1314.379	844.4528	281.4643	2863.719
totalrevenue	70	1.50e+08	1.49e+08	-3.56e+07	6.11e+08
n_works	70	335.8	293.0602	37	835

Table 1c. Summary Statistics for Control Group After Theft

Variable	Obs	Mean	Std. Dev.	Min	Max
fundraising	42	1856478	4062126	115262.3	2.62e+07
membership	50	942334.6	2163886	11412	9776255
admission	30	1936894	3511825	1995.867	1.50e+07
contribution	50	1.86e+07	3.16e+07	441726.5	1.67e+08
insurance	50	227867.2	317724.9	15250.13	1452455
gdppercapita	50	64956.79	7034.093	53745	79060.53
propertycr	50	2140.472	584.3591	1308.5	3330.8
popdens	50	1428.063	981.1174	242.428	2891.398
totalrevenue	50	2.21e+07	3.57e+07	486375.6	1.85e+08
n_works	50	0	0	0	0

Table 1d. Summary Statistics for Treatment Group After Theft

Variable	Obs	Mean	Std. Dev.	Min	Max
fundraising	33	4900850	6509612	19278.68	2.18e+07
membership	49	7329639	8610202	545776.2	3.09e+07
admission	34	7609853	7106317	528165.6	2.19e+07
contribution	50	8.50e+07	1.11e+08	6946955	6.11e+08
insurance	50	1025074	673960.3	244018.9	2755614
gdppercapita	50	63164.01	9002.679	46880	79060.53
propertycr	50	2322.158	722.3811	1308.5	3540
popdens	50	1341.241	855.4298	328.8889	2891.398
totalrevenue	50	2.83e+08	8.79e+08	1.97e+07	6.26e+09
n_works	50	335.8	293.9134	37	835

Table 2. Regression Results for Fundraising Revenue, Membership Revenue, Admissions Revenue

VARIABLES	1 fundraisingrevenue	2 admissionfeesincome	3 membershipdues
treatment	-1014672.683	6041792.115***	-1213343.753*
	(872,300.450)	(1357514.522)	(655,174.773)
post	1566835.784	660,723.594	-99,258.411
	(1349386.860)	(1032842.781)	(525,316.141)
treatxpost	268,999.557	-1302699.627	842,602.259
	(1114675.577)	(1413742.142)	(948,333.127)
n_works	11,243.469***	6,438.385**	20,624.357***
	(1,905.597)	(2,924.111)	(2,111.789)
Constant	-7248374.517	-8864059.780*	-367,290.149
	(6850755.478)	(4921555.055)	(3031433.273)
Observations	117	144	204
R-squared	0.531	0.640	0.783

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Results from estimating equation (1) by OLS using data from 2006-2017. Post=1 after 2012. Regressions also include controls for GDP per capita, property crime, population density, and region code[8].

[8] Since the theft occurred in October 2012 I ran three different regressions, one with 2012 counted in the pre-period, one with 2012 counted in the post-period, and one with the 2012 data dropped. All of the results remained statistically insignificant.

Table 3. Regression Results for Insurance

VARIABLES	(1) insurance
treatment	522,555.600***
	(91,768.269)
post2	139,130.440*
	(81,879.459)
treatxpost2	-210,398.715
	(139,272.192)
n_works	1,685.648***
	(294.402)
Constant	2029237.596***
	(491,242.140)
Observations	208
R-squared	0.682

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Results from estimating equation (1) by OLS using data from 2006-2017. Post=1 after 2012. Regressions also include controls for GDP per capita, property crime, population density, and region code.

Table 4. Regression Results for Fundraising Revenue, Membership Revenue, Admissions Revenue with Two Treatment Museums Dropped

	1	2	3
VARIABLES	fundraisingrevenue	admissionfeesincome	membershipdues
treatment	314,603.956	8147922.488***	441,848.022
	(579,920.420)	(1210881.793)	(306,190.937)
post	1179308.291	597,500.291	201,046.395
	(1359034.392)	(846,783.251)	(326,105.990)
treatxpost	311,959.415	-496,070.986	-499,462.840
	(681,482.725)	(1127982.868)	(385,509.164)
n_works	-1,334.495	-11,886.239***	14,602.130***
	(2,447.780)	(2,751.862)	(918.267)
Constant	-9547417.148	45,921.550	-2008563.831**
	(6900646.457)	(3477276.551)	(950,198.194)
Observations	101	133	182
R-squared	0.243	0.664	0.783

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Results from estimating equation (1) by OLS using data from 2006-2017. Post=1 after 2012. Regressions also include controls for GDP per capita, property crime, population density, and region code.

Table 5. Regression Results for Insurance Payments with Two Treatment Museums Dropped

VARIABLES	(1) insurance
treatment	600,138.553***
	(80,604.702)
post	163,149.438**
	(64,055.859)
treatxpost	5,684.175
	(81,332.491)
n_works	435.665***
	(160.404)
Constant	1911538.430***
	(332,561.095)
Observations	186
R-squared	0.712

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Results from estimating equation (1) by OLS using data from 2006-2017. Post=1 after 2012. Regressions also include controls for GDP per capita, property crime, population density, and region code.

Table 5. Descriptive Statistics for All Data

	Mean	Standard Deviation
Fundraising Revenue	2796072.49	4655895.82
Membership Revenue	3664244.84	6276352.77
Admission Revenue	3953492.87	5981790.11
Insurance	602725.982	773092.512

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