

Creating Games Worth Bidding For

by

Robert A. Cain

A.A. Korean Studies
Defense Language Institute, 2002

B.S. Liberal Studies
Excelsior College, 2002

B.A. Urban Studies
Columbia University in the City of New York, 2017

SUBMITTED TO THE DEPARTMENT OF URBAN STUDIES AND PLANNING IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER IN CITY PLANNING
AT THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE 2019

©2019 Robert A. Cain. All rights reserved.

The author hereby grants to MIT permission to reproduce
and to distribute publicly paper and electronic
copies of this thesis document in whole or in part
in any medium now known or hereafter created.

Signature of Author: _____
Department of Urban Studies and Planning
May 21, 2019

Certified by: _____
Karilyn Crockett Lecturer of Public Policy and Urban Planning
Department of Urban Studies and Planning
Thesis Supervisor

Accepted by: _____
Ceasar McDowell Professor of the Practice
Department of Urban Studies and Planning
Co-Chair, MCP Committee

Creating Games Worth Bidding For

by

Robert A. Cain

Submitted to the Department of Urban Studies and Planning
on May 21, 2019 in Partial Fulfillment of the
Requirements for the Degree of Master in City Planning

ABSTRACT

Until recently a heavily contested process, the International Olympic Committee has run into difficulty attracting qualified cities willing to host the Olympic Games. Since the 2008 global financial crisis, twelve cities have withdrawn bids due to local referendums or pressure from local groups over the rising costs of hosting the Games or a desire to spend public funds elsewhere. This has left only two candidates remaining by the time the vote was held in the last three award cycles, and three candidates the two cycles prior. In response, the IOC has created a new process focused on working with cities, regions, and even nations to develop host bids which are in line with ongoing policy and development goals, and which will leave a positive legacy after the Games. Using the 2012 Summer Olympic Games in London as a model, I examine whether these changes will be sufficient to deliver the IOC the host cities it is looking for; in short whether such cities are likely to find the new process worth their time and money.

While the changes the IOC has instituted are steps in the right direction, they are at some times in conflict with each other. The London model is not replicable in many cities, and does not address the fundamental underlying problem. The cost of Olympic Games have increased too much for many cities, and the IOC has lost some of its goodwill after decades of corruption scandals and delivering multiple Games where the most prominent legacy is massive venues without a clear future use. The IOC must not only work with local officials to create impacts that are in line with larger policy goals, they must also work with local communities to develop a desire to be Olympic hosts.

Thesis Supervisor: Karilyn Crockett
Title: Lecturer of Public Policy and Urban Planning
Department of Urban Studies and Planning

Reader: Andrew Altman
Title: Senior Advisor and Director of Global Partnerships
Norman B. Leventhal Center for Advanced Urbanism

ACKNOWLEDGEMENTS

This project was fueled by a love for the Olympic Games. It was inspired by a curiosity around what the Olympic Games will be like in the future, and how they might be improved. It also represented a chance to reflect on what I have learned these past two years at MIT. For all of their help, I am extremely grateful to:

My advisor Karilyn Crockett for her support, encouragement, and perspective throughout the thesis process.

My reader Andy Altman, for all of his insights into the London planning process and suggestions of people to connect with, places to visit, and documents to examine.

My friends in London and the United Kingdom, particularly Eden Hannam, Christina Perry, and Heather Proffitt, who acted as hosts, guides, and shared their experiences during the 2012 Summer Olympic Games.

Planning professionals who work or have worked in London, who took time out of their busy schedules to meet with me and discuss their projects with me: Altman, Kathryn Firth, Richard Sennett, Russell Butchers, Tom Cardis, and Simon Weaver.

The Olympians who first inspired my love of the Games: Carl Lewis, Mary Lou Retton, Greg Louganis, Joan Benoit, Karch Kiraly, Bart Connor, Florence Griffith-Joyner, Jackie Joyner-Kersey, Edwin Moses, Matt Biondi, Daley Thompson, and Sebastian Coe.

CONTENTS

Abstract	3
Acknowledgements	5
List of Figures	9
Introduction	11
Case Study of London 2012 Summer Olympic Games	
Planning	16
Outcomes	29
Efficacy of the Legacy Approach	
The Bidding Process	40
Policy Intersections	49
Exportability	53
Embracability	62
Conclusion	66
Appendix: Literature Review	68
Appendix: Methods	75
References	76

LIST OF FIGURES

- Figure 1: Queen's Market along Green Street in Newham. 17
- Figure 2: Stratford Station, combining local, national, and international rail connections, serves as the main entry point to Queen Elizabeth Olympic Park. 19
- Figure 3: London Stadium in January 2016 while still searching for a permanent tenant (left), and in July 2018 as home to West Ham United of the English Premiere League (right). 22
- Figure 4: London Legacy Development Corporation boundary (London Legacy Development Corporation 2014). 27
- Figure 5: The Copper Box Arena and Here East (upper left) and VeloPark and East Village (right) represent adaptive reuse of facilities, while new construction after the Games is ongoing in Stratford (lower left and right). 30
- Figure 6: The Lea River in 2009 (left) (Turner 2009) and in July 2018 (right). 31
- Figure 7: The splash pad is well used in the summer and references Atlanta's Centennial Olympic Park (left), while the Queen Elizabeth Olympic Park as a whole attracts tourists to its canals, active and passive recreation areas, and tourist destinations (left). 31
- Figure 8: An adventurer (left) prepares to go down the slide (right). 32
- Figure 9: Upton Gardens is under construction on the old West Ham United playing grounds (upper left); the bulk of the neighborhood is Georgian style terraced houses (upper right). New homes in Hackney across the canal from Here East (lower left), while down the street locals protest the explosion of luxury apartments (lower right). 34
- Figure 10: Here East (left), the former broadcast center, is now a tech hub; the area along the canal is now a successful series of restaurants and bars (right). 35
- Figure 11: Dame Zaha Hadid designed the London Aquatic Center; after the Games the seating was reduced but it can still host elite swimming events. Otherwise it operates as a community leisure center. 36
- Figure 12: Westfield Stratford City (left) and Stratford Shopping Centre (right). 37
- Figure 13: Corner of “the cut” (Lea Navigation Canal) and Hertford Union Canal in 1999 (left) and 2011 (right) (Dorley-Brown 2011). 39
- Figure 14: Barcelona retrofitted a stadium built in 1927 (left) as an iconic setting for the 1992 Summer Olympic Games; it continues to promote the Olympics at a museum next-door (right). 43
- Figure 15: Summer Olympic Games bid cities by region, for Games hosted 1896 to 2028. 1984, and 2020 each had one bid withdrawn, 2000 had three withdrawals, and 2024 had four (Games Bids n.d.) (Gold & Gold From A to B 2011). 43
- Figure 16: Winter Olympic Games bid cities by region, for Games hosted 1924 to 2026. 1980 had one bid withdrawal, 2022 and 2026 each had four (Games Bids n.d.) (Essex 2011). 44
- Figure 17: Turin had hoped to reuse the Olympic Stadium built for the 2006 Winter Olympic Games (left), but after withdrawing from a joint bid the Italians plan on staging the Closing Ceremonies in Verona's Arena (right) if they win the 2026 Winter Olympic Games. 51

Figure 18: Barcelona's Olympic Marina (left) is now a busy commercial site; the Olympic Village was converted into semi-detached homes, with the swoosh from the 1992 Summer Olympic Games logo still visible above each home (right). 55

Figure 19: Turner Field in 2005; The Braves abandoned the stadium they received for free after 20 seasons. 56

Figure 20: Atlanta's Centennial Olympic Park is one of the positive legacies of the Games; the Olympic Rings splash pad (right) (Guillory 2015) is one of the most loved features. 58

Figure 21: The Canoe/Kayak Stadium (left) (Bicanski 2014) and baseball stadium in Hellenikon (right) (Karahalis 2014) used in the 2004 Summer Olympic Games in Athens were abandoned after the Games. 59

Figure 22: Rio's Olympic Park was full of people during the Paralympic Games in September of 2016 (left), but Aquatic Center sits abandoned only six months after the Games (Tama 2017). 59

INTRODUCTION

“[T]he Olympic Games are always about competition and individual excellence, but they are also about the host city and how it feels about itself” (NBC 1996).

- Bob Costas, 1996 Olympic Summer Games Opening Ceremonies, Atlanta

Something has gone wrong in the Olympic Movement; cities which are no longer entering into fierce bidding wars to obtain the right to host the games. The IOC has instituted a number of changes in their process in order to address this, and key among them is a commitment to delivering a positive Olympic Legacy. While these changes are a step in the right direction, I argue they do not go far enough.

Hosting major international sporting events were until recently seen as a point of prestige, despite bribery scandals, cost over runs, and criticisms of social injustice. However, cities in democratic, economically-developed countries are reconsidering the value of hosting in the age of the austerity budget and as they grapple with ideas like the “Right to the City” and social equity. Facing declining interest from qualified potential host cities, the International Olympic Committee (IOC) has redeveloped its selection process to reduce costs, work as a partner with interested bidders, and to focus on the legacy that the Games will leave behind. Is this a viable framework for the IOC? For the cities themselves?

The IOC is a multi-billion dollar non-profit dedicated to athletes and sporting organizations around the world. Primarily funded through the sale of broadcast rights and sponsor fees, they distribute over 1.2 billion U.S. dollars annually to sports at all levels. Their stated goal is to make the world a better place through sport (International Olympic Committee 2019). The organization is governed by a foundational document, now called the Olympic Charter, most recently updated in 2018. The IOC’s stated fundamental principles call placing sport at the center of a peaceful society, “based on the joy of effort, the educational value of good example, social responsibility and respect for universal fundamental ethical principles” (International Olympic Committee 2018). What they are most known for is overseeing the Summer and Winter Olympic Games.

The IOC sets a series of requirements for the Games, and selects the host of each iteration (who also hosts the Paralympic Games). The actual planning and operation of the event is largely left to the local organizing committee. Evaluating and selecting host cities is the most vital role the IOC has in the outcome of each Games. While the IOC can step in and withdraw the award if a city

falls too far behind schedule (something that it has never done) or find a new host if the original choice backs out (which has happened twice), for the most part the IOC must live with its decision for better or for worse.

The process of selecting an Olympic host city has evolved over the decades since Baron Pierre de Coubertin first called together the IOC in 1894. The earliest sites were hand-selected by the IOC, but a competitive bidding process emerged as early as the IV Olympiad, hosted in 1908. Seventy cities have submitted bids in total, with soon-to-be three-time host Los Angeles leading the way with ten total bids. The IOC received a robust number of bids from the 1992 through the 2016 Summer Olympic Games process, but has seen a precipitous drop in interested cities since, with many high-profile candidates withdrawing their bids.

Olympic Games bids have often been criticized as a waste of tax payer dollars, for putting cities into massive debt, displacing poor residents, or creating massive arenas with no plan for future use (often called “white elephants”); some bids have gone out of their way to address or minimize such concerns. Cost and equity concerns were both high on the international communities’ radar when a corruption scandal came to light during the lead up to the 2002 Winter Olympics in Salt Lake City. The 1999 scandal revealed how some potential hosts were bribing International Olympic Committee (IOC) voters, and prompted the largest structural changes the organization had ever seen (S. Wilson 1999).

The IOC seemed to have weathered the bribery scandal well. The 2012 Summer Olympic Games drew nine bids, and 2016 drew seven bid cities by its 2007 deadline. However, the world financial crisis of the following year appears to have negatively impacted the bidding process. Teresa Jowell, then the British Minister for Culture and Media, reportedly said at a November 2008 dinner, “Had we known what we know now, would we have bid for the Olympics? Almost certainly not” (Reuters 2008). It became evident early on that the Great Recession would force many cities and national governments to rethink their support for hosting the Games. The 2020 Summer Olympic Games drew only six bids, of which Rome was forced to withdraw when the Italian government declined to financially support the bid, and Baku and Doha saw their bids rejected by the IOC as inadequate, leaving only three candidate cities. Twelve more cities over the past five years have withdrawn bids in the face of proposed or held referendums or other funding priorities, compared to only eight withdrawals under similar situations in the previous fifty years (Games Bids n.d.). This crisis in quality bidders was likely caused by austerity budgets, the alarming number of “white

elephants” spawned by recent Games, and sky-rocketing costs. It appears to have been a catalyst for overhauling the entire bidding process.

In 2014, the IOC took the entire year to reconsider its future, producing a set of forty recommendations in a plan called *Olympic Agenda 2020: 20+20 Recommendations*. IOC President Thomas Bach argued that the organization needed to institute changes “because sport today is too important in society to ignore the rest of society.” He cited political, financial, and health crises, as well as terrorism and war as driving factors for change (International Olympic Committee 2014, 2-3). This was followed in 2016 by the Olympic Winter Games Strategic Review Working Group which developed further guidelines, *The New Norm*, 118 recommendations to reduce the environmental, and financial impact of hosting (International Olympic Committee n.d.)

The *Olympic Agenda 2020* passed unanimously in December 2014, and marked the most sweeping changes to the Olympic movement since the bribery scandal. The reforms address a number of issues, from including sexual orientation in the IOC’s non-discrimination pledge to allowing hosts to add in sports popular in their country but not among the 28 approved Olympic sports. But the biggest cultural shift is in how bids are handled in the wake of a reported 51 billion U.S. dollars spent in Sochi leading up to the 2014 Winter Olympic Games (Associated Press 2014).

Concern over the lack of quality bidding candidates must have also been a driving factor for the IOC creation of the *Olympics Agenda 2020*; the first three recommendations all focus on the bidding process. The document calls for “a new philosophy to invite potential candidate cities to present a project that fits their sporting, economic, social and environmental long-term planning needs” and a goal of reducing the cost of bidding (International Olympic Committee n.d., 3).

There is an effort to make the bidding process and the act of hosting a better experience for cities. The new process attempts to reign in skyrocketing costs and minimize unwanted venues. Christophe Dubi, the IOC’s Olympic Games Executive Director, told Curbed “[w]e can’t afford any more white elephants, where we push cities to build projects they don’t need. It’s too damaging for the cities, host communities, sports, and the Olympic games.” The 2004 Summer Olympic Games in Athens and the 2016 Summer Olympic Games in Rio are examples of overbuilding, with venues that failed to transform their cities or find a sporting use after the Games (Sisson 2018).

The bidding process now includes a consultation period (or “dialogue phase”) and requires bidding cities to consider their “Olympic Legacy”. Interested cities participate in IOC workshops, attend the Olympic Games held eight years prior to the one they are bidding on as an observer, and determine how they want their bid to leave an impact on their city. The IOC conducts its own

research on the viability of each bid, and invite qualified potential hosts to apply as candidates. Candidate cities are evaluated through their submitted documents and site visits by IOC members. The vote is held six to seven years prior to the Games over multiple rounds, with the lowest vote getting city removed after each round, until one bid has more than 50% of the votes (International Olympic Committee 2017).

The IOC states that their games “have the power to deliver lasting benefits which can considerably change a community, its image, and its infrastructure” (International Olympic Committee 2013, 6). The IOC goes on to enumerate five categories that legacy generally falls into: Sport, Social, Environmental, Economic, and Urban (International Olympic Committee 2013, 9). According to the IOC, legacy is about extending the benefits of the Games beyond the 17 days of competition. These may include:

- Training centers and facilities used to improve the performance of athletes
- Increased enthusiasm for less popular sports
- New diplomatic relations and improved dialogue between countries
- Enhanced professional skills and career opportunities
- New cultural heritage assets
- Growth of the volunteering movement
- Innovative design and visual arts
- Increased global visibility for cities
- Upgraded urban parks and leisure areas

Then IOC President Jacques Rogge stated in a 2002 speech, "The Games are more than just an important sporting event. Aside from the dreams and achievements of young athletes, the Games provide a setting for champions to sow the seeds for future generations, and also enshrine the social responsibility of ensuring that the host cities bequeath a positive legacy. The IOC is firmly committed to guaranteeing that this legacy is as positive as it can possibly be" (International Olympic Committee n.d.). With the *Olympic Agenda 2020*, it appears the IOC is finally putting policies in place to match these sentiments.

Even though these changes were introduced in time for the bidding process for the 2024 Summer Olympic Games, they did not fully bring out the desired impact. 2024 initially had five bid cities, but Boston, Budapest, Hamburg, and Rome all withdrew their proposals. Los Angeles was added as a replacement, and along with Paris completed the two total bid cities. For the first time in

a century, the IOC awarded each city an Olympics, granting Paris the 2024 Summer Olympic Games and Los Angeles the 2028 Summer Olympic Games. The bidding process for 2028 had not even started. The new process is currently being applied to the 2026 Winter Olympic Games bids.

Despite the early stumble, are the proposals an effective way to meet both the IOC goals and the needs of the cities it wishes to court? A great deal has been written about mega event hosts under the previous paradigm, and while their warnings of undesired legacies should still be heeded, how do we judge a new era where the legacy of these events are planned out from the bidding process? Can hosting these events be used to promote equitable development, such as affordable housing, transit to underserved communities, access to public space, and employment opportunities? I believe an examination of the 2012 Summer Olympics in London can hold some answers. While held prior to the Olympic Agenda 2020, these games were the first to build a legacy component into their bid, and created a separate legacy corporation that continues to oversee planning in the area in and surrounding Queen Elizabeth Olympic Park.

CASE STUDY OF LONDON 2012 SUMMER OLYMPIC GAMES - PLANNING

The IOC has written a number of forward-looking documents that stress the importance of creating an “Olympic Legacy,” including a new strategic document in 2017 (International Olympic Committee 2017). While the IOC likes to highlight the legacy successes of several different iterations of the Games, the one they point to that most fully embodies the legacy concept as they are promoting it is the 2012 Summer Olympic Games held in London (International Olympic Committee 2017). It is still perhaps too soon to fully assess the legacy these Games will leave, but enough time has passed to examine some of the aspects of that legacy.

Great Britain, host of the 1908 and 1948 Summer Olympic Games, both in London, had been interested in hosting the Games again for decades. Bids by Birmingham for the 1992 and Manchester for the 1996 and 2000 Summer Olympic Games ended in the second or third round of voting (Games Bids n.d.). While some speculated that polarizing Prime Minister Margaret Thatcher harmed these bids chances (Booth 2011), the lesson others took away was that if Britain were to host the Games again it would have to be in London (London Organising Committee of the Olympic Games and Paralympic Games Limited 2004).

London in 2012 became the first host to include a formal legacy component in its plan, although Barcelona in 1992 also used the Games to spur urban regeneration and a few other hosts had also been mindful of economic waste, adaptively reusing many previously built sites, and developing in areas which could continue to use the facilities for decades after the games. I would argue that the entirety of the London 2012 bid was dedicated to the legacy. Ken Livingstone, Mayor of London when the city launched its campaign, said: “I didn't bid for the Olympics because I wanted three weeks of sport. I bid for the Olympics because it's the only way to get the billions of pounds out of the Government to develop the East End. It's exactly how I played it to ensnare the Government to put money into an area it has neglected for 30 years” (G. A. Davies 2008).

The majority of the Queen Elizabeth Olympic Park (including London Stadium and the Aquatics Centre) and Stratford City lie within the London borough of Newham, specifically in what was once West Ham (London Legacy Development Corporation 2014). Newham was created in 1965 when West Ham and East Ham were merged to create the new borough. As far back as 1371, West Ham was a site designated for uses that were not desired in the city proper, with Stratford designated as one of two abattoirs for London. The 1844 *Building Act* banned noxious industrial uses within London's city limits, and West Ham was not yet annexed by the city. As the closest

locality east of the city limits, it received the bulk of these industries. The population grew from 12,000 in 1841 to 263,000 (roughly the population of Newham today) in 1901. The South of West Ham was redefined with the construction of the Royal Docks in the late 19th and early 20th century, attracting a labor pool of casual dock workers.

Throughout this time West Ham residents worked low wage jobs, but a tipping point came in the 1960's when modern deep water docks were built 20 miles downstream and London shed 150,000 docks-related jobs. Many of those who could afford to leave Newham did, leaving behind an economically strapped population later supplemented by recent immigrants (Armstrong, Giulianotti, & Hobbs 2017). Newham was predominantly working class and White until the 1990's, but today is the most diverse locality in the United Kingdom, with over 70% of the population Black or a minority ethnicity (Partington 2017). Walking around Newham today one finds cultural and spiritual centers for Sikhs and Muslims intermixed with the centuries old churches. Residents shop at discount retail outlets and an outdoor market under a parking deck.



Figure 1: Queen's Market along Green Street in Newham.

On the East side of the Park, Hackney was also a major industrial center. It was here that petrol was refined for the first time and plastic was invented. The whole area had decades of contamination in the soil and the waterways (Stanley 2012). At the time of the bid, the designated host site in the Lower Lea Valley was one of the lowest ranking areas of the United Kingdom in several categories, from life expectancy to youth participation in education and employment. East London as a whole was hard hit by the deindustrialization of the 1980's, building on the job losses when the dock work moved. The national government tried several plans to revitalize the area, including Canary Wharf, a second financial center in the Docklands. Despite the wealth generated at Canary Wharf, the rest of East London did not share in the benefits. Several other projects targeting the area focused only on physical renovation, and not directly on larger socio-economic concerns. London Mayor Ken Livingstone and the leaders of the five boroughs of East London all supported the Olympic bid as a means of correcting those oversights (Brown, Cox, & Owens 2012).

From the onset, London committed to creating long-term benefits for hard-pressed communities, not as an after effect, but as a primary driver for bidding on the Games. The bid included training facilities that can be used by the community for sports development. Benefitting the community through regeneration was one of the five themes highlighted in London's bid (London Organising Committee of the Olympic Games and Paralympic Games Limited 2012).

The Olympic Park will be created in the Lower Lea Valley, 13 km east from the centre of London. This area is ripe for redevelopment. By staging the Games in this part of the city, the most enduring legacy of the Olympics will be the regeneration of an entire community for the direct benefit of everyone who lives there. The Olympic Park will become a hub for east London, bringing communities together and acting as a catalyst for profound social and economic change. It will become a model of social inclusion, opening up opportunities for education, cultural and skills development and jobs for people across the UK and London, but especially in the Lea Valley and surrounding areas. The new facilities in the Olympic Park will be open to the whole community, not just elite athletes. This will lead to more opportunities for everyone to participate in sport and physical activity. This will create a more inclusive, more active community, leading to a fitter society and reducing health inequalities (London Organising Committee of the Olympic Games and Paralympic Games Limited 2004, 19).

This commitment to the regeneration of East London was not a ploy to generate community support or a hollow promise that was deemed easily expendable if time or budget constraints made fulfilling it more difficult. There is some room for debate on how successfully various policies have been implemented, but the political will to improve East London has not wavered. A report in 2011 found that the aspirations first stated in 2003 had remained consistent throughout the process, and if anything they had become more evolved or better articulated (Smith, Stevenson, and Edmundson 2011). This remained true even as the local and national governments switched from Labour to Conservative (L. E. Davies 2012).

In London's bid book for the Games, it promised an enduring social, environmental, economic, and sporting legacy. It was developed in line with the Mayor's plan for London, which called for the Stratford area of East London to be transformed into a European business quarter, with a significant amount of new housing (London Organising Committee of the Olympic Games and Paralympic Games Limited 2004).



Figure 2: Stratford Station, combining local, national, and international rail connections, serves as the main entry point to Queen Elizabeth Olympic Park.

In order to garner public support for the bid, hosting the Games was pitched as a way to speed up and make more ambitious the Mayor's plan for redevelopment in East London, which included cleaning up brownfield sites and creating mixed-income communities tied to transit-oriented development. The Games would also be used to spur an economic regeneration of what the candidature file called "London's poorest and most disadvantaged area." Other community benefits promised included improvements to health, education, job opportunities, housing, social integration, the environment, and accessibility. Economic benefits not only included a jobs creation forecast, but a promise to educate and develop laborers in the Lower Lea Valley in order to end the cycle of deprivation in the community. Other specific call outs included 3,600 new units of housing once the Olympic Village was converted, and 200 hectares of new park land (London Organising Committee of the Olympic Games and Paralympic Games Limited 2004). Originally some of the housing was intended to be set aside as affordable for public service professions like teachers and medical staff (London Organising Committee of the Olympic Games and Paralympic Games Limited 2004).

An initial assessment conducted by engineering firm ARUP estimated that the cost of hosting the Games would be 2 billion pounds. After a feasibility study, the budget increased to 2.75 billion. The bidding process required the UK government to commit to fund required transportation upgrades, and if selected budget overruns, regardless of cost (Brown et al 2012). The 2012 bidding process received particular scrutiny, because it was occurring during the lead up and hosting of the 2004 Summer Olympic Games in Athens, where delivery of venues was behind schedule (Brown et al 2012).

One drawback to the London bid was the existing governance structure, and the many opportunities for disagreements between entities to arise. The national government controls the bulk of government expenditures, while the Greater London Authority (GLA) controls transit in Greater London and sets a planning framework for the metropolis, and 32 local boroughs and the City of London (one square mile in the heart of the city) all have control over local planning decisions. The proposed Olympic Park straddled four different boroughs (Hackney, Newham, Tower Hamlets, and Waltham Forest), all of which had to sign off on the bid proposal. These local planning authorities worked with the GLA to produce two planning options, one with and one without the Olympic Games (Brown et al 2012). Additionally, the organizers needed to merge a community-driven democratic planning process that would ensure local buy in with a top-down

autocratic one necessary for delivering the Games on time as promised, all under intense media scrutiny (Davis & Thomley 2010).

After London was awarded the Games, a review determined that the budget had been drastically underestimated, and it was increased to 9.3 billion pounds (Brown et al 2012). Other changes included a shift to fewer homes created from the athlete village, and more privately funded homes built on the Olympic site. This is partially due to a shift towards more family homes and fewer high-rise apartment buildings geared at attracting new middle class residents to the area (Smith et al 2011).

Once the 2012 Summer Olympic Games were awarded to London, organizations needed to be created to manage the Games. The Olympic Delivery Authority (ODA) was created by special statute and would use public and private funds to construct the necessary venues for the Games. The London Organising Committee for the Olympic Games (LOCOG, later the London Organising Committee of the Olympic Games and Paralympic Games) was created to run the event and collect revenue from ticket sales, local marketing agreements, and television rights. It would be jointly owned by the national government and the Mayor of London. Beyond these official structures, the five “Olympic Boroughs” (the four surrounding the Olympic Park plus Greenwich on the other side of the Thames) formed a new administrative body called the Host Borough Unit to meet with the elected leaders of the five boroughs and the Mayor of London to coordinate positions on Olympic-related issues, especially regarding legacy outcomes, including local retention of future land sales and housing development. The Host Borough Unit, ODA, and London Development Authority (LDA) agreed upon a legacy framework in 2008 which included 40,000 new homes and 50,000 new jobs (Brown et al 2012).

Of course the development would bring with it other costs beyond the budgeted price tag. A compulsory purchase order was approved by Parliament and instituted in 2006 to assemble the land for the Games. This included the removal of local businesses providing around 5,000 jobs and 1,500 (low quality) homes (Davis & Thomley 2010). The residents of those homes represent people directly displaced by the Games, some of whom argued that they were excluded from the benefits the organizers were promising. There was also the threat that rising rents and home prices would indirectly displace even more residents (Watt 2013). These are questions which are evoked by all development, but even more so when billions are being spent.

Local businesses were given a firm deadline of July 2007 to relocate. Most businesses relocated quickly without much opposition. The LDA offered assistance in moving to nearby

London Thames Gateway, LDA-owned sites, or other sites on the open market. The LDA also offered technical assistance to help informal businesses formalize. The LDA reports that the relocation process was to everyone's satisfaction, but discounts that many may have chosen not to relocate at all. The LDA made compensation offers based on pre-Olympic land prices, while acknowledging that land prices were likely to rise in the wake of the Games. In fact commercial rents rose almost immediately in the surrounding area. Residents who criticized the process were generally in favor of urban regeneration at the site, but faulted the speed in which the process was handled and delays in receiving compensation. The national government announced it spent 750 million pounds on land acquisition tied to the Games, but press reports have disputed this figure as being below actual costs (Davis & Thomley 2010).

As plans progressed, it became clear a new entity needed to exist to oversee who would own and manage the Olympic sites after the Games. Tom Russell, who had overseen urban regeneration in East Manchester tied to the 2002 Commonwealth Games, was initially hired to develop an organizational structure that would be separate from the LDA to manage legacy issues (Brown et al 2012). Russell created a legacy masterplan framework looking forward 30 years after the Games, but was relieved of his position by newly elected Mayor of London Boris Johnson when he failed to find a post-Games tenant for the Olympic Stadium and publicly announced the venue should be torn down and a smaller football or rugby stadium built in its place at a cost of at least 300 million pounds (Beard 2009).



Figure 3: London Stadium in January 2016 while still searching for a permanent tenant (left), and in July 2018 as home to West Ham United of the English Premier League (right).

In May 2009, the Olympic Park Regeneration Steering Group (OPRSG) was created, chaired by the Mayor of London and the Minister for the Olympics, and with representation from the host

borough leaders and the Lea Valley Regional Park Authority. Together these organizations developed two master documents: the Legacy Masterplan Framework (LMF) dealing primarily with the built environment, and the Strategic Regeneration Framework (SRF) dealing with social goals (Brown et al 2012).

The LMF was published in 2009 by the LDA. While detailed, the plan was meant to be illustrative of potential post-Games uses and strategic partners, while stressing the need to be flexible in the face of future changes in political or economic cycles (Davis & Thomley 2010). A few venues saw their location change over the course of planning, including the Athlete Village, which moved closer to Stratford City and the International Broadcast Center which moved from the south end of the park to Hackney Wick and became the focus of Hackney's regeneration plans for after the Games (Smith et al 2011).

The SRF was published in October 2009 with the support of the five host boroughs. Its stated goal was to end the socio-economic gap that has characterized East London for over a century. At the time of the report, the Host Boroughs featured an employment rate 6% lower than the London average, overcrowding at two to five times, a 20% higher violent crime rate, lower educational attainment, and higher rates of premature death and childhood obesity than the city as a whole. The SRF wanted to address not only these indicators of deprivation, but their root causes as well. This can only be achieved by all of the borough leaders working together with the Mayor of London, and a clear and ambitious plan (Greenwich, Hackney, Newham, Tower Hamlets, Waltham Forest 2009).

The SRF highlighted how the Olympic Games will be a symbolic announcement of the rejuvenation occurring in East London, as well as bring about several direct, tangible improvements to the area. Direct improvements included new housing, transportation links, sports and recreation areas, and jobs, in addition to the physical regeneration of polluted and contaminated land. It was also believed the Games would inspire enthusiasm for sports and community building. The OPRSG felt that while the Games would be a catalyst for socio-economic regeneration in the region, they would not be sufficient to achieve these goals. The OPRSG hoped that "[t]he true legacy of 2012 is that within 20 years the communities who host the 2012 Games will have the same social and economic chances as their neighbours across London" (Greenwich, Hackney, Newham, Tower Hamlets, Waltham Forest 2009, 2). They called this process "convergence" (Greenwich, Hackney, Newham, Tower Hamlets, Waltham Forest 2009, 1).

The SRF is an ambitious plan to reduce a number of social inequalities in East London. The plan identified twelve critical steps to be enacted by 2015 in order to achieve convergence. These focused on creating collaborative systems that could manage services and share knowledge across existing boundaries, and developing improved housing, public space, and job training. Each point was designed to improve a particular aspect of residents' lives. It set goals to be achieved in the short term (five years out), and a framework for developing future goals in the long term. It concluded with a detailed action plan, identifying lead agencies and organizations, close partners, and desired outcomes for each action (Greenwich, Hackney, Newham, Tower Hamlets, Waltham Forest 2009).

Rather than existing as a static document, the SRF was revisited in annual reports and in the Convergence Framework and Action Plan 2011-2015, written by the now six Host Boroughs (with the addition of the borough of Barking and Dagenham). These later documents placed the goals into three new themes: creating wealth and ending poverty; supporting healthier lifestyles; and developing successful neighborhoods. The Convergence Framework and Action Plan 2011-2015 called out key measures and indicators, as well as concrete actions and short-term goals (Barking and Dagenham, Greenwich, Hackney, Newham, Tower Hamlets, Waltham Forest 2010). Critics of the plan argue it relies too heavily on developing the built environment and on private sector participation to succeed (Davis 2015).

The Olympic Park Legacy Company (OPLC) was also established in May of 2009 as an entity owned equally by the national government and Mayor of London. Dame Margaret Ford was named Chair, she was formerly Chair of English Partnerships, the group charged with finding a use for the Millennium Dome in Greenwich, and a managing partner at the Royal Bank of Canada. Andrew Altman, previously the First Deputy Mayor for Planning and Economic Development of Philadelphia, was named the CEO (Brown et al 2012).

Altman, who came onboard in August of 2009, appointed Kathryn Firth to be the Chief of Design and Paul Brickell as Executive Director for Regeneration and Community Partnerships. Altman left after the Games, and Firth left in 2016, but Brickell continues to hold his post (Altman 2019). The OPLC continued to focus on integrating the park with the surrounding community, but also wanted to create a destination that would draw visitors from London and from around the world. It also reconsidered possible uses for the Olympic Stadium (Davis & Thomley 2010). Eventually West Ham United, an English Premier League football club, and the borough of Newham would be the preferred tenants (Smith et al 2011).

Altman thought it was important to connect and leverage organizations, he did not want the OPLC (now the LLDC) to be an operator except for managing Queen Elizabeth Olympic Park itself. The scope and scale of the project meant there were no previous models to entirely replicate, and Olympic precedents were not particularly helpful beyond how Barcelona reused the Olympic Village as family housing. Altman spent six months understanding London parks, how they were operated and how they were used by the public. He used the KCAP designed HafenCity in Hamburg, New York's Battery Park City, Paris along the Seine, and terraced housing in London as inspiration. One chief concern was that the area not become an island or separate authority disconnected from the rest of London (Altman 2019).

When Altman took over, the existing masterplan was reviewed and revised. He conceived the plan as a platform for the city's growth, and understood that the vision only mattered if it was well executed. More emphasis was placed on family housing, variation on building heights (low rise homes as well as tower blocks), and a defined separation in park zones (pastoral in the north, structured in the south). Uses still had to be determined for many sites, requiring a balancing of community needs and the willingness of paying tenants to take over maintenance (Altman 2019).

Altman felt that it was important to engage with as many people as possible, both through formal mechanisms like the OPRSG and in informal meetings with local cultural, social, and government groups. While he was principally focused on the built environment, he also keyed in on job training and opportunities. He invited "social enterprise" to operate within the park, and paid attention to local hiring quotas, and ensured pricing was geared towards locals (Altman 2019).

One of the first new developments began while London was still in the bidding phase, with plans submitted in 2004 and ground broken in 2007. Australian developer Westfield began building a site at Stratford City, immediately in between multiple rail lines connecting to London, Essex, and Europe and the Olympic Stadium. The plan included nearly 5 million square feet in office space, housing, and a shopping mall that would rival London's other retail hubs (Davis & Thomley 2010). The OPLC reached an agreement with Westfield that they would develop a retail training academy on site, and have a commitment to hire local workers and guarantee an employment ladder that would develop employee skills (Altman 2019). It is certainly a benefit to Westfield that anyone arriving at Stratford Station must pass through the shopping mall en route to the Queen Elizabeth Olympic Park and the London Stadium.

As the United Kingdom general elections drew closer, Mayor Boris Johnson began advocating for a variety of new powers for the GLA and Mayor of London, including a new

government structure called a mayoral development corporation (MDC). MDCs have complete planning and compulsory purchasing powers over a designated area, and be answerable directly to the mayor. The *Localism Act 2011* passed Parliament and enabled the creation of such bodies by the Secretary of State at the request of the mayor. In April 2012 the London Legacy Development Corporation (LLDC) was established, inheriting the personnel and portfolio of the OPLC, plus some of the areas around the Olympic Park to ensure the redevelopment would blend in with the surrounding neighborhoods. Once the Games ended, the LLDC received full planning authority (Brown et al 2012).

The importance of the MDC should not be underestimated. It is a powerful tool to bring together numerous powers that would normally be dispersed among multiple planning authorities. To date the legislation has only been used twice; to create the LLDC in East London and the Old Oak and Park Royal Development Corporation in West London. The latter is tasked with planning the district around a new high-speed rail terminus connecting London to points west and north of the city, and has a much smaller scope than the LLDC. Both MDCs bring together people from various departments within the GLA (including planning and transit officials) as well as local representation (Cardis 2018).

Once the Games ended, the LLDC was responsible for removing temporary structures, retrofitting permanent structures, and relandscaping areas within the park. The LLDC also works with development partners to deliver on legacy promises. While the LLDC has final planning authority over all of the territory within its boundary and is technically only answerable to the Mayor of London, there is a sensitivity to local perspectives. The leaders of the four boroughs which the Queen Elizabeth Olympic Park covers each sit on the Planning Committee (Butchers 2018).

The LLDC Local Plan includes four sub areas: Hackney Wick and Fish Island; North Stratford and Eton Manor; Central Stratford and Southern Queen Elizabeth Olympic Park; and Bromley-by-Bow, Pudding Mill, Sugar House Land and Mill Meads. Each borough is consulted on planning applications that are within their territory, and any decisions on major applications are made with input from the relevant borough through both elected officials and with input from Council officers. The current local plan runs from 2015 to 2021, and promises 24,000 new homes, 40,000 new jobs, five retail centers and six new schools. While the mayor can dissolve the MDC at any time, the LLDC projects that it will return planning authority back to the boroughs by 2023 (Butchers 2018).

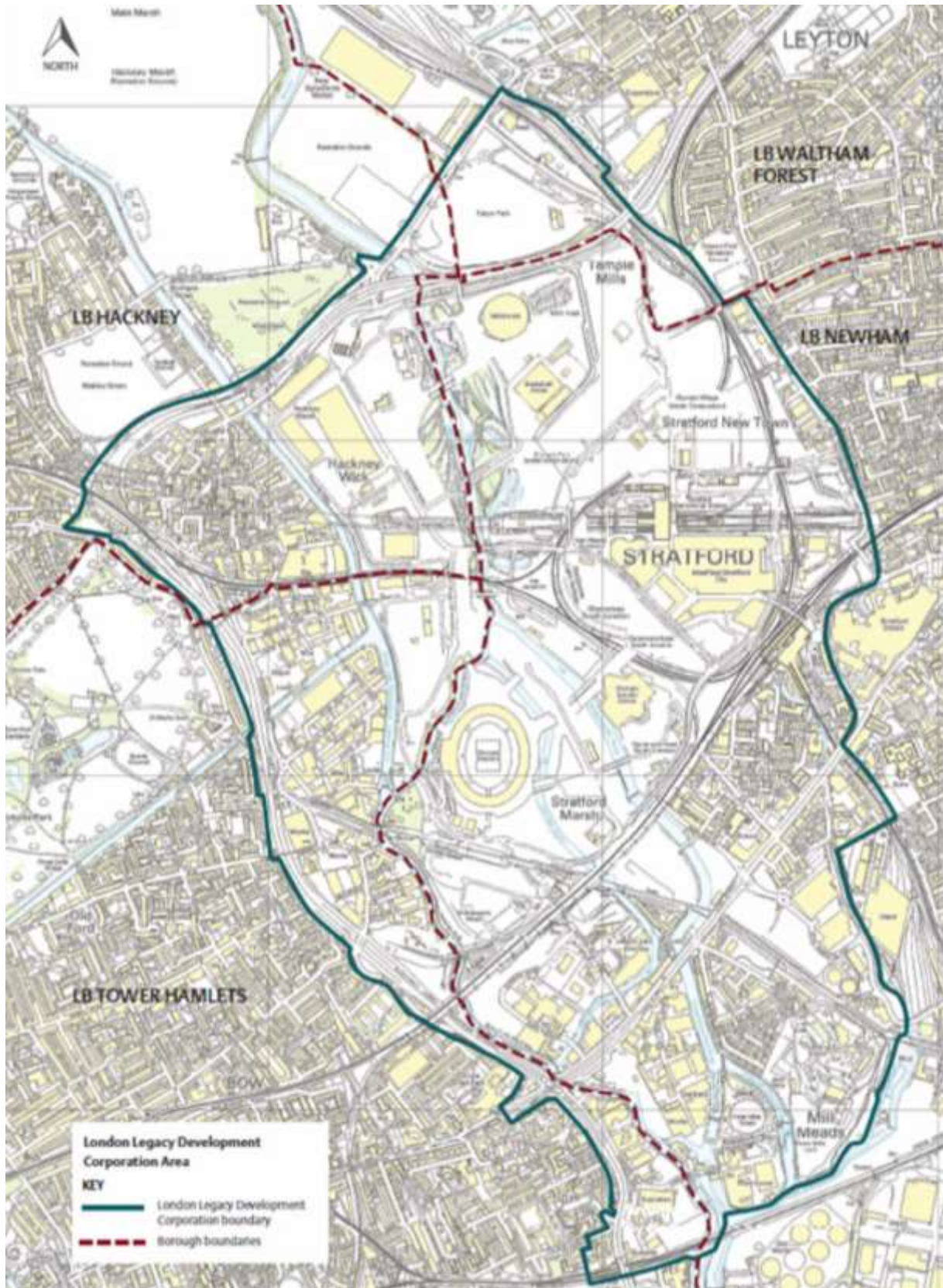


Figure 4: London Legacy Development Corporation boundary (London Legacy Development Corporation 2014).

Kathryn Firth joined the OPLC in the fall of 2011 as Chief of Design. With the design for the Olympics already complete, Firth was bound in some decisions but was able to transform a considerable amount. One of her main goals was that the communities would become integrated with their surroundings over time. The park needed to be both a destination and a set of neighborhoods, with a constant influx of people who don't live there, yet it also needed to feel livable for the residents. A decision that land would not be sold off, but developed in partnership between the LLDC and private developers meant the LLDC had a great deal of control over design guidelines, from streetscapes to neighborhoods. She headed a Design Review Committee which reviewed all plans for quality, sustainability, accessibility, and other standards, and provided recommendations to the Planning Committee (Firth 2019).

Previous designs for the legacy developments were criticized for not feeling like London. Firth didn't want to turn back the clock and produce Georgian or Victorian era housing, but she wanted to make sure that in the new neighborhoods things like building heights and massing, street proportions, and open spaces felt like other London neighborhoods. She wanted to ensure a mix of housing costs, employment, and uses. Community amenities like schools were placed at the edge of these new neighborhoods, so that their catchment areas would include new and older residents. Some of the internal streets are maintained by a local housing association, and Firth wanted to make sure even privately maintained open space feel like public realm, that it all feel inclusive (Firth 2019).

Firth incorporated the idea of inclusivity and community focus at every level. She tried to hire younger design firms when possible, and local operators for concessions. Developer partners had to commit to apprenticeship programs to aid in workforce skill development for local residents. Firth was very proactive about accessibility for people of all abilities, and created a Built Environment Access Panel. In addition to a variety of incomes and abilities, Chobham Manor was developed as a Multigeneration community. She pushed for buildings to have higher first floors to accommodate retail uses. Firth also focused on sustainability of the sites, using LEED type targets, incorporating things like bicycle parking at all housing, sustainable urban drainage, and low water usage fittings (Firth 2019).

Firth is clearly proud of what the OPLC and LLDC have accomplished. The new housing is near the velodrome is good urban housing, and the park offers a variety of types of recreation, including an apple orchard. She recognizes that the East Village (designed before her arrival) key road was not developed as well as it could have. This is the main street connecting the east and west sides of the park, and could have been retrofitted to allow more than just housing (Firth 2019).

CASE STUDY OF LONDON 2012 SUMMER OLYMPIC GAMES - OUTCOMES

With this abundance of planning and investment, how has the legacy evolved in the seven years after hosting the Games? With such an ambitious agenda there is no one answer, and there is still time for aspects of the legacy to evolve. London's Olympic Games Impact study, conducted by the University of East London, tracked 67 indicators across a decade beginning with the award of the Games in 2005. It found that London met many of its short-term goals, including ,massive rail infrastructure investment in East London, developing the Queen Elizabeth Olympic Park as a major cultural and natural asset, securing tenants for all permanent venues built for the Games, commitment to sustainability, and an increase in top athletes from Britain. It also indicates that longer-term goals are being addressed, including the reduction in poverty and social exclusion rates and an increase in the percentage of disabled persons who are economically active in the Host Boroughs. The report was inconclusive on any increase in sports participation. No areas were rated as having a negative impact on the community. The report also included a GLA poll conducted one year after the Games where 61% of respondents felt that hosting the Games was a good value for the money (as opposed to 31% who felt it was not). Polls also show residents of the United Kingdom felt more positively about hosting after the Games than before, increasing from around 60% before the games to 76% afterwards (University of East London 2015).

In this section I will examine the legacy impacts on the built and natural environments, housing, sports, and social economic factors. It is still too early for a full evaluation of this legacy, as both housing and commercial buildings are still under development. The United Kingdom conducts a decennial census in years ending in one, so a full demographic study of the Host Boroughs will not be available until after the 2021 census.

There has been a great deal of urban rejuvenation in and around the park; Westfield Stratford City, tower blocks and low-rise housing; and commercial towers are all very active and well connected by the improved transit connections. Local bus journeys have increased 56.1% from 2003 to 2015, and local rail journeys increased 38.9% over the same period. This is a reflection of the increase in bus routes and rail miles added to the London Underground and Docklands Light Rail (University of East London 2015). One criticism of the post-Games legacy is the reliance on private investment (L. E. Davies 2012). The Olympic site attracted nearly 9 billion pounds in private investment between 2005 when London was announced as host, and 2013 (Newham 2013). Fears that Brexit might scare off investors have so far not materialized, at least in the rental residential

market which saw record investment levels for the first quarter of 2019, including North American investment in Hackney and Stratford (MacFarlane 2019).



Figure 5: The Copper Box Arena and Here East (upper left) and VeloPark and East Village (right) represent adaptive reuse of facilities, while new construction after the Games is ongoing in Stratford (lower left and right).

The Westfield mall is crowded with shoppers at all times of day and year. It houses 348 retailers, 80 dining options, three hotels, and entertainment sites such as a 20-screen movie theater, the largest bowling alley in the UK, and the largest casino in London. It draws 50 million shoppers per year (Unibail-Rodamco-Westfield n.d.). In 2018, the shopping center posted 1.19 billion pounds (over 1.5 billion U.S. dollars) in retail sales (Westfield Corporation n.d.). In March of 2019, Westfield signed a deal for a 750 million euro housing project that will create 1,200 new homes (Unibail-Rodamco-Westfield n.d.).

Environmental remediation has produced several successes, while leaving other areas for improvement. Of the environmental indicators that the IOC asked London to monitor from the start of their bid in 2003 until 2015, the impact study conducted by the University of East London

found all areas improved or remained flat over those years. Successes include improvements to solid waste and waste water treatment, the delivery of public open-air leisure areas, and transport networks. Other areas were mixed; the River Lea and its canals were cleaned up of rubbish, and many vertical canal walls were replaced with reed-filled banks which will provide better habitats for wildlife, but the water quality still remains poor due to runoff from the surrounding areas and decades of chemical dumping that has saturated the river bed (University of East London 2015).



Figure 6: The Lea River in 2009 (left) (Turner 2009) and in July 2018 (right).

Today the river and canals are home to recreational boating and nature observers. In the summer months, tourists can take out paddle boats or go on boat tours around the site, which is home to a variety of wildlife including coots and moorhens. The 6.5 km of waterways represent just a portion of the 560 acres of parkland (London Legacy Development Corporation n.d.).



Figure 7: The splash pad is well used in the summer and references Atlanta's Centennial Olympic Park (left), while the Queen Elizabeth Olympic Park as a whole attracts tourists to its canals, active and passive recreation areas, and tourist destinations (left).

In the immediate term, the development at the park itself seems to be a success. The park is heavily used by people of all age and ethnic demographics, from boat tours of the canals, to children playing on splash pads, to bikers, skateboarders, and rock climbers enjoying more active recreation. Tourists come to see the park itself or attractions like the ArcelorMittal Orbit, a modern art sculpture and tower designed by Anish Kapoor and Cecil Balmond, which offers panoramic views of London as well as the tallest tunnel slide in the world. During the summer the slide is sold out months in advance.



Figure 8: An adventurer (left) prepares to go down the slide (right).

A major promise of the Olympic Legacy revolves around housing. This is addressed by first converting the Olympic Village into 2,800 homes named East Village, which was developed by two different entities. Triathlon Homes, a consortium of housing associations and a development corporation, received half of the allotment and focused on subsidized housing, while the real estate arm of the Qatari sovereign wealth fund joined with Delancey, a British property firm, to provide the other half at market rates. The remaining housing would come from new neighborhoods built on the Olympic site, originally named Chobham Manor, Eastwick, Marshgate Wharf, Sweetwater, and Pudding Mill (Vanderhoven 2012). Chobham Manor began housing new residents in 2016, and when finished will provide Chobham Manor will provide 859 new homes, including town and mews houses, maisonettes and single apartments, with 75% designed for families and 28% as affordable homes (London Legacy Development Corporation n.d.). Eastwick and Sweetwater are being jointly developed by one consortium led by Places for People and Balfour Beatty, and are currently in the planning stage (London Legacy Development Corporation n.d.). Pudding Mill and Marshgate Wharf are currently being reconceived (London Legacy Development Corporation n.d.). Additionally, the Stratford Waterfront development is meant to deliver 780 new homes plus new

campuses for the University College London and the Victoria and Albert Museum (London Legacy Development Corporation n.d.).

Another criticism of London's legacy plans surrounds the amount of affordable housing provided, and how deeply affordable that housing will be. 50% of the homes in East Village were already set aside as affordable, which left room to offer much less affordable stock in the new neighborhoods and still reach the stated goal of 35%. Additionally, there were no guarantees on what level of affordability these homes would be offered at. Vanderhoven cites a 2011 study by affordable housing provider East Thames Group which found that 65% of Newham residents could not afford a three-bedroom unit at 80% affordability (where the rent is capped at 80% of the average median income). Such homes are affordable for professionals, but not for the low-wage earners who currently reside throughout much of the Host Boroughs (Vanderhoven 2012). Such concerns were typical of many reports issued prior to the Games being held, which critiqued not existing failures but potential ones.

The LLDC plans to create at least 24,000 new homes within its jurisdiction by 2031 (London Legacy Development Corporation 2017). 10,000 of these are planned to be within the Queen Elizabeth Olympic Park (London Legacy Development Corporation n.d.). Homes were first delivered in April 2014, and in the first three years 5,682 units were delivered. Those numbers dropped off in the fourth year (White 2018). The LLDC did approve deals with lower percentages of affordable housing (and even fewer very affordable units) in exchange for expediting deals at a time when London was under a major housing crunch, but they left deals in place for East Village (the former Olympic Village) and its 2,818 units roughly split 50% market rate, 25% affordable, and 25% deeply affordable. London as a whole at the time averaged 34% affordable units in new developments, with virtually no very affordable new units (Hill 2015). In 2016, Sadiq Khan was elected Mayor of London, and in 2018 issued an order that all future housing development under the LLDC (about 3,000 total units) would be 50% affordable, an increase over the 29% affordable rate in the developments approved under his predecessor, Boris Johnson (Greater London Authority 2018).

There also appears to be an effort to manage the development in wider parts of the host boroughs also needs monitoring. A new development is under construction on West Ham United's old match grounds on Green Street in Upton Park, a neighborhood in Newham less than three miles from the Queen Elizabeth Olympic Park. While the modernist look stands in stark contrast to the terraced housing and low-cost retail that fill the rest of the street, the development will offer a

mix of for sale units and rents at affordable prices; a government scheme allows qualifying purchasers to buy with only a 5% down payment (PBC Today 2018). On the other side of the park in Hackney Wick, activists have spray painted a building marked for removal with the phrase “shithouse to penthouse” spray painted across it.



Figure 9: Upton Gardens is under construction on the old West Ham United playing grounds (upper left); the bulk of the neighborhood is Georgian style terraced houses (upper right). New homes in Hackney across the canal from Here East (lower left), while down the street locals protest the explosion of luxury apartments (lower right).

Key among legacy plans was finding uses for the newly built venues. Securing West Ham United’s commitment to move into the Olympic Stadium (renamed London Stadium) took longer than organizers had hoped, but the move provides a primary tenant to supplement concerts, track and field events, and other special events such as a two-game series between the Boston Red Sox and New York Yankees in June of 2019. The International Broadcast Center is another success story. It is now a center for technology, media, and training branded HereEast, which fully opened in 2018 (Cruz 2014).



Figure 10: Here East (left), the former broadcast center, is now a tech hub; the area along the canal is now a successful series of restaurants and bars (right).

Next on the list of legacy commitments was developing a sporting legacy in Britain (London Organising Committee of the Olympic Games and Paralympic Games Limited 2004). Britain, once a sports power house, left the 1996 Summer Olympic Games with only one gold medal (in rowing). A concerted effort to develop elite athletes has paid off, as the nation's medal count has increased at each subsequent Olympics, with Great Britain finishing second behind only the United States during the 2016 Summer Olympic Games in Rio. It has even led to Dame Katherine Grainger, chair of UK Sport, hoping Britain might one day top the medal table. She is now calling for London to bid for a fourth Games, targeting the 2036 Summer Olympic Games (J. Wilson 2019).

Girginov and Hills argue that the money spent on staging the Olympic Games is in part taken from funds used to develop sports, a direct contradiction to the stated legacy goal of promoting sports participation at all levels. They also warn about the elitism inherent in elite sports, and that the organizers should aim to include communities at all economic levels (Girginov & Hills 2008). Five sports venues specially built for the Olympics remain after the Games. London Stadium is home to English Premier League team West Ham United, as well as athletics, concerts, and special events like a Red Sox-Yankees series in the summer of 2019. The VeloPark and the Hockey Centre are now recreational areas run by the Lea Valley Regional Park Authority. A multi-use arena and the Aquatics Centre was turned over to a private company, Greenwich Leisure, Ltd (Vanderhoven 2012). By agreement, the Aquatics Centre charges the same entry fee as every other recreation center in London, and for around five pounds you can swim in the same lanes as Michael Phelps and other Olympic greats.



Figure 11: Dame Zaha Hadid designed the London Aquatic Center; after the Games the seating was reduced but it can still host elite swimming events. Otherwise it operates as a community leisure center.

Research has yet to prove that hosting a sports mega-event is enough to inspire increased sports participation (Weed 2018), but can the ancillary efforts combined with the mega-event do so? Some data shows that since the Games were awarded to London in 2005, London residents who participate in sporting activities once a week rose 9% by 2012, and then leveled off to 7% the three years after the Games. Londoners who participate three times a week increased by 15% in 2012 and varied from 9% to 12% increase over 2005 levels in the three years after (Gratton & Ramchandani 2018). But growth in grassroots sports also appears to have been somewhat undercut by the national government's austerity cuts (Thomas, Brittain, & Jones 2018).

A related but distinct legacy is the impact from the Paralympic Games, held one to two weeks after the Olympic Games close. The 2012 London Paralympic Games were widely broadcast and promoted. It is very unclear whether these events have inspired a significant increase in sports participation for disabled people, but Ian Brittain lauds the events ability to forefront the conversation about disability accommodation in the UK and perhaps even inspire some to push back against limitations placed on them (Brittain 2018).

The Games were able to recruit 70,000 volunteers (known as "Games Makers") for the event, and inspire a new generation of volunteerism. This in and of itself was a success for the Games. Those volunteers' satisfaction with their experience varied somewhat, usually tied to what their motivational factors for volunteering were. Since LOCOG focused on Games delivery, marketed as a once in a lifetime event, it is unclear whether these volunteers will continue to donate their time to other causes in the future. Nedvetskaya and Girginov also criticize the volunteer effort

for abandoning early on in the process a stated goal of targeting groups that are typically under-represented in volunteerism (Nedvetskaya & Girginov 2018).

The social legacy is perhaps the most difficult to judge at this point, but there are some encouraging signs. The British government conducts a survey of deprivation across seven categories: income, employment, health and disability, education and skills, barriers to housing and services, crime, and living environment. Surveys were conducted in 2004, 2007, 2010, and 2015. In 2004, the Host Boroughs ranked as among the most deprived communities in the United Kingdom. Their scores have increased significantly since then, although they still remain in the lowest quartile (University of East London 2015).

Looking at the SRF short term goals, the Host Boroughs have made significant strides in some areas, slight improvement in others, and also seen some worsening of indicators. Health indicators are particularly varied. Life expectancy has increased and mortality rates from circulatory disease have decreased in line with targets, but mortality rates from cancer and number of adults with no physical activity have reduced, but slowly. The gap between the Host Boroughs and the rest of London has increased in regards to childhood obesity adults exercising three times per week. The unemployment rate and the median income also worsened in comparison to London as a whole. Education and job training, as well as early childhood development, are among factors showing positive movement (University of East London 2015).



Figure 12: Westfield Stratford City (left) and Stratford Shopping Centre (right).

If there is still one noticeable disconnect, it is the differences between the areas inside and outside of the park. Across the street from Westfield Stratford City is an older shopping center called the Stratford Shopping Centre. Whereas Westfield showcases upscale brands like Zara and Ikea, the other mall features discount retailers such as Poundland. Westfield is crowded and difficult

to walk through, but so is the other mall, largely because local merchants have set up temporary stalls in the middle of the corridor to sell everything from t-shirts to produce at discounted prices. Where Westfield has Five Guys and Shake Shack, the other mall has Burger King and McDonald's. Where Westfield has Apple, the other mall has a warren of tech kiosks offering discount phone accessories. But the starkest difference is at night; a platoon of security guards make sure Westfield empties out, whereas the other mall becomes a makeshift homeless shelter. On a chilly November night I discovered a couple dozen people keeping warm in sleeping bags along the shop facades after they had all closed for the night.

Recent reports show that residents of Newham are the most likely to have debt problems across the entire United Kingdom. 25% of residents, 60,000 total, have serious debt issues. This is partially a legacy of the lack of employment in the area, but also a symptom of low wages and rising costs. In 2014, the median income was 15,704 pounds, compared with the national average of 22,204 pounds. Newham is a borough where half of its residents rent their homes, and 30% in affordable housing. Rents have increased from a median of 800 pounds in 2011 to 1,200 pounds in 2017. Beyond debt problems, Newham has seen a rise in gang violence, shootings, and acid attacks. On the brighter side, Newham has benefitted from an increase in employment in recent years, increasing from 52% in 2007 to 68.7% in 2017. This is still below the London average of 73.8%, but is as close as it has been since the UK government started tracking employment rates (Partington 2017). It is difficult though to directly attribute negative statistics to a single cause. Rents are increasing across London, and the addition of so much new market rate housing at Stratford city certainly skews the average rent for the entire district.

Crime rates in the Host Boroughs were at a much higher rate than the London average in 2002/2003. Since then, the rate of crime has decreased both in London overall and in the Host Boroughs, but they have dropped more rapidly in the Host Boroughs so much that in 2014/2015 the number of notifiable offences per 1,000 residents was almost equal. Crimes against persons remains slightly higher in the Host Boroughs, but is offset by a lower rate of property crimes (University of East London 2015).

Would the urban regeneration of East London have occurred without the Olympics? Perhaps, it was certainly on the political agenda for many people of diverse political orientations. But what hosting the Olympics brought was a greater media attention, non-negotiable deadlines, and increased guaranteed funding sources that allowed the regeneration to occur at a speed it likely would not have (Davis & Thomley 2010). For Altman, the development is a success. He is most

proud of how the playgrounds are used by a diverse group of people, the successful transformation of Here East, and that Stratford is now a part of the mental map of the city (Altman 2019).



Figure 13: Corner of “the cut” (Lea Navigation Canal) and Hertford Union Canal in 1999 (left) and 2011 (right) (Dorley-Brown 2011).

So far development has weathered the global financial crisis in 2008, and the austerity budget introduced by David Cameron in 2010. But what impact will Brexit play on continued investment going forward? One thing is certain, the Olympic Legacy will only succeed if it continues to be a priority for future politicians. The 2012 London Summer Olympics put leaving an Olympic Legacy in the spotlight, and created several systems to deliver this legacy, including specific targets and goals. Some data has been collected so far, but a more complete dataset will be available following the 2021 census. Right now for many legacy benchmarks it is too soon to tell what impact the Games will have on the next generation. It is equally difficult to determine scientifically if the benefits outweigh the costs.

EFFICACY OF THE LEGACY APPROACH – THE BIDDING PROCESS

The IOC admits that “the perception of the legacy of the Olympic Games remains challenging” (International Olympic Committee 2017). This focus on Olympic Legacy begs three questions: do the other IOC policies support or undermine the creation of legacy; is the London model exportable to other cities; and will cities embrace the legacy concept? Before we delve into these, I will first discuss how the bidding process has evolved over time.

The modern Olympic movement was born when Baron Pierre de Coubertin called together an international group for a meetings at the Sorbonne in Paris in the summer of 1894. During that gathering the International Olympic Committee was officially born and the sites of the first two Olympic Games were selected as Athens in 1896 and Paris in 1900. The Olympic Games (now referred to as the Summer Olympic Games) have been held every four years since, except for three occasions during the two World Wars (1916, 1940, and 1944). The Winter Olympic Games were introduced in 1924, and hosted every four years except during World War II (1940, 1944) until 1992. At that time their schedule was adjusted, and they were held only two years later in 1994. They have been hosted every four years since (International Olympic Committee 2007).

The Olympic Games were initially awarded only three to four years prior to the event, with a few exceptions: Antwerp was selected just over a year before hosting the 1920 Olympic Games, awarded in the wake of World War I, and Amsterdam (1928) and Los Angeles (1932) had seven and nine years respectively to prepare for the Summer Olympic Games. The 1948 Games were hastily arranged in under two years once World War II ended, but afterwards cities have been given six to seven years to prepare once their bid was selected. When the Winter Olympics were first introduced, the country hosting the Summer Olympics was given preference in also hosting the Winter Olympics, and from 1924 until 1940 the Netherlands was the only country to not selected to host both; Amsterdam hosted the 1928 Summer Olympic Games, but the Netherlands has no suitable host for the Winter Olympic Games. St. Moritz in Switzerland was selected instead (Games Bids n.d.)

Athens was selected for the 1896 Olympic Games in honor of the Greek origins of the ancient games. Paris hosted four years later as part of the 1900 World’s Fair, and in 1904 they were held in Saint Louis in conjunction with that World’s Fair (after having originally been awarded to Chicago). The 1908 Summer Olympic Games saw the first competitive bidding process, with Rome

beating out London, Milan, and Berlin. However, the eruption of Mount Vesuvius in 1906 caused Rome to withdraw, and the Games were held in London for the first time (Games Bids n.d.).

Through the 1956 games, the number of bidding cities fluctuated from one to thirteen. During this period, there was no limit on how many cities could bid from the same country, with three Swiss cities bidding for the 1928 Winter Olympic Games (awarded to St. Moritz), four German cities bidding for the 1936 Summer Olympic Games (awarded to Berlin), and the United States submitting as many as six different cities for a single Olympic Games twice. A new rule limited each National Olympic Committee (NOC) to only one bid per Games. The next era of bids for the 1960 Summer and Winter Olympic Games until 2000 Summer Olympic Games saw bids vary from two to eight for each Games (Games Bids n.d.).

The current decline in interest concerning hosting the Olympic Games is not entirely new. During the 1970's and early 1980's the Games also became a harder sell, due in part to rising costs and the politicizing of the Games. It was dark period for the Olympic movement. Terrorists attacked the 1972 Summer Olympic Games in Munich, and that fall Colorado residents voted against hosting the 1976 Winter Olympic Games Denver was awarded two years prior. African nations led a boycott of the 1976 Summer Olympic Games in Montreal, which also went massively over budget. The United States led a boycott of the 1980 Summer Olympic Games in Moscow, and the Soviets returned the favor at the 1984 Summer Olympic Games in Los Angeles. Only three cities bid for the 1976 Summer Olympic Games, and only two bid for the 1980, 1984, and 1988 Summer Olympic Games. Vancouver withdrew from the bidding for the 1980 Winter Olympic Games leaving Lake Placid as the only candidate, and Tehran withdrew before the vote for the 1984 Summer Olympic Games due to the start of the Islamic Revolution, leaving Los Angeles as the only candidate. But those 1984 Summer Olympic Games marked a turning point for the IOC. Financed heavily by corporate sponsors, the organizing committee posted a profit without drawing on any taxpayer funds for the Games themselves. This success led to a renewed interest in hosting (Wenn 2015).

After the 1984 Olympics, the IOC encouraged representatives of bidding cities to develop personal relationships with IOC members. This was phrased as building an "Olympic Family," but reportedly some IOC members used this opportunity to request lavish gifts and hospitality. This all came to a head when the Salt Lake City bid organizers felt they had lost out on the 1998 Winter Olympic Games because the organizers of the Nagano bid had outdone them in the gift department. Salt Lake City officials took the lesson to heart, and made it a point to win the 2002 Winter Olympic

Games by winning the “hearts” of individual IOC members (Booth 2011). Their spending on non-bid related gifts to IOC members came to light in the 1999 bribery scandal (S. Wilson 1999).

The withdrawal of three bidders for 2000 Summer Olympic Games prompted the IOC to change the bidding process again. The IOC would now review all applicants and only confirm the most desirable bids as candidates. Between then and the financial crisis of 2008, six to nine cities applied to host four Winter Olympic Games, and seven to eleven cities applied to host the four Summer Olympic Games scheduled from 2002 to 2016 (Games Bids n.d.).

Prior to the *Olympic Agenda 2020*, the Olympic host city bidding process typically began about a decade before the scheduled Games. The process began informally with the IOC inquiring about what cities might be interested. Interested cities worked with their respective NOCs, which selected at most one city to put forward as a potential host. At that point, the IOC would send out a detailed questionnaire, essentially the city’s application to become a candidate. Questions ranged from the big picture of why the city wanted to be an Olympic host to specifics about existing and planned infrastructure, venues, and security. The IOC then selected the most promising bids to advance to a candidate stage. At this point bidding cities provided a detailed plan for hosting the Olympics. The plan addressed every aspect of hosting the Games, from vision to the legal structure of the host committee, from financing to environmental concerns, from the athlete experience to visitor and media concerns. These included financial guarantees provided by the local or national government. The submission was followed by a series of site visits by an IOC Evaluation Commission, followed by a formal vote (Billings & Holladay 2012).

The vote is held six to seven years prior to the Games over multiple rounds, with the lowest vote getting city removed after each round, until one bid has more than 50% of the votes. This time frame was considered sufficient to allow the city to complete projects and secure financing, but also long enough for the IOC the ability to threaten it would rescind the award if the city doesn’t progress as desired (Billings & Holladay 2012).

The IOC has at times been criticized for not voting strictly based on the strength of the candidate applications. Some criteria have a logic to them, such as devaluing cities from a country which recently hosted the Games in order to add diversity to the list of host cities. Other issues such as geography, political ideology, and personal connections between city advocates and IOC members have also impacted the vote in the past. The latter was perhaps most evident when then IOC president Juan Antonio Samaranch's home town of Barcelona was selected to host the 1992 Summer Olympics (Billings & Holladay 2012).



Figure 14: Barcelona retrofitted a stadium built in 1927 (left) as an iconic setting for the 1992 Summer Olympic Games; it continues to promote the Olympics at a museum next-door (right).

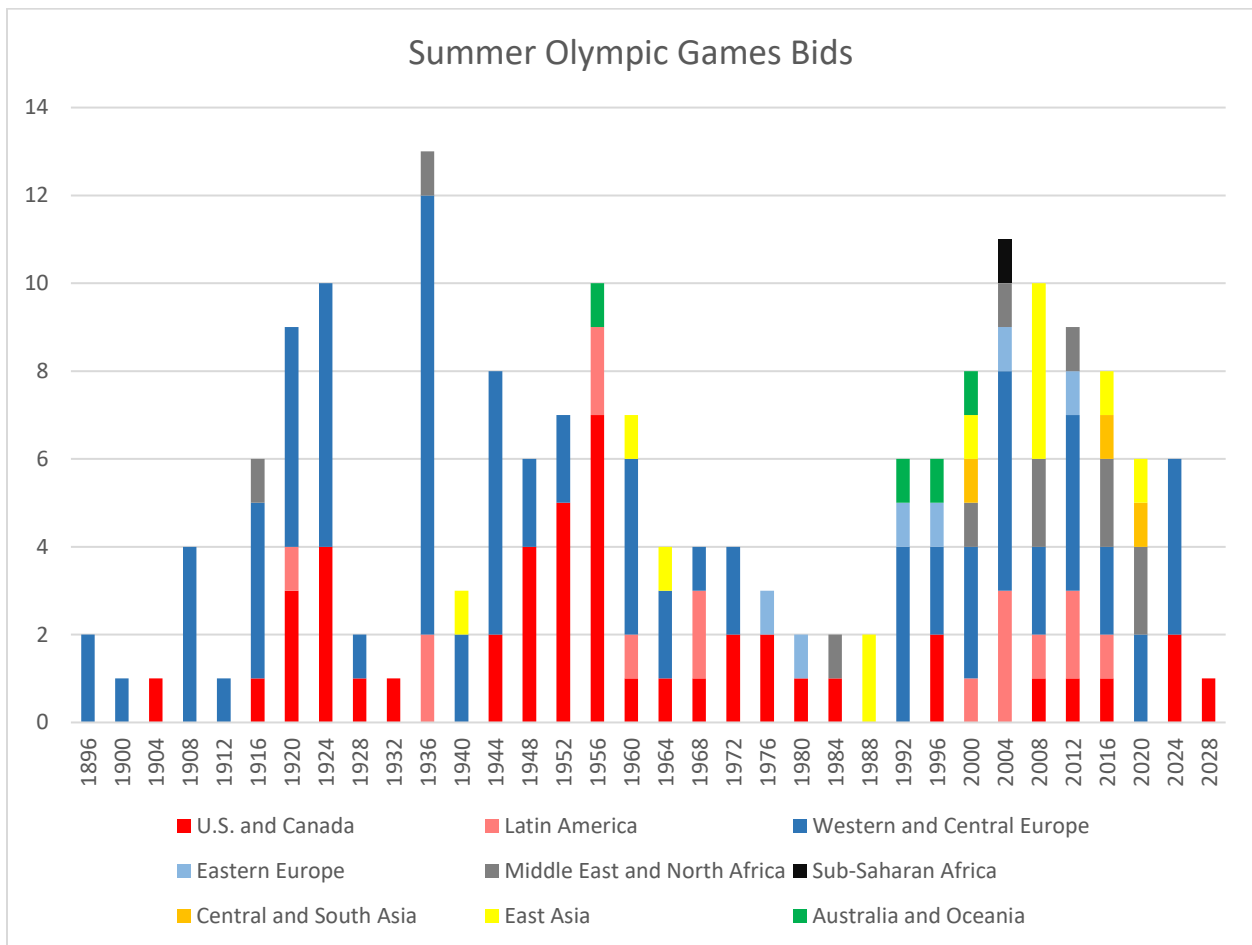


Figure 15: Summer Olympic Games bid cities by region, for Games hosted 1896 to 2028. 1984, and 2020 each had one bid withdrawn, 2000 had three withdrawals, and 2024 had four (Games Bids n.d.) (Gold & Gold From A to B 2011).

After the 2008 financial crisis, the bidding situation appears to have changed drastically. The 2018 Winter Olympic Games drew only three applicants. The 2020 Summer Olympic Games drew six applicants, one of which withdrew (Rome) and two were deemed unsuitable (Baku and Doha). The 2022 Winter Olympic Games drew six applicants, with four withdrawing before the selection, leaving only Beijing and Almaty, Kazakhstan as candidates (neither a winter sports mecca; the IOC chose Beijing) (Games Bids n.d.).

Even with these changes in place, convincing cities to bid has been a challenge. Initially five cities bid for the 2024 Summer Olympic Games; Boston was the first to withdraw when public sentiment turned against funding the bid, but Los Angeles was named as its replacement to keep the number of bidding cities at five. But Hamburg, Rome, and Budapest all followed Boston’s lead, leaving only L.A. and Paris in the running. In a surprise move, the IOC awarded them both games, Paris in 2024 and L.A. in 2028 (Games Bids n.d.).

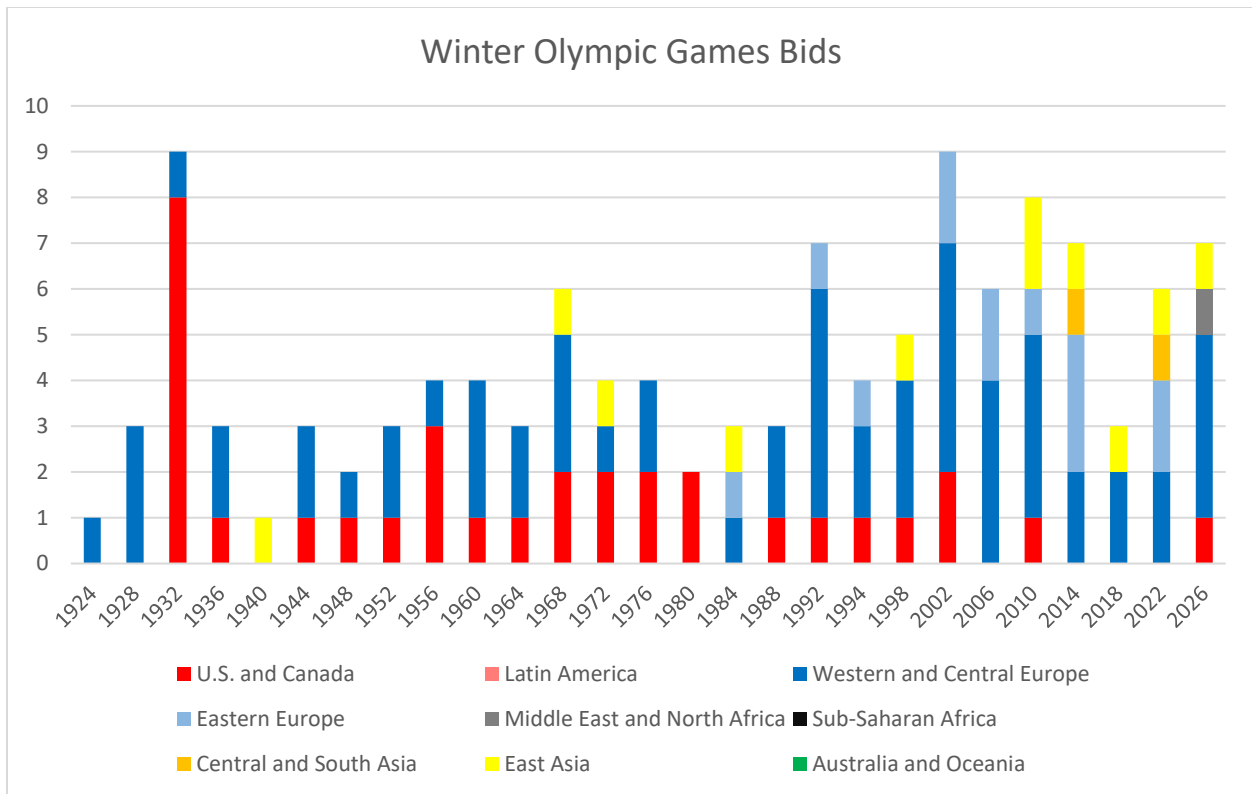


Figure 16: Winter Olympic Games bid cities by region, for Games hosted 1924 to 2026. 1980 had one bid withdrawal, 2022 and 2026 each had four (Games Bids n.d.) (Essex 2011).

The IOC is currently in the process of selecting the host of the 2026 Winter Olympic Games (the hosts for the 2020, 2024, and 2028 Summer Olympics and the 2022 Winter Olympics have already been chosen). Seven bids entered into the “dialogue” phase, but only two remain with four others withdrawing, and the IOC finding one bid unsuitable (Games Bids n.d.).

The new bidding process reduces costs and the workload placed on cities by eliminating some of the deliverables, and tries to ensure sustainability and a connection to non-Olympic development goals. The new system features a one-year, noncommittal “dialogue” phase in which technical experts from the IOC will interact with potential hosts. No deliverables or guarantees are required during this phase. The IOC then invites some or all of the potential hosts into the candidature phase, which will last no more than a year and streamlines the process. Additionally, the IOC has committed nearly 1 billion U.S. dollars in direct funds to the 2026 Winter Olympic Games host (International Olympic Committee 2017).

The Olympic Agenda 2020 recommendations related to the delivery of the games themselves sparked a 118 point plan called “the New Norm” focused on reducing the cost of the Games (International Olympic Committee 2018). This selection process features a transformed candidature process, promising a reduction in costs, more support from the IOC, and the desire to align with municipal and regional development goals. It features a one year, non-committal, discussion period followed by a shortened one year bidding phase (International Olympic Committee 2017).

The new bidding process is described as a more collaborative process. IOC funded teams of technical experts are sent to each city to help develop their bid concept, and conduct independent research on the viability of bids without requiring the cities to produce official documents or presentations during the “dialogue” stage. The IOC also offers to conduct workshops in each city to reach out to a wider group of stakeholders. By reducing the number of submissions to one package, only required by cities invited to join the “candidature” phase, the IOC expected the cost burden on interested cities to be greatly reduced. The process was meant to create “an invitation for Cities to present projects that best match their long-term sports, economic, social and environmental development plans.” (International Olympic Committee 2017). The new process also emphasizes experience hosting other multi-sport events or international competitions (International Olympic Committee 2017).

Candidate cities are now asked to describe how hosting the Olympic Games will align with long-term development plans on the basis of social parameters (including sports and a healthy lifestyle), urban planning, mobility, economic parameters, and sustainability strategies. The IOC specifically wants potential hosts to consider venue selection, and rely heavily on existing or already planned venues. If a city is lacking a venue, they should consider using existing venues outside of the host city or temporary venues, and should only construct new venues as a last option. Any new

venues require separate documentation outlining the planned utilization after the Games, including the ownership or management of the venue and estimated revenues and expenses (International Olympic Committee 2017).

In addition to concerns around the venues, each candidate is asked about sustainability across a broad spectrum of topics beginning with sustainable construction practices. Each must divulge their approaches to the conservation of biodiversity, water resources, and cultural heritage, as well as water quality, resource efficient infrastructure, and renewable energy. The IOC requires statements on the sourcing and management of products and materials, and how environmental, social, and ethical factors (specifically labor standards) will be integrated into the procurement process. Cities must discuss how they will use sustainable methods of reuse and recycling, transportation of goods and people, and management of greenhouse gas emissions. The IOC asks about working conditions, employment opportunities (including a commitment to gender equality), and skill development. Finally, cities must consider the long-term benefits to local residents from economic and social benefits to sports development at the elite and grass roots level (International Olympic Committee 2017).

The IOC is already touting the new process as a success. They claim that reforms have saved Tokyo 4.3 billion U.S. dollars in efficiencies, despite those Games being awarded before the reforms were announced (International Olympic Committee 2018). The 2024 Summer Olympic Games bidding was the first to incorporate elements of the Olympic Agenda 2020 reforms. It included a six-month invitation phase, followed by a two-year candidature stage. The IOC stated it was specifically looking for an “alignment between a city’s long-term development plan and the Games.” Candidate cities were required to submit three files covering different topics over the two-year period, and pay a total of \$250,000 U.S. Dollars in fees. The IOC offered cities technical assistance, including workshops and information sharing, and a new observer program of an Olympic Games (in this case the 2016 Summer Olympic Games in Rio) (International Olympic Committee 2015).

The candidate city questionnaire asked each city to describe how the community would benefit from hosting the Games, as well as the post-Games use for any new venues created for the Games. It also asked how the Games would align with existing city or regional planning looking at least five years after the Games, specifically in regards to urban planning, mobility, economic and social factors, and financing. The questionnaire further asks about long-term economic, social, and environmental impact of both bidding for and hosting the Games, how the Games would manage

air and water quality and climate change, build human capacity, and promote sports and the Olympic values. Finally, the IOC wanted to know about resource consumption and waste production, sustainable construction practices, and ethical labor practices (International Olympic Committee 2015).

These changes were intended to make bidding “low risk and high reward” for the cities and for the IOC (International Olympic Committee 2017). According to the IOC, both Paris and Los Angeles submitted bids that so strongly embraced sustainability and legacy goals that they could not turn down either. This resulted in an unprecedented double award of the 2024 Summer Olympic Games to Paris and the 2028 Summer Olympic Games to Los Angeles. The IOC contribution to the 2028 Games will be 1.8 billion U.S. dollars (International Olympic Committee n.d.).

The IOC already considers “the New Norm” a success, citing that the five potential hosts in the “dialogue” stage for the 2026 Winter Olympic Games had an average of 80% pre-existing venues (up from 60% from the 2018 and 2022 bidding cities) and saw estimated budgets reduced from 2 billion U.S. dollars to 1.7 billion. Female participation is also expected to increase in both the 2020 Summer Olympic Games in Tokyo and 2022 Winter Olympic Games in Beijing (International Olympic Committee 2018).

The 2026 Winter Olympic Games are the first to use the new host bidding process created in the *Olympic Agenda 2020* from beginning to end (International Olympic Committee 2019). Seven bidding organizations participated in the dialogue phase for the 2026 Olympic Winter Games: 1972 host Sapporo, Japan; 1988 host Calgary, Canada; Sion, Switzerland; Graz, Austria; Erzurum, Turkey; and joint bids presented by 1912 Summer Olympic Games host Stockholm and Åre, Sweden; and 1956 host Cortina d’Ampezzo, 2006 host Turin, and Milan, Italy (Grohmann, Seven cities confirm interest in 2026 Winter Games: IOC 2018). Sion was the first potential host to withdraw in the summer of 2018 after a local referendum voted down a funding package (Morgan 2018), and Graz followed shortly after at the mere announcement of a local referendum (Associated Press 2018). That fall, Sapporo withdrew due to an earthquake in the region, but has announced its intentions to bid for the 2030 games (Grohmann, Japan's Sapporo pulls out of 2026 Winter Olympics race: IOC 2018). Finally Turin withdrew from the joint Italian bid on the eve of the bid certification, claiming the multi-city bid was unfeasible (Middleton 2018). This left four bids (Calgary, Erzurum, Milan-Cortina, and Stockholm-Åre) for the IOC to consider. Erzurum was determined to lack the necessary infrastructure and experience, but the other three bids continued to the bidding phase (Associated Press 2018). Calgary withdrew next after its own local referendum, despite being able to

reuse 85% of the facilities from 1988 (Reuters 2018). The two remaining bids will be voted on in June, 2019 at the IOC meeting in Lausanne (International Olympic Committee 2019).

Of the 22 criteria used by the IOC in bid selection, 7 are directly related to the Games legacy and sustainability: alignment with city/ region's development plans; use of existing/ temporary venues; legacy use of new permanent venues; sports development; sustainability; impact on the natural environment, cultural heritage and communities; and community engagement/ outreach (International Olympic Committee 2017).

EFFICACY OF THE LEGACY APPROACH – POLICY INTERSECTIONS

In addition to delivering a legacy, the IOC has put forward recommendations designed to foster sustainability and cost reduction. There is an inherent tension among these three goals. Legacy, beyond not leaving the city in debt, is not something that can easily be delivered on a reduced cost basis. And while sustainability can be a legacy goal in and of itself, and in some ways ties in with cost reduction, some sustainable goals require investment. Finally, other legacy goals may overshadow sustainability. Potential hosts must often prioritize or choose between these three ideas.

The IOC seems to be taking this new commitment to sustainability seriously, at least in day-to-day operations. In a recent event in Buenos Aires, all of the food served was locally sourced and event contracts were awarded to local organizations. The IOC has not as of yet set specific sustainability standards, but Christophe Dubi, the IOC's Olympic Games Executive Director, states that the IOC will refuse bids which are not sustainable going forward (Sisson 2018). This is perhaps difficult to believe given the lack of sustainability exhibited by the most recent Olympic Games hosts Sochi, Rio de Janeiro, and PyeongChang, all of which built venues without a clear future use. PyeongChang also cut down 58,000 trees in an ancient forest in order to build its alpine ski course. PyeongChang already had several ski resorts before it bid for the Games, but none of them met the International Ski Federation (ISF) requirements (Madhani 2018). The ISF did not make an exception. The IOC did not choose the French or German bids over the South Korean bid. Sustainability took a back seat for all of the involved parties.

Preparations are already under way for the 2020 (Tokyo), 2024 (Paris), and 2028 (Los Angeles) Summer Olympic Games, and the 2022 Winter Olympic Games in Beijing. It's unclear how much new Olympic policies can impact these, especially the 2020 and 2022 Games. Even with IOC identified cost savings, Tokyo's budget for the 2020 Olympic Summer Games has skyrocketed from 7.3 billion U.S. dollars when the games were awarded in 2013 to 25 billion U.S. dollars during a 2018 audit, with the possibility of increasing even more before the Games open (Wade 2018). The IOC claims it has already saved Tokyo billions of dollars through better coordination, and will save future hosts hundreds of millions of dollars. But no matter the reforms or the legacy plans, hosting will still cost cities billions of dollars (Sisson 2018).

Paris and Los Angeles are in the early stages of putting together their Games, but a lot can be understood from their bid presentations. Paris is already in the midst of developing new housing,

sports arenas, and cleaning up the Siene and canals. The organizing committee wants to honor Baron Pierre de Coubertin, the father of the modern Olympics, and hopes the Games will catalyze increased sports participation at a national level. Paris takes its role in mitigating climate change seriously, as host to the most recent global accords on the subject, and is committed to the most sustainable design standards possible. Paris plans an economical Games, budgeted at 3.964 billion U.S. dollars, of which only 114 million are from government funding. (International Olympic Committee 2017). While Paris has embraced some aspects of legacy planning, they seem to have focused more on cost reduction.

Los Angeles plans on a heavily corporate-sponsored 2028 Summer Olympic Games, a formula that was successful when it last hosted in 1984 (Sisson 2018). The city developed its bid around a plan to expand mass transit in the city and showcase it during the Games. It also intends to develop youth sports, create new recreational and green space in the city, and build social inclusion around the mega-event. While these are laudable goals, they are hardly transformative ones in the way the London Games were. Priority again seems to be placed on providing an economical Games.

Paris will use existing sites like the Stade de France and Roland Garros, as well as temporary venues throughout the historic heart of downtown. The French national government has guaranteed funding for the athlete's village and the international broadcast center. Both the athlete's and media villages will be converted to new housing, providing 5,000 units (International Olympic Committee 2017). Paris plans to use 38 competition venues in 2024 for the Summer Olympic Games; 36 of those venues already exist or will use temporary modifications. One sports arena was already planned and will open in 2021, leaving only the aquatic center which need to be constructed specifically for the Games. Once the Games are over, it will be converted into a community swimming center (similar to how the London aquatic center is now used) (Paris 2024 n.d.).

Los Angeles will use existing sports arenas such as the Los Angeles Memorial Coliseum (which hosted many events in the 1932 and 1984 Summer Olympic Games), the Rose Bowl, Dodgers Stadium, The Staples Center, The Honda Center, and LA Galaxy Stadium, and the L.A. Stadium currently being built for the city's two NFL teams. 97% of competition venues are existing or will be temporary, with only NFL stadium requiring construction and that is already confirmed regardless of the Games. All of the venues that will be upgraded or constructed are being financed privately by their owners and not by the government or organizing committee. Los Angeles has budgeted 5.325 billion dollars for the Games, of which only 1.191 billion will be spent on venue

infrastructure, and only 10 million will be required in government contributions (barring over runs). UCLA dorms will be used as the primary Athlete's village, and NBC Universal is upgrading its own studios that will serve as the international broadcast center (NBC is the U.S. broadcaster of the Games). Because of its use of existing sites, the Games will not directly relocate any residents or businesses. Los Angeles is currently implementing a 300 billion dollar transportation plan, which should be about one third completed by the time it hosts the Games. Los Angeles is committed to creating more than enough new renewable energy to cover the operation of the Games (International Olympic Committee 2017).

Both of the remaining 2026 Winter Olympic bids have embraced the IOC's new policy allowing entities beyond individual cities to act as hosts. Milan and Cortina are roughly 250 miles apart by car or train, and events would be hosted throughout the Italian Alps and Dolomites, with the opening ceremonies in Milan and the closing ceremonies in Verona's Arena, a Roman era amphitheater best known for its outdoor opera performances (France 24 2019). Meanwhile Stockholm and Åre are 350 miles apart, and their bid would also use a sliding facility in Latvia for events like luge and bobsled (Associated Press 2019).

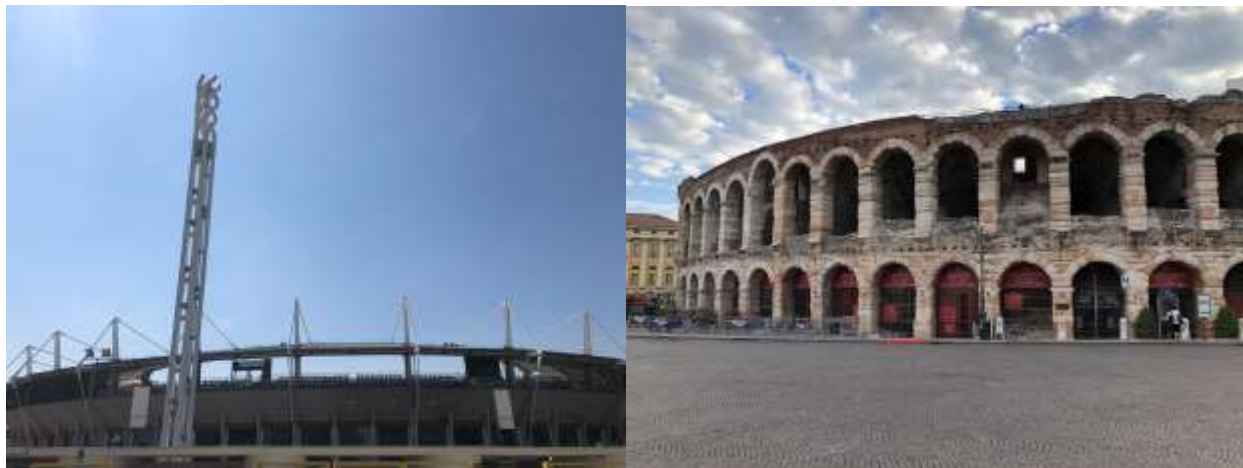


Figure 17: Turin had hoped to reuse the Olympic Stadium built for the 2006 Winter Olympic Games (left), but after withdrawing from a joint bid the Italians plan on staging the Closing Ceremonies in Verona's Arena (right) if they win the 2026 Winter Olympic Games.

Allowing Olympic events to be spread out across a wider geography in order to use existing facilities seems to be desirable for potential Winter Olympic Games hosts. The IOC has often had to choose between awarding the Winter Olympic Games to urban centers close to transit but removed from ski resorts, and smaller ski towns which struggle with hosting crowds during the Games and finding uses for sports venues afterwards. It seems like the new system allows for the

best of both types of potential hosts. But it does so at the risk of diluting the Olympic Games. One of the hallmarks of the Games is how it brings together hundreds of athletes in dozens of sports in one place for two weeks every four years.

The Summer Olympic Games on occasion have tried such an arrangement for a handful of sports; Australia's laws against importing animals meant the equestrian events had to happen in Stockholm in 1956 instead of Melbourne with the rest of the events. Also, many cities host cities are not directly on the ocean and must host sailing events at a (relatively) nearby coastal town. While that separation was accepted despite being sub-optimal, what impact will there be on splitting the Olympics up into thirds, or quarters, or smaller slices? Will it lose some of its specialness, and therefore desirability?

When given the option, Western European and North American hosts and candidates since the 2012 Summer Olympic Games in London have prioritized cost reduction over legacy, while other hosts have prioritized international image projection over cost, sustainability, and legacy.

EFFICACY OF THE LEGACY APPROACH – EXPORTABILITY

London in the early 2000's found itself in a particular situation of enjoying an economic upturn and having a portion of the city in desperate need of redevelopment. It was a perfect storm that allowed all parties involved to put legacy front and center. While London is not a unique case, it may be an outlier. Many cities in need of a transformative moment either don't have the economy or political will to back up that need. This concern is perhaps best supported by how few examples of positive, lasting Olympic Legacies truly exist.

In a rational planning process, the Games would be followed by long-term monitoring and evaluation to ensure the goals set forth before the Games are being met. Realistically, however, many cities have paid little to no attention to review after the Games (Roche 1994). The IOC instituted a monitoring system in 2001 called the Olympic Games Impact study that tracks 126 indicators across social, economic, and environmental factors from the bid submission until two years after the Games. Vancouver, host of the 2010 Winter Olympics was the first to implement the study (L. E. Davies 2012). Vancouver and London both released at least versions of these reports to the public, but I was unable to find a report for Sochi. Rio is in its final year of the 12-year review process, and has previously released a base-line report in 2014, two years before hosting the Games. PyeongChang similar released a baseline OGI report in 2016. The 2020 Summer Olympic Games in Tokyo will mark the start of a new review process called the Legacy Reporting Framework, which will track developments over longer periods of time and allow local organizers to determine legacy priorities (International Olympic Committee 2018). It is unclear how either of these processes actually hold host cities accountable after the Games have come and gone.

Olympic Legacy is a concept that has evolved over the years. Coubertin had envisioned the Olympic Games as bringing nations together, and to inspire the next generation to pursue excellence especially in sport. However, the IOC did not add the term legacy to their mission statement until 2003, just as the selection cycle for the 2012 Summer Olympic Games was beginning. But without a clear definition, the term is vague, indicating any lasting effect or artifact. For the first hundred years of the Modern Olympic Games, the term was rarely used. The Melbourne bid for the 1956 Summer Olympic Games mentioned a desire to establish a sporting legacy, and the Mexico City 1968 Summer Olympic Games final report referenced the cultural legacy of the Mayans (Leopkey & Parent 2011).

While the modern Olympic Games have been establishing a legacy since perhaps their first iteration in Athens, 1896, it was not until the Centennial Games in Atlanta, 1996 that leaving a legacy a stated goal of hosting the Games in the bidding process. The organizers of those Games did not define what legacy was. Recent Winter Olympic Games in Albertville (1992), Lillehammer (1994), Nagano (1998), and Salt Lake City (2002) have generated venues these cities have no future use for, often called “white elephants.” By the 2000’s, the IOC had defined Olympic legacy as sports venues and community development initiatives which continue to be used by the public after the Games. But a fuller understanding of legacy must include social and economic impacts in addition to those of the built environment. Examples of legacies in the literature range from business development to sports infrastructure to global reputation, and in many cases include urban renewal, construction debt, and displacement (Karadakis & Kaplanidou 2012).

The second and third Olympic Games were attached to international exhibitions, and required little to no infrastructure. From 1908 until 1932, hosts built a few sports venues, athlete’s villages, and potentially improved transportation infrastructure to the site of the Games. The German government built a large Olympic complex to stage a global advertisement for the Nazi regime, but the development had little impact on the city of Berlin. Following World War II, the Games were conducted with austerity in mind (Coaffee 2011). Hosts began using the Olympics to justify transportation improvements in the 1950’s, beginning with Rome (1960 Summer Olympic Games host) and Tokyo (1964 Summer Olympic Games Host) (Davis & Thomley 2010). U.S. and Canadian cities expressed varying commitments to creating a legacy with the Games in their bids for Games held through the 1980’s and 1990’s (Leopkey & Parent 2011).

Montreal was left with a billion U.S. dollars in debt after hosting the 1972 Summer Olympic Games (French & Disher 1997). The 1984 Summer Olympic Games in Los Angeles was not only held without government funding (the first instance since the first modern Olympic Games in Athens, 1896), but also turned a profit of 223 million U.S. dollars. Relying largely on already built venues, including the Los Angeles Coliseum used for the 1932 Summer Olympics, the 1984 Games only needed two new sporting venues: the aquatics center built on the University of Southern California campus, and the velodrome built on the California State University – Dominguez Hills campus (International Olympic Committee 2017). While the 1984 Summer Olympic Games didn’t burden the taxpayers with costs, it doesn’t seem that they left much of an economic impact in their wake, and assuredly did not transform Los Angeles (Baade & Matheson 2002).



Figure 18: Barcelona's Olympic Marina (left) is now a busy commercial site; the Olympic Village was converted into semi-detached homes, with the swoosh from the 1992 Summer Olympic Games logo still visible above each home (right).

Seoul used the 1988 Summer Olympic Games to redevelop an area south of the Han River, but was criticized for only focusing on the physical environment. Barcelona used the 1992 Summer Olympics to regenerate a waterfront district, including turning the athlete's village into social housing after the Games, as well as developing new planning practices and social programs (L. E. Davies 2012). Barcelona placed the redevelopment as part of a city wide reinvestment, after decades of neglect under the Franco administration (Smith et al 2011). Barcelona only spent 17% of its budget for the Games on venues directly associated with hosting them; the other 83% was spent on urban renewal projects (Gold & Gold, Introduction 2011).

By 1994, the IOC decided to start looking into the environmental impact the Games have (Gold & Gold, Introduction 2011), more than two decades after Denver residents backed out of hosting the 1976 Winter Olympic Games over concerns around the both the financial and environmental impact that would create (Trex 2016). "Environment" became the third pillar of the Olympic Movement, after "sport" and "culture" (Gold & Gold, Introduction 2011). This was perhaps the first official acknowledgement by the IOC that the Olympic Games bring tangible impacts to their hosts beyond the festival itself and the promotion of sport and culture.

Atlanta created the Corporation for Olympic Development in Atlanta (CODA) prior to hosting the 1996 Summer Olympic Games, charged with improving pedestrian access to downtown and revitalizing 16 neighborhoods. While the two neighborhoods most visible during the Olympic Games received an influx of federal money and new development, the other neighborhoods saw little investment. One criticism is that CODA was separate from the city's planning and housing

authorities, and squandered valuable time leading up to the Games due to the lack of integration. After the Games, the political will to continue the work vanished. Another criticism is the reliance on raising private capital to develop housing in neighborhoods that the market could not support. Atlanta was successful in realizing the other types of benefits. What would the impacts have been if 1 billion dollars had been directly invested in schools, public health, and public safety instead of the Games? (French & Disher 1997)

Critics say that Atlanta over built during the Olympic period, and that the benefits were not distributed to all. The Pittsburgh neighborhood, for example, is located only blocks from the Olympic stadium, yet fifteen years later was still in decline with a vacancy rate of around 50% (Lohr 2011). In total, 30,000 residents were displaced due to Olympic construction, and 9,000 arrest citations were issued to homeless people leading up to the Games (Centre on Housing Rights, Evictions 2007, 11).

Many of the new venues and the Olympic village were tied to local universities Georgia Tech, Georgia State University, and several Historically Black Colleges and Universities located in the Atlanta University Center, ensuring their use after the Games. They also cited increased volunteerism and Olympic-related job training programs among the community benefits. The Atlanta Committee for the Olympic Games (ACOG) was entirely responsible for the \$189 million U.S. dollars required to construct the Olympic Stadium. After the Games, the stadium was reconfigured from an 85,000 seat track and field stadium into a 45,000 seat baseball stadium and given to the Atlanta Braves of Major League Baseball. ACOG also retired the debt on the Braves' previous home, Fulton County Stadium, which was used for baseball during the Olympics and demolished after the Games (Humphreys and Plummer 1995).



Figure 19: Turner Field in 2005; The Braves abandoned the stadium they received for free after 20 seasons.

The Atlanta Committee for the Olympic Games (ACOG) was entirely responsible for the \$207 million U.S. dollars required to construct the Olympic Stadium. After the Games, the stadium was reconfigured from an 85,000 seat track and field stadium into a 45,000 seat baseball stadium and given to the Atlanta Braves of Major League Baseball. It was renamed Ted Turner Field after the team's billionaire owner (Atkins, Smedick, Strupczewski, & O'Malley n.d.). The Atlanta Braves only occupied Turner Field for 20 years, before leaving downtown Atlanta for Sun Trust Park in suburban Cobb County. The stadium was reconfigured again and is now home to Georgia State University's football team (Ortiz & Glier 2016).

The University of Georgia predicted in 1995 that the following year's Summer Olympic Games in Atlanta would generate an impact of 5.1 billion U.S. dollars, 1.9 billion U.S. dollars in earnings for the state economy, 176 million dollars in additional tax revenue, and create 77,000 full- or part-time jobs while only committing 1.5 billion U.S. dollars in funds from the organizing committee (Humphreys and Plummer 1995). ACOG ended up spending 2.6 billion U.S. dollars, but studies disagree as to whether it was able generate 5.1 billion in economic impact or fall a billion U.S. dollars short of projections (French & Disher 1997) (Ortiz & Glier 2016). Atlanta hoped the Games would promote its image as a world-class sports and conference center, and spark a revitalization of downtown Atlanta. The goal of revitalizing urban neighborhoods appears to have fallen short. A 2002 study also estimated that only 24,742 jobs were created. The additional tax revenue, estimated at 200 million U.S. dollars, did not cover the government contribution of 354 million. Hotel occupancy rates actually fell from 72.9% in 1995 to 68% in 1996, and convention and business travelers avoided the city during the Olympic Games and the run up to them (Ortiz & Glier 2016).

It is difficult to isolate the Olympic effect from Macro-economic data. From 1996 to 2000, the number of international firms with branches in Greater Atlanta doubled (Atkins et al n.d.). Atlantans seem to think the Games benefitted the city, some even say transformed it. While some neighborhoods like Pittsburgh were overlooked, others like Summer Hill were revitalized, and downtown was transformed by the Centennial Olympic Park and the development around it, including the Georgia Aquarium (the world's largest) and the College Football Hall of Fame (WBUR 2015).



Figure 20: Atlanta's Centennial Olympic Park is one of the positive legacies of the Games; the Olympic Rings splash pad (right) (Guillory 2015) is one of the most loved features.

Sydney, host of the 2000 Summer Olympic Games, used the event to redevelop Homebush Bay, an area 14 km from the city center that had previously been home to the city's abattoir and a clay pit. The site was chosen because it would not cause any displacement, and as a forward looking choice as the city was expanding in the direction of the site. Considered a success on those terms, and for the environmental cleanup of the site, it was disconnected from the rest of the city's development plan, and had a difficult time locating tenants for the stadium and arenas after the Games due to their isolation (Smith et al 2011). According to Lynn Minaert, Sydney, host of the 2000 Summer Olympic Games, was the first city to effectively implement a social legacy program which benefitted socially excluded groups. Some other hosts of that era promised such a legacy without delivering fully, and some ignored the issue entirely (Minnaert 2012).

The Canadian Olympic Committee reported that their entire country benefited from an increase in national pride, while residents of Vancouver and Whistler (home of the skiing events) enjoyed increase access to transit and sports facilities. They claimed that taxpayers only paid for 8% of the costs of three major infrastructure projects that they now enjoyed (University of British Columbia 2013). Vancouver has been criticized for how it dealt with its homeless population in the lead up to the 2010 Winter Olympic Games, as well as not delivering fully on its promise to convert the athlete's village into social housing (Pentifallo 2015).

One might expect venues from the 1984 Winter Olympic Games in Sarajevo to be abandoned, given that the city was the center of a bloody war in the 1990s. But sporting venues from the Summer Olympic Games in Athens (2004), Beijing (2008), and Rio de Janeiro (2016) and

winter Olympics in Sochi (2014) have also been abandoned since their Games ended (Somvichian-Clausen 2018). These white elephants represent an all too common negative legacy impact left behind by the Games.



Figure 21: The Canoe/Kayak Stadium (left) (Bicanski 2014) and baseball stadium in Hellenikon (right) (Karabalis 2014) used in the 2004 Summer Olympic Games in Athens were abandoned after the Games.



Figure 22: Rio's Olympic Park was full of people during the Paralympic Games in September of 2016 (left), but Aquatic Center sits abandoned only six months after the Games (Tama 2017).

The Winter Olympic Games are also now concerned with legacy issues. When they were first held, they were generally hosted in small resort towns like St. Moritz, Switzerland, Cortina d'Ampezzo, Italy, or Lake Placid, USA, with little infrastructure built specifically for the Games. However, the Winter Olympic Games have grown in both the number of events and participants. From 1924 to 1960, Oslo (1952 host) was the only city of over 100,000 people to host the Winter Olympic Games. From 1964 onward, the IOC has generally selected cities over 100,000 people, with Lake Placid's second Games (1980), Albertville, France (1992), Lillehammer, Norway (1994), and PyeongChang, South Korea (2018) as the only exceptions. The change to choosing cities as hosts has, in many instances, alleviated the problem of building stadiums, skating arenas, housing, and broadcast centers in sparsely populated places, but it has also created a widening of the Games.

Many of the cities who host are dozens if not hundreds of miles from the ski slopes and sliding centers, creating a need for multiple sites or clusters.

Those small communities face burdens perhaps more acute than their larger counterparts. While Lake Placid makes use of many of its facilities as part of a national training center, the other smaller cities have struggled to find uses for large sporting venues. The stadium used for opening and closing ceremonies in PyeongChang cost 107 million U.S. dollars (out of a total budget of 13 billion), and was immediately demolished after the Paralympics ended. Other venues like the speed skating rink and hockey center sit empty. The national government has declined to pay the over 5 million U.S. dollars in annual maintenance fees on unused venues, leaving that cost on the local government. If the local authorities can't find a use for these sites, they may raze them as well. An increase in hotel rooms has also led to massive vacancy rates after the Games (Associated Press 2018) (Weber 2018).

Sochi, Russia, host of the 2014 Winter Olympic Games might present the greatest cautionary tale for potential host cities. The estimated cost of over 55 billion U.S. dollars (escalated from an initial budget of 12 billion) does not include the 1.2 billion per year the government will have to spend to maintain the venues and infrastructure built for the Games. The Games did not have the desired legacy of improving Russia's image in the world or turning Sochi into a world-renowned resort city (Müller 2014).

Ironically, the city best poised to use the London model is probably New York City, also a finalist for the 2012 Summer Olympic Games. New York City's bid included a major revitalization of the West Side of Manhattan, which has now largely been realized through the Hudson Yards project. Doctoroff credits the bidding process with galvanizing support around the development (Doctoroff 2017). New York still has other areas it is seeking to redevelop, and could use a future Olympic bid to address these areas following the London model, but most of the areas it may wish to redevelop do not currently need the push of an Olympic Games.

With such a spotted history of legacy delivery, it is unclear whether the London model can be transferred elsewhere. Few cities have undertaken a transformative Games with a stated goal of improving the quality of life for its residents. Barcelona and London (so far) have delivered on many of their legacy promises, but Atlanta is an example of how such promises can dissipate once the Games are over. The current monitoring system in use by the IOC ends three years after the Games, hardly time to truly evaluate the legacy of an event, but hopefully their new Legacy

Reporting Framework will do a better job of at least documenting legacy achievements, but the IOC has little leverage once the Games end.

EFFICACY OF THE LEGACY APPROACH – EMBRACABILITY

Hosting the Olympic Games has never been about maximizing profits, as IOC member Holger Preuss notes that cities that are looking at a purely economic return on their investments should build industrial parks instead (Preuss 2018). The IOC is no longer selling the idea that the Games are a transformative event for a city (Sisson 2018). The new model positions the Games as a way to help city and regional plans to create a lasting legacy. As much as the IOC would like to make hosting the Games about more than the economics, escalating costs seem to be the key driving factor for many cities to forgo an Olympic Bid.

The IOC builds a convincing case for why a city would want to be an Olympic host. The Olympics provide a global audience (3.5 billion people watched the 2016 Summer Olympic Games in Rio, 2.1 billion viewers were reached by the digital programming of the 2014 Winter Olympic Games in Sochi), and can impact the way the people see a city. Perhaps the clearest benefit is a sporting legacy, with host cities claiming an increase in sports participation, especially among youth. But the IOC also claims an economic benefit to the hosts, claiming the 2010 Winter Olympic Games in Vancouver created 2500 full time jobs, 800 new businesses, and a 2.8 billion Canadian dollar boost to the national GDP (International Olympic Committee 2017).

The IOC also claims a legacy of social inclusion in Vancouver from programs centered on the 2010 Winter Olympic Games. Turin, the host of the 2006 Winter Olympic Games, used the opportunity to showcase its rich history and baroque architecture. The city's reputation as a site of heavy industry and world class soccer added new dimensions which energized its tourism industry and saw its arrivals and bednights double from 2000 to 2016 (International Olympic Committee 2017).

Finally the IOC offers a vision of sustainability, focusing on the environmental concerns addressed in the 1994 Winter Olympic Games in Lillehammer, Norway. Future hosts Paris and Los Angeles will use 93% and 97% temporary or existing venues respectively during the 2024 and 2028 Summer Olympic Games (International Olympic Committee 2017).

These arguments were persuasive until the last decade, and cities and nations competed enthusiastically to host sporting mega-events, particularly the Olympic Games and the FIFA World Cup. These competitions deliver by bringing in millions of attendees and billions of television viewers, but perhaps the biggest draw of a promised economic windfall has been undercut by skyrocketing costs (Barclay 2009). The "No Boston Olympics" campaign coalesced largely around

fears of massive cost overruns in the wake of the “Big Dig” highway project, whose budget spiraled out of control (Dempsey & Zimbalist 2017). To be sure, the organizers of the Boston bid made several other mistakes including a failure to develop community buy in early in the process, but concerns about costs appear to be at the root of not only Boston’s withdrawal, but many other cities’ decision to either not bid at all or withdraw their bid before the final vote.

Costs for the Olympic Games have increased dramatically, in a system which has always been prone to cost overruns. A study conducted by Oxford University’s Saïd Business School found that Olympic Summer Games run on average 5.2 billion U.S. dollars over budget, and Olympic Winter Games run on average 3.1 billion U.S. dollars over budget (all costs in the report adjusted to 2015 dollars). According to the study, the IOC also saw the two most expensive Games ever held back to back; the 2012 Olympic Summer Games in London cost 15 billion U.S. dollars, while the 2014 Olympic Winter Games in Sochi, Russia cost nearly 22 billion U.S. dollars, not including transit and other long-term investments which may have been spurred on by the Games but were not sports-related directly. The previous record was the 1992 Summer Olympic Games in Barcelona, which cost 9.7 billion U.S. dollars. The study covered 25 out of 30 Olympic Games from 1960 to 2016 (data was unavailable in 3 instances, and in 2 cases hyperinflation made normalizing budgets to U.S. dollars impossible), and found that all of them ran over budget. Nearly half ran 100% or more over budget, with the 1976 Summer Olympic Games in Montreal the worst offender with cost overruns totaling 720% of its budget. The 1980 Winter Olympic Games in Lake Placid overran their budget by 324%, the 2014 Winter Olympic Games in Sochi by 289%, and the 1992 Summer Olympic Games in Barcelona by 266%. It should be noted that while the percentage overrun was high, the total budget for Lake Placid in 1980 was still under half a billion U.S. dollars. Until the 2014 Winter Olympic Games in Sochi, Winter Olympic Games are generally much less costly than Summer Olympic Games. Winter Olympic budgets didn’t break the 1 billion U.S. dollar (adjusted to 2015 dollars) mark until 1988, and did not surpass 5 billion U.S. dollars until 2014, compared to six times for the Summer Olympic Games which have exceeded 5 billion U. S. dollars six times, and will again in Tokyo in 2020 (Flyvbjerg, Stewart, & Budzier 2016).

In addition to the direct costs of building the venues and hosting the event, cities often tie other infrastructure projects to the Games, some of which are necessary for the event. Atlanta spent 600 million U.S. dollars on such projects for the 1996 Summer Olympic Games, and Athens over 1 billion for the 2004 Summer Olympic Games. These expenses can cost a bid public support, and recently several bids have failed after public referendum have voted down the proposal. Benefits are

hard to quantify with data. It's difficult to determine what opportunities have been passed over in favor of the Games, or what development would have occurred regardless of them (Burgo & Cromartie 2018).

The IOC requires hosts to put on a safe Games. The need for security is real, especially after terrorist attacks at the 1972 Summer Olympic Games in Munich and the 1996 Summer Olympic Games in Atlanta. The cost of security sky rocketed following the terror attacks of 9/11, and now routinely cost over a billion U.S. dollars per Games, compared 66 to 180 million U.S. dollars to secure the Summer Olympic Games from 1984 to 2000 (Coaffee & Fussey 2011).

As discussed previously, the IOC is attempting to rein in costs in a few ways: streamlining the bidding process, finding cost savings through better management, and making better use of existing and temporary venues. The first two are realistically good practices, but not enough to make the Games affordable. The third policy surely will reduce costs, but also limits which cities are capable of hosting the Games. Most cities simply do not have the dozens of world-class venues necessary to execute the Games. The IOC has been left with cities which already have the majority of their venues and want to run an economical Games (Paris, Los Angeles, and failed 2020 bidder Madrid), joint bids which spread the Games over large areas (Milan-Cortina and Stockholm- Åre), and less than democratic nations which are willing to spend the money to cash in on the Olympic prestige (Beijing, and failed bids from Istanbul, Almaty, Erzurum). Tokyo, which will host the next Summer Olympic Games in 2020, is the only bidder in the past decade that has committed to a major investment for the Olympics that did not withdraw their bid.

One issue plaguing the IOC is its own track record. Despite a commitment to the environment and to sustainability since the 1990's, the IOC has selected hosts such as Athen, Beijing (twice), Sochi, Rio de Janeiro, and PyeongChang where these issues appear to have been placed on the back burner. In more competitive years, cities were encouraged to promise more than the minimum necessary in order to stand out from the crowd, escalating costs. Yes, The IOC has publicly lauded both Paris and Los Angeles for their commitment to sustainability, but they also did not have any other options. Had Boston, Hamburg, Rome, or Budapest stayed in the contest for 2024 and promised shiny new venues that would be a memorial to the Olympic Games, would the IOC still have selected Paris and Los Angeles? Evidence points to the contrary.

Bent Flyvberg, an authority on Olympic budgeting, said that “for a city and nation to decide to stage the Olympic games is to decide to take on one of the most costly and financially most risky type of megaproject that exists, something that many cities and national have learned too their peril”

(Wade 2018). The Olympic Games hosts draw three direct streams of revenues to their hosts: domestic sponsorships, ticketing, and licensing of merchandise. The 2010 Winter Olympic Games in Vancouver took in 1.08 billion Canadian dollars (900 million U.S. dollars in 2018 terms), while the 2014 Winter Olympic Games in Sochi took in 49.3 billion rubles (1.48 billion U.S. dollars in 2018 terms) (International Olympic Committee 2017). These direct revenues are unlikely to cover the cost of the Games, so other benefits must be realized to make the proposition worthwhile. But it is also important to understand that many of the stakeholders who promote and benefit from the Games are not the ones footing the bill (Solberg 2018).

This is the real issue for the IOC. They need to find a way to make sure that the citizens who are footing the bill for hosting their Games will feel like they have benefitted from that cost. It's something that is incredibly hard to prove, as there are a myriad of ancillary costs and also counterfactuals to consider around what may or may not have happened without the investment or if the funds were invested differently. The IOC was saved from a host city recruitment crisis once before by the success of the 1984 Summer Olympic Games in Los Angeles; can the 2028 Games provide another success story worthy of inspiring other potential hosts? Can the IOC wait that long?

There are steps that the IOC can take in the meantime. They can better use the new dialogue phase to promote community engagement and foster an ownership of the Games among the people who will ultimately shoulder the costs and have the power to block the bid entirely. They can also require realistic budgeting in all bids to prevent at least some of the cost overruns. They can enact more oversight of the process and require legacy projects be underway prior to the Games so as to front load these promises and make sure they are not forgotten once the Games have ended. They already hold the threat of reassigning Games if venue construction falls behind their timelines, but other projects could also be included. It is unclear if hosts would take such a threat seriously, as the IOC has never rescinded a Games award (although they have twice found replacements once a host withdrew), but it is a step in the direction of demonstrating how serious the IOC is about creating positive and lasting legacy impacts.

CONCLUSION

Brown, Cox, and Owens detail several lessons they feel other bidding cities can learn from London. They recommend first developing how the Olympics will advance strategic planning goals for the city or region. Specific targets and desired outcomes should be identified, or else legacy impacts will be difficult to monitor and appraise. Delivery structures need to be created, and buy in gotten from all of the stakeholders prior to submitting a bid to limit major disagreements on key issues later in the process. Legacy planning and governing structures should also be developed early on. Partnerships across different levels of government need to be arranged, and their Games-related offices should be co-located to better ensure effective cooperation (Brown et al 2012).

These suggestions are useful for any host city, but they are minor tweaks to a system that is more in need of an overhaul. The new process has many desirable goals and incorporates some long-needed best practices, all of which are welcome. But we have already seen in the past two bid cycles that it has not been able to draw in a variety of viable host cities that the IOC was accustomed to over the previous two decades.

The new process has specifically failed to address the rash of public votes, held or threatened, that have caused interested public officials to withdraw their cities' bids. While the IOC is offering technical assistance on how to include community feedback in the bidding process, they must also help cities wage a public relations campaign convincing the voting public that they should support the bid. This used to be an easy sell for the IOC, and they have made real policy changes to address the most objectionable practices, but they have not yet put in the leg work to turn around public opinion at large.

While the 2012 Summer Olympic Games in London are held up as a model for developing an Olympic Legacy, ironically, it was the first Olympic Games hosted by London in 1908 that began the escalation of costs by building permanent structures for the events. The 1908 Olympic Games were arguably responsible for developing the Games as a stand-alone sports festival capable of drawing spectators on its own merits, but it also created the first "limping white elephant," White City Stadium in Shepherd's Bush (West London). With no permanent tenant, it sporadically hosted events and even greyhound racing until its demolition in 1985 (Gold & Gold 2010).

These white elephants have become all too common in recent years. While London 2012 found uses and tenants for all of its new venues, few other hosts can say the same. While China, Russia, South Korea, and Brazil may be willing to fund the construction of sites which will only be

used during the Olympic and Paralympic Games, Sydney and Athens both stand as warnings to democratic and economically developed countries the way that the Montreal debt crisis in 1972 did.

The IOC recovered from the crisis in the 1970's because the 1984 Summer Olympic Games in Los Angeles told a different story, that the Olympic Games could turn a profit and not be a long-lasting burden on taxpayers. The 2012 Summer Olympic Games in London provide a compelling story that white elephants are not a necessary after effect of hosting, but it did so at a tremendous cost to taxpayers.

Writing about the 1908 London Olympic Games 1911, Coubertin lamented: "It would be very unfortunate, if the often exaggerated expenses incurred for the most recent Olympiads, a sizeable part of which represented the construction of permanent buildings, which were moreover unnecessary – temporary structures would fully suffice, and the only consequence is to then encourage use of these permanent buildings by increasing the number of occasions to draw in the crowds – it would be very unfortunate if these expenses were to deter (small) countries from putting themselves forward to host the Olympic Games in the future" (Girginov & Hills 2008).

Coubertin's words are especially resonate today, as the expenses are also deterring cities in large countries from putting themselves forward. In a way, the IOC is a victim of both its own success and its own lack of oversight. For the two and a half decades following the 1984 Summer Olympic Games in Los Angeles, cities were rewarded for putting forward overly expensive bids as competition to host the Games soared. Failure to reign in excesses or hold hosts accountable to anything beyond delivering venues and providing security worked for a time, but has left them now with little good faith and fewer bidders.

The IOC has begun a process of quantifying the impacts of their Games. They should not rest here. They should continue to move forward, and create more metrics and specific targets that will keep Olympic hosts on track to meet legacy goals. The new Legacy Delivery Framework is an evolution of the process, but simply documenting is not sufficient to truly ensure positive impacts. While nothing is guaranteed in any political system, but some steps can be taken to require earlier implementation and codified actions instead of relying on the political system to remain committed to the ideals of their bid once the Games have ended. If the IOC truly wants a diverse set of cities bidding to host the Games again, they must demonstrate that the idea of Olympic Legacy is not only real, but highly likely to occur.

APPENDIX: LITERATURE REVIEW

Maurice Roche describes mega-events, such as the Olympic Games, as “short-term events with long-term consequences for the cities that stage them” (Roche 1994, 1). It is important to note, as Ian Brittain does, that these events do not stand alone, and are impacted by many pressures already present in society (Brittain 2018). There is considerable research on the potential upside of such mega-events, and also on how many have failed to deliver on those promises (Bocarro, Brittain, & Byers 2018). Studies have found that hosting and bid cities have benefitted from increased global exposure, which has the potential of boosting tourism and trade. But the cost of the investment is high, and this favors more affluent countries (Burgo & Cromartie 2018).

The shift to the neoliberal age has brought about two specific impacts on cities of western democratic countries; a reduction in funding from national-level governments and an increase in global competition for economic development. This led to many cities adopting high risk strategies to stimulate economic development, pushing vast resources into competition for scarce opportunities, even if they might realistically not have a great chance of landing the opportunity (Andranovich, Burbank, & Heying 2001). This perhaps best exemplified by the recent search for Amazon’s second headquarters, in which produced 238 proposals across the nation (Yurieff 2018). One such strategy is the mega-event strategy, drawing a one-time experience to the city as a means of local development. Of all the mega-events, the Olympics have long been the gold standard due to their global reach, ever increasing broadcast revenues, and their branding. 2017 research found the Olympic Rings were the tenth most recognized logo, putting it in similar position to Nike, Walt Disney, and Coca-Cola (Casella 2017).

This type of thinking forms the basis of almost any Summer Olympic Games bid, with additional factors coming into play. These can include a desire to craft a strong narrative for internal and external consumption, which is true at every Olympics, but perhaps more so at ones held by authoritarian regimes (Berlin and Garmisch-Partenkirchen in 1936, Moscow in 1980, Beijing in 2008 and 2022, and Solchi in 2014), or to show off a newly-democratized country’s emergence (Tokyo in 1964, Munich in 1972, Seoul in 1988, Rio de Janeiro in 2016). Atlanta, a city which already was home to many corporate headquarters, including major Olympic sponsor Coca-Cola, wanted to expand its brand internationally as well as develop a reputation as a world class tourism and convention city. It also wanted to use the occasion to redevelop downtown (Andranovich et al 2001).

Proponents see value in the creation of state-of-the-art sporting venues and associated amenities, short-term economic boosts from the construction phase and tourists at the event, the high visibility the city receives during the buildup but especially while hosting the event, and the possibility of urban redevelopment (French & Disher 1997). Recently cities have cited wanting to improve community health and bolster community pride (Solberg 2018).

The main reason that cities bid for the Olympic Games are international exposure and financial gain. Bidding for an Olympic Games may be a part of a liberalization of the country, including reducing trade barriers and joining multi-national agreements. Hosting the Olympic Games is, for some, a move into a global community they may not have been fully part of. This may explain why some of the cities choose to bid, but not why cities in the United States, Canada, and Western Europe continue to bid, sometimes multiple cycles in a row (Rose and Spiegel 2011). The decision to host any mega-event, such as the Olympics, has historically been a political one. It is often reached with little prior research or data collection, or only with skewed data used to support the project instead of applying an objective lens (J. L. Armstrong 1984).

To many, hosting the Olympic Games (especially the Summer Olympics) is proof that their city is a world-class city (Barclay 2009). For example, Rodney Rood (1977), a member of the Southern California Committee for the Olympic Games and vice president of Atlantic Richfield Corp., during Los Angeles's successful bid for the 1984 Summer Games, boosters hoped the Olympics would give L.A. the ability to showcase its best qualities to a global audience, increase revenues from new visitors inspired by the Games, and increase the standing of the city in history and contemporary society (Andranovich et al 2001). This desire to climb the global hierarchy likely played a role in the successful Summer Olympic Games bids by Rome (1960), Tokyo (1964), Mexico City (1968), Seoul (1988), Atlanta (1996), Beijing (2008), and Rio de Janeiro (2016), as well as failed bids by Cape Town, Buenos Aires, Alexandria, Istanbul, and others. Governments can use the opportunity for nation building, to show progress to the rest of the world, or to stage political theater (Barclay 2009).

There are also gaps on research into the impacts or legacies of such events. While the Olympic Games and FIFA World Cup are studied frequently, other mega-events are not. Most literature favors conceptual articles instead of empirical research, and often is very narrowly tailored instead of looking at the entirety of the legacy impact. Finally the time frame is often limited to the immediate impact of the Games, or at most five years out (Bocarro, Byers, & Carter 2018).

Critics accept that the one thing the Games always provide is a non-negotiable deadline for the projects related to them. But they also note that not all of the development has a long-term purpose. Ideally, venues should be designed for use afterwards for either elite athletes or the general sporting public; arenas are often easy to find uses for, but specialized venues such as ski jumps and bobsled tracks are difficult to find uses beyond elite athletes, and may not draw in enough revenue to maintain them after the Games. Hotel accommodations are also a concern, for example Lillehammer saw a 40% vacancy rate after hosting the 1994 Winter Olympic Games, leading to a bankruptcies (Burgo & Cromartie 2018).

Andranovich, et al, see the move to a consumption-based economy as creating environments designed for tourists rather than those who reside in the city. They heavily critique the sports stadium boom of the 1990s, which saw over 50 new sports complexes built for the major four sports leagues in the United States. They see the mega-event strategy as even more damaging because it is bringing an outside event to the city for a limit period, and face the possibility of unforeseen obstacles such as boycotts. One of their main criticisms is that (under the previous system) only cities could bid for the games, which negatively impacted U.S. cities compared to other nations where the federal government may be expected to play a larger role in financing the Games (Andranovich et al 2001), however this has been addressed partially in the Olympic Agenda 2020, which now allows other parties to cosign with the bid city (International Olympic Committee n.d.).

Experts disagree as to whether such events are worth the associated costs. Research shows that economic benefits, at least in U.S. cities, do not live up to projections. This is supported by economic theory in competitive bidding cycles; cities are motivated to trade away financial benefits down to zero (Baade & Matheson 2002). Holger Preuss argues that it is difficult to determine whether hosting the Olympics is economically beneficial, since the hosts vary so much in size, economic health, political intentions, and varying economic cycles over time. Smaller cities, or cities in smaller countries, may be more burdened by Olympic expenses than their counterparts. When considering only revenues and operating expenses, every Summer Olympic Games from 1972 (Munich) to 2000 (Sydney), exempting 1980 (Moscow) for which data is not reliable, operated at a profit (Preuss 2006). Unfortunately there are many associated costs not accounted for under operations.

The 2000 Summer Olympic Games in Sydney were predicted to have a 6.3 billion U.S. dollar economic impact while creating 100,000 new jobs. These forecasts are based on direct spending, plus an estimate of visitor spending during the Games. But many scholars have rejected these

studies as fundamentally flawed, as they don't consider what else that money might have been spent on; it considers the gross amount not the difference between it and what would have been spent anyhow. In particular, it does not account for revenue lost due to people avoiding the event. Multipliers used to predict indirect economic benefits are often exaggerated. External firms and Olympic sponsors may reap more of the spending dollars than local merchants. The money spent on constructing stadium are counted in the economic impact, but often the cost of maintaining them is overlooked, assuming a post-Games use is even found for them. In preparing for the 2012 Summer Olympics in London, Prime Minister Tony Blair recognized that there was little supporting evidence that the Games would bring about significant economic returns, and his Minister for the Olympics questioned whether the national government would have backed the bid if they had foreseen the economic collapse of 2008 (Barclay 2009).

Stadiums are particularly expensive and require a tenant that can draw in spectators after the Games. There are multiple examples provided in studies of stadiums from mega-events that failed on this account. South Korea built ten new stadiums to host the 2002 FIFA World Cup, each capable of housing 40,000 to 60,000 spectators, but an average soccer match in Korea's professional league only draws 3,000 fans. Five of those ten have been shuttered (Burgo & Cromartie 2018). Research supports that sports venues, if utilized after the Games, do provide a positive economic impact, but not necessarily enough to cover the public debt or subsidies taken on for their construction. These economic benefits may only be redistributed from neighboring areas (Coates 2007).

Also in question is the true economic consequences of hosting the Games. Estimates of economic impact range from an average of 400 million to 2.6 billion U.S. dollars for the Summer Olympic Games from 1984 to 2004, but these benefits are undercut by the debt cities take on to build the infrastructure; competitive bidding cycles also see cities over promise to stand out, which adds to costs. Further complicating economic evaluation is that most entities creating these evaluations are biased towards the Olympics, leaving many scholars doubting their findings. The draw of these mega sports events for tourists is also difficult to assess; some travelers may have already planned to visit the host city, and only change the timing of their trip to coincide with the event. Others may go specifically for the event, and still others may avoid the city because of the event. South Korea saw the same number of international visitors in 2002, the year they co-hosted the FIFA World Cup, as they had the previous year, and Atlanta reported "crowd avoidance" during the 1996 Summer Olympic Games as tourists and business travelers rearranged their schedules to

avoid conflicting with the Games. Major sponsors have exclusive access to the Olympic sites, minimizing the economic advantage to local and small businesses. Job creation estimates have also not delivered as promised (Burgo & Cromartie 2018) (Higham 2010).

Some studies find evidence that there is no significant difference in the economic impact gained by host cities and their runner up bids. Costs have risen for the Games, partially as cities try to outdo each other. The opening ceremonies alone of the 2008 Summer Olympic Games in Beijing are believed to have cost 100 million U.S. dollars, in a country where over 100 million citizens live on under 1 U.S. dollar a day. Other studies show countries which hosted the Olympic Games have seen trade exports increase by 20%; it is unclear if this is directly due to the Games or other contemporaneous events such as joining the International Monetary Fund, World Trade Organization, or European Economic Community. From 1950 to 2006, hosts of the Summer Olympic Games have seen an average of 39% permanent impact on trade. It is difficult to determine how many of these decisions were made to increase the attractiveness of the bids compared to other motivations (Rose & Spiegel 2011).

Critics have also addressed the negative impact on local residents. Mandatory relocations and rising rents in areas around new Olympic-related infrastructure has been blamed for 700,000 evictions in Seoul, host of the 1988 Summer Olympic Games, and 1.5 million evictions in Beijing, host of the 2008 Summer Olympic Games (Burgo & Cromartie 2018).

Finally, many of the benefits of hosting the Games are intangible, and thus difficult to quantify. When Vancouver first considered hosting the 2010 Winter Olympic Games, they reviewed previous North American host cities Salt Lake City (2002), Calgary (1988), and Lake Placid (1932 and 1980). They learned how each developed tourism, elite sports, and general sports participation after their Games, and created a 100,000 person strong volunteer movement to ensure the community felt an ownership of the Games and develop a common vision for Vancouver post Games (Burgo & Cromartie 2018).

Much has been written specifically on the bidding process, what Douglas Booth calls a “complex set of power relationships between the International Olympic Committee and candidate cities.” In the end, the decision is left up to the vote of a group of powerful individuals, each of which have their own motivations and viewpoint on the selection criteria (Booth 2011). Scholars have also written on the impact that the winning bid announcement has on economic markets. Baade and Matheson note that “(a)fter the 1984 Los Angeles Olympic Games, the prevailing perception seems to be that a properly run Olympics generates billions of dollars in profit,” (Baade

& Matheson 2002), while others have examined the financial risk versus reward of such a global economic competition. Still more has been written on the impact the media coverage of the games has on global tourism.

Beyond the economic impact, scholars have written on the transportation developments built to support the games (or how games have been used as a justification to build). While this is of some interest to me, I am also interested in the non-infrastructure outcomes for socially excluded groups, a topic Minnaert covered for the games immediately preceding 2012 (Minnaert 2012). Finally some have written on the ability to create a sustainable long-term legacy, and specifically on the urban regeneration/gentrification of East London following the 2012 games and how the legacy is being policed. Many of these studies were conducted prior to the Games even occurring (Brown et al 2012) (L. E. Davies 2012) (Davis & Thomley 2010) (Girginov 2011) (Girginov & Hills 2009) (Vanderhoven 2012) or immediately afterwards before lasting effects could truly be measured (Cruz 2014) (Watt 2013).

In the previous bidding system, critics note potential hosts often traded away net benefits for more expensive venues and infrastructure projects in order to make their presentations more competitive. There are a number of research papers which find economic benefits from hosting the Olympics, from increased spending, higher employment, infrastructure improvements, and international investment and trade (Higham 2010) (Humphreys & Zimbalist 2008) (Rose & Spiegel 2011). However, there is little analysis of long term impacts of the Games, and most research does not address that the Olympic bidding process is a self-selecting one, and that bid cities have different assets and situations compared to the average world city. Billings and Holladay found in their research that even controlling for several factors, the economic benefits of hosting the Olympic Games persist for years after the Games, but may be diminished in the future in the face of increasing costs (Billings & Holladay 2012).

As the Olympics have grown the economic impact is no longer tied just to the host city, it can spillover to the region or nation. Whether the impacts of the Games are positive or negative often rely on residents' perception, something which can change over time. Analysis of long-term social benefits is particularly lacking in literature, especially in comparison between hosts and non-host cities (Karadakis & Kaplanidou 2012). Winning an Olympic bid had a positive impact on the stock exchange in Athens, but no noticeable impact on Sydney's. This is perhaps due to the size and health of their economies. Conversely, Milan losing its bid had no noticeable effect, perhaps

because markets predict losing the bid in a competitive cycle as the most likely outcome (Veraros, Kasimati, & Dawson 2004).

Research into other types of impacts of these mega-events, or their legacies, is relatively new (Leopkey & Parent 2011). Even then, research usually focuses on the impacts on the built environment. Little research has been done on impacts to individuals (physical and mental health, skill development, and social capital), community, or perceptions of image and status. When these ideas are discussed, they generally look at the population in aggregate, and rarely at the impacts on socially excluded groups (Minnaert 2012). These analyses of legacy impact highlight the importance of examining the tools by which regeneration occurs. Davis and others have criticized the language used by public officials to describe East London in terms of what is lacking, to be “improved” by “better” built environments (Davis 2015).

The IOC claims cities can benefit just from being candidates, even if they are not selected. Almaty, Kazakhstan lost out to Beijing as host of the 2022 Winter Olympic Games, but it demonstrated that it is a viable site for multi-sport and international events. Chicago’s bid for the 2016 Summer Olympic Games saw the creation of a youth sports organization that has served 30,000 youth and one program has reduced violent crime arrests by 44% for participants compared to non-participants. Jonathan Kendall of Fletcher Priest architects, the designers of London’s athletes’ village for the 2012 Olympic Games was not convinced going in that London would be awarded the Games. He said “[t]he benefit of bidding was to galvanize people to think about the area” (Burrows 2017). Finally Dan Doctoroff, former deputy mayor of New York City and leader of its 2012 Summer Olympic Games bid has been very vocal about how the bidding process allowed the space for the creation of several development projects from Hudson Yards to Greenpoint and Williamsburg (International Olympic Committee 2017).

APPENDIX: METHODS

In preparation for this paper, I read through a vast variety of original documents supplied by the IOC or host cities, academic papers, and press reporting surrounding the Games. I conducted interviews with people involved in the planning of the London Olympic Legacy, and site visits to the sites used by London in the 2012 Summer Olympic Games. I spent two and a half weeks in London during July 2018, and a week in November 2018. I spent four nights at the Aloft hotel connected to the ExCel center, site of boxing, fencing, wrestling, weightlifting, judo, taekwondo, and table tennis, two weeks in a home in the Upton Park neighborhood of Newham, and one week at an apartment in Stratford City. This allowed me to not only observe the sports venues, but the neighborhoods impacted by them. I also have had the opportunity to visit Olympic venues in other host cities, including: Atlanta, Barcelona, Beijing, Berlin, Los Angeles, Melbourne, Montreal, Munich, Oslo, Rio de Janeiro, Seoul, Sydney, and Turin. All photos, unless otherwise credited, were taken by the author during site visits to London, Atlanta, Barcelona, Montreal, Rio de Janeiro, Turin, and Verona.

REFERENCES

- Altman, Andrew, interview by Robert Cain. 2019. *Former Chief Executive Officer, Olympic Park Legacy Company* (March 24).
- Andranovich, Greg, Matthew J. Burbank, and Charles H. Heying. 2001. "Olympic Cities: Lessons Learned from Mega-Event Politics." *Journal of Urban Affairs* 23 (2): 113-131.
- Armstrong, Gary, Richard Giulianotti, and Dick Hobbs. 2017. *Policing the 2012 London Olympics: Legacy and social exclusion*. London: Routledge.
- Armstrong, J. L. 1984. *Contemporary Prestige Centres for Art and Culture, Exhibitions, Sports and Conferences: An International Survey*. Birmingham: University of Birmingham.
- Associated Press. 2018. "Costly Pyeongchang Olympic venues could eventually be razed." *ESPN News*, September 20.
- . 2014. "IOC approves new bidding process." *ESPN News*, December 8.
- . 2018. "Graz won't bid for 2026 Olympics." *USA Today*, July 6.
- . 2018. "IOC drops Turkish city Erzurum from 2026 Olympic bid race." *USA Today*, October 4.
- . 2019. "Stockholm meets deadline to submit bid for 2026 Olympics." *USA Today*, January 11.
- Atkins, Jordan, Matthew Smedick, Emily Strupczewski, and Connor O'Malley. n.d. "Economic Impact Analysis 1996 Atlanta Summer Games."
- Baade, Robert A. and Victor Matheson. 2002. "Bidding for the Olympics: Fool's Gold?" In *Transatlantic Sport: The Comparative Economics of North American and European Sports*, by Muradali Ibrahim, and Stefan Szymanski Carlos Pestana Barros, edited by Stefan Szymanski Carlos Pestana Barros, 127-151. Cheltenham, UK: Edward Elgar Publishing.
- Barclay, Jonathan. 2009. "Predicting the Costs and Benefits of Mega-Sporting Events: Misjudgement Of Olympic Proportions?" *Economic Affairs*.
- Barking and Dagenham, Greenwich, Hackney, Newham, Tower Hamlets, Waltham Forest. 2010. "Convergence Framework and Action Plan 2011-2015." London.
- Beard, Matthew. 2009. "Olympic legacy chief sacked after one year." *Evening Standard*, April 30.
- Bicanski, Milos. 2014. Getty Images. *National Geographic: Look Inside the Abandoned Stadiums of Past Olympics*.
- Billings, Stephen B. and J. Scott Holladay. 2012. "Should Cities Go For The Gold? The Long-Term Impacts of Hosting the Olympics." *Economic Inquiry* 50 (3): 754-772.
- Bocarro, Jason, Ian Brittain, and Terri Byers. 2018. "Introduction." In *Legacies and Megaevents: Fact or Fairy Tales?*, by Jason Bocarro, Terri Byers, and Kamilla Swart Ian Brittain, 1-4. London: Routledge.
- Bocarro, Jason, Terri Byers, and Libby Carter. 2018. "Legacy of sporting and non-sporting mega event research: What next?" In *Legacies and Megaevents: Fact or Fairy Tales?*, by Jason Bocarro, Terri Byers, and Kamilla Swart Ian Brittain, 8-24. London: Routledge.
- Booth, Douglas. 2011. "Olympic city bidding: An exegesis of power." *International Review for the Sociology of Sport* 46 (4): 367-386.

- Brittain, Ian. 2018. "Legacy of sporting mega events for people with disabilities: The Paralympic Games." In *Legacies and Megaevents: Fact or Fairy Tales?*, by Jason Bocarro, Terri Byers, and Kamilla Swart Ian Brittain, 99-115. London: Routledge.
- Brown, Richard, Gary Cox, and Michael Owens. 2012. "Bid, delivery, legacy – creating the governance architecture of the London 2012 Olympic and Paralympic Games legacy." *Australian Planner* 49 (3): 226-238.
- Burgo, Edward and Fred J. Cromartie. 2018. "The Benefits of Bidding and Hosting the Olympic Games are Difficult to Justify Due to the Overall Costs." *The Sport Journal* 20.
- Burrows, Tim. 2017. "Legacy, what legacy? Five years on the London Olympic park battle still rages." *The Guardian*, July 27.
- Butchers, Russell, interview by Robert Cain. 2018. *Senior Planning Development Manager, London Legacy Development Corporation* (July 18).
- Cardis, Tom, interview by Robert Cain. 2018. *Interim Assistant Director of Planning* (July 12).
- Casella, Brett. 2017. *The World's 21 Most Recognized Brand Logos Of All Time*. February 15. <https://www.impactbnd.com/blog/most-recognized-brand-logos-identities>.
- Centre on Housing Rights, Evictions. 2007. *Fair play for housing rights: Mega-events, Olympic Games and housing rights*. Geneva: COHRE.
- Coaffee, Jon and Peter Fussey. 2011. "Olympic Security." In *Olympic Cities: City Agendas, Planning, and the World's Games, 1896-2016*, by John R. Gold and Margaret M. Gold, 167-179. New York: Routledge.
- Coaffee, Jon. 2011. "Urban Regeneration and Renewal." In *Olympic Cities: City Agendas, Planning, and the World's Games, 1896-2016*, by John R. Gold and Margaret M. Gold Gold and Gold, 180-193. New York: Routledge.
- Coates, Dennis. 2007. "Stadiums and Arenas: Economic Development or Economic Redistribution?" *Contemporary Economic Policy* 25 (4): 565-577.
- Cruz, Joseane Cristina. 2014. *Case Study: East London & London 2012 Olympic and Paralympic Games*. London: London Metropolitan University.
- Davies, Gareth A. 2008. "Mayor tricked Govt. into 2012 Olympics bid." *The Telegraph*, April 25.
- Davies, Larissa E. 2012. "Beyond the Games: regeneration legacies and London 2012." *Leisure Studies* 31 (3): 309-337.
- Davis, Juliet. 2015. "Urban Designs on Deprivation: exploring the role of Olympic legacy masterplanning in addressing spatial and social divides." In *Megaevent Cities: Urban Legacies of Global Sports Events*, by V. and G. Poynter Viehoff, 63-74. Farnham: Ashgate.
- Davis, Juliet and Andy Thomley. 2010. "Urban regeneration for the London 2012 Olympics: Issues of land acquisition and legacy." *City, Culture and Society* 1 (2): 89-98.
- Dempsey, Chris and Andrew Zimbalist. 2017. *No Boston Olympics: How and Why Smart Cities are Passing on the Torch*. Lebanon, NH: University Press of New England.
- Doctoroff, Daniel. 2017. *Greater than Ever: New York's Big Comeback*. New York City: PublicAffairs.

- Dorley-Brown, Chris. 2011. *Canal Corner, Hackney-Wick, 1999-2011*. London.
- Essex, Stephen J. 2011. "The Winter Olympics: Driving Urban Change, 1924 -2014." In *Olympic Cities: City Agendas, Planning, and the World's Games, 1896-2016*, by John R. Gold and Margaret M. Gold Gold and Gold, 56-79. New York: Routledge.
- Firth, Kathryn, interview by Robert Cain. 2019. *Former Chief of Design, Olympic Park Legacy Company and London Legacy Development Corporation* (April 3).
- Flyvbjerg, Bent, Allison Stewart, and Alexander Budzier. 2016. *The Oxford Olympics Study 2016: Cost and Cost Overrun*. Research Paper, Oxford: Saïd Business School RP 2016-20.
- France 24. 2019. *IOC evaluation chief 'very, very positive' about Milan-Cortina bid*. April 4. Accessed April 19, 2019. <https://www.france24.com/en/20190404-ioc-evaluation-chief-very-very-positive-about-milan-cortina-bid>.
- French, Steven P. and Mike E. Disher. 1997. "Atlanta and the Olympics: A One-Year Retrospective." *Journal of the American Planning Association* 63 (3): 379 - 392.
- Games Bids. n.d. *Past Olympic Host City Election Results*. Accessed April 27, 2019. <https://gamesbids.com/eng/past-bid-results/>.
- Girginov, Vassil and Laura Hills. 2008. "A Sustainable Sports Legacy: Creating a Link between the London Olympics and Sports Participation." *The International Journal of the History of Sport* 25 (14): 2091-2116.
- Girginov, Vassil and Laura Hills. 2009. "The political process of constructing a sustainable London Olympics sports development legacy." *International Journal of Sport Policy and Politics* 1 (2): 161-181.
- Girginov, Vassil. 2011. "Governance of London 2012 Olympic Games Legacy." *International Review for the Sociology of Sport* 47 (5): 543-558.
- Gold, John R. and Margaret M. Gold. 2011. "From A to B: The Summer Olympics, 1896-2008." In *Olympic Cities: City Agendas, Planning, and the World's Games, 1896-2016*, by John R. Gold and Margaret M. Gold Gold and Gold, 17-35. New York: Routledge.
- Gold, John R. and Margaret M. Gold. 2011. "Introduction." In *Olympic Cities: City Agendas, Planning, and the World's Games, 1896-2016*, by John R. Gold and Margaret M. Gold Gold and Gold, 1-13. New York: Routledge.
- . 2010. *Olympic Cities: City Agendas, Planning, and the World's Games, 1896 – 2016*. London: Routledge.
- Gratton, Chris and Girish Ramchandani. 2018. "Economic Legacy to cities hosting major sports events: A case study of London 2012." In *Legacies and Megaevents: Fact or Fairy Tales?*, by Jason Bocarro, Terri Byers, and Kamilla Swart Ian Brittain, 117-133. London: Routledge.
- Greater London Authority. 2018. *Mayor boosts affordable housing to 50 per cent on Olympic legacy sites*. September 6. Accessed May 2, 2019. <https://www.london.gov.uk/press-releases/mayoral/3000-new-homes-will-be-built>.
- Greenwich, Hackney, Newham, Tower Hamlets, Waltham Forest. 2009. *Strategic Regeneration Framework: An Olympic legacy for the host boroughs*. London: Hackney Design & Print .
- Grohmann, Karolos. 2018. "Japan's Sapporo pulls out of 2026 Winter Olympics race: IOC." *Reuters*, September 17.

- . 2018. "Seven cities confirm interest in 2026 Winter Games: IOC." *Reuters*, April 3.
- Guillory, Alison. 2015. "Centennial Olympic Park, in Atlanta." WBUR. *Member Of Atlanta's 1996 Olympic Bid Team: 'You Can Do It In A Responsible Way'*. Boston.
- Higham, James. 2010. "Commentary - Sport as an Avenue of Tourism Development: An Analysis of the Positive and Negative Impacts of Sports Tourism." *Current Issues in Tourism* 2 (1): 82-90.
- Hill, Dave. 2015. "What's happened to 'affordable' housing on London's Olympic park?" *The Guardian*, July 8.
- Humphreys, B. and A. Zimbalist. 2008. "The Business of Sports." In *The Financing and Economic Impact of the Olympic Games*, by B. Humphreys and D. Howard. Westport, CT: Praeger.
- Humphreys, Dr. Jeffrey M. and Michael K. Plummer. 1995. *The Economic Impact on the State of Georgia of Hosting the 1996 Summer Olympic Games*. Athens, Georgia: The University of Georgia.
- International Olympic Committee. n.d. *2024/2028 Host City Election*. Accessed April 23, 2019. <https://www.olympic.org/2024-2028-host-city-election>.
- . n.d. *Benefits of a Candidature*. Accessed April 22, 2019. <https://www.olympic.org/olympic-games-candidatures-beyond-2028>.
- . n.d. *Candidature Process 2026*. Accessed May 18, 2019. <https://www.olympic.org/candidature-process-2026>.
- International Olympic Committee. 2015. *Candidature Process Olympic Games 2024*. Lausanne: International Olympic Committee.
- International Olympic Committee. 2017. *Candidature Process Olympic Winter Games 2026*. Lausanne: International Olympic Committee.
- International Olympic Committee. 2015. *Candidature Questionnaire Olympic Games 2024*. Lausanne: International Olympic Committee.
- International Olympic Committee. 2017. *Candidature Questionnaire Olympic Winter Games 2026*. Lausanne: International Olympic Committee.
- International Olympic Committee. 2017. *Delivering Success: Engagement, Legacy and Vision*. Lausanne: International Olympic Committee.
- International Olympic Committee. 2007. *Factsheet: The Olympic Movement*. Lausanne: International Olympic Committee.
- . 2017. *From Candidate to Host City*. Accessed April 18, 2019. <https://www.olympic.org/host-city-election>.
- . 2017. *IOC Launches a New Approach to the Candidature Process for the Olympic Winter Games 2026*. October 17. Accessed April 19, 2019. <https://www.olympic.org/news/ioc-launches-a-new-approach-to-the-candidature-process-for-the-olympic-winter-games-2026>.
- . 2018. *IOC President Hails Positive Results of Olympic Agenda 2020 after Executive Board Meeting*. July 20. Accessed April 23, 2019. <https://www.olympic.org/news/ioc-president-hails-positive-results-of-olympic-agenda-2020-after-executive-board-meeting>.
- International Olympic Committee. 2017. *Legacy Strategic Approach: Moving Forward*. Lausanne: International Olympic Committee.

- . 2017. *Los Angeles 1984: an Indelible Legacy*. September 13. Accessed April 23, 2019. <https://www.olympic.org/news/los-angeles-1984-an-indelible-legacy>.
- . n.d. *Olympic Agenda 2020*. Accessed April 7, 2019. <https://www.olympic.org/olympic-agenda-2020>.
- . 2018. *Olympic Agenda 2020 and Its New Norm Saves Tokyo 2020 USD 4.3 Billion*. October 4. Accessed April 27, 2019. <https://www.olympic.org/news/olympic-agenda-2020-and-its-new-norm-saves-tokyo-2020-usd-4-3-billion>.
- International Olympic Committee. 2014. *Olympic Agenda 2020: 20+20 Recommendations*. Lausanne: International Olympic Committee.
- International Olympic Committee. 2018. *Olympic Charter*. Lausanne: International Olympic Committee.
- International Olympic Committee. 2013. *Olympic Legacy*. Lausanne, Switzerland: International Olympic Committee.
- International Olympic Committee. 2017. *Report of the IOC Evaluation Commission 2024*. Lausanne: International Olympic Committee.
- . 2019. *Stockholm-Are and Milan-Cortina Submit Innovative Games Plans For the Olympic Winter Games 2026*. January 11. Accessed April 19, 2019. <https://www.olympic.org/news/stockholm-are-and-milan-cortina-submit-innovative-games-plans-for-the-olympic-winter-games-2026>.
- . 2019. *The International Olympic Committee*. Accessed April 18, 2019. <https://www.olympic.org/the-ioc>.
- . 2018. *The New Norm: It's a Games Changer*. February 6. Accessed April 23, 2019. <https://www.olympic.org/news/the-new-norm-it-s-a-games-changer>.
- International Olympic Committee. 2017. *The Olympic Winter Games in numbers – September 2017*. Lausanne: International Olympic Committee.
- . 2018. *Tokyo 2020 to Pioneer New Legacy Report*. February 21. Accessed May 20, 2019. <https://www.olympic.org/news/tokyo-2020-to-pioneer-new-legacy-report>.
- Karadakis, Kostas and Kiki Kaplanidou. 2012. "Legacy perceptions among host and non-host Olympic Games residents: a longitudinal study of the 2010 Vancouver Olympic Games." *European Sport Management Quarterly* 12 (3): 243-264.
- Karahalis, Yorgos. 2014. "General view of the Olympic Baseball Stadium at the Hellinikon Olympic Complex in Athens, Greece on July 31, 2014." Getty. *Observer: 5 Olympic Stadiums That Were Abandoned After the Games*.
- Kasimanti, Evangelia. 2003. "Economic Aspects and the Summer Olympics: a review of related research." *International Journal of Tourism Research* 5 (6): 433-444.
- Leopkey, Becca and Milena M. Parent. 2011. "Olympic Games Legacy: From General Benefits to Sustainable Long-Term Legacy." *The International Journal of the History of Sport* 29 (6): 924-943.
- Lohr, Kathy. 2011. "The Economic Legacy Of Atlanta's Olympic Games." *Morning Edition*. NPR. August 4.
- London Legacy Development Corporation. 2017. *Adopted Local Plan*. London: London Legacy Development Corporation.

- . n.d. *Chobham Manor*. Accessed May 2, 2019. <https://www.queenelizabetholympicpark.co.uk/the-park/homes-and-living/chobham-manor>.
- . n.d. *East Wick*. Accessed May 2, 2019. <https://www.queenelizabetholympicpark.co.uk/the-park/homes-and-living/east-wick>.
- . n.d. *Homes and Living*. Accessed May 3, 2019. <https://www.queenelizabetholympicpark.co.uk/the-park/homes-and-living>.
- . 2014. *Planning Area Map*. February 11. Accessed May 3, 2019. <https://www.queenelizabetholympicpark.co.uk/planning-authority/planning-area-map>.
- . n.d. *Pudding Mill*. Accessed May 2, 2019. <https://www.queenelizabetholympicpark.co.uk/the-park/homes-and-living/pudding-mill>.
- . n.d. *Queen Elizabeth Olympic Park Facts and Figures*. Accessed May 19, 2019. <https://www.queenelizabetholympicpark.co.uk/media/facts-and-figures>.
- . n.d. *Stratford Waterfront*. Accessed May 2, 2019. <https://www.queenelizabetholympicpark.co.uk/the-park/homes-and-living/stratford-waterfront>.
- London Organising Committee of the Olympic Games and Paralympic Games Limited. 2004. *London 2012 Candidature File*. London: London Organising Committee of the Olympic Games and Paralympic Games Limited.
- London Organising Committee of the Olympic Games and Paralympic Games Limited. 2012. *London 2012 Olympic Games Official Report*. London: London Organising Committee of the Olympic Games and Paralympic Games Limited.
- London Organising Committee of the Olympic Games and Paralympic Games Limited. 2004. *London 2012 Questionnaire Response*. London: The London Organising Committee of the Olympic Games and Paralympic Games Limited.
- London Organising Committee of the Olympic Games and Paralympic Games Limited. 2004. *London 2012 Questionnaire Response*. London: The London Organising Committee of the Olympic Games and Paralympic Games Limited.
- MacFarlane, Isla. 2019. "UK's Built to Rent sector sees record levels of investment." *Showhouse*, April 26.
- Madhani, Aamer. 2018. "When Winter Olympics arrived, an entire village had to move, and 58,000 trees came down." *USAToday*, February 18.
- Middleton, Patrick. 2018. "Two-way bid for 2026 Olympics possible, as Turin withdraw." *The Italian Insider*, September 19.
- Minnaert, Lynn. 2012. "An Olympic Legacy for all? The noninfrastructural outcomes of the Olympic Games for the socially excluded groups (Atlanta 1996 - Beijing 2008)." *Tourism Management* 33 (2): 361-370.
- Morgan, Liam. 2018. "Sion 2026 confirms withdrawal from Winter Olympic and Paralympic bid race after referendum defeat." *Inside the Games*, June 10.
- Müller, Martin. 2014. "After Sochi 2014: costs and impacts of Russia's Olympic Games." *Eurasian Geography and Economics* 55 (6): 628-655.
- NBC. 1996. *1996 Summer Olympics Opening Ceremony*. Atlanta, July 19.

- Nedvetskaya, Olesya and Vassil Girginov. 2018. "Volunteering legacy of the London 2012 Olympics." In *Legacies and Megaevents: Fact or Fairy Tales?*, by Jason Bocarro, Terri Byers, and Kamilla Swart Ian Brittain, 61-78. London: Routledge.
- Newham. 2013. *Nine billion pounds of private investment in Stratford, Newham, since the 2012 games were announced*. July 26. Accessed May 18, 2019. <https://www.newham.gov.uk/Pages/News/Nine-billion-pounds-of-private-investment-in-Stratford,-Newham,-since-the-2012-games-were-announced.aspx>.
- Ortiz, Jorge L. and Ray Glier. 2016. "As Turner Field shuts down, MLB ponders: Is 20 years new stadium life span?" *USA Today*, September 28.
- Paris 2024. n.d. *The Games in the heart of the city*. Accessed April 21, 2019. <https://www.paris2024.org/en/games-heart-city/>.
- Partington, Richard. 2017. "Britain's debt hotspot: how Newham is making ends meet." *The Guardian*, September 18.
- PBC Today. 2018. *Affordable housing development launched on former West Ham stadium*. October 22. Accessed May 4, 2019. <https://www.pbctoday.co.uk/news/planning-construction-news/affordable-housing-upton-gardens/48186/>.
- Pentifallo, Caitlin. 2015. *The City and the Spectacle: Social Housing, Homelessness, and the 2010 Winter Olympic Games*. Doctoral Thesis, Vancouver: The University of British Columbia.
- Preuss, Holger. 2018. "Foreward." In *Legacies and Megaevents: Fact or Fairy Tales?*, by Jason Bocarro, Terri Byers, and Kamilla Swart Ian Brittain, xv-xviii. London: Routledge.
- Preuss, Holger. 2006. "The Olympics." In *Handbook on the Economics of Sports*, by Wladimir Andreff and Stefan Szymanski, 183-196. Cheltenham, UK: Edward Elgar.
- Reuters. 2008. "Britain "would not bid for Olympics now"." *Reuters*, November 13.
- . 2018. "Calgary Votes Against Hosting Winter Olympics in 2026." *The New York Times*, November 14.
- Roche, Maurice. 1994. "Mega-Events and Urban Policy." *Annals of Tourism Research* 21: 1-19.
- Rose, Andrew K. and Mark M. Spiegel. 2011. "The Olympic Effect." *The Economic Journal*.
- Sisson, Patrick. 2018. "Olympics try more city-friendly bid process: Will it work?" *Curbed*, October 8.
- Smith, A., N. Stevenson, and T. Edmundson. 2011. *2012 Legacy: delivering transformation in East London? Phase one: a review of aspirations and proposed delivery models*. RICS.
- Solberg, Harry Arne. 2018. "Mega events: Why Cities are willing to host them despite the lack of economic benefits." In *Legacies and Megaevents: Fact or Fairy Tales?*, by Jason Bocarro, Terri Byers, and Kamilla Swart Ian Brittain, 43-59. London: Routledge.
- Somvichian-Clausen, Austa. 2018. "Look Inside the Abandoned Stadiums of Past Olympics." *National Geographic*, February 7.
- Stanley, Bob. 2012. "Olympics 2012 have changed the Lower Lea Valley beyond recognition." *The Guardian*, July 24.
- Tama, Mario. 2017. Getty Images. *National Geographic: Look Inside the Abandoned Stadiums of Past Olympics*.

- Thomas, Guy, Ian Brittain, and Andrew Jones. 2018. "The legacy of grass-roots sports clubs and the sports participation legacy." In *Legacies and Megaevents: Fact or Fairy Tales?*, by Jason Bocarro, Terri Byers, and Kamilla Swart Ian Brittain, 211-221. London: Routledge.
- Trex, Ethan. 2016. "No Thanks: Why Denver Turned Down the '76 Olympics." *Mental Floss*, August 1.
- Turner, Graham. 2009. "Three Mills Lane, Bromley-by-Bow in east London." *The Guardian*. *The path of the river Lee: from its source to the Thames*.
- Unibail-Rodamco-Westfield. n.d. *Westfield Stratford City*. Accessed May 3, 2019. <https://www.urw.com/en/portfolio/standing-assets/standing-portfolio/shopping-centres/westfield-stratford-city>.
- University of British Columbia. 2013. *Better transit, more facilities: Locals enjoy 2010 Winter Games benefits*. October 23. Accessed May 1, 2019. <https://news.ubc.ca/2013/10/23/better-transit-more-facilities-locals-enjoy-2010-winter-games-benefits/>.
- University of East London. 2015. *Olympic Games Impact Study – London 2012 Post-Games Report*. London: University of East London.
- Vanderhoven, Ellen. 2012. *London 2012: a social legacy for East London?*. London: Community Links.
- Veraros, Nikolaos, Evangelia Kasimati, and Peter Dawson. 2004. "The 2004 Olympic Games announcement and its effects on the Athens and Milan stock exchanges." *Applied Economic Letters* 11 (12): 749-753.
- Wade, Stephen. 2018. "Tokyo Olympics: Costs hit almost \$25 billion _ may go higher." *USA Today*, October 9.
- Watt, Paul. 2013. "'It's Not For Us' Regeneration, the 2012 Olympics and Gentrification of East London." *City - Analysis of Urban Trends, Culture, Theory, Policy, Action* 17 (1): 99-118.
- WBUR. 2015. *How The Olympics Changed Atlanta, And What Boston Could Learn*. Boston, June 3.
- Weber, Sam. 2018. "Here's What Pyeongchang Looks Like Now." *Citylab*, June 5.
- Weed, Mike. 2018. "Sports participation legacies of mega sporting events." In *Legacies and Megaevents: Fact or Fairy Tales?*, by Jason Bocarro, Terri Byers, and Kamilla Swart Ian Brittain, 79-97. London: Routledge.
- Wenn, Stephen R. 2015. "Peter Ueberroth's Legacy: How the 1984 Los Angeles Olympics Changed the Trajectory of the Olympic Movement." *The International Journal of the History of Sport* 32 (1): 157-171.
- Westfield Corporation. n.d. *Annual retail sales of Westfield shopping centers in the United Kingdom (UK) as of 2018 (in billion GBP)*. Accessed May 3, 2019. <https://www.statista.com/statistics/512715/westfield-annual-retail-sales-united-kingdom-uk/>.
- White, Anna. 2018. "No medals for housing:Olympic Park developer under fire for failing to meet affordable homes targets." *Homes & Property*, June 6.
- Wilson, Jeremy. 2019. "Exclusive: Katherine Grainger reveals vision for Great Britain to host Olympics again and top medal table." *The Telegraph*, April 24.
- Wilson, Stephen. 1999. "IOC approves key structural reforms." *Independent*, December 12.

Yurieff, Kaya. 2018. *Everything we know about Amazon's HQ2 search*. November 5.
<https://www.cnn.com/2018/11/05/tech/amazon-hq2-update/index.html>.