

Is the Eiffel Tower Worth More Than the Statue of Liberty? Techniques for Determining the Value of Iconic National Landmarks—Part II

by Richard J. Roddewig, JD, MAI, Anne S. Baxendale, and J. Andrew Stables

Abstract

This article is the second in a two-part series on the valuation of iconic national landmarks. The discussion explores the difference between market value and “public interest value” through an analysis of the Statue of Liberty and the Eiffel Tower. Part 1 of this article defined the relevant terms and set forth alternative reproduction cost techniques and income approach elements that can be used to estimate the value of these two iconic national symbols. Part 2 analyzes the land value of each landmark site. It also presents tools for estimating the impact of additional sources of revenue that might be generated under private ownership and branding arrangements, and it discusses the concept of “public interest value” by reference to the public tax revenues generated by these iconic national symbols.

Introduction

Part 1 of this two-part article demonstrates the valuation of two iconic landmarks—the Statue of Liberty and the Eiffel Tower—based on income generated and a depreciated reproduction cost. In Part 2, the discussion will explore techniques for estimating the value of the land under each landmark and the additional contribution to their “public interest value” resulting from the economic benefits they generate in tax revenues. Potential sources of additional income through arrangements with third-party entities are also discussed.

Summary of the Depreciated Cost and Income Approach Result

The first part of this article concluded with the following table summarizing the results of the reproduction cost calculation and the income approach to value.

Eiffel Tower and Statue of Liberty: Cost and Income Approaches to Value (US\$)		
	Eiffel Tower	Statue of Liberty
Cost Approach: Improvements Only	436,500,000	215,000,000
Income Approach	380,800,000	350,000,000

The results from the two approaches to value for the Eiffel Tower are relatively closer than the results from the two approaches for the Statue of Liberty. One reason for the difference in the Statue of Liberty results is the disregard of the National Park Service (NPS) operating costs. Another reason for the difference in the results of the cost and income approaches for the Statue of Liberty is that land value had not yet been estimated and included in the cost approach estimate.

Estimating the Value of Land under Iconic Landmarks

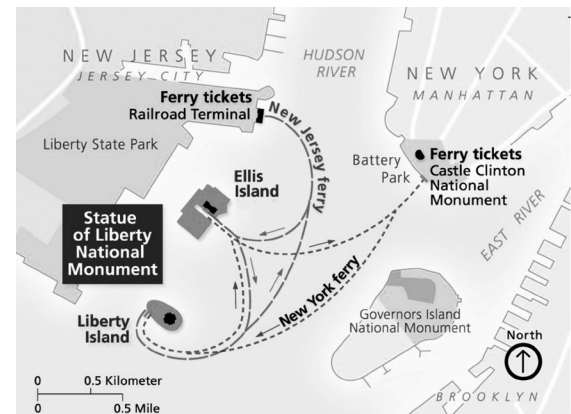
The iconic Statue of Liberty and the Eiffel Tower encompass more than merely structures; each comprises land that must be considered in a valuation. The relationship of the land to the ownership interest in the landmarks differs, however. The Statue of Liberty concessioners do not operate any portion of the icon's land other than the square footage directly under the retail and food concession areas. In contrast, the Eiffel Tower's Société d'Exploitation de la Tour Eiffel (SETE) appears to have the rights to use the land under the tower itself.

Statue of Liberty—Liberty Island Land Value

What technique can be used to determine the value of the land on Liberty Island where the Statue of Liberty is located? Land value in the cost approach is typically derived by analyzing sales of land sold for similar uses in the same competitive market. For iconic special-purpose properties such as the Statue of Liberty, there are no such comparable land sales; therefore, an alternative approach to land value must be considered.

One alternative method for estimating land value is an analysis of prices paid for waterfront sites in nearby New Jersey and New York,¹ with adjustments for size and other factors. The NPS map in Exhibit 1 shows the ferry routes between Manhattan, Liberty Island, Ellis Island, and New Jersey waterfronts. However, analyzing only New York and New Jersey waterfront land prices would not reflect the unique value of Liberty Island on which the statue was constructed. In addition, nearby waterfront land prices would be difficult to translate based on differences in the development allowed by zoning. Liberty Island, as a national historic landmark, has very limited, if

Exhibit 1 Statue of Liberty and Ellis Island Ferry System Routes



Source: National Park Service, "Ferry System Map," www.nps.gov/stli/planyourvisit/maps.htm

any, development potential other than as it relates to the statue itself and its museum.

The map also shows Governors Island, which contains 172 acres and is substantially larger than the 14.717-acre Liberty Island. The long-running controversy over the development of Governors Island and its value illustrate the difficulty of using any prices paid for it as evidence of the market value of Liberty Island land.² However, applying a weighting between recent prices for Lower Manhattan, Brooklyn waterfront, Governors Island, and New Jersey shoreline land and Liberty Island suggests that the 14.717 acres of Liberty Island could easily command a value of \$500 per square foot. That would indicate a value of about \$320.5 million for Liberty Island land.³

A more promising approach to determining the value of the land on Liberty Island is to analyze land leases structured as a percentage of revenues generated by a business or development on a publicly owned (or privately owned) land parcel. This arrangement has been common in many

1. Although Liberty Island is owned by the federal government, there have been disputes between New Jersey and New York as to which state has jurisdiction. Both states currently share jurisdiction of the entire island. For additional discussion see "Liberty Island," Wikipedia, https://en.wikipedia.org/wiki/Liberty_Island.
2. For discussion of the island's redevelopment, see "State of #OurCity: Mayor de Blasio Announces Transformation of Governors Island into a Year-Round Destination," February 4, 2016, City of New York website, <https://on.nyc.gov/3guGZSI>.
3. In 2016, the City of New York purchased an 11-acre CitiStorage site on the Brooklyn waterfront for \$160 million (approximately \$334 per square foot) as part of an assemblage effort for a park. Emma Whitford, "City Finally Acquires CitiStorage Site to Complete Long-Delayed Bushwick Inlet Park," *Gothamist*, November 22, 2016, <https://bit.ly/2BWhYjV>. Record land prices on the Jersey City waterfront were reported in 2016. A Chinese firm reportedly agreed to pay \$55 million for a parcel at 75 Park Lane on the Jersey City waterfront in 2015. That price equated to \$1,070 per square foot for the small 1.18-acre land parcel located about 1.6 miles from the New Jersey ferry terminal for the Statue of Liberty. Miriam Kreinin Souccar, "Land Ho!" *The Real Deal*, June 1, 2016, <https://trd.media/ny/LxplrS>.

parts of the United States, including Chicago, San Diego, and New York City. For example, the City of New York and the Port Authority of New York and New Jersey in 2004 entered into a 49-year lease agreement for the land and structures at both LaGuardia and John F. Kennedy Airports. That deal amended an existing lease that was part of a succession of leases between the city and the Port Authority extending back to 1947. The 2004 lease set the base rent at 8% of “annual gross revenue from various sources such as scheduled airline terminal rentals, flight fees, tenant parking, retail vendor percentage fees, and fixed rentals and fuel farm fees.”⁴ The provisions also included an upfront lump-sum payment as well as a scheduled increase to 10% of gross revenues after the first five years.⁵

A search of CoStar’s online real estate database in early 2020 revealed 143 active sale listings of single-tenant properties with a ground lease in the United States. The average capitalization rate based on the asking rent was 6.34%, and the median capitalization rate was 5.69%. For the 125 properties involving either hospitality or retail ground leases, the average capitalization rate was 5.54%, and the median rate was 5.50%.⁶ Based on that, a land lease rate equal to 6% of the gross revenues generated by the concession contracts at the Statue of Liberty is supportable. Given the stabilized gross concession revenues of \$102.517 million and a 6% land lease rate, the appropriate land lease at Liberty Island would generate \$6.151 million per year in

revenue, which, after deducting a government rate lease management expense of 7.5%, would leave a net lease income to the NPS of approximately \$5.690 million. If capitalized at the government bond rate of 1.695% in early 2020 (before the effect of COVID-19 impacted bond markets), the land value would add \$335.695 million to the value of the Statue of Liberty by the cost approach, reasonably close to the estimate of the land value of Liberty Island based on Manhattan, Brooklyn, Governors Island, and New Jersey waterfront land sales.

Eiffel Tower—Champ de Mars Land Value

The Eiffel Tower sits in the Champ de Mars, which is a public park. The base of the tower measures 410 feet on each side, indicating an area directly under the tower of 3.86 acres. If 10% is added for foundations and an access walkway around the base, the approximate area needed for operation of the tower would be 4.25 acres. If a 6% land rent rate similar to that for Liberty Island land is applied to SETE royalty payments to the City of Paris, the annual return to the land under the Eiffel Tower would be about €5.245 million. After deducting a 7.5% management fee, the land value of the approximately 4.25 acres on which the tower sits⁷ would be about €390.7 million at the French bond rate of 1.242%, which was previously used in the income approach to value. Using an exchange rate of one euro equals \$1.09,⁸ this equates to about \$425.9 million.⁹

4. New York State Office of the State Comptroller, Division of State Government Accountability, “New York City Airport Lease,” Document 2014-S-28, <https://bit.ly/2ZQAB26>.

5. A separate February 2020 lease involved 65,000 square feet of land for a Hudson River commuter boat service at the Port Jersey—Port Authority Marine Terminal in Bayonne, New Jersey. John Heineis, “Port Authority Approves 10-Year, \$2.6M Land Lease for Bayonne Ferry Service to Manhattan,” *Hudson County View*, February 15, 2020, <https://bit.ly/3i004ut>. Due to the complications of the lease deal, it is difficult to derive a land rent as a percentage of revenues to be generated. One article reported that the ferry service lease will cost the City of Bayonne approximately \$220,000 per year, with Bayonne paying the terminal lease until the ferry service breaks even. After that, the city is to split the profits with the ferry service. Daniel Israel, “Bayonne Ferry Terminal Lease Approved,” *Hudson Reporter*, February 20, 2020, <https://bit.ly/30gLURd>. Further complicating an analysis of the lease is the fact that the city would be responsible for financing infrastructure improvements and the cost of building a ferry terminal would be partially offset by a federal grant. Chris Fry, “Bayonne Ferry Service One Step Closer to Reality,” *Jersey Digs*, January 21, 2010, <https://bit.ly/3fjqNIF>.

6. Data source, CoStar database search, “2020 active property sale listings of single-tenant properties, including a ground lease in the United States.”

7. See “Champ de Mars,” Metro.Paris, <https://bit.ly/3gGiMc5>, and SETE, “The Eiffel Tower at a Glance,” <https://bit.ly/30eFeTM>.

8. As of the third week of February 2020. See euro currency converter at <https://eur.currencyrate.today/usd/64700>.

9. The *Pricing the Priceless* television production on the Eiffel Tower estimated the value of land under the Eiffel Tower at \$20,000 per square meter, equivalent to a value of \$344 million. Kevin Cook, “The Eiffel Tower,” *Pricing the Priceless*, November 21, 2016, available at <https://bit.ly/2Cz0eLS>. To provide consistency in the comparison analysis for the land value of both icons, the result of the land rent analysis in this article is used for the Eiffel Tower rather than the estimate from *Pricing the Priceless*.

Final Cost and Income Approach Results

The final comparison between the Eiffel Tower and Statue of Liberty approaches to value would be as follows:

Eiffel Tower and Statue of Liberty: Final Cost and Income Approaches to Value (US\$)		
	Eiffel Tower	Statue of Liberty
Cost Approach:		
Land & Improvements	862,400,000	550,695,000
Income Approach	380,800,000	350,000,000

Reconciling each of the approaches and giving equal weight to each,¹⁰ the indications of value by the traditional approaches to value would be as follows:

Eiffel Tower and Statue of Liberty: Final Reconciliation of Approaches to Value (US\$)		
	Eiffel Tower	Statue of Liberty
Reconciled Value	621,600,000	450,347,500

Consideration of Other Sources of Government Revenues and Additional Components of “Public Interest Value”

Iconic landmarks such as the Eiffel Tower and the Statue of Liberty may generate public sector revenues in a number of ways, including the following:

- **Income tax.** Employees of the concessioners and the NPS at the Statue of Liberty and employees of SETE at the Eiffel Tower pay federal income taxes.
- **Sales tax.** Visitors to the Statue of Liberty pay sales taxes to New York or New Jersey on their cruise and retail purchases.

- **VAT.** Eiffel Tower visitors pay a value-added tax (VAT) on their expenditures at the tower. Unlike sales taxes in the United States, which accrue to state and local government, the VAT in France accrues to the French national government. The standard VAT rate in France is 20%, but there are exceptions that can reduce the rate for various types of purchases.¹¹
- **View premiums.** Hotels charge a premium for rooms with a view of the Eiffel Tower or for eating at rooftop restaurants or terraces with views. Similarly, residential and commercial properties in New York and New Jersey with views of New York harbor and the Statue of Liberty generate premium rents, which could translate into direct and indirect sources of federal, state, and local taxes.
- **Increased tourism.** Some portions of the total expenditures of tourists in Paris or visitors to New York City are directly attributable to their desire to visit the iconic Eiffel Tower and Statue of Liberty. In this way, if these landmarks did not exist the total amount of visitors and tourism expenditures in Paris and New York City would be significantly less.
- **Branding and licensing.** Creative marketing and branding of iconic landmarks could significantly increase revenues to the government owners of both landmarks.

The following estimates the public revenue for some of these categories.

Income Tax

In 2019, the NPS employed 100 permanent employees and 32 seasonal workers.¹² Permanent employees at the NPS were reported to earn an average salary of \$66,251 per year in 2018.¹³ Inflating the 2018 average to 2021 at a 2.5% rate

10. According to *The Appraisal of Real Estate*, fourteenth edition, final value “reconciliation requires appraisal judgment and a careful, logical analysis of the procedures that lead to each value indication. Appropriateness, accuracy, and quantity of evidence are the criteria with which an appraiser forms a meaningful, defensible final opinion of value.” Appraisal Institute, *The Appraisal of Real Estate*, 14th ed. (Chicago: Appraisal Institute, 2013), 646–647. Depending on how these criteria apply to the approaches to value used, equal weighting may or may not be appropriate. For simplicity in this article it is assumed an equal weighting is appropriate.

11. *France VAT Guidebook*, Tax Representative Alliance, <https://bit.ly/30gYtvR>.

12. NPS, “Statue of Liberty: Park Statistics,” <https://bit.ly/2Y8WU2a>.

13. “National Park Service Salaries of 2018,” FederalPay.org, <https://bit.ly/2ZPgPnG>.

of inflation would indicate 2021 stabilized annual full-time salary of \$71,345. The seasonal employment salary, estimated at 40% of an average full year salary, would be approximately \$28,538 in 2021; total 2021 stabilized salaries would be \$8.050 million. At a 24.22% and 16.15% income tax rate, respectively, total federal income taxes could be \$1.875 million annually, without consideration of any deductions. The concessioners at the Statue of Liberty reportedly temporarily laid off 400 workers following Hurricane Sandy in 2012 due to the shutdown of the island and ferry service.¹⁴ Assuming the same mix of full-time and seasonal workers and the same full-time average annual salary of \$71,345 in 2021,¹⁵ total salaries would be approximately \$24.385 million and federal income taxes generated would be \$5.682 million. The combined NPS and concession employee-generated annual federal income tax would be about \$7.557 million. Capitalized at 1.695%, the value contribution of federal income taxes generated by employees alone would be \$445.8 million.

Payroll taxes paid to the federal government to fund Social Security and Medicare (both part of FICA) and federal unemployment insurance can also be calculated and capitalized. The combined FICA rate is 15.3% for the average salary of Statue of Liberty workers. The \$24.385 million in salaries would generate \$3,730,905, which capitalized at 1.695% would have a value of approximately \$220.110 million. The \$42 per employee per year unemployment insurance tax weighted between full-time and seasonal employees would generate about \$34.30 per employee, or an additional \$18,240, which when capitalized provides an additional value of about \$1.075 million. The combined capitalized value of the FICA and unemployment insurance revenue would be about \$221.185 million.

Employees of the Eiffel Tower also pay income taxes. SETE has 340 employees¹⁶ and their average salary in 2016 was reportedly €61,000.¹⁷ Inflating that salary at the average French rate of inflation of 1.48% per year between 2017 and 2019,¹⁸ the salary would be about €64,700 in 2020. At the early 2020 conversion rate of 1.09 euros to the dollar, this would equate to \$70,523. Based on French income tax rates, the income tax paid on €64,700 in 2020 could be as high as approximately €13,554, or 20.95% per person.¹⁹ The capitalized value at a 1.242% capitalization rate of annual income taxes paid by employees at the Eiffel Tower would be about \$404.5 million. There is also a payroll tax in France, which funds its universal health care system and other government benefits. The rate averages about 20% of income,²⁰ and using average Eiffel Tower employee salaries this would generate an additional \$386.1 million in government revenue.

Sales Tax

As indicated below, total stabilized gross receipts generated by concessions at the Statue of Liberty are forecasted to be in excess of \$102.5 million in 2021.

Statue of Liberty: Forecasted 2021 Gross Receipts from Concessions (US\$)	
Ferry Service and Tour Tickets	66,667,000
Food Service and Retail Sales	35,850,000
Total Gross Receipts	\$102,517,000

Based on the respective number of passengers embarking from New Jersey compared to New York City and respective sales tax rates, the sales taxes generated by concession purchases are as shown in the following table.

14. "400 Laid Off at Ellis Island, Statue of Liberty," *Crain's New York Business*, November 25, 2012, <https://bit.ly/39Kuwav>.

15. This forecast may be high; employment ads for the ferry concession operator indicate the hourly wage for its employees is \$15.00 per hour; for example, see <https://bit.ly/3hTNYEB>.

16. SETE, "Careers," <https://sete.tou Eiffel.paris/en/careers>.

17. "Eiffel Tower Shuts Down as Workers Demand Pay," *India Today*, December 14, 2016, <https://bit.ly/30hJD8w>.

18. Statista, "France: Inflation Rate from 1984 to 2021," <https://bit.ly/3fpTrSu>.

19. This is based on the French tax rates for single individuals exempting the first €10,064 from tax, then a 14% rate on €10,065 to €27,794, and a 30% rate on €27,795 to €74,517, indicating an effective rate of 20.95% (assuming no deductions). "Guide to French Income Tax," French-Property.com, <https://bit.ly/316kfl5>.

20. "International Tax: France Highlights 2019," Deloitte, August 2019, <https://bit.ly/2DnSyvY>.

Statue of Liberty: Sales Tax Generated by Point of Embarkation (US\$)		
	Gross Receipts	Sales Tax Generated
Total Ferry Service and Tour Ticket Gross Receipts	\$66,667,000	—
Attributable to NJ (21% of passengers;* 6.625% sales tax†)	13,825,107	915,913
Attributable to NY (79% of passengers; 8.875% sales tax‡)	52,841,893	4,689,718
Total Food Service and Retail Sales Gross Receipts	\$35,850,000	—
Attributable to NJ (21% of passengers; 6.625% sales tax)	7,434,414	2,375,063
Attributable to NY (79% of passengers; 8.875% sales tax)	28,415,586	2,521,883
Total Receipts	\$102,517,000	\$10,502,577

* NPS, "Monthly Public Use Report—December 2019," available at <https://bit.ly/3hrbTLE>.

† State of New Jersey, Department of the Treasury, Division of Taxation, "Notice: Sales and Use Tax Rate Change," <https://bit.ly/2CYV7Eq>.

‡ New York State, Department of Taxation and Finance, "Publication 718," August 1, 2019, <https://on.ny.gov/30BFtan>.

Capitalized at 1.695%, the value contribution of state sales taxes generated by concession sales would be \$619.62 million.

VAT

Calculating VAT revenue generated by the Eiffel Tower is more difficult than calculating sales taxes generated by the Statue of Liberty because the VAT is included in the price of admission for the Eiffel Tower. As a result, the gross revenues reported by SETE include the portion of gross revenues attributable to the VAT.

At the standard VAT rate of 20%—and given the Eiffel Tower's €87.425 million in stabilized operating income—the potential maximum VAT would be about €17.485 million.²¹ Capitalized at 1.242%, the value contribution of VAT generated by the Eiffel Tower would be €1.41 billion, equivalent to \$1.54 billion. However, the VAT revenues generated at the Eiffel Tower are likely much lower because the VAT on food and non-alcoholic beverage sales is only 5.5%, the French VAT rules allow for a substantially lower rate on admissions to cultural sites,²² and international travelers can receive a rebate on some purchases during their stay in France. Although a precise estimate of net VAT after the international rebate is difficult to determine, the overall rate after considering food and beverage sales as a percentage of SETE annual revenues and rebates to international travelers is likely closer to 10% than 20%. Applying a 10% rate to the €87.425 million in stabilized operating income indicates a capitalized value of \$770 million.

However, this likely overstates capitalized VAT revenues. If the concession fee paid by SETE is based on total revenues from prices that include the VAT, then a deduction must be made to account for VAT payments transferred to the City of Paris as part of the royalty payment made by SETE. A 10% VAT included in the 23% royalty payment would leave about €67.315 million against which an additional VAT of 10% would need to be capitalized, indicating a VAT value of \$590.9 million.

View Premiums

Hotels with a view of the Eiffel Tower can command a premium in room rates (Exhibit 2). While the number of such rooms cannot be accurately estimated from online data, a Google map search found dozens of hotels within one-half mile of the Eiffel Tower. The twenty hotels located closest to the Eiffel Tower contained a total of 1,607 rooms; Exhibit 3 lists these hotels and their approximate direct-line distance from the Eiffel Tower.

Of the twenty hotels studied, nine hotels had comparable room types with and without direct views of the Eiffel Tower. For this comparison,

21. The European Commission lists "admission to cultural services" as a category where application of reduced VAT rates can be applied; France applies a wide arrange of rates to these activities, ranging from 2.1% up to the standard 20%. European Commission, "VAT Rates Applied in the Member States of the European Union," January 1, 2020, <https://bit.ly/3fTEicD>.

22. "French VAT Rates and VAT Compliance," Avalara, <https://bit.ly/2E3FuMA>.

the Eiffel Tower view price premium ranged from 0% to 61%, with a median of 18%.²³ If we assume that at least 10% of the rooms at the nine hotels had rooms with tower views, then approximately 110 hotel rooms could be expected to generate an 18% premium due to the presence of the Eiffel Tower. Given an average cost differential in comparable rooms of \$123, this equals up to \$13,530 per night, or approximately \$4.94 million annually. At the average room rate differential, with a 75% occupancy rate, the 10% VAT for hotel stays²⁴ would generate approximately \$370,000 per year, which when capitalized at the 1.242% rate used in the income approach indicates a capitalized value of \$29.8 million for the view premium. Many other hotels farther than one-half mile from the Eiffel Tower also have rooms with a view of the tower that can command a premium.²⁵

Exhibit 2 Hotel Room with View of Eiffel Tower



Source: Shangri-La Hotel, Paris

Exhibit 3 20 Paris Hotels Closest to Eiffel Tower

Hotel Name	Hotel Class	Distance from Eiffel Tower (Mi.)	Total Rooms
Hotel Pullman Paris Tour Eiffel	4-Star	0.2	430
Hotel Mercure Paris Centre Tour Eiffel	4-Star	0.2	405
Hotel Le Derby Alma Paris	4-Star	0.3	33
Hotel de Londres Eiffel	3-Star	0.3	30
Hotel Eiffel Seine	3-Star	0.4	45
Hotel Eiffel Kensington	2-Star	0.4	25
Shangri-La Hotel	5-Star	0.4	100
Hotel de la Tour Eiffel	2-Star	0.4	22
Hotel de la Paix Tour Eiffel	3-Star	0.4	23
Hotel De L'Alma	3-Star	0.4	32
Hotel Eiffel Trocadéro	4-Star	0.4	17
Hotel Maison FL	4-Star	0.5	62
Hotel Le Marquis Eiffel Paris	4-Star	0.5	36
Hotel Passy Eiffel	3-Star	0.5	49
Hotel Juliana	5-Star	0.5	40
La Clef Tour Eiffel Paris	5-Star	0.5	112
Hotel Relais Bosquet	3-Star	0.5	40
Hotel La Bourdonnais Paris	4-Star	0.5	53
Best Western Hotel Au Trocadéro	3-Star	0.5	27
Cler Hotel	3-Star	0.5	26

Source: Tripadvisor

23. Rate premiums are derived from nightly hotel rates between June 11, 2020, and July 26, 2020. Comparable rooms at a given hotel used rates from the same night. Variation in nights used was based on availability of data for particular room rates during this peak tourism season in Paris.

24. "Taxation in France," Wikipedia, <https://bit.ly/2DkNCYX>.

25. Estimating the contribution of a view of the Statue of Liberty to rents in New Jersey and New York is difficult given the location of the statue offshore and the immensity of the vista of New York harbor compared to the size of the Statue of Liberty in those views.

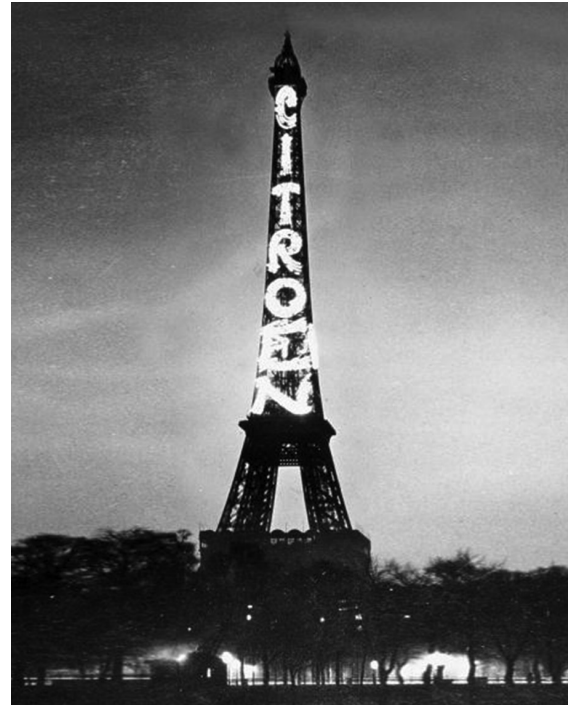
Increased Tourism

For both the Statue of Liberty and the Eiffel Tower there have been studies to determine the contribution of those respective iconic landmarks to the regional and national economies. According to the NPS, in 2018 4.34 million visitors “spent an estimated \$256 million in local gateway regions while visiting Statue of Liberty National Monument.” That \$256 million in regional expenditures equates to \$58.99 per visitor to the monument. In addition, the NPS estimates the monument supported a total of 2,989 jobs, \$141.4 million in labor income, \$238.7 million in value added, and \$355.7 million in economic output in local gateway economies surrounding Statue of Liberty National Monument.²⁶

Branding and Licensing

A study released in August 2012 by the Chamber of Commerce of Monza and Brianza (an Italian province near Milan) estimated the Eiffel Tower to be worth about €435 billion to the French economy.²⁷ Critics of the study have said this figure is implausibly high since, at the time, it equated to almost 20% of France’s entire annual gross domestic product.²⁸ The study also ranked the Eiffel Tower as the “most valuable” heritage site in Europe and placed its worth at more than 4.5 times the €91 billion value estimate for the Colosseum in Rome—the second most valuable heritage site in Europe.²⁹ The study was reportedly based “not on the material value of the monuments, but on their image, branding and attractiveness to visitors.” It “reportedly used figures from the European statistics bodies Eurostat and Istat and from the Urban Audit, a study of cities carried out for the European Commission.”³⁰

Exhibit 4 Citroën Advertisement on Eiffel Tower



One element of the Monza and Brianza study was an analysis of the branding of the Eiffel Tower.³¹ While all of the assumptions underlying the Monza and Brianza analysis of the value of branding of the Eiffel Tower are not clear, there are past and present branding rights associated with the Eiffel Tower. Between 1925 and 1934, the French auto manufacturer Citroën paid to use the Eiffel Tower as a billboard and installed 250,000 lights spelling out its corporate name on the tower (Exhibit 4).³²

26. National Park Service, *2018 National Park Visitor Spending Effects: Economic Contributions to Local Communities, States, and the Nation*, Natural Resource Report NPS/NRSS/EQD/NRR—2019/1922, Table A-1, <https://bit.ly/2E50tyx>.

27. The Telegraph Staff, “Eiffel Tower Worth £344 Billion to French Economy—or Six Towers of London,” *The Telegraph*, August 22, 2012, <https://bit.ly/2WJNWql>.

28. Hana Koriech and Colin Sterling, *Conference Review: Archaeology and Economic Development* (Univ. College London Institute of Archaeology, September 21–22, 2012), 158–165, <https://bit.ly/3fW8gNd>.

29. “Eiffel Tower ‘Worth €434bn,’” *The Connexion*, August 22, 2013, <https://bit.ly/39mzsSU>.

30. “Eiffel Tower ‘Worth €434bn,’” *The Connexion*.

31. When real estate valuers refer to “branding,” they typically mean attaching the name of an entity to the public image of a real estate development—for example, by naming the building after the largest tenant or the developer and attaching prominent signage with that name to the exterior of the building. “Branding” can also go further and provide a person or entity with the exclusive or semi-exclusive right to use the image or photo of the building in various ways that associate the building with the person or entity. For example, see W. K. S. Christiansen, “The Naming of Office Buildings: A New Rental Component?” *The Appraisal Journal* (April 1984): 230–236.

32. “How Citroen Turned the Eiffel Tower in to a Huge Advert in 1925—for 9 Years,” Arnold Clark, August 14, 2013, <https://bit.ly/2CIDIFJ>.

Nighttime photographs of the Eiffel Tower continue to be controlled by the French government and SETE. Nighttime photos of the tower are technically illegal in France because SETE controls the copyright to all images of the illuminated Eiffel Tower. SETE considers the lighting to be an artistic work and requires prior permission to take nighttime photos.³³ Financial reporting by SETE indicates that it does collect some copyright and licensing fees. The 2015 annual report for SETE reports €582,361 in copyright fees from a combination of filming (€175,010), image reproduction rights (€318,265), and “by-product activity” (€89,086).³⁴ That included revenues from allowing the illuminated Eiffel Tower to appear in some feature films and also included advertising revenues from licensing to companies such as Cartier, Givenchy, and Schwarzkopf.³⁵

Unlike the Eiffel Tower, there is no current specific trademark or copyright restriction on use of images of the Statue of Liberty.³⁶ The statue is considered to be in the public domain. As a result, the Statue of Liberty has been featured in hundreds of advertising campaigns, including those for airlines, New York City, and even cigarette companies. Recently, the Statue of Liberty has been featured in well-known ads by Liberty Mutual Insurance Company. The National Park Service describes the statue’s historic use in advertising as follows:

The image of the Statue of Liberty has been used for every conceivable commercial purpose. Bartholdi [the sculptor] himself began it all by licensing her image in 1875 and urging French advertisers to use it. The Statue began appearing on the products and trade cards of American companies by 1877, nine years before it was unveiled. Since then, manufacturers around the world have not hesitated to use the Statue to sell everything from cigars to soap.

The use of the Statue to sell products has been a source of discomfort and dissonance when Americans

Exhibit 5 Puck Editorial Cartoon on Advertising and Statue of Liberty



Source: Cornell University—PJ Mode Collection of Persuasive Cartography

perceive the Statue of Liberty as being used inappropriately by advertisers. When advertising using the Statue contradicts the ideals of the Statue, or insults an important meaning of the Statue, the ad can come under fire from people trying to prevent the Statue’s meaning from being diminished or diluted.

An early example of this critique of product ads obscuring the noble ideals of the Statue of Liberty is an editorial cartoon that appeared in Puck magazine [Exhibit 5] during the funding campaign for the pedestal in the 1880s. The cartoon lampooned the way that

33. France has reportedly opted out of the EU directive that all photos of public buildings can be published or distributed without prior governmental permission. Steve Schackman, “Do Night Photos of the Eiffel Tower Violate Copyright?” *Entrepreneur Art Law Journal*, November 16, 2014, <https://bit.ly/3fV5h7Z>. According to this source, French courts have not ruled on the legality or enforceability of the copyright and SETE does not typically enforce its right.

34. SETE, Annual Report for 2015, <https://bit.ly/3fqz8Y>.

35. SETE, Annual Report for 2015.

36. A copyright registration was issued in 1876 to Frederic-Auguste Bartholdi, the French sculptor of the statue; the patent expired after fourteen years. In 1879, Bartholdi obtained a design patent that covered replicating the design as a statue, in pictures, and in “metal, stone, terracotta, plaster-of-paris, or other plastic composition.” Kat Eschner, “The Statue of Liberty Was Once Patented,” *Smithsonian* (February 17, 2017), <https://bit.ly/3fqR27>. Under US law, works registered before 1923 are in the public domain so the copyright technically is expired. “Is It a Violation of Copyright to Sell Photos of the Statue of Liberty?” IPNexus, <https://secure.ipnexus.com/en/articles/42>.

advertising exploited any opportunity and symbol to sell its wares. It shows the Statue covered in advertisements [from] her top—wearing a “Silker the Hatter” top hat and holding a “Gamp & Co. Umbrella”—to her bare feet, which were flanked by competing ads for corn cures.³⁷

Because the image of the Statue of Liberty is in the public domain, the NPS does not receive any revenue from its use. However, the NPS—at times in cooperation with nonprofits such as the National Park Foundation and the Statue of Liberty-Ellis Island Foundation—has used the statue to raise funds to support its maintenance and restoration. The Statue of Liberty-Ellis Island Foundation centennial restoration funding campaign included corporate sponsorships sold for \$3 million to \$5 million, which raised \$66 million of the total \$305 million raised.³⁸ The sponsorships gave the corporate donors the right to use the fundraising campaign logo, which had been trademarked.

For their contributions, sponsors were permitted to advertise their association with the project and to devise products that reflected that affiliation. Some of the items were... imprinted with images of the statue, the [campaign] logo, the campaign slogan (“Keep the Torch Lit”), and the company’s name. ... The foundation not only benefitted from the monetary contributions but also received considerable publicity from these products and other advertising the company developed.³⁹

In 2015, Budweiser started an advertising campaign featuring images of the Statue of Liberty on its cans and bottles and gave \$2.5 million to the National Park Foundation⁴⁰ for its “Find Your Park” campaign; as part of the campaign, Bud-

weiser also sponsored a “Made in America” concert on Liberty Island.⁴¹ In March 2016, the NPS issued a new directive about corporate donations to support the national parks.

The Park Service still won’t recognize donors with advertising or marketing slogans. But for the first time, their logos will get prominent display. Companies will be able to earmark gifts for recurring park expenses, which was prohibited before. ...

Bricks or paving stones on the steps to a visitor center, video screens inside, educational, interpretive, research, recreation and youth programs, positions or endowments — these also will get naming rights, according to the proposed policy. There could be walls in visitor centers dedicated to donors, or digital ones, as fundraising is beefed up through crowdsourcing and other online strategies to reach the public. And a donor will now be allowed to design and build a park building and even operate it long term.⁴²

If the statue were privately owned, how much revenue could be generated by selling the branding or naming rights for the Statue of Liberty, Liberty Island, or “Lady Liberty”? Licensing corporate sponsors or selling naming rights is a common part of the operation of sports stadiums, music venues, and various public facilities. In 2019, sponsorships were responsible for \$1.1 billion in MLB revenue.⁴³ For example, the New York Yankees and Yankee Stadium have had licensing deals with PepsiCo, Delta Airlines, Audi, Canon, Mastercard, and Bank of America.⁴⁴ New York City has the two highest-grossing naming rights sports facilities in the United States—Citi Field (home of the MLB Mets) and the Barclays Center

37. NPS, “Statue of Liberty: Popular and Commercial Culture,” <https://bit.ly/2ENxuzN>.

38. F. Ross Holland, *Idealists, Scoundrels, and the Lady: An Insider’s View of the Statue of Liberty–Ellis Island Project* (Urbana and Chicago, IL, University of Illinois Press, 1993), 84.

39. Holland, *Idealists, Scoundrels, and the Lady*, 85.

40. Gina Pace, “Budweiser Embraces Statue of Liberty in New Campaign,” *NY Daily News*, April 22, 2015, <https://bit.ly/2DzeAfy>. According to its website, the National Park Foundation is “the official charitable partner of the National Park Service.” The Foundation is private and not a part of the federal government but assists the National Park Service in funding acquisition and maintenance projects when public funding is not available. <https://www.nationalparks.org/about-foundation>.

41. The NPS waived its previous policy prohibiting partnerships with alcoholic beverage companies. Kurt Repanshek, “National Park Service Waived Policy to Allow Budweiser’s Centennial Partnership,” *National Parks Traveler*, April 30, 2015, <https://bit.ly/30retvw>.

42. Lisa Rein, “Yosemite, Sponsored by Starbucks? National Parks to Start Selling Some Naming Rights,” *Washington Post*, May 9, 2016, <https://wapo.st/3jLC6Gy>.

43. Mike Ozanian and Kurt Badenhausen, “Despite Lockdown, MLB Teams Gain Value in 2020,” *Forbes*, April 9, 2020, <https://bit.ly/3hODdng>.

44. The Delta licensing arrangement reportedly pays the Yankees \$1 million annually. Chris Bean, “Yankee Stadium Gets New Look from Delta in 2016,” *Bronx Pinstripes*, 2015, <https://bit.ly/2BH2Yq1>.

(home of the NBA Nets and the NHL Islanders); both naming rights agreements are reported to include payments of over \$20 million annually during the twenty-year deals.⁴⁵ Naming rights have also been sold/leased for publicly owned transit stations in Philadelphia and Las Vegas and have been considered for transit facilities in New York, Boston, and San Francisco.⁴⁶

In 2016, it was estimated that the Barclays Center drew two million visitors annually to its various professional sports contests, concerts, and other special events.⁴⁷ Compare that to the Statue of Liberty stabilized attendance estimate of 4.35 million visitors, and it is clear that any “naming” or branding rights for the Statue of Liberty could command substantially more than the \$20 million per year Barclays paid for the naming rights to the Barclays Center.⁴⁸ A naming rights value of \$40 million per year for the Statue of Liberty would be comparable to the largest naming rights deal ever signed, in which the Scotiabank paid \$800 million as part of a twenty-year deal for the naming rights to the Toronto venue where the Toronto Maple Leafs and Toronto Raptors play.⁴⁹ Deducting a 7% management fee and capitalizing the net (\$38.8 million) at the

2.21% rate for twenty-year Treasuries,⁵⁰ the value of the naming rights for the Statue of Liberty would be \$1.75 billion.

These types of branding and sponsorship partnerships of national parks have come under some criticism.⁵¹ A US General Accountability Office (GAO) report discussed concerns by some members of Congress that potential corporate donors would have “undue influence over agency priorities” and the prospect of too much commercialization of the national parks.⁵² Another concern was ensuring sufficient ongoing maintenance and operational funding for any major construction initiatives that might be part of corporate partnering. Because of these types of concerns, it is likely that the only politically possible branding of the Statue of Liberty would be a cooperative partnership of limited scope and through an organization, similar to the sponsorship the National Park Foundation used in the Budweiser concert promotion.⁵³ An ongoing program with an annual average sponsorship cost of \$2.5 million might be more politically possible. Again, after deducting a 7% management fee, the net annual income of such a twenty-year commitment at

45. For information on naming rights on Citi Field, see Sam Mamudi, “How Banks Finished in Stadium-Sponsorship Ranks,” *Wall Street Journal*, October 4, 2011, <https://on.wsj.com/2Xdxe9>. For a discussion of naming rights for Barclays Center, see Rich Calder, “Barclays Center Makes It Official,” *New York Post*, August 8, 2012, <https://bit.ly/2BK819I>. The highest-paying naming rights arrangement is reportedly the twenty-year, \$800 million deal by the Bank of Nova Scotia for the naming rights to the Toronto arena where the NHL Maple Leafs and NBA Raptors play. Pete Evans, “Scotiabank Pays Big for Arena Naming Rights, but Did It Break the Bank?” CBC, September 4, 2017, <https://bit.ly/3g9xrfr>.

46. In Philadelphia, the Southeastern Pennsylvania Transit Authority (SEPTA) approved a five-year, \$5 million station naming rights agreement with AT&T. “SEPTA Board Approves Station Naming Rights Agreement,” SEPTA, June 24, 2010, <https://bit.ly/3jUXTM9>. Las Vegas completed a similar twelve-year monorail branding agreement with Nextel in 2003 for \$50 million. Jerry Hirsch, “Nextel, Las Vegas Link Brands in Monorail Deal,” *Los Angeles Times*, November 17, 2003, <https://lat.ms/2PbVBKt>. Additionally, New York’s MTA investigated selling the naming rights of subway stations and other transit properties. Jen Chung, “A Subway Subway?” *Gothamist*, January 19, 2005, <https://bit.ly/2BGRJxM>. Boston’s MBTA pursued a similar arrangement in the early 2000s, and San Francisco’s BART system also looked into sponsorship but ultimately rejected it. Pamela Ferdinand, “Going Backwards: Subway Sponsor Plan Irks Some Bostonians,” *San Francisco Chronicle*, February 26, 2001, available at <https://bit.ly/2BJ8JUh>.

47. “Governor Cuomo Unveils New Taste NY Alliance with Barclays Center in Brooklyn,” NY Office of the Governor press release, February 18, 2016, <https://on.ny.gov/2BK3NOR>.

48. The value of naming rights also relates to the frequency of online hits for the name. A Google search of the term “Barclays Center” in February 2020 found 4.780 million results compared to 85.200 million results for the term “Statue of Liberty.”

49. Rick Westhead, “MLSE Agrees to Record Arena Rights Deal with Scotiabank,” TSN, <https://bit.ly/30qiH6g>.

50. 2020 daily yields through February 7, 2020, as reported by the US Department of the Treasury, “Resource Center: Daily Treasury Yield Curve Rates,” at <https://bit.ly/37DzXHw>.

51. Holland, *Idealists, Scoundrels, and the Lady*, 84–86. Rein, “Yosemite, Sponsored by Starbucks?” *Washington Post*.

52. US Government Accountability Office (GAO), Report to the Chairman, Subcommittee on National Parks, Forests and Public Lands, Committee on Natural Resources, House of Representatives, “National Park Service: Donations and Related Partnerships Benefit Parks, but Management Refinements Could Better Target Risks and Enhance Accountability,” GAO-09-386, June 2009, 8; <https://bit.ly/3fy4Sr7>.

53. According to the GAO, the National Park Foundation was created by Congress “to encourage private philanthropy to the parks,” and it is “an official national nonprofit partner of the Park Service... and has broad discretion in how it raises and distributes these donations.” GAO, “Donations and Related Partnerships Benefit Parks,” GAO-09-386, June 2009, 6.

the 2.21% rate for twenty-year Treasuries would have a “value” of \$105.2 million.

The types of studies done by the NPS and the Chamber of Commerce of Monza and Brianza concerning the broader economic value of iconic landmarks can be analyzed in detail to determine the additional components of “historic value” or “public interest value.” For example, if the NPS is correct that visitors to the Statue of Liberty supported an additional indirect expenditure of \$155.4 million in regional labor income, then the average salary and federal, state, and local income taxes generated by that indirect labor expenditure could be capitalized and added to create a larger picture of the total “public interest value” of the Statue of Liberty.

Final Analysis

This article has explored the concepts of “historic value” and “public interest value” as they might be used to understand the “value” of iconic landmarks such as the Eiffel Tower, the Statue of Liberty, and other similar national symbols around the globe. The question of whether there is such a thing as “historic value” or “public interest value” has caused significant debate within the real estate appraisal and valuation profession for decades. One consensus is that such values need to be measured for such national symbols in terms of their economic rather than noneconomic use.

In addressing those issues, this two-part article addressed the following questions:

- What is the difference between “public value” and market value, and how does that difference affect the valuation assignment and the resulting value conclusion?
- What are the appropriate techniques for analyzing the value of iconic special-purpose properties such as publicly owned landmarks?
- How can the real estate value be extrapolated from the business value or investment value of iconic properties?

Both the Statue of Liberty and the Eiffel Tower are special-purpose properties given their specialized design, construction for a specialized use, and uniqueness. There are no comparable sales that can provide insight into their value, and they have limited utility for conversion to alternative uses.

For special-purpose properties, some variation of the cost approach is typically used. But how can cost approach techniques reliably be undertaken for these two iconic landmarks originally constructed in the 1870s and 1880s? Inflating the original construction cost and using that as the basis for calculating undepreciated reproduction cost today are techniques that can be applied to both the Statue of Liberty and the Eiffel Tower. The cost of construction of replicas of the Eiffel Tower can also be consulted, but none of the replicas is true to the original scale or construction materials and techniques used in the nineteenth century.

Another difficulty in applying the cost approach appropriately is estimating the value of the land underlying the landmarks. In the analysis presented, the appropriate percentage of gross revenues that could be viewed as land rent was capitalized and the result added to the depreciated value of the improvements to arrive at a final cost approach to value for both iconic landmarks.

Variations on the income approach to value can also be attempted. The revenues to the City of Paris from its operating agreement with SETE were analyzed, and the concession revenues to the NPS from the latest concession agreements for the Statue of Liberty were also analyzed. Analysis of SETE’s operating agreement with the City of Paris seems to arrive at a net operating income (after deducting a reasonable annual maintenance cost, management fee, and reserve for replacement) for the Eiffel Tower.

Deriving a net operating income to the NPS from the Statue of Liberty is problematic, however. According to one measure, the additional operating costs to the NPS for National Park Service Rangers and other employees equal or exceed annual concession revenues. Based on operating margins at other heritage sites and in the hospitality industry, it is possible to estimate a more appropriate operating expense ratio for the Statue of Liberty. Also to be considered in an income approach, however, are the annualized revenues that the NPS indirectly receives through its affiliated nonprofit support groups such as the National Park Foundation, which raises additional funds for the Statue of Liberty through activities such as sponsored concerts or other branded events.

Based on these considerations, the final comparison of the results of the cost approaches and income approaches for the two iconic properties can be summarized as follows.

**Eiffel Tower and Statue of Liberty:
Final Cost and Income Approaches to Value (US\$)**

Eiffel Tower

Cost Approach: Land & Improvements	862,400,000
Income Approach	380,800,000
Plus: Additional Branding & Marketing Opportunity	Included
Income Approach Total	\$380,800,000

Statue of Liberty

Cost Approach: Land & Improvements	550,695,000
Income Approach: Concession Revenue	350,000,000
Plus: Value of Additional Branding & Marketing Opportunity	105,200,000
Income Approach Total	\$455,200,000

While the cost approach result for each landmark might be part of a process for estimating “market value,” the income approach results would not because these have been calculated based on current concession revenues to the public entities that own the landmark and the land under it rather than based on revenues that could be generated if the landmarks were privately owned. The result meets *The Dictionary of Real Estate Appraisal*, sixth edition, definition of *investment value* since the estimated values are to their respective current public entity owners:

1. The value of a property to a particular investor or class of investors based on the investor’s specific requirements. Investment value may be different from market value because it depends on a set of investment criteria that are not necessarily typical of the market.
2. The value of an asset to the owner or a prospective owner for individual investment or operational objectives. (IVS)⁵⁴

Reconciling each of the approaches by giving equal weight to each,⁵⁵ the indications of “investment value” by those approaches to value would be as follows:

**Eiffel Tower and Statue of Liberty:
Investment Value (US\$)**

	Eiffel Tower	Statue of Liberty
Reconciled Value	621,600,000	502,947,500

But can we arrive at an estimate of market value as conventionally defined for each of those icons? To do so would require us first to determine if the various admission prices and food, beverage and retail prices at each site are based on a market rate. At the Eiffel Tower, it appears SETE has the freedom to set its prices at a market-supported rate so its charges may already reflect market rates.

The same is not true at the Statue of Liberty. The NPS reviews and approves prices charged by its concessioners and only allows price increases based on inflation rates. Its goal is not to set prices to market but to establish prices that are fair to both the concessioner and to the general public.⁵⁶ As a result, the ferry ticket/admission prices in the 2019 concession prospectuses were not set at a level that would maximize gross revenues. The Statue of Liberty admission price established for 2021 is significantly lower than admission prices at many other New York City tourism attractions as indicated in Exhibit 6.

Based on the fee comparison in Exhibit 6, Statue of Liberty admission prices are substantially below market, especially given the daily limit on the number of admissions imposed by the Park Service. The NPS 2019 prospectus forecasts the average “transportation revenue” per passenger in 2021 to be \$13.50 to \$14.00 per visitor.⁵⁷ Given the competition, 2021 rates free from NPS price control could be set at \$40.00 for adults,

54. Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 6th ed., s.v. “investment value.”

55. *The Appraisal of Real Estate*, fourteenth edition, states that final value “reconciliation requires appraisal judgment and a careful, logical analysis of the procedures that lead to each value indication. Appropriateness, accuracy, and quantity of evidence are the criteria with which an appraiser forms a meaningful, defensible final opinion of value.” Depending on how these criteria apply to the approaches to value used, equal weighting may or may not be appropriate. See Appraisal Institute, *The Appraisal of Real Estate*, 14th ed. (Chicago: Appraisal Institute, 2013), 646–647.

56. NPS, US Department of the Interior, “Concession Management Rate Administration Guide,” February 28, 2017, 1; <https://bit.ly/39RhQ1P>.

57. Business Opportunity CC-STLI004-20 Department of the Interior, NPS, “Statue of Liberty National Monument and Ellis Island: A Concession Business Opportunity for Food and Beverage, Retail, and Other Services,” 12.

Exhibit 6 Admission Fees for New York City Attractions

New York City Attraction	Type of Ticket	Admission Fee (US\$)				
Statue of Liberty Ferry Concession	Reserve/Pedestal/Crown 2021	Adult: 16.00	Senior: 10.00	Child: 5.00		
	Reserve/Pedestal/Crown 2022	Adult: 17.00	Senior: 10.00	Child: 5.00		
	Reserve/Pedestal/Crown 2023	Adult: 18.00	Senior: 10.00	Child: 5.00		
	Reserve/Pedestal/Crown 2024	Adult: 19.00	Senior: 10.00	Child: 5.00		
	Reserve/Pedestal/Crown 2025 to 2027	Adult: 20.00	Senior: 10.00	Child: 5.00		
	Reserve/Pedestal/Crown Post-2027	Increased at NYC CPI every 3 years				
September 11 Memorial	Standard	Adult: 24.00	Senior: 18.00	Child: 15.00		
Metropolitan Museum of Art	Standard	Adult: 25.00	Senior: 17.00	Student: 12.00	Child: Free	Patron: Free
Museum of Modern Art	Standard	Adult: 25.00	Senior: 18.00	Student: 14.00	Child: Free	Member: Free
NBC Rockefeller Center Studio Tour	Standard Tour	Adult: 33.00	Senior: 29.00	Child: 29.00		
	Top of the Rock Observatory	Adult: 38.00	Senior: 36.00	Child: 32.00		
	VIP Access to Observatory (No Line & 20% Off Merchandise)	75.00				
Empire State Building	Standard (86th Floor Observation Deck plus 2nd Floor Museum)	Adult: 42.00	Senior: 40.00	Child: 36.00		
	Skip-the-Lines	78.00				
	Guided Tour (90 minutes)	161.55				
	All Access Tour	460.00				
Yankee Stadium*	Non-Premium Ticket	47.62				
	Premium Ticket	Up to 350.00 average				

* Average price, Doug Whiteman, "The Most Expensive Major League Ballparks for Fans," Yahoo Finance MoneyWise, January 21, 2020, <https://yhoo.it/3k5Mpp7>.

\$30.00 for seniors, and \$25.00 for children without significantly affecting total visitor numbers. That could result in an increase in stabilized revenues of 80%, indicating an average revenue of \$24.75 per visitor. If there was no increase in the forecasted food service and retail sales prices, the market value based on an income approach with market rates would be calculated as follows:

Statue of Liberty Market Rate: Outsourced Stabilized Annual Income & Capitalized Value (US\$)	
2021 Gross Receipts: ferry service, tour tickets	120,000,000
Annual Franchise Fee (32.9%) (rounded)	39,480,000
2021 Gross Receipts: food service, retail sales	35,850,000
Annual Franchise Fee (22.0%) (rounded)	7,890,000
Total 2021 Franchise Fees	47,370,000
Less: Operating Costs, Management Fee, Reserve for Replacement (80%)	37,896,000
Net Income to National Park Service from Concessions	\$9,474,000
Capitalization Rate	1.695%
Capitalized Value: Concession Opportunity	558,938,053
Rounded to	558,940,000
Plus: Capitalized Value of Branding & Marketing Opportunity	105,200,000
Total Capitalized Value	\$664,140,000
Rounded to	\$665,000,000

But even that is not truly the “market value” because the Statue of Liberty value is still being measured as in the hands of the NPS rather than if sold and in the hands of a private operator. Such a sale would be based on what a private operator could generate in total revenues, less operating expenses. There would be no concession payments to the NPS after the sale, but the owner would

have to operate the ferry service, food, beverage, and retail facilities, and pay all operating expenses. It can be assumed, however, that the government would impose some type of deed restriction on the branding/marketing of the Statue of Liberty to avoid the political and popular criticism that greeted the NPS’s proposal to significantly expand corporate branding at national parks. Perhaps a doubling of the annual marketing/corporate sponsorship revenue to \$5 million could be accomplished without seriously commercializing the image of the Statue of Liberty. The operating expense ratio and net operating income ratio would be more in line with those from the hospitality and theme park industry. The management expense for the marketing/corporate sponsorship program could be reduced to 3.5%, which is more in line with private management expense ratios and could reduce the overall operating expense ratio to about 75%. However, the capitalization rate would be based on private-sector rates of return rather than government bond rates.

Based on the market-supported revenues, a 75% operating expense ratio, and an 8% capitalization rate,⁵⁸ the market value of the Statue of Liberty would be as indicated below.

Statue of Liberty Market Value: Stabilized Annual Income & Capitalized Value (US\$)	
2021 Gross Receipts: ferry service, tour tickets	120,000,000
Plus: 2021 Gross Receipts: food service, retail sales	35,850,000
Total 2021 Admission & Retail Revenues	155,850,000
Less: Operating Costs, Management Fee, & Reserve for Replacement (75%)	116,887,500
Net Income from Operations	38,962,500
Capitalization Rate	8.0%
Total Capitalized Value of Operations	487,031,250
Plus: Capitalized Value of Branding & Marketing Revenues	60,312,500
Total Capitalized Value	\$547,343,750
Rounded to	\$545,000,000

58. According to the hotel advisory and consulting firm HVS, 2019 average capitalization rates based on first-year net operating income compared to actual sale prices varied from 7.1% for full service hotels to 9.0% for limited service properties. Suzanne R. Mellen, “Hotel Values Moderate, Cap Rates Stable,” Hospitality Net, January 25, 2020, <https://bit.ly/30n2SgU>.

A supported market value of \$545,000,000 for the Statue of Liberty is very close to the cost approach result of \$550,695,000.

A similar analysis can be undertaken for the Eiffel Tower. SETE has more freedom than the concessioners at the Statue of Liberty to set admission and food and beverage prices, and it also has the ability to market the Eiffel Tower “brand” and image. However, as a quasi-government entity, it appears to have operating expenses that are out of line with private hospitality industry norms. An estimate of market value can be developed if the royalty payments are eliminated in the analysis, and the revenues and the stabilized visitor numbers are accepted as market supported. Operating expenses would need to be adjusted to be more in line with industry standards. Applying a private market capitalization rate, the market value of the Eiffel Tower would be calculated as shown below.

Eiffel Tower Market Value: Stabilized Annual Income & Capitalized Value (US\$)	
2020 Gross Receipts	95,293,000
Less: Operating Costs, Management Fee, & Reserve for Replacement (75%)	71,470,000
Net Income from Operations	23,823,000
Capitalization Rate	8.0%
Total Capitalized Value	\$297,787,500
Rounded to	\$300,000,000

The comparison indicates that the market value of the Statue of Liberty by the income approach is significantly higher than the market value of the Eiffel Tower despite the fact that the tower draws substantially more visitors than the Statue of Liberty. But the results of the cost approach to value—another indication of market value—must also be considered. Including both the cost and income approaches to market value and giving equal weight to each, the comparative results would be as follows:

**Eiffel Tower and Statue of Liberty:
Cost and Income Approaches to Market Value (US\$)**

Eiffel Tower	
Cost Approach: Land & Improvements	862,400,000
Income Approach: Market Rates on Expenses & Capitalization	300,000,000
Weighted Market Value	\$581,200,000
Statue of Liberty	
Cost Approach: Land & Improvements	550,695,000
Income Approach: Market Rates on Revenues, Expenses & Capitalization	545,000,000
Weighted Market Value	\$547,850,500

The final indicated market values are remarkably close.

The rest of the analysis focuses on additional sources of revenue to the units of government that own the Eiffel Tower and the Statue of Liberty. That analysis could be considered part of a calculation of the total “public interest value” of each landmark.

The various sources of revenue and their capitalized annual values at the government bond rates used in this analysis are summarized below.

Statue of Liberty Public Interest Value (US\$)	
Capitalized Direct Investment Value	455,200,000
Capitalized Value of Employee Federal Income Taxes	445,800,000
Capitalized Value of New York & New Jersey Sales Taxes	619,620,000
Capitalized Value of FICA & Federal Unemployment Insurance Taxes	221,185,000
Total Capitalized Public Interest Value from Operations	\$1,741,805,000
Rounded to	\$1,740,000,000

The above estimate does not include all aspects of “public interest value,” such as the capitalized value of state income tax payments in New York and New Jersey by employees or the indirect income and sales taxes by goods and services supplied to the NPS and the concession operators. It

also does not take into account the various indirect tax revenues generated by visitors who come to New York City for the sole purpose of visiting the Statue of Liberty and the tourists' expenditures (in sales and other taxes) on hotel stays, food and beverage, and souvenirs.

A similar partial picture of the public interest value of the Eiffel Tower can be constructed based on directly generated revenues and taxes as shown below.

Eiffel Tower Public Interest Value (US\$)	
Capitalized Direct Investment Value	380,800,000
Capitalized Value of SETE French Income Taxes	404,500,000
Capitalized Value of Value Added Tax (VAT)	590,900,000
Capitalized Value of French Payroll Tax	386,100,000
Total Capitalized Public Interest Value from Operations	\$1,762,300,000
Rounded to	\$1,760,000,000

But as indicated in the analysis of the VAT at the Eiffel Tower, that tax is included in the cost of admission, food and beverage, and retail sales. If the concession fee paid by SETE is based on total revenues including the VAT, then a deduction must be made since some of the capitalized value of the VAT has already been incorporated in the capitalized value of the concession revenues paid to the City of Paris.

Is it appropriate to deduct operating expenses from revenues generated at the Eiffel Tower and the Statue of Liberty? Since the entities operating both icons are essentially government agencies,⁵⁹ all of the revenues generated accrue to the public treasury even if the revenues are then spent on government employees and operating costs. The capitalized value of the \$102.517 million stabilized gross receipts at the Statue of Liberty would be \$6.05 billion. At the Eiffel Tower, the capitalized value of the €87,425,000 annual receipts would be €7.04 billion, equivalent to \$7.67 billion.

Based on this analysis, the final calculation of the public interest value of each icon would be as follows:

Statue of Liberty Final Public Interest Value Calculation (US\$)	
Capitalized Value of Gross Receipts	6,050,000,000
Capitalized Value of Employee Federal Income Taxes	445,800,000
Capitalized Value of New York & New Jersey Sales Taxes	619,600,000
Capitalized Value of FICA & Federal Unemployment Insurance Taxes	221,355,000
Total Capitalized Public Interest Value from Operations	\$7,336,755,000
Rounded to	\$7,335,000,000

Eiffel Tower Final Public Interest Value Calculation (US\$)	
Capitalized Value of Gross Receipts	7,670,000,000
Capitalized Value of SETE French Income Taxes	404,500,000
Capitalized Value of Value Added Tax (VAT)	590,900,000
Capitalized Value of French Payroll Tax	386,100,000
Total Capitalized Public Interest Value from Operations	\$9,051,500,000
Rounded to	\$9,050,000,000

The public interest value of the Eiffel Tower is approximately 23.4% higher than that of the Statue of Liberty.

Finally, in an age of tourism uncertainties caused by terrorism, pandemics, and other factors, one consideration is whether a stabilized amount should be deducted for *external obsolescence*, also referred to as economic obsolescence. *The Dictionary of Real Estate Appraisal* defines *external obsolescence* as "a type of depreciation; a diminution in value caused by negative external influences and generally incurable on the part of the owner, landlord, or tenant. The external influence may

59. As indicated in Part 1, SETE is a public company owned 99% by the City of Paris, with the remaining 1% owned by the Métropole du Grand Paris.

be either temporary or permanent.”⁶⁰ The cost of the extra security to guard against terror attacks is an example of such an external factor, as is the loss in revenues due to temporary closings.⁶¹

In an age when terrorists target national cultural heritage sites, there are extra security costs that create external obsolescence. These costs need to be considered before arriving at an accurate picture of the net public interest value. Approximately \$40 million of the \$321 million improvement project at the Eiffel Tower was devoted to improving security by constructing a ten-foot high, two-inch thick bulletproof glass wall around the Eiffel Tower.⁶² In the wake of the 2015 terrorist attacks in France, regular French troops were called in to provide security at many iconic tourism sites in Paris, including the Louvre and the Eiffel Tower, at an estimated cost of about one million euros per day.⁶³

One potential approach could be to calculate an external obsolescence factor after consideration of the decrease in visitors and revenues during years when terrorist attacks occur to arrive at an average visitor and revenue number over a ten-year period. This might be the equivalent of a “vacancy rate” applied to the typical income-producing property. An additional amount could be added to the appropriate Eiffel Tower average visitor number to account for the effect of strikes and protests on revenues. To some extent, this has already been done in the calculation of stabilized visitor levels at the Eiffel Tower. As an alternative, the capitalization rate could be adjusted to reflect the additional risk associated with public revenues generated by cultural icon

tourism. Terrorism and public protests will continue to affect the revenues and value of iconic landmarks and merit additional attention in addressing appropriate rates of return on publicly owned landmarks.

It is more difficult to account for the impact of pandemic-type events on international tourism. The effect of COVID-19 on the world economy is unprecedented. The length of time it will take for the tourism industry and visitor numbers at iconic sites to return to their previous levels is unknown. Travel-related risks and the risk that governments in the future will close borders cannot be forecasted. As a result, adding a “vacancy factor” or a “risk factor” to capitalization rates based on consideration of health issues is not yet supportable based on past economic behavior.

Conclusion

This article has been designed only as an exercise in analyzing various approaches to the value or “worth” of two iconic landmarks—the Eiffel Tower and the Statue of Liberty. The discussion presents just one process for understanding the difference between market value and “public interest value” using traditional economic and real estate valuation tools and measuring those amounts. As a result, the article only partially answers the questions raised in its introduction. Some would argue that the true cultural “worth” to France and the United States, respectively, of the Eiffel Tower and the Statue of Liberty can only be measured in noneconomic terms.

60. *The Dictionary of Real Estate Appraisal*, 6th ed., s.v. “external obsolescence.”

61. For example, both landmarks experienced closures due to COVID-19. The Eiffel Tower closed following the “yellow vest” protests in 2018 and 2019. The Statue of Liberty closed in the wake of the 9/11 terrorist attacks.

62. Sasha Ingber, “Eiffel Tower Now Has Bulletproof Glass Walls to Protect against Terror Attacks,” NPR, June 15, 2018, <https://n.pr/2ZeddKk>.

63. James McAuley, “In France, Are Soldiers Outside the Louvre and the Eiffel Tower Really Worth It?” *Washington Post*, June 4, 2016.

About the Authors

Richard J. Roddewig, JD, MAI, CRE, FRICS, is a managing director at JLL Valuation Advisory and is national director of the firm's Complex Real Estate Analysis and Litigation Support practice. Much of his valuation work over the past forty-five years has involved heritage properties across the United States, and in South America and Australia. Roddewig has authored, coauthored, edited, or contributed to seventeen books, including a number of Appraisal Institute books. He has authored or coauthored more than sixty-five articles in professional journals, including seventeen articles in *The Appraisal Journal*. He has an undergraduate degree in history and government from the University of Notre Dame and both a master of arts degree in political science and a juris doctor degree from the University of Chicago. **Contact: Richard.Roddewig@am.jll.com**

Anne S. Baxendale is a vice president on the Litigation Support team at JLL Valuation Advisory. Baxendale specializes in the analysis of large-scale market and transactional data, using custom-built databases and geographic information system (GIS) spatial analysis technology. Her assignments have involved a variety of real estate types in markets across twenty-five states. Many of her assignments involve valuation of historic preservation and conservation easements as well as corridor and right-of-way impact analysis. She has previously coauthored articles in *The Appraisal Journal* and in *Real Estate Issues*. Baxendale has an undergraduate degree in political science from the University of Dayton and a master of urban planning and policy degree from the University of Illinois at Chicago. **Contact: Annie.Baxendale@am.jll.com**

J. Andrew Stables previously served as a senior analyst in the Litigation Support group at JLL Valuation Advisory. His work involved complex valuation assignments including environmental litigation, conservation and historic preservation easements, and the valuation of special-purpose properties, where many assignments required the development of custom databases to be analyzed using geographic information system (GIS) spatial analysis technology. He has worked on appraisal assignments in more than twenty states, including assignments involving historic properties. He is currently licensed as an Associate Real Estate Trainee Appraiser in Illinois. Stables has a bachelor of arts degree (Phi Beta Kappa) in international relations from Michigan State University and currently is pursuing a masters of urban planning at the University of Southern California.

Additional Resources

Suggested by the Y. T. and Louise Lee Lum Library

Appraisal Institute

- **Lum Library, Knowledge Base [Login required]**
 - Business Valuation
 - Public lands
 - Special use properties/sports, recreation, and entertainment/parks
- **Publications**
 - *Valuing Conservation and Historic Preservation Easements*

Federal Reserve Bank of St. Louis Economic Research (FRED)—COVID-19 Research Resources

<https://research.stlouisfed.org/resources/covid-19/>