

The Economics of Hosting the Olympic Games

The costs of hosting the Olympics have skyrocketed, while the economic benefits are far from clear. This has led to fewer states interested in playing host and a search for options to lighten the burdens of staging the big event.



Designer Glauber Penha takes part in the Olympic Flame torch relay outside a stadium in Manaus, Brazil. Bruno Kelly/Reuters

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Summary

- The massive costs and dubious benefits associated with hosting the Olympic Games has led to criticisms about the process for selecting a host city.
- Many have called for reforms to the process, including reducing the cost of bidding and encouraging cities to develop more sustainable development strategies.

Introduction

The Olympics have evolved dramatically since the first modern games were held in 1896. In the second half of the twentieth century, both the costs of hosting and the revenue produced by the spectacle grew rapidly, sparking controversy over the burdens host countries shouldered. A growing number of economists argue that both the short- and long-term benefits of hosting the games are at best exaggerated and at worst nonexistent, leaving many host countries with large debts and maintenance liabilities. Instead, many argue, Olympic committees should reform the bidding and selection process to incentivize realistic budget planning, increase transparency, and promote sustainable investments that serve the public interest.

Rio de Janeiro's 2016 games highlighted the ongoing debate over the costs and benefits of hosting such a mega-event. More than a year later, the city still struggles with debt incurred, maintenance costs for abandoned facilities, un-derequipped public services, and rising crime as candidate cities for future games withdraw their bids or scale down their plans.

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When did the costs of hosting the games become a concern?

For much of the twentieth century, the staging of the Olympic Games was a manageable burden for the host cities. The events were held in developed countries, either in Europe or the United States, and in the era before television broadcasting, hosts didn't expect to make a profit. Instead, the games were publicly funded, with these advanced countries better positioned to bear the costs due to their larger economies and more advanced infrastructure.

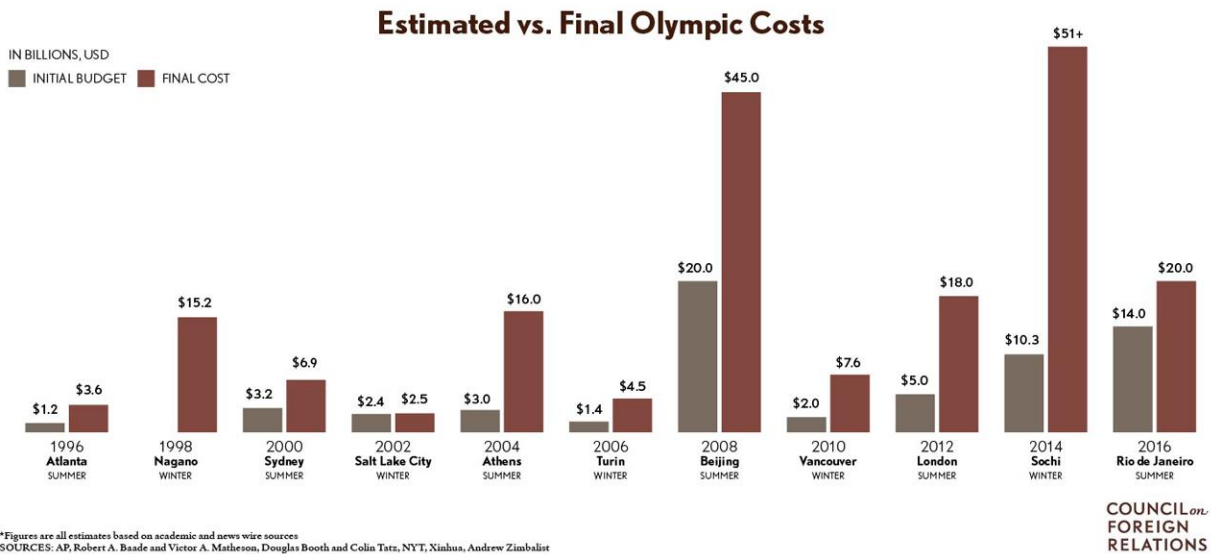
What costs do cities incur for hosting the games?

Cities must first invest millions of dollars in evaluating, preparing, and submitting a bid to the IOC. The cost of planning, hiring consultants, organizing events, and the necessary travel consistently falls between \$50 million and \$100 million. Tokyo spent as much as \$150 million on its failed 2016 bid, and about half that much for its successful 2020 bid, while Toronto decided it [could not afford](#) the \$60 million it would have needed for a 2024 bid.

Once a city is chosen to host, it has nearly a decade to prepare for the influx of athletes and tourists. The Summer Games are far larger, attracting hundreds of thousands of foreign tourists to watch over ten thousand athletes [compete in about three hundred events](#), compared with under three thousand athletes competing in about [one hundred events](#) during the Winter Games. The most immediate need is the creation or upgrading of highly specialized sports facilities such as cycling tracks and ski-jumping arenas, the Olympic Village, and a venue large enough to host the opening and closing ceremonies.

Tokyo spent as much as \$150 million on its failed 2016 bid, and Toronto decided it couldn't afford its 2024 bid. There is also usually the need for more general infrastructure, especially housing and transportation. The IOC [requires cities hosting the summer games](#) to have a minimum of forty thousand available hotel rooms, which in Rio's case necessitated the construction of fifteen thousand new hotel rooms. Roads, train lines, and airports need to be upgraded or constructed.

Altogether, these infrastructure costs range from \$5 billion to over \$50 billion. Many countries justify such expenditures in the hopes that the spending will outlive the Olympic Games. For instance, [some 85 percent](#) [PDF] of the Sochi 2014 Games' more than \$50 billion budget went to building non-sports infrastructure from scratch. More than half of the Beijing 2008 budget of \$45 billion [went to rail, roads, and airports](#), while nearly a fourth went to environmental clean-up efforts.



Operational costs make up a smaller but still significant chunk of hosts' Olympics budget. Security costs have escalated quickly since the 9/11 attacks—Sydney spent \$250 million in 2000 while Athens spent over \$1.5 billion in 2004, and costs have remained between \$1 billion and \$2 billion since.

Also problematic are so-called white elephants, or expensive facilities that, because of their size or specialized nature, have limited post-Olympics use. These often impose costs for years to come. Sydney's Olympic stadium costs the city \$30 million a year to maintain. Beijing's famous "Bird's Nest" stadium cost \$460 million to build and requires \$10 million a year to maintain, and [sits mostly unused](#). Almost all of the facilities built for the 2004 Athens Olympics, whose costs [contributed to the Greek debt crisis](#), are now derelict. Gangwon, the South Korean regional government responsible for most of the 2018 games' infrastructure, is expected to incur an \$8.5 million annual deficit due to upkeep of unused facilities.

Economists say the games' so-called implicit costs must also be considered. These include the opportunity costs of public spending that could have been spent on other priorities. Servicing the debt that is left over after hosting the games can burden public budgets for decades. It took Montreal until 2006 to pay off the last of its debt from the 1976 Games, while [Greece's billions in Olympics debt](#) helped bankrupt the country.

The debt and maintenance costs of the Sochi 2014 Winter Games will [cost Russian taxpayers](#) nearly \$1 billion per year for the foreseeable future, experts estimate, and there are worries that the solvency of some major Russian banks are threatened by billions of dollars in bad Olympics-related loans. But while some in Sochi see the unused stadiums and overbuilt facilities as a

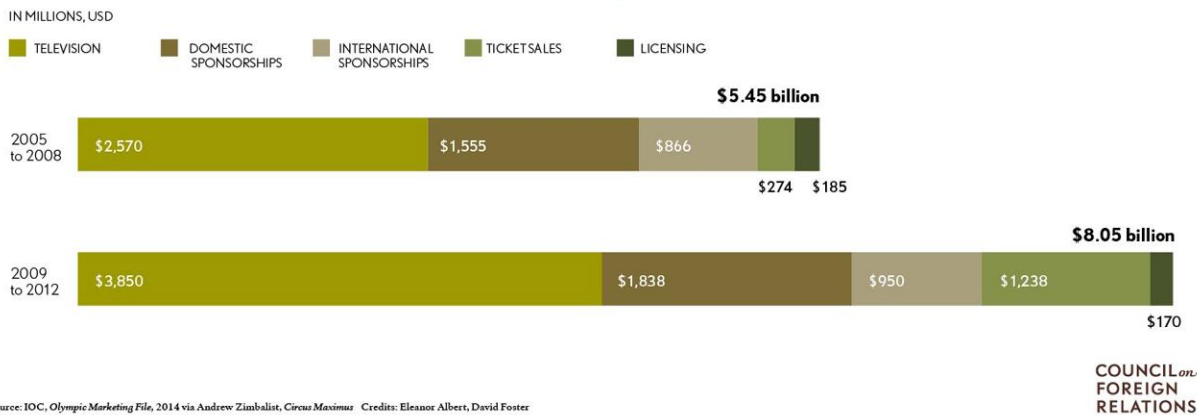
waste, [other residents argue](#) that the games spurred spending on roads, water systems, and other public goods that wouldn't have otherwise happened.

How do the benefits compare to the costs?

The 1984 Olympics in Los Angeles were the only games to produce a surplus, in large part because the city was able to rely on already existing infrastructure.

As the costs of hosting have skyrocketed, revenues cover only a fraction of expenditures. Beijing's 2008 Summer Olympics generated \$3.6 billion in revenue, compared with over \$40 billion in costs, and London's Summer Games in 2012 generated \$5.2 billion compared with \$18 billion in costs. What's more, much of the revenue doesn't go to the host—the IOC keeps more than half of all television revenue, typically the single largest chunk of money generated by the games.

Sources of Olympic Revenue



Source: IOC, Olympic Marketing File, 2014 via Andrew Zimbalist, *Circus Maximus*. Credits: Eleanor Albert, David Foster

Impact studies carried out or commissioned by host governments before the games often argue that hosting the event will provide a major economic lift by creating jobs, drawing tourists, and boosting overall economic output. However, research carried out after the games shows that these purported benefits are dubious.

In a study of the 2002 Salt Lake City Games, for example, Matheson, along with economists Robert Baumann and Bryan Engelhardt of Massachusetts's College of the Holy Cross, [found a short-term boost](#) [PDF] of seven thousand additional jobs—about one-tenth the number promised by officials—and no long-term increase in employment. As a study by the European Bank for Reconstruction and Development explains, the jobs [created by Olympics construction](#) are often temporary, and unless the host region is suffering from high unemployment, the jobs mostly go to workers who are already employed, blunting the impact on the broader economy. (Only 10 percent of the forty-eight thousand temporary jobs created during the 2012 London Olympics went to previously unemployed people, according to the study.)

Economists have also found that the impact on tourism is mixed, as the security, crowding, and higher prices that the Olympics bring dissuade many visitors. Barcelona, which hosted in 1992, is [cited as a tourism success story](#), rising from the eleventh to the sixth most popular destination in Europe after the Summer Games there, and Sydney and Vancouver both saw slight increases in tourism after they hosted. But London, Beijing, and Salt Lake City [all saw decreases in tourism](#) the years of their Olympics.

Economists have found that the Olympics' impact on tourism is mixed, given the security, crowding, and higher prices. Ultimately, there is little evidence for an overall positive economic impact. Boston's National Bureau of Economic Research [has published findings](#) that hosting has a positive impact on a country's international trade. But economists Stephen Billings of the University of North Carolina and Scott Holladay of the University of Tennessee-Knoxville [found no long-term impact of hosting](#) on a country's gross domestic product (GDP).

What was the outcome of the 2016 Rio de Janeiro Games?

The final tally for Brazil, the first South American country to host the Olympics, exceeded \$20 billion, with the city of Rio alone [shouldering at least](#) \$13 billion. The country also faced a number of additional challenges stemming from its precarious economic and political situation. The scramble to finish preparations came amid political chaos after President Dilma Rousseff was removed from office in 2016, while the country was [facing its worst recession in decades](#). The state [required a \\$900](#)

[million bailout](#) from the federal government to cover the policing costs of the Olympics, and is still unable to pay all of its public employees, which some analysts say has contributed to the city's rising violent crime.

The city also had to invest heavily in a broad range of infrastructure, much of it with dubious long-term utility. The city built four clusters of stadiums and other facilities, connected by new highways and rail lines. Most of these came in far over budget, with a state auditor finding the city's \$3 billion subway extension was overbilled by at least 25 percent.

The construction was meant to reinvigorate some of Rio's struggling neighborhoods, yet more than a year later [most venues are abandoned or barely used](#). The Olympic Park is closed, with most of its facilities overrun with waste and infested with insects and rodents. The nearly four thousand apartments that made up the athlete's village were meant to be converted into housing for citizens, but sit vacant. Government attempts to auction the venues to private owners have failed, leaving the city with a \$14 million annual price tag for maintenance. Meanwhile, at least seventy-seven thousand people were evicted from their homes in the course of construction, and the city, still dealing with its budget crisis, has since suspended its promised program to clean Rio's deeply polluted waterways.

How could the Olympics be made more manageable?

A consensus has grown among economists that the Olympic Games need reforms to make them more affordable. Many have pointed out that the IOC bidding process encourages wasteful spending, by favoring potential hosts who present the most ambitious plans. This so-called winner's curse means that over-inflated bids—often pushed by local construction and hospitality interests—consistently overshoot the actual value of hosting. Observers have also criticized the IOC for not sharing more of the fast-growing revenue generated by the games.

Corruption has also dogged the IOC selection process. Bribery scandals marred the 1998 Nagano and 2002 Salt Lake City games. In 2017, the head of Rio's Olympic committee was [charged with corruption](#) for allegedly making payments to secure the Brazil games, and allegations of illegal payments [surfaced in the 2020 Tokyo selection](#).

In response, the IOC under President Thomas Bach has [promoted reforms to the process](#), known as the Olympic Agenda 2020. These recommendations include reducing the cost of bidding, allowing hosts more flexibility in using already-existing sports facilities, encouraging bidders to develop a sustainability strategy, and increasing outside auditing and other transparency measures.

Some think more drastic measures are necessary. Economists Baumann and Matheson argue that developing countries should be [spared the burden of hosting altogether](#) and the IOC should instead "award the games to rich countries that are better able to absorb more of the costs." For author Andrew Zimbalist, one city should be [made the permanent host](#), allowing for the reuse of expensive infrastructure. Barring that, many economists argue, any city planning to host should ensure that the games fit into a broader strategy to promote development that will outlive the Olympic festivities.

Recommended Resources

ESPN's Wayne Drehs and Mariana Lajolo [investigate the state of Rio's Olympic infrastructure](#) a year later.

This Brookings Institution podcast [discusses the true costs](#) of hosting the Olympics in Brazil.

Urban planning expert Judith Grant Long argues that [host cities must rethink](#) how they approach Olympics infrastructure in this London School of Economics article.

The idea that the Olympics [should generate economic growth](#) is a relatively new phenomenon, writes Binyamin Appelbaum in the New York Times.

Fidelity Investments' Robert von Rekowsky [explores the history](#) [PDF] of the economic outcomes of the Olympic Games.