



BERMUDA OCEAN PROSPERITY PROGRAMME

FOR THE DEVELOPMENT OF BERMUDA'S BLUE ECONOMY STRATEGY –
PHASE 1 REPORT:

BLUE TOURISM

Global Market Assessment + Local Economic Assessment + Industry Expert Analysis



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Bermuda's Blue Economy Draft Strategy will outline recommended activities and areas for investment for the sustainable use of Bermuda's ocean resources in order to support economic growth, improve livelihoods, and increase jobs while maintaining the health of ocean ecosystems. The Draft Strategy will begin with a focus on Bermuda's fishing industry, ocean renewable energy, and blue tourism.

This Phase 1 report on Bermuda's Blue Tourism includes a global market assessment, local economic assessment, and industry expert analysis. Its recommendations will be discussed and refined with stakeholder feedback, and will then undergo an economic analysis that will be incorporated into the Blue Economy Draft Strategy. The Blue Economy Draft Strategy will be a single document combining the recommendations and economic analyses for fisheries, ocean renewable energy, and blue tourism over a 10-year time horizon (2022 – 2032). The final recommendations in the Blue Economy Draft Strategy will not be legally binding, but are intended inform policy and investment decisions going forward.

The research begun in 2019 was conducted within the confines of the global COVID-19 pandemic; the recommendations across industries may change due to the shape of recovery progress in Bermuda and it is the intention of this research and these reports to add to the conversation in order to create opportunity and flexibility within those recovery efforts.

Table of Contents

EXECUTIVE SUMMARY	3
Global Market Assessment	5
<i>Demand Analysis and Industry Trends</i>	<i>5</i>
<i>Environmental Considerations</i>	<i>7</i>
Local Economic Assessment	10
<i>Industry Size and Dynamics.....</i>	<i>10</i>
<i>Trends and Recent Changes.....</i>	<i>12</i>
<i>Tourism Tax Revenues and Legislation</i>	<i>16</i>
<i>Social Considerations</i>	<i>19</i>
<i>Key Stakeholders</i>	<i>19</i>
Opportunity Matrix.....	20
Recommendations.....	22
<i>Recommendation #1 - Promote “Blue and Green” Tourism</i>	<i>22</i>
<i>Recommendation #2 - Update Cruise Head Tax to Reflect Capacity Constraints and Destination</i> <i>Management Goals</i>	<i>25</i>
<i>Recommendation #3 - Heighten Visitor Awareness of the Environmental Impact of Tourism Activities</i> <i>.....</i>	<i>28</i>
Conclusion	29
APPENDICES	30
<i>Appendix T1: Industry SWOT Analysis – Tourism: Bermuda.....</i>	<i>30</i>
<i>Appendix T2: Bermuda Tourist Spending 2019</i>	<i>31</i>
<i>Appendix T3: McKinsey Overtourism Framework: Benchmarks for Cities to Assess Overcrowding Risk</i>	<i>32</i>
<i>Appendix T4: McKinsey Overtourism Framework : 9 Metrics to Understand Potential.....</i>	<i>33</i>
<i>Appendix T5: Billfish Tournament Impact Analysis</i>	<i>34</i>
<i>Appendix T6: Criteria Used to Evaluate Blue Ocean Activities for Promotion and/or Investment.....</i>	<i>41</i>
<i>Appendix T7: Overall Economic Impact of Key Visitor Activities.....</i>	<i>42</i>
<i>Appendix T8: Analysis of Specific Ocean-Related Tourism Activities.....</i>	<i>46</i>
REFERENCES	69

BLUE TOURISM

Global Market Assessment + Local Economic Assessment + Industry Expert Analysis

EXECUTIVE SUMMARY

Although Tourism is not Bermuda's largest sector, it plays a major role in the economy, particularly as it accounts for a significant portion (between 10%-20%) of employment. Like many destinations, Bermuda's tourism industry has been severely impacted by COVID-19 due to travel restrictions around the world. This Phase 1 report for the blue tourism chapter of Bermuda's Blue Economy Draft Strategy will lay out issues facing tourism in Bermuda and provide recommendations to grow tourism in an economically and environmentally sustainable way over a 10-year horizon.

This Phase 1 report provides a global market assessment of the tourism industry. This provides the context in which Bermuda – and the tourism industry around the world – finds itself. The outlook for tourism as a whole in 2020 is particularly grim, with a projected 70% decline in international arrivals. While projections for 2021 look more positive, it is clear that the industry as a whole will take years to recover. Given Bermuda's reliance on cruise tourism, it is important to note that the cruise sector was among the worst hit and will likely remain depressed for the next few years.

Tourism has a major impact on the environment through increased greenhouse gas emissions and damage to the ocean and nearshore environment. Prior to COVID-19 there was a growing interest in ecotourism (tourism practices that claim to limit negative impacts and/or support positive impacts on the environment), but it remains to be seen what effect the pandemic will have on this trend. Understanding and tracking this dynamic is important, as governments around the world, including Bermuda, will need to balance policies that are intended to protect the environment with those that encourage economic development as these are often seen as opposed to each other.

Prior to COVID-19, Bermuda's tourism sector was growing steadily and accounted for approximately 5.3% of the GDP. However, Bermuda faces some unique challenges: highly seasonal tourism arrivals (causing capacity constraints in the summer and overcapacity in non-summer months); reliance on a few source markets (mostly the U.S. and Canada); a shortage of Bermudians willing to work in tourism; an inefficient transport infrastructure; and the dominance of cruise passengers versus air passengers (cruise passengers' spend per day is around 10-15% of the spend of air passengers). Some of these issues may not be relevant for the next two to three years, but they are inherently structural issues that will reappear when the tourism sector reaches its 'normal' capacity post-COVID-19. Despite these issues and the effect of COVID-19, some 'bright spots' appeared in the tourism sector in 2020, including: the passing of new legislation to encourage more Superyachts to visit Bermuda; the continuation of fishing tournaments and other sporting events; and the opening of the new airport.

In order to enhance the Blue Economy as it relates to tourism, this report combines a global market analysis and a local economic assessment to put Bermuda tourism realities and opportunities within the global context. This, along with stakeholder interviews, has resulted in the development of three major recommendations, highlighted below for further discussion and analysis:

1. **Promote 'Blue and Green' tourism** with the creation of a certification program. The intent of this recommendation is to encourage activities that have positive effects for both the blue economy and environment. This recommendation examines which activities should be considered and how this investment could occur.
2. **Update cruise head tax** to reflect capacity constraints and destination control. This recommendation considers changing cruise taxes to balance traffic in terms of when calls occur, what types of ships call on Bermuda, and where they berth
3. **Heighten visitor awareness of the environmental impact of tourism activities.** This involves building on successful education and awareness programs implemented elsewhere with positive effects.



BLUE TOURISM

Global Market Assessment + Local Economic Assessment + Industry Expert Analysis

Global Market Assessment

In order to determine a tourism growth strategy for Bermuda, it was critical to first consider the global tourism industry, as this was vital context for evaluating Bermuda's unique value proposition. This section will focus on global trends that may impact Bermuda's tourism industry.

Demand Analysis and Industry Trends

Impacts of the COVID-19 Pandemic to Global Demand and Industry Trends

Prior to the outbreak of COVID-19, globally, international tourism accounted for 10.4% of global gross domestic product (GDP) and 319 million, or one in ten, jobs.ⁱ The impact of COVID-19 is still being felt, but the outlook for tourism in 2020 looks grim. The United Nations World Tourism Organization (UNWTO) shows a 70% decline in international arrivals for the first eight months of 2020.ⁱⁱ This includes a year-on-year decline of 81% in July and 79% in August – traditionally the busiest travel months in the Northern Hemisphere. This drop in arrivals represents 700 million fewer arrivals than in 2019, and a loss of \$730 billion¹ in export revenues from international tourism.

Travel projections for 2021 look slightly more positive, with the United States Travel Association (USTA)ⁱⁱⁱ projecting a 37% growth between 2020-2021 (off a low base). However, even with this growth, travel spending in 2021 will be 27% below 2019 levels. Of course, this depends on many factors, including the approval and distribution of a COVID-19 vaccine and the relaxation of many travel bans.

Impacts of the COVID-19 Pandemic to U.S. Travel

In the U.S., the largest source market for Bermuda, travel is down significantly with many people not making plans until well into 2021:^{iv}

- By the end of Q2 2020, air travel in the U.S. was -45% year-over-year range, the lone exception being the Labor Day holiday week (-30%).^v Since the beginning of March, the COVID-19 pandemic has resulted in over \$396 billion in cumulative losses for the U.S. travel economy.^{vi}
- After consistently improving since early July, domestic air and hotel bookings for future travel were significantly lower, falling to -65% year-on-year.^{vii}
- According to a weekly survey by Destinations Analysts^{viii} that tracks key consumer perceptions, attitudes, and behaviors of American business and leisure travelers, as of October 23, 2020:
 - Pessimism persists regarding the virus, largely fueled by increasing infection rates, fears about contraction, and the impacts of the pandemic to personal finances and the U.S. economy.

¹ In this report all dollar figures are in USD unless otherwise noted.

- 75% of respondents have trips tentatively planned with 25% planning to travel by air in the next 6 months.
- With nearly 60% of respondents reporting that they can work remotely, and many children receiving education virtually, there is interest in “workcations” or “schoolcations”—travel where people visit a vacation destination while still working or studying remotely—with just under half of respondents expressing strong interest. Many destinations, including Bermuda,^x have attempted to leverage this trend by offering extended work visas for six months or longer for U.S. citizens who wish to work from different locations

Prior to COVID-19, cruise travel outpaced overall tourism, with passenger capacity rising by 6.6% (vs. 4.5% for all travel spending^x) in 2018.^{xi} However, despite cruise companies reporting robust bookings for 2021 (albeit below 2019 levels), the cruise industry is among the worst hit of the travel sectors due to COVID-19. Many travelers are unsure if cruise travel can be done safely, and consequently, the cruise industry is unlikely to see significant growth for the next few years.^{xii}

Comparable Markets

While Bermuda is not part of the Caribbean, it shares some important characteristics – for example, its proximity to the U.S., its status as a UK Territory, and its susceptibility to hurricanes (albeit to a lesser degree). It therefore is instructive to understand the issues facing Caribbean tourism. Much of the Caribbean experienced strong growth in tourism in 2019, despite some major hurricanes that disrupted the tourist season, with a regional total of 31.5 million tourist arrivals, representing a 1.5 million increase over 2018.^{xiii} Air arrivals were up 4.4% in the region as a whole, with Antigua and Barbuda as well as the Cayman Islands growing by 8.6% and Curaçao by 7%.^{xiv} Jamaica secured 170,000 additional air seats to meet growing traveler demand in 2020.^{xv} Notably, the Caribbean does not experience the same sharp seasonality as Bermuda.^{xvi}

The Caribbean region dominates the global cruise industry, representing 34.4% of global deployment capacity in 2019,^{xvii} with growth in cruise capacity continuing to outpace other regions.^{xviii} In 2019, the Caribbean cruise industry was responsible for over 95% of overall tourist arrivals, with 30.2 million passengers representing a 3.4% increase from 2018.^{xix} The region draws visitors from markets in the United States, Canada, South America, the Caribbean, and Europe.^{xx}

Several countries within the Caribbean have made centrally-based efforts to promote sustainable, responsible, and/or ecotourism practices, including the Bahamas, St. Kitts and Nevis, Trinidad and Tobago, and Guyana.^{xxi} Dominica in particular has pursued ecotourism for over 20 years as a way to increase the island’s economic development, while protecting its natural and cultural resources, and achieving some favorable local benefits.^{xxii} Successful high-value tourism growth examples from locations outside the Caribbean can provide insight on potential directions for further expansion of this tourism segment within the region.

Other locales outside the Caribbean are pursuing controls on tourism to combat environmental degradation and overtourism. Notable recent examples include Indonesia, which is considering a \$1,000 fee for visiting Komodo Park, home to the endemic Komodo dragons; Venice, which banned the largest cruise ships from entering the city’s historic core with the support of cruise lines; and

Ecuador's Galapagos Islands, which restricts boats to a maximum of 100 passengers and charges a \$100 park entrance fee.^{xxiii} Fourteen locales, including five countries, now levy green visitor fees: Palau introduced a Pristine Paradise Environmental Fee of \$100 in 2018; and New Zealand introduced a \$35 tourism tax for international travelers the following year to fund conservation and tourism infrastructure.^{xxiv}

Many promising examples of environmental stewardship are emerging from public/private partnerships with strong community ties.^{xxv} Misool, a diving resort in Indonesia's Raja Ampat, launched an associated foundation which has helped safeguard one of the most biodiverse reefs on earth through empowerment of the local community.^{xxvi} In Costa Rica, a local surf shop launched a plastic awareness campaign aimed at tourists and locals. To help solicit funds, they make a \$20 donation on behalf of each week-long traveler and ask patrons to match or exceed the donation. This campaign has raised \$78,000 in its five-year lifespan.^{xxvii}

Environmental Considerations

Ecotourism Trends

Tourism has a major impact on the environment including increased greenhouse gas emissions and damage to the ocean and nearshore environment. Awareness of these impacts has caused a growing interest in ecotourism, tourism initiatives or avenues that have perceived or documented efforts to lessen the negative impacts on the environment. International accommodation platform Booking.com's 2019 Sustainable Travel Report found that over 55% of global travelers felt a stronger determination to make sustainable travel choices than a year prior. Also, 73% of global travelers intended to stay in at least one eco-friendly or green accommodation in the next year, up from 62% in 2016.^{xxviii} The 2012 United Nations Green Economy report found global spending on all areas of ecotourism is increasing by about six times the industry-wide rate of growth.^{xxix} International wellness tourism grew by 12% annually from 2015 to 2017.^{xxx} According to the Population Reference Bureau, the "eco-tourism industry has emerged as one of the most important sectors of the international tourism industry, making up seven percent of the world tourism market."^{xxxi}

This being said, the effects of COVID-19 on ecotourism remain to be seen. However, early studies have pointed out that one of the most damaging consequences of the tourism contraction due to COVID-19 is 'loss of revenue to communities living in or near conservation critical areas.'^{xxxii} Since the generation of income through participation in ecotourism has become an important strategy to enroll local communities into conservation programming, there is a danger that this loss of income may cause some communities to revert to more lucrative and destructive land or sea use options. Other writers point to COVID-19 as providing an opportunity that marks "the beginning of a new type of global and societal cooperation in building a sustainable ocean economy."^{xxxiii}

Greenhouse Gas Emissions

Tourism is estimated to account for 8% of global greenhouse gas emissions, half of which is attributed to between-country transportation.^{xxxiv} Visitor Length of Stay (LOS), among other things, has a significant influence on emissions, as it impacts visitor spending, routing, activities, and influences patterns of infrastructure and resource use. In destinations with short average LOS, there is more turnover of visitors and therefore transport infrastructure requirements grow faster than accommodation infrastructure requirements – in order to grow, additional inbound, outbound, and local transport infrastructure is a critical constraint. Tourism transport demand is linked to various

sustainability performance indicators, such as land requirements, energy use, and emissions of greenhouse gases.^{xxxv} LOS has wide-ranging implications for destinations and is linked to social and environmental issues that have gained importance with growing concerns over economic inequality, overtourism, climate change, as well as ambitions for tourism to contribute to the United Nations Sustainable Development Goals.^{xxxvi}

Greater awareness of the greenhouse gas footprint due to tourism is changing how tourists travel and how major companies view the impact of their core business. A 2019 survey by Swiss Bank UBS found that 21% of American, German, French, and UK travelers reduced the number of flights they took in the previous year due to concerns about climate change.^{xxxvii} In January of 2020, JetBlue, which serves Bermuda, announced it would become the first major United States airline to offset carbon emissions for its domestic United States flights by July of 2020, although it has not made the same pledge for its international flights.^{xxxviii}

Ocean Impact: Cruises

One of the biggest modes of transportation in coastal tourism is cruise ships. According to the Cruise Lines International Association (CLIA),^{xxxix} the world's largest cruise industry trade organization,;

- Passenger numbers increased by 5.4% per annum between 2009 and 2019 – i.e. from 17.8 million (2009) to 30 million in 2019.
- Cruise industry revenues have grown even faster, from approximately \$15.7 billion in 2010 to an estimated \$34.2bn in 2018,^{xi} with a compounded annual rate of growth of 7.2%.
- Beyond cruise company revenues, CLIA estimates that the industry as a whole accounted for \$150 billion in economic output in 2018.^{xli} This includes the economic impact to cruise destinations. One study in 2015 calculated that a “single call from an average ship (155,000 GRT, 4000 passengers, 1,670 crew) generates approximately \$675,000 [to a destination].”^{xlii}

However, the size of the cruise industry and the cruise ships themselves has led to many negative environmental impacts. Cruise ships are now more than just a means of transportation; they are floating cities. People live on cruise ships for a number of days. Therefore, the issues impacting residential areas must be considered on cruise ships. One of the biggest issues is waste management. Food and human waste cannot be accommodated on the ship itself, and there have been instances where ships have dumped this into the ocean.^{xliii} The issue of waste discharge is currently regulated by domestic and international pollution prevention laws. In addition, there are concerns from possible fuel leaks, with one example from 2015 of a cruise ship that leaked 7,500 liters of diesel fuel into the St. Lawrence River in Quebec.^{xliv} In recent years, many cruise ships were fined by various countries for intentionally flouting pollution rules.^{xlv} It should also be noted that even the cleanest cruise ships emit over *three* times as much carbon dioxide per passenger mile as jets.^{xlvi}

Once cruise ships arrive on the coasts, they need to be harbored. The environmental damage caused by the need to accommodating massive ships can be serious. This includes:

- Dredging to receive multiple cruise ships in a day.^{xlvii} This produces silt that could affect coastal habitats for fishes and invertebrates.

- Cruise ships and their anchors pose a threat to corals. According to Babu^{xlviii}, “[s]cientists have acknowledged that more than 300 acres of coral reef have already been lost to cruise ship anchors in the harbor at George Town, the capital of Grand Cayman.”

Cruise companies are showing growing awareness of their environmental impact. The CLIA reported in 2019^{xlix} that “the industry has invested \$22 billion in the development of new energy-efficient technologies, partnerships with local governments in key destinations, and a commitment to reducing its rate of carbon emissions by 40 percent by 2030 compared to 2008.” In September 2019, Norwegian Cruise Line announced it would replace all single-use plastics across its fleet by January 1, 2020.^l In December 2019, Carnival Corporation became the first cruise line to join the *Getting to Zero Coalition*, an alliance committed to accelerating the decarbonization of the international shipping industry and meeting International Maritime Organization (IMO) goals of reducing greenhouse gas emissions from shipping to 50% of 2008 levels by 2050.^{li} However, with COVID-19, most cruise companies have lost so much revenue that it seems unlikely that they will be able to meet their obligations.

Ocean Impact: Pollution and its Effect on Tourism

Pollution in the ocean has received a great deal of attention in the past few years – particularly as it relates to plastic pollution and the effects of pollution on coral reefs. However, dirty beaches and polluted waterways also have an effect on tourism, as people gravitate to ‘cleaner’ destinations. To better understand the relationship between coastal tourism economies and marine debris, the NOAA Marine Debris Program^{lii} funded a study to understand how the amount of marine debris on beaches can affect the behaviors of beachgoers and, as a result, the economies of coastal communities that depend on tourism. This study reveals that increases in marine debris on beaches decreases the number of days visitors spend on those beaches. This decline in beach visitor days would likely result in fewer tourism dollars spent, and ultimately lead to fewer local jobs. For example, the study found that the “potential economic losses from an increase in marine debris were greatest in Orange County, California, where doubling the amount of marine debris on beaches resulted in an estimated loss of \$414 million tourism dollars spent in communities, and a decrease of nearly 4,300 jobs.”

Ocean/Marine Impact: Property Development

In recent years, massive new tourist developments such as airports, marinas, resorts, and golf courses have been built. Overdevelopment for tourism has the same problems as other coastal developments, but often has a greater impact as the tourist developments are located at or near fragile marine ecosystems. For example:

- Mangrove forests and seagrass meadows are removed to create open beaches. This is reported to be an issue in Bermuda as many mangrove trees have been destroyed to make way for boat mooring.^{liii}
- Tourist developments such as piers and other structures are built directly on top of coral reefs.
- Nesting sites for endangered marine turtles^{liv} are destroyed and disturbed by large numbers of tourists on the beaches.

In many cases, the impact of tourism development is difficult to measure accurately. Buckley (2000)^{lv} writes, “[t]here are few studies which quantify tourism activity and ecosystem impact with equal

precision, and even fewer which measure the effectiveness of visitor management tools in reducing impacts.”

Considerations for New Tourism Policies

Given the political sensitivity around tourism, it is important to consider both the real and perceived impact of any policies that impact the tourism industry. Environmental policies and their enforcement could be viewed as restrictive to Bermuda’s tourism industry growth. There is a history of setting cruise caps and penalties for damage to reefs, but neither have been enforced.^{lvi} For example, in 2015, the Norwegian Dawn ran aground on Bermuda’s coral reef. While the hull was not breached, and no leakages occurred, corals were damaged by the physical impact. A minimal amount of coral replanting occurred but no major fines were assessed.^{lvii} The balance of conservation-related policies and economic growth will likely be viewed first through a political lens before action is taken.

Local Economic Assessment

After considering global tourism trends, the next consideration is how these trends are reflected by or would impact the existing tourism environment in Bermuda. The tourism industry represents a major portion of the island’s economy and employment opportunities. In order to develop recommendations that could be successfully implemented in Bermuda to sustainably grow blue tourism, it was imperative to consider Bermuda’s current industry dynamics, infrastructure, and recent growth. For the analysis, business travel is excluded with a focus only on leisure travel only. An overarching Strength, Weakness, Opportunity, and Threats (SWOT) analysis can be found in [Appendix T1](#), with relevant details described in the subsections below.

Industry Size and Dynamics

Tourism is a relatively important industry in Bermuda, representing approximately 5.3% of the GDP in 2018, versus 14% for the Caribbean region,^{lviii} and is responsible for approximately 3800 jobs (10.2% of employment).^{lix} Bermuda’s relatively low reliance on tourism compared with its Caribbean comparators is due to the highly developed insurance and financial services sector which accounts for up to 85% of the economy.^{lx} Tourism in Bermuda has long faced sharp seasonality, with 48% of visitors arriving in the summer months from June-August.^{lxi} Leisure travel is heavily dependent on three source countries, with 96.2% of travelers coming from the U.S., Canada, and the UK.^{lxii} Tourist spending, exclusive of tax revenue, totaled \$544 Million in 2018,^{lxiii} an increase of 28% from the year prior, but remains well below its 2007 peak of \$513 Million.^{lxiv},^{lxv} Given Bermuda’s remote location, all visitors arrive via air or boat. Bermuda has a single airport, with a new airport currently under construction and slated to open in late-2020, and three ports used for cruise ships. In 2019, 66% of visitors arrived via cruise while 33% flew (see Figure T1). Despite hopes that hosting the 2017 America’s Cup would lead to stronger yacht traffic, this segment has been a nominal part of Bermuda’s arrivals due to strict regulations. These regulations were relaxed in early 2020 with the passing of the “Superyachts and Other Vessel (miscellaneous) Act.” The intent of the regulation is to allow large yachts to charter in Bermuda waters through local agencies as well as removing the departure tax. In addition, during COVID-19, the Ministry of Tourism and Transportation implemented a “Superyacht Tourism Economic Recovery Plan,” making Bermuda one of a few destinations that allowed superyachts to berth in the Island (albeit with significant restrictions limiting disembarkation).^{lxvi} The intent of these moves was to signal that Bermuda is a good destination for superyachts, but it is still too early to predict the impact.

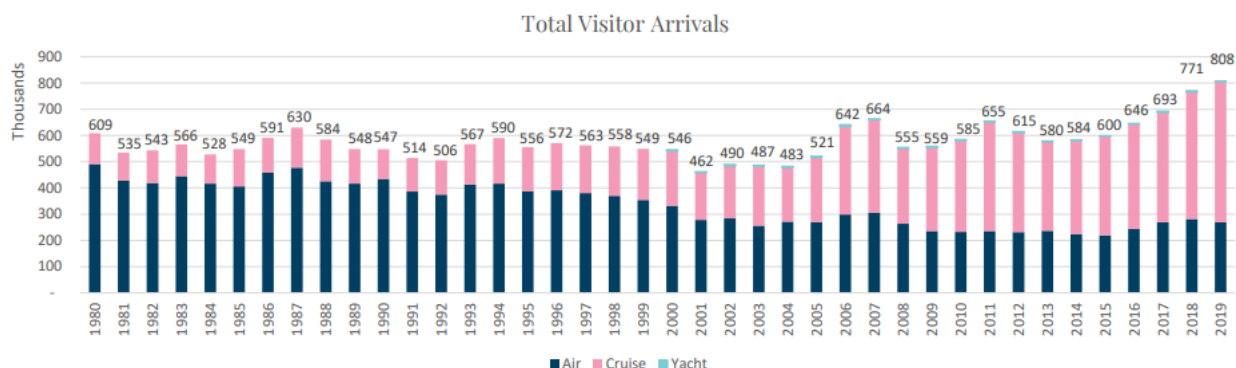


Figure T1: Total Visitor Arrivals (BTA)^{lxvii}

While cruise travelers are becoming more numerous, they are far less profitable per person, yielding \$219.55 in spending outside of taxes per person, compared to \$1,567.08 for air travelers in 2019.^{lxviii} Figure T2 shows the trends in estimated cruise and air traveler spending per person in Bermuda.^{lxix} Worldwide, cruise travelers spent an average of \$101 in ports visited during a cruise in 2018.^{lxx} [Appendix T2](#) shows a breakdown of spending by category for cruise and air travelers. Notably 51.6% of air spending went to accommodation while just 7.3% went to sightseeing and leisure, which would typically encompass the bulk of ecotourism dollars.

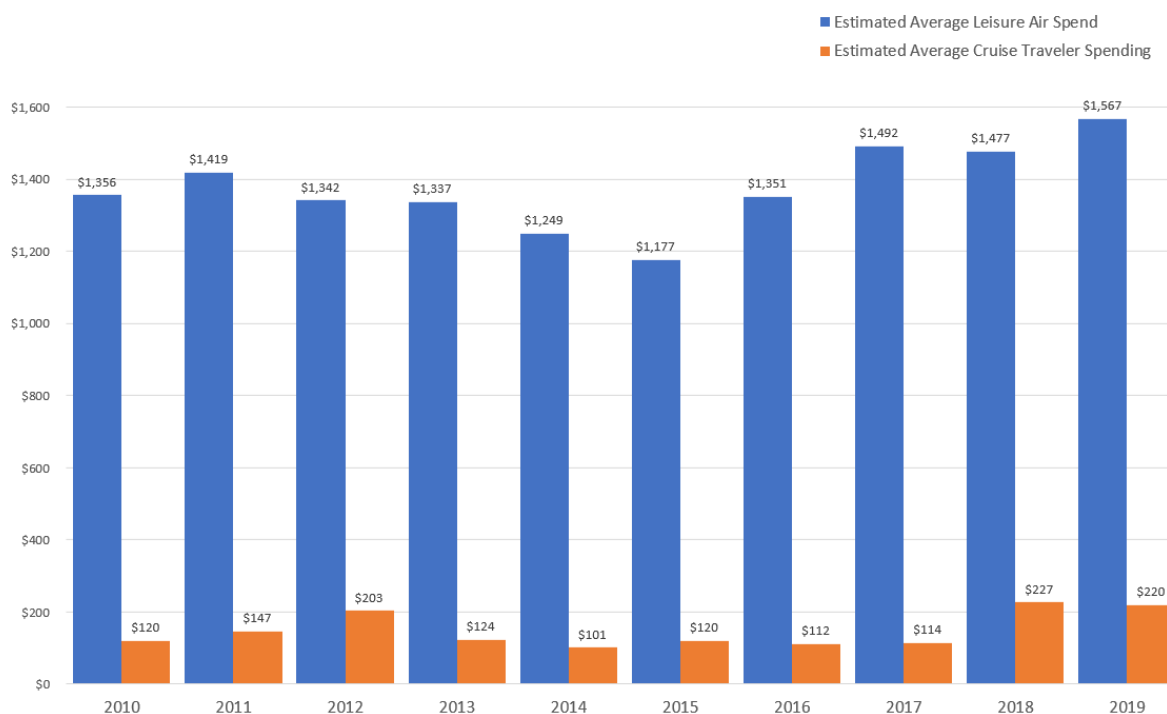


Figure T2: Average Estimated Tourist Spending per Person in Bermuda (BTA)^{lxxi}

To date, Bermuda has had limited participation in international impact and ecotourism programs, despite an increase in tourism intensity and the ratio of visitors to residents (Figure T3), two important measures of tourism impact.^{lxxii} The ratio of visitors to population in Bermuda was 17th highest in the world in 2017.^{lxxiii} Flight seasonality (the ratio of peak monthly airplane seats to lowest monthly airplane

seats) is 2:1; the consulting firm McKinsey found anything above 1.25:1 to be in the top quintile risk for overtourism in a global study.^{lxxiv} [Appendix T3](#) and [Appendix T4](#) provide additional information on the risk quintiles.

Measure	2014	2015	2016	2017	2018	2019
Cruise Passengers (thousands)	356	377	395	418	484	536
Air Passengers (thousands)	224	220	244	270	282	269
Yacht Visitors (thousands)	5	3	7	5	4	3
Total Visitors (thousands)	585	600	646	693	770	808
Air Leisure Average LOS (days)	5.8	5.7	5.4	5.41	5.37	5.42
Bermuda Population (thousands)	61.8	61.7	63.8	63.9	64	64
Visitors to Residents Ratio	9.5	9.7	10.1	10.8	12	12.6
Tourism Intensity Ratio*	176.8	181.5	189.1	202.5	224.7	235.6
Tourism Penetration Ratio*	57.6	55.7	56.6	62.6	64.9	62.4

*For definitions see [Relevant Definitions](#)

Figure T3: Annual Tourism Metrics in Bermuda^{lxxv}

An important issue to note is that the cruise passengers place a relatively large strain on local resources. Also, they tend to cluster around the more popular places, like Horseshoe Bay, thereby exacerbating their impact. On the island, the Fairmont Southampton and Hamilton Princess participate in their parent company Accor's Planet 21 green hospitality program, and a single hotel, the Rosewood Bermuda, is certified by Green Globe, a leading international sustainable travel certification program accredited by the Global Sustainable Tourism Council.^{lxxvi} Bermuda has no listings on Kind Traveler, a social impact hotel booking platform which highlights accommodations scoring high in green features including renewable energy use and sustainable supply chains in U.S., Costa Rican, and other markets. It also has no hotels in the Green Hotels Association, an international group of hotels committed to upholding environmentally friendly programs.^{lxxvii} As far back as 1999, organizations such as the Bermuda National Trust raised concerns that "Bermuda's delicate infrastructure may well be impacted in both the short and long term." The Department of Tourism acknowledged that "Bermuda has limited resources to adequately handle large groups of visitors who arrive at the same place, at the same time."^{lxxviii} As travelers increasingly display a preference for environmentally friendly accommodations and destinations, participation in recognized international programs is of growing importance.

Trends and Recent Changes

National Strategy

The 2019-2025 Bermuda National Tourism Plan, authored by the Bermuda Tourism Authority (BTA), contains robust analysis and makes several strong recommendations supported in this report.^{lxxix} The National Tourism Plan identifies the "must-win" U.S. segments: experience enthusiasts and adventure seekers.^{lxxx} Both segments are younger (below age 44), high-income (with household incomes in excess of \$100K), and travel heavily. The report further identifies seven pillars, one of which is making Bermuda "greener," with the goal of being "on the road to becoming one of the 'greenest' tourist destinations by 2025."^{lxxxi} It commits to green hospitality, partnerships with environmental groups, and

to avoiding new, large events in peak season, hoping to grow the year-round tourism season. Additionally, the report recognizes the crucial distinction between cruise and air travelers, seeking a balance between the two. In October 2020 the BTA conducted a review of the National Tourism Plan in light of COVID-19 and restated its commitment to the plan. It did announce that the success indicators would be changed and that some strategies that would be emphasized or deemphasized in the short term. This includes activities that would encourage visitation in the near-term, continued implementation of the Bermuda Air Service Development Strategy to encourage more airlift, emphasis on outdoor activities, and the implementation of a 'Safe Travels Stamp' for tourism-related businesses to signal a higher level of COVID-19 prevention procedures^{lxxxii}

Air Travel

Air passenger traffic to Bermuda has seen periods of recent growth but has fallen significantly from levels seen in the 1980s (Figure T1). Meanwhile, air traveler length of stay is declining (down 6.5% from 2014 to 2019).^{lxxxiii} Bermuda is heavily reliant on passenger traffic from just a few markets, with direct flights to and from the U.S. (New York, New Jersey (summer only), Boston, Atlanta, Miami, Washington DC), Canada (Toronto), and the U.K. (London Gatwick^{lxxxiv}).

Bermuda has struggled with declining airlift capacity, a trend it hopes to reverse with a new \$302M airport terminal opening in 2020, but gains are dependent on attracting and retaining new flights.^{lxxxv} In 2019, airlift capacity was 20% lower than record highs set in 2007 and 6% lower than 2018.^{lxxxvi} Airlines typically require fee and rent abatements for new services, which are paid by the airport operator. Destination markets like Bermuda often require additional governmental support through infrastructure, policy, and regulation. Meanwhile, outbound flights in Bermuda source markets (mainly the United States) as well as in competitor markets (the Caribbean) are becoming fuller on average.^{lxxxvii} Flights to Bermuda are 12% less full than the average U.S. flight and 14% lower than among Caribbean nations, which puts existing routes under further threat.^{lxxxviii} Much of the winter air traffic is composed of Bermudians traveling to the U.S. rather than outbound travel into Bermuda.^{lxxxix}

In April 2020, due to the impact of COVID-19, the Government of Bermuda stopped all commercial airlines from flying into Bermuda until July 1, 2020. In addition, air service resumed at a fraction of the prior year's airlift and by October 2020, airlift was only at 35% of the same month in 2019. As a result, the BTA has projected a decline in total airlift of 68% or approximately 394,000 seats for 2020.^{xc}

Cruise Travel

Bermuda has three ports for cruise ships: The Royal Naval Dockyard, which has two berths: Kings Wharf and the Heritage Wharf, St. George's Port and the Hamilton Port. The North Channel entering the Royal Naval Dockyard was dredged in 2015 to accommodate the latest generation of larger, quantum class ships.^{xcii} Prior to COVID-19, four cruise vessels accounted for 51.8% of Bermuda's projected 2020 total cruise traffic.^{xcii} These ships averaged 307 meters and could only dock at the Royal Navy Dockyard. There are 45 other ships that account for the remainder of traffic and average 249.5 meters—19% shorter on average.^{xciii} In recent years, the BTA and the Bermudian Government have sought to better balance cruise passenger traffic and extend tourism into the "non-summer" months.^{xciv} In 2020, prior to COVID-19, St. George's and Hamilton were scheduled to host a combined 35 calls, an increase of 21% from 2019.^{xcv} Figure T4 shows the volume of air and cruise passengers by month as well as the percentage of the annual total comprised by each month.^{xcvi}

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg.
Leisure Air Visitors (thousands)	5.2	6.7	12.2	17.0	21.1	26.1	28.3	27.3	14.1	14.4	9.6	9.4	191.4
Cruise Passengers (thousands)	3.6	4.7	2.8	63.7	77.2	79.5	90.6	73.6	51.3	59.5	28.2	0.9	535.6
2019 LEISURE VISITOR TOTAL (thousands)	8.7	11.4	15.1	80.7	98.2	105.6	118.9	100.9	65.4	73.9	37.8	10.3	727.0
Percentage of Yearly Total	1.2%	1.6%	2.1%	11.1%	13.5%	14.5%	16.4%	13.9%	9.0%	10.2%	5.2%	1.4%	

Figure T4: Total visitors by Cruise and Sea in 2019^{xcvii}

In 2020 the cruise business in Bermuda collapsed due to COVID-19. The 2020 season was expected to have 194 calls (up from 185 in 2019) and bring 540,000 people (vs. 525,000 people in 2019). However, only 4 calls were made before the shutdown, bringing 6,500 people.^{xcviii} At the time of writing this report, the Government of Bermuda and the BTA are considering options to resume cruise service safely in 2021 given that the first ship is only due to arrive in March 2021. Currently 187 ships are projected to come in 2021. If this projection holds, the industry will generate nearly \$180 million in taxes and fees.

On-Island Tourism Accommodations

Bermuda's hotel stock has declined in the last 5 years with a growing segment of visitors staying at Airbnb's. In 2018, Bermuda had 2,404 hotel rooms with two beds on average.^{xcix} This followed a substantial decline over the 11-year period between November 2006 and 2017, totaling 416 tourism units, 1,157 licensed beds, and almost 40 acres of tourism-zoned land stemming from the conversion of vacation properties (largely cottages and cottage colonies) to private homes.^c This decline was partially offset by the opening of new vacation rentals such as Airbnbs, with 764 active Airbnb listings as of December 31, 2019 (a 10% increase from 2018). However, many Airbnb listings are typically not available all nights of the year and have minimum stay requirements.^{ci} In 2019, 77.5% of leisure air travelers stayed in commercial properties (either guesthouses or hotels), while 11.9% stayed in rental houses or apartments.^{cii} It is interesting to note that vacation rentals via Airbnb and other websites have grown significantly over the past few years and were projected to grow at around 10% per year. Vacation rentals also are likely to have an effect on number of people per room and length of stay.^{ciii} It is interesting to note that Bermuda does not allow camping and every visitor must have accommodation booked prior to arrival.

Following the passage of the Bermuda Tourism and Investment Act of 2017, which sought to provide tax relief in line with competitor countries and incentivize both new development and substantial refurbishments, Bermuda is welcoming its first new hotel in decades in 2020.^{civ} Two additional hotels are slated to open in 2021, adding 265 new rooms.^{cv} The closure for refurbishment until Q1 2022 of the Fairmont Southampton^{cvi}, the largest hotel on the Island, will mean a net loss of around 500 hotel

rooms (or around 25% of Bermuda's total hotel rooms) for most of 2021 and early 2022. However, as shown by Figure T5, prior to COVID-19, high season hotel accommodation occupancy in Bermuda averaged 75% in 2019, with June and July closer to 85%, meaning most opportunity for visitor growth is in the off-season.^{cvii} June and July typically have the highest occupancy while January has the lowest despite a month-long annual "Pink Sale" which sees most hotels in Bermuda discounting rates by up to 50%.^{cviii} Airbnb's typically see lower occupancy due in part to their small scale and more restrictive check in and out times.^{cix}

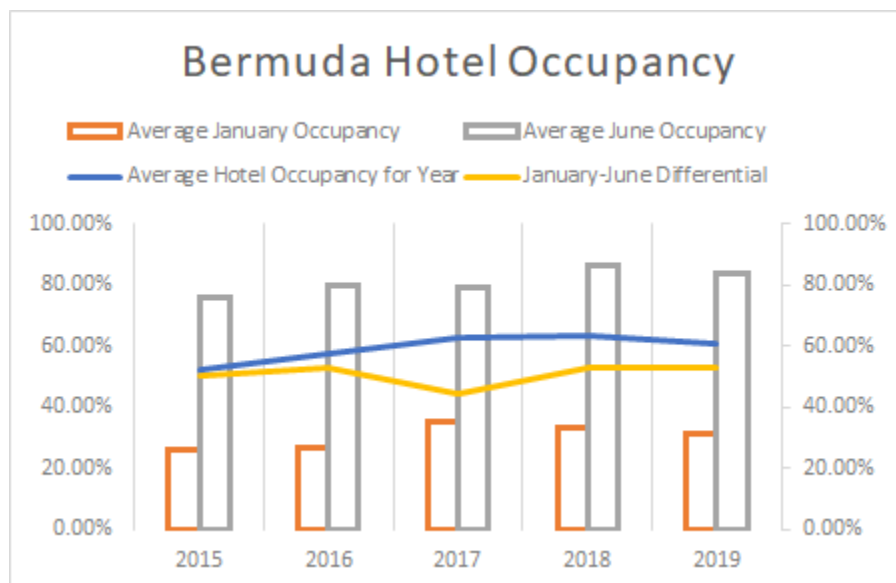


Figure T5: Bermuda Hotel Occupancy^{cx}

Available Land

Currently Bermuda has several relatively large parcels available for hotels and tourist accommodation development, including Lantana, a 9.7-acre former cottage colony site, Daniel's Head, a 17-acre archipelago, Ariel Sands, a 10-acre development and former cottage colony, and White Crest Hill, a 22.3-acre site next to Tuckers Point Resort.^{cx} In the event of a successful sale, new construction and additional room capacity will not appear for several years.

On-Island Transportation

Bermuda restricts car rentals to electric vehicles and encourages tourists to ride scooters, bikes, public busses, and ferries.^{cxii} However, tourists frequently complain about expensive and limited transportation options and Bermuda's traffic fatality rate is almost three times that of the U.S.^{cxiii} Transportation in Bermuda is consistently identified as a major dissatisfier among visitors and locals.^{cxiv} The Ministry of Tourism and Transportation (MTT) published a 2019 Transportation Green Paper which found that 49% of air visitors and 18% of cruise ship passengers used the public bus during their visit, with a significant decline in bus service satisfaction indicators from 81% in 2009 to 49% in 2017.^{cxv} Roughly 50% of the bus fleet is out of service on a regularly basis.^{cxvi} New buses cost \$369,000 each and current peak capacity needs require 88 buses. MTT recommends moving to 120 energy efficient vehicles, including public buses, over a five to ten-year time horizon, but this upgrade has not been funded or approved.^{cxvii}

Workforce

Prior to COVID-19, Bermuda faced a looming hospitality workforce shortage, with young people discouraged from entering the hospitality industry in part due to its seasonality.^{cxxviii} An analysis by PWC estimated a shortfall of 730 hospitality workers by 2021.^{cxxix} 25% of current hospitality workers are over 60 and customer-facing roles see an average 28% turnover rate.^{cxx} In interviews for this report, hotel operators identified attracting and retaining talent as a key concern.^{cxxi} In addition, hotel operators also identify the collective bargaining agreement with the Bermuda Industrial Union as an impediment to growth and hiring. Under the agreement, hotel owners are limited in how many 'guest workers' they can hire but also in their ability to move employees to new roles and/or furlough them in slow periods if necessary. This has an enormous impact on the economics of hoteliers, especially in the winter months.^{cxxii} Hotels rely in part on seasonal workers to balance differences in staffing needs across the year and encourage workers to take time off during the winter months.^{cxxiii} While the impact of COVID-19 and the temporary closure of the Fairmont Southampton will likely alleviate some of the labor shortages, this issue will probably arise again once tourism returns to its normal growth rate.

Tourism Tax Revenues and Legislation

A portion of all the tourism taxes are used in part to fund the BTA, with the remainder going to the Government. While the government does allocate money to conservation through, for example, the Ministry of Public Works, this budget has no relationship to tourism arrivals.

Bermuda's visitor taxes vary by mode of arrival transit. Bermuda is notable for having some of the highest cruise head taxes in the world; \$25 per passenger up to a maximum of \$75 per head for ships in the Dockyard and \$20 daily up to a maximum of \$60 in the lesser-used and smaller St. George's and Hamilton ports from April 1 to October 31.^{cxxiv} This is higher than Caribbean nations which average just \$8.92.^{cxxv} Bermuda enjoyed past success negotiating additional concessions from the cruise industry, including requirement to hire Bermudian nationals and for ships to provide \$50 to disembarking ship passengers to spend with island businesses. However, Bermuda has struggled to enforce other limits on the industry. While it previously negotiated single-destination status and a three day minimum stay in the country spread across different ports, as cruise ships grew too large to fit into anything other than the Royal Naval Dockyard, cruises sailing from the U.S. began to spend as little as one night in the country, allowing passengers fewer than 8 hours to disembark.^{cxxvi} Bermuda passed a Large Infrastructure Departure Tax on ships in excess of 1,120 feet in length or 4,000 passengers on April 1, 2019.^{cxxvii} However, none of the ships scheduled to dock in Bermuda in 2020 exceed this length and only 10% of the 50 total cruise vessels which dock in Bermuda carry enough passengers to potentially trigger the tax.^{cxxviii} It should be noted that the U.S.- Bermuda route is one of the more profitable routes for the cruise ships as the distance is very short (less fuel is spent) and the timing is advantageous (as ships can travel during the night and offload/onload passengers easily).^{cxxix}

Bermuda also levies a \$35 per head tax on passengers arriving via yacht.^{cxxx} Visitors departing Bermuda by plane pay a \$35 departure tax, collected by and payable to the airport authority Skyport.^{cxxxi} Bermudian hotels pay a 4.5% tourism guest fee^{cxxxii} and 7.25% hotel occupancy tax.^{cxxxiii} As of November 1, 2018, all Bermudian vacation rentals are required to register with the Bermuda Government prior to accepting guests and must remit a 4.5% Vacation Rental Fee on the nightly rate of the rental to the Bermuda Tourism Authority.^{cxxxiv} This tax rate is roughly equivalent to the tourism authority fee which

had previously been collected from all guests at licensed hotel and guest houses.⁴⁰ After rising from a 10.3% share of leisure travelers in 2017 to 11.7% in 2018, the share of leisure travelers staying in vacation rentals declined to 10.1% in the first three quarters of 2019, representing a 3,000 person decrease.^{cxxxv}

Superyachts

In January 2020, the 'Superyachts and Other Vessel (Miscellaneous) Act' that encourages superyacht (>78 feet) visits was approved in the Senate. The legislation was designed to make Bermuda a more attractive destination by allowing the vessels to charter in Bermuda waters through local agencies and removing the departure tax for yacht travelers. The Act also reduced the time it takes for tour boat operators to receive fuel rebates. In May 2020 the government implemented a "superyacht tourism economic recovery plan" to attract superyachts to Bermuda during summer 2020. This plan introduces superyacht "Isolation Charters" and owner trips, with specific superyacht pandemic policy guidelines during Phases 2 and 3 of the Government's reopening strategy.

While the number of visitors in superyachts is likely to be small, the spending of yacht guests and crew is usually very high. For example, PwC Bermuda issued an economic-impact report after the regatta that showed that superyacht crews alone spent \$14 million during the event.^{cxxxvi}

Fishing Tournaments

Bermuda is ideal for recreational fishing and for several decades the country has offered some of the best deep-sea fishing in the Atlantic. The appeal of Bermuda in the world of big-game fishing lies in the availability of large blue marlin, as well as white marlin, tunas, and wahoo. Because of the size, power, and intrigue of these fish, they draw anglers from many corners of the world to Bermuda. To capitalize on this natural resource, Bermuda has taken some steps to formalize these recreational activities both throughout the year as part of its regular coastal tourism offerings and in the form of tournaments that serve to both market the country and increase tourism revenues.

One such event is the July "Bermuda Triple Crown Billfish Championship" which is a series of fishing tournaments that are linked to the Blue Marlin World Cup. As the name suggests the Triple Crown comprises of three major competitions: the Bermuda Billfish Blast, the Bermuda Big Game Classic, and the Seahorse Anglers Club Billfish Tournament. These competitions take place over three weeks, with points accumulated at each event for the boat, the crew, and the anglers. In addition to Bermuda's appeal as a recreational fishing destination, this tournament has a significant cash purse for winners and is used as an opportunity to socialize, network, and party. The Billfish tournament is often accompanied by other loosely associated events which add to its appeal. In 2020 the Triple Crown featured 15 boats and anglers caught 73 billfish including 69 blue marlin and 4 white marlin. The main participants are Bermuda and United States based teams. Due to the global COVID-19 pandemic, the number of visiting sports vessels in 2020 fell significantly from 37 boats that visited in 2019.

Recreational fishing represents an important value proposition because it typically involves upmarket clients with considerable disposable income, who are accustomed to mooring/berthing costs, charter costs, and other associated fishing fees. Using primary survey data and input-output multipliers to investigate the economic impact of the Triple Crown Billfish tournaments, an economic impact analysis was done and can be found in [Appendix T5](#). The results suggest that this tournament alone makes a non-trivial contribution to tourism spending on the island. At \$6.9 million plus in spending or 1.8% of

tourism direct gross value added, this tournament makes a significant splash. In addition, the findings show that the tournament creates nine new jobs. This evidence suggests that expanding participation in the tournament could extract more value from tournament clients and increase the tourism value added, but further investigation of capacity and other fixed assets is required.

Gaming and Casinos

After the 2010 Gaming Green Paper advocated for investment into the gaming industry, Bermuda Tourism Authority announced plans in 2011 to grow the casino business on the island.^{cxvii} At the time, the BTA called for a casino to be opened within two years, but Bermuda still has no operating casinos, in part because local banks have not agreed to accept casino gaming proceeds. The Government plans to issue three provisional licenses to either currently existing resorts or new properties, plus one additional license to the developer in St. George's Parish, the St. Regis hotel and condo complex.^{cxviii} The process for licensure of casinos is laid out in the Casino Gaming Act of 2014. According to the act, casinos must be part of an integrated resort, which includes hotel, retail, dining, and entertainment in addition to gaming. Existing resorts may apply but must also qualify as integrated and must have more than two hundred guest rooms.

The potential positive impacts of gaming on the local industry are varied and plentiful. The report will focus on the impact specifically to the focus industries identified but acknowledges there are significant ancillary costs and benefits to gaming industry investment. The immediate benefit is a potential increase in the duration of average stay on-island. A 2016 survey of Las Vegas gamblers indicated that the average stay of a vacationer was 3.4 nights and 4.4 days.^{cxix} While Bermuda and Las Vegas present very different value propositions for visitors, it is plausible that investment in resorts with an added gaming element could increase the duration of stay in Bermuda. For the ecotourism industry to be significantly impacted, there would need to be ample crossover from vacationers staying at an integrated resort with those that are also seeking expeditions that focus on Bermuda's natural resources. Additionally, there is increased benefit to adding hotel capacity, specifically in the luxury resort segment. For example, the St. Regis in St. George's parish is adding an estimated 122 additional hotel rooms and over 30 condo apartments.^{cxl} The new construction will add capacity to a market that has not grown significantly in decades. In addition to the impact on tourism, the increase in restaurants on-island associated with casinos represents a potential increase in the market for products of the local fisheries. There are also incremental tax revenues associated with casinos - the Green Paper calculated potential annual gaming revenues in Bermuda from casino gambling of between \$84 million and \$146 million under various scenarios.^{cxli}

While there is a plausible argument for immediate economic benefit of gaming industry growth, there are significant potential negative implications of said growth. There is a growing saturation effect in the North American market. More and more U.S. states are allowing gambling, which is diluting the magnitude of the business in traditional markets suggesting that few people will travel to Bermuda specifically to go gambling. In addition, socio-economic effects such as gambling addiction can lead to negative consequences for the local population.

The addition of a few integrated, luxury resorts with gaming attractions in carefully considered locations will likely have a small, positive impact on the tourism and ecotourism industries within Bermuda. The luxury integrated resorts with gaming will function very similarly to how an integrated resort without gaming would in Bermuda's tourism ecosystem. The ecotourism subsegment will

potentially see a net rise in demand, provided the total beds in Bermuda increases, the length of hotel stays increases, the average spend of tourist is higher than the average visitor, and a sufficient marketing effort is made to engage the resort guests in activities based on Bermuda's natural resources.

Social Considerations

The social dynamics around the tourism industry are extremely complex. In discussions with Bermudians, it was clear that tourism is important to the island's identity: an immense amount of pride is present for both the island's culture and its beautiful natural resources. Therefore, many Bermudians recognize tourism's importance and are committed to its success. The National Tourism Plan has a success indicator to increase the balance and acceptance of tourism by local residents. Residents will support the development of tourism in Bermuda from 61% (composite variable) to 70% by 2025.^{cxlii}

Profits related to the tourism industry are historically not distributed equally; many residents, especially Black and lower income residents do not perceive tourism as beneficial to them. Bermuda has not traditionally been home to high-profile development companies and hotel chains and is dominated by locally-owned resorts. The hesitancy to welcome outside investment may play a large role in the magnitude of change within the industry. The benefit inequality is also highlighted with cruise ships, where much of the benefit of cruise ships visiting the island is distributed to the Government in the form of tax revenues and limited cruise passenger dollars are spent on the small businesses in the tourism industry. Bermuda's former Tourism and Transport Minister Zane De Silva conducted two cruise fact-finding missions in 2019 that found Royal Caribbean Cruise and Norwegian Cruise Line advertised and guaranteed purchases at certain on-island stores and offshore experiences to the detriment of other businesses.^{cxliii} The small vs. large business dichotomy is a force heavily considered when making recommendations.

Key Stakeholders

Bermuda Tourism Authority (BTA): the official and independent marketing organization of Bermuda, which monitors the industry's performance, manages Bermuda's National Tourism Plan and advertises Bermuda as a tourist destination. Structural changes resulting in the dissolution of the Bermuda Government Department of Tourism and the creation of the quasi-independent industry-funded Bermuda Tourism Authority were brought about by the One Bermuda Alliance, which was in power between 2013 and 2017.^{cxliv} The formation of the BTA also brought about a new level of transparency as the organization publishes quarterly and annual reports of all its key metrics.

Cruise Companies: Bermuda's largest and most frequent cruise visitors are Norwegian, Royal Caribbean, and Carnival. Other cruise visitors include Disney Cruises, Princess Cruises, Royal Seven Seas, and Celebrity Cruises.

Cruise Lines International Association (CLIA): the world's largest cruise industry trade organizations.

Marine and Ports Services: operates Bermuda's ferry services, monitors commercial and recreational traffic and is responsible for offshore marine search and rescue as well as seaport security.

Ministry of Tourism and Transport: oversees all transportation and related development in Bermuda including buses. MTT is charged with developing effective transportation policy and systems that meet the needs of Bermuda's residents and visitors, ensuring all Bermudian transportation works together.

Lodging Providers: hotels, guest houses, Vacation Rentals and Airbnb operators in Bermuda.

Tourist Activity Operators: includes glass-bottom boat tours, dive operators and cultural destinations including the Bermuda Aquarium Museum and Zoo.

Bermuda Hotel Association: made up of all major hotels in Bermuda, excluding vacation rentals. Serves as the voice of the industry in negotiations with the Bermuda Industrial Union.

Bermuda Industrial Union: represents hotel and other tourism-related workers on the island.

Bermuda Chamber of Commerce: organization representing employers in Bermuda. Represents the interests of tourism providers that are not hospitality related (e.g. retailers, watersports, etc.)

National Restaurant Association: represents the interests of restaurateurs in Bermuda.

Bermuda Rental Association of Vacation Home Owners (BRAVO): association representing vacation rental owners in Bermuda.

Skyport: quango that operates the Bermuda Airport.

Opportunity Matrix

This matrix allows the reader to compare input factors against one another with favorable conditions noted in green and unfavorable conditions in red. Yellow is used for categories that require caution or have mixed conditions. This spotlight approach will allow comparison across the three selected industries in the conclusion.

As has been already stated, tourism is one of Bermuda's largest industries, representing 5.3% GDP in direct activity and 18.1% when expanded to include indirect contributions (or activities supporting the tourism industry). Employment in the sector during the high season, or seasonal labor, accounts for 7,300 of 33,810 jobs^{cxlv} on the island, or approximately 21% of employment. This represents a very robust contribution to the economy and thus has been categorized as green or favorable.

Although tourist arrivals are high, they have declined relative to the 1980s, so arrivals have been categorized as yellow or cautionary. International access is limited to a single airport and three cruise ports, which is suitable for an island of Bermuda's size. One of the largest constraints the tourism industry faces is performance of the transportation network, which is often described as challenged to provide the connectivity that most international visitors are looking for. It can be difficult to access different ends of the island efficiently which proves to be problematic, particularly for cruise visitors who have a very limited time on-shore and thus often only visit one area. Note, the NTP addresses several opportunities for improvement in this area of Bermuda tourism, including: water taxis, credit card machines for all taxis, the purchase of green buses, etc. See the Government's Transportation Green Paper.^{cxlvi}

There is concern around the tourism market approaching oversaturation, particularly from cruises in the summer months, and thus there is risk associated with a growth of the industry, so it has been categorized as red. This risk may or may not include risk to the health of the environment—it depends on how future growth occurs and is measured (e.g., is growth measured by number of visitors or revenue generated).

The Bermudian tourism industry's compound annual growth rate (CAGR) is slightly lower than both the global and Caribbean rates. CAGR is used to evaluate performance over time. Because Bermuda's is a bit lower, it indicates it is not as growing as productively as other peer countries and thus has been categorized as yellow.

Category	Tourism-Specific Criteria	Evaluation*
Economic	Contribution to GDP (Indirect/Direct)	Medium 18.1%/5.3% ^{cxlvii}
	GDP Contribution per Capita (2018)	\$6,033.80 (USD) ^{cxlviii}
	Contribution to Employment (Indirect/Direct)	High Season (7,300 3,204) ^{cxlix}
Demand & Availability	Current Tourist Arrivals (2019)	726,578 (535,161 cruise +191,417 air leisure visitors) ^{cl}
	Access Points (Air and Sea)	Single airport, with new terminal opening in December 2020. Three cruise ports.
	Global Industry Growth	Prior to COVID -19 - growing at 3.9% CAGR ^{cli} . In 2020 will see declines of ~70%
	Local Market Trend	Prior to COVID-19, growing at 3% CAGR in Bermuda vs 3.2% average in Caribbean ^{clii} In the first half of 2020 air arrivals were down 85% ^{cliii}
Potential	Differentiators	High concentration of wrecks, culture and UNESCO World Heritage Site (St. George), pink beaches, northernmost coral reefs, African Diaspora Heritage Trail, architecture, safety/security, Crystal Caves
	Quality of Infrastructure	Poor transportation infrastructure, limited accessibility ^{cliv}
	Activities	Birding, Climbing, Diving, Education, Sport Fishing, Water Sports
Risk	Capacity in Market	Medium: Bermuda can, and is likely to, face capacity constraints in the summer months
	Risk of Overtourism	High: Tourism intensity increased by 35.6% from 2014 to 2018 ^{clv} The major issue comes from cruise ships and the over-crowding of popular areas by cruise passengers who come onto the island all at one time
	Ability to Grow Sustainably	Medium: opportunity to transition to more sustainable tourism.
Local Interest	Government Interest in Growth	High
	Local Enthusiasm for Industry	Medium: growing ^{clvi}

*Please see [Appendix T6](#) for further description of evaluation categories

Figure T6: Tourism Opportunity Assessment Matrix

Bermuda offers a range of activities for visitors to engage in but few meaningful differentiators, meaning activities that standout relative to activities available at other Caribbean nations.

The Government is supportive of sustainable growth, as evidenced by the creation of the Bermuda Tourism Authority in 2014 and the formal adoption of the 2018 National Tourism Plan. Local support for tourism growth is variable, with some residents in favor of growth and others worried that visitor numbers are already too high.

Recommendation #1

Promote “Blue and Green” Tourism

Bermuda offers a plethora of activities in and around the ocean for visitors. Promotion of these activities can bring significant benefits to Bermuda by, for example, increasing visitor spend, promoting activities that bring visitors in the non-summer months, and increasing Length of Stay (LOS) on the island. However, not all of these activities are equally beneficial for the economy or for the environment. This section recommends a ‘Blue and Green’ certification program, sponsored by the Bermuda Tourism Authority (BTA), which would help to promote qualified businesses with marketing and grant opportunities.

Recommendation T1.1

Establish a ‘Blue and Green’ certification for tourism-related businesses

There are multiple certifications available for tourism related business that will signal to visitors and other stakeholders that an organization is acting according to ‘green standards.’ However, there is no consistent ‘stamp’ or ‘standard’ in Bermuda. It is recommended that this be considered such that it will be relevant to Bermuda, its particular ecosystem and its community. The Bermuda Hotel Association has been active in educating its members about best practices in hospitality eco-tourism, and programs such as this should be extended to other providers of tourism services. This will need to be coordinated by a third-party but could reap significant benefits for qualified businesses.

There must also be an incentive for a tourism-related business to earn such a certification. In particular this can come in the form of:

- Grants (the criteria for these grants is discussed more in these recommendations): the BTA gives out a number of grants per year to tourism-related businesses that meet certain standards (e.g. the number of visitors it is likely to attract). If the BTA could make the ‘Blue and Green’ certification part of its decision criteria, this would be a good incentive for businesses to apply for the stamp.
- In addition, the BTA and other organizations promote activities to visitors through the web, brochures and maps. Organizations that earn the ‘Blue and Green’ stamp could achieve a higher placement and therefore obtain a competitive advantage.

The BTA is already doing something similar with the World Travel and Tourism Council (WTTC) ‘Safety Stamp’ that it awards to organizations that comply with certain COVID-19 safety standards. Organizations that have earned this stamp are already highlighted on the BTA Website.^{clvii} Similar environmental stamps have been successfully introduced in other locations, such as Hawaii where the Sustainable Tourism Association has developed a Certification Checklist with seven specialized best practices sections.^{clviii} The certification fee structure was developed in order to ensure the program was self-sustaining. The organization also developed a complaint form and process for following up complaints that are received about and from certified tour operators (CTOs).

Understanding the environmental and economic impact of blue tourism activities

Developing a set of criteria that qualifies certain tourism-related businesses for inclusion in a 'Blue and Green' certification program will be critical. It is beyond the scope of this report to develop that criteria. The included analysis is meant to act as background information for understanding the economic and environmental impact of various blue tourism activities. It is recommended that BTA take this information to develop a set of criteria for a 'Blue and Green' certification program that qualifies certain businesses for various promotional and capital opportunities.

This report developed a list of relevant activities for analysis. To be included on the list, the activity should take place on or near the ocean and/or rely on an ocean backdrop. The activities on this list were then evaluated based on certain criteria. A full list of these criteria can be found in [Appendix T6](#) which includes aspects that relate to economic development, such as revenue and jobs generated, as well as other considerations. In addition, given Bermuda's extreme levels of seasonality, it also considers activities that tend to promote visitation in the non-summer months. A summary of economic impact is found below.

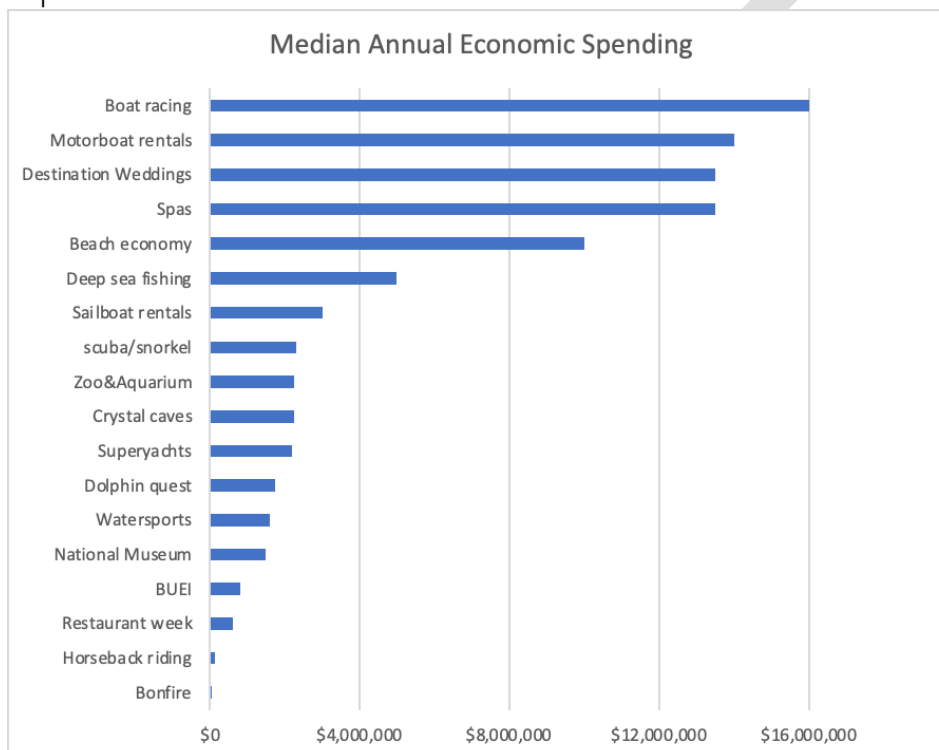


Figure T7. Median annual spend by blue tourism activity. Please note that these are best estimates and bear further refinement. Certain activities found in Appendix T7 are not included on the chart where economic impact information was not readily available, or unable to be separated from another activity (e.g. cliffjumping, reef fishing, birdwatching, Bermuda Triangle, shipwrecks, etc.). Please see Appendix T7 for further explanation.

Environmental considerations are absent from the analysis as the authors were unable to find a uniform, objective method by which to evaluate environmental impact of each of the blue tourism activities. It is recommended that an evaluation criteria be developed prior to the grant and certification program being implemented. That way each activity and/or business offering could be evaluated against the criteria. The BTA could then prioritize activities or businesses which have both high economic impact

and low environmental impact, as well as work with businesses which have high environmental impact to improve (reduce) their footprint.

There are several existing resources from around the world which can be used to inform the development of a Bermuda-specific evaluation system. A few of these include:

- *New Zealand Environment Guide*, maintained by the Environment Foundation^{clix}
- The CRC Reef Centre Technical Report 46, *Marine tourism impacts and their management on the Great Barrier Reef*^{clix}
- The report, *Blue Tourism: The Transition Towards Sustainable Coastal and Maritime Tourism in World Marine Regions*^{clxi}

Recommendation T1.2

Promote Investments in Sustainable Tourism Activities

There are a number of ways that activities identified as economically and environmentally sustainable can be promoted through a 'Blue and Green' certification program.

Recommendation T1.2.a. Grants from the BTA

To encourage growth and investment in sustainable tourism activities, the BTA should develop criteria for defining environmentally sustainable businesses that meet a Bermuda environmental blue tourism certification. Participants in the program can qualify for marketing campaigns to tourists that feature those business. There can also be a qualifying credit and/or loan program, whereby businesses have access to capital for growth and investment.

Recommendation T1.2.b. Private and public financing options for sustainable tourism investments

In order to ensure the viability of environmentally sustainable tourism-related businesses, they must have access to capital. This is particularly important in an environment adversely affected by COVID-19 and by extreme seasonality.

Capital investment in environmentally sustainable activities can be complicated and difficult because the return on investment may be lower and/or take longer to achieve than less sustainable activities. Financing of these activities can be public or private and come from domestic or foreign sources. The Organization for Economic Co-operation and Development (OECD) reports^{clxii} that "[t]here is increasing motivation for both the public and private sectors to invest in making tourism more sustainable, and the market for green bonds and other sources of green financing is expanding." The OECD stresses the importance of considering both public and private sources for finance:

- Public sector investment, for example, is critical to unlock finance (e.g. through guarantees), "provide incentives and build capacity." This is because governments have development obligations that go beyond economic viability and extend to societal and environmental responsibilities.
- Private sector investment is critical to the operating of tourism businesses but generally does not take into account environmental concerns. The United Nations Environmental Programme Financial Initiative tries to overcome this by encouraging investment in environmentally sustainable businesses. This initiative has brought together "over 200 financial institutions, including banks, insurers and investors committed to integrating

environmental and social considerations into all aspects of operations, some of which fund tourism.”^{clxiii} Some examples of innovative financing under this programme include:

- Tridos Bank only lends to businesses that have been (or are in the process of becoming) Green Tourism certified. It “provides loans to sustainable tourism businesses to invest in property purchase and development, on-site renewables and green tourism accreditation.”^{clxiv}
- Turkish Development and Investment Bank “provides financing and consultancy services for green building investment in the tourism sector.”^{clxv}

Recommendation #2

Update Cruise Head Tax to Reflect Capacity Constraints and Destination Management Goals

This recommendation suggests differentiating cruise taxes by port of call to balance traffic and encourage longer-stay vessels by reducing incremental night charges and emphasizes building partnerships with upmarket, smaller cruise vessels which can bring traffic to Hamilton and St. George’s.

The growth of Bermuda’s cruise passenger traffic, while charging a high head tax, indicates spending power exists in this segment. Currently, cruise ship passengers are far less lucrative per head than air travel passengers, generating one fifth of the spending in Bermuda. By levying higher taxes on cruise ships, there will be a decrease in traffic from price-sensitive demographics. However, this can be offset, in terms of value to Bermuda, by higher per-passenger spending on-island from higher yield cruise passengers. This will have the added benefit of reducing (or reversing) the detrimental environmental impact presented by the current trend of larger vessel size, with more passengers. Bermuda explored raising head taxes to \$80 as long ago as 2001 but abandoned those efforts under heavy pressure from the cruise industry.^{clxvi}

The current tax structure incentivizes short stay cruises which pose the largest logistical challenges to the island and the least economic stimulus. Bermuda has no caps on ship size and no longer mandates visits to all ports, relying on partnership with cruise companies to manage vessel size and calls.^{clxvii} Despite years of efforts to balance cruise and air travel, Bermuda has seen a trend in the opposite direction.

We recommend Bermuda analyze maximum carrying capacity of the island to determine how many passengers and ships it can accommodate in each port at once. With this ceiling in mind, Bermuda can use updated cruise head taxes with increased differentiated pricing based on size of vessel and port of call to balance traffic. With incremental nights taxed lower than the first, ships and passengers will be incentivized to stay longer. A single extra night would afford visitors considerably more time on island (32 hours as compared to less than 8), increasing spending and allowing visitors to be better spread across Bermuda, bringing much-needed business to under-resourced economic empowerment zones.^{clxviii} A local St. George’s business owner, speaking about his hope to host 45 vessels a season in each smaller port, said “the revitalizing impact on the town would be life-saving for businesses and the town.”^{clxix} We recommend partnering with smaller, high-end cruise operators successful in other

markets (e.g. Adventure Cruise) as well as growing existing partnerships with established Bermudian cruise callers Oceania and Seabourn.

While cruise companies have previously been resistant to higher taxes and efforts to manage cruise volume in Bermuda, research indicates a more favorable climate exists today.^{clxxx} In 2019, the city of Dubrovnik, whose population is 70% of that of Bermuda, began implementing measure to curtail cruise overcrowding, including a daily maximum of 5,000 passengers.^{clxxxi} The city further signed a memorandum of understanding with CLIA agreeing to conduct a sustainable tourism assessment and implement a long-term roadmap.^{clxxii} CLIA reported in its 2020 Outlook an increased interest by cruise companies in destination stewardship, including government partnerships, excursion diversification, and staggered arrivals and departures.^{clxxiii} Hosting longer stay travelers means cruise lines can earn more money from an additional night of accommodation and that fixed travel costs are spread over more days.

Based on the changing environment described above, there could be a potential net benefit to incentivizing longer cruise ship stays through a graduated tax rather than a flat tax for cruise passengers. Below we have modeled current direct (taxes) and indirect (on-island passenger spend) cruise revenues in Bermuda (baseline scenario), along with updated revenue forecasts based on a graduated incremental passenger tax with subsequent nights costing less than the first (see Figure T8-10). This model is revenue-neutral, with a slight decrease in government taxes being offset by increased indirect spending.

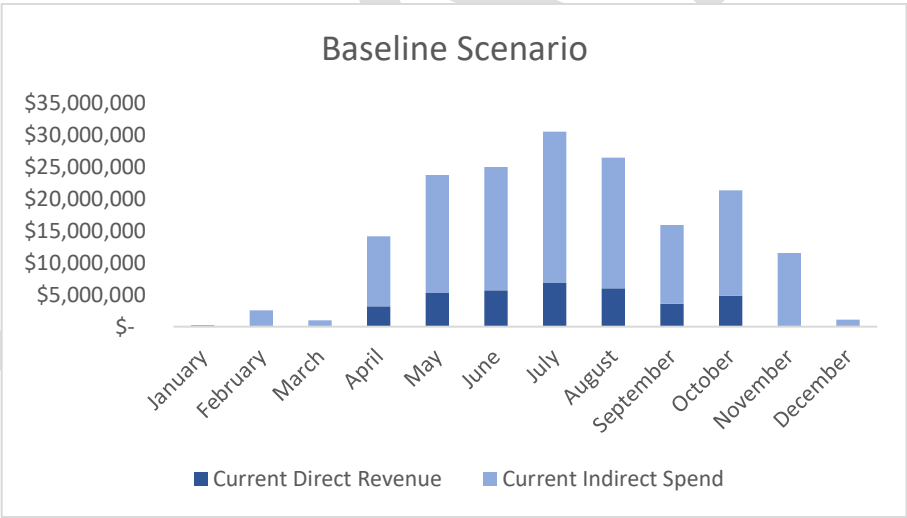


Figure T8: Current Tax Scenario Baseline

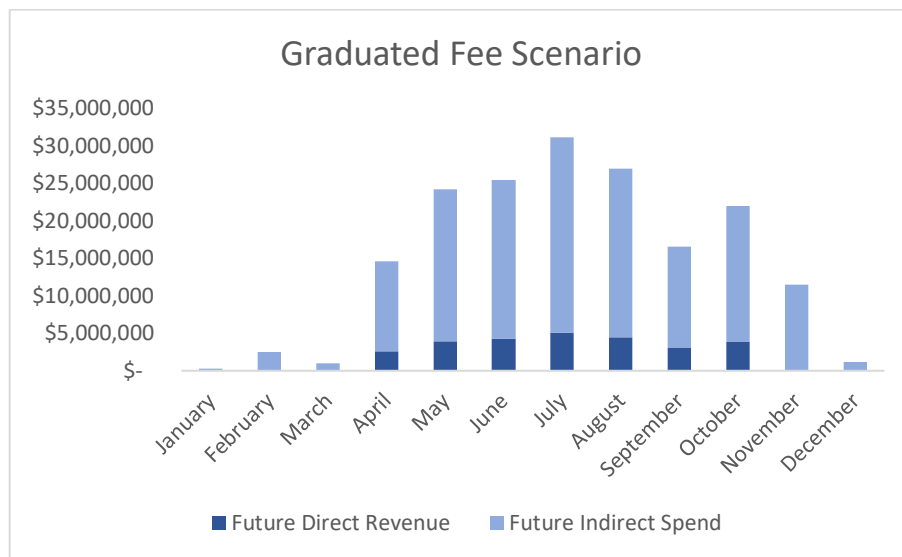


Figure T9: Graduated Tax Scenario

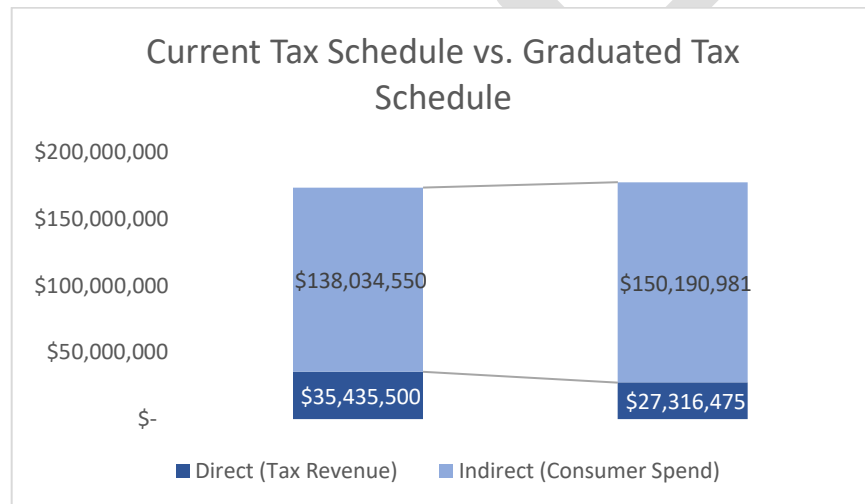


Figure T10: Comparison of Annual Tourism Revenues

Some simplifying assumptions were made for the above model, which was based upon data from the 2019 BTA Tourism Report. We assumed that for ships docked in the Royal Dockyard, the second night and all future nights would be taxed at a \$20/person/night tax rather than \$35/night. For all other ships, we assumed the normal port fee of \$25/person/night would be lowered to \$15/person/night. Note: Departure taxes vary depending on where the ship is docked, and when the ship calls on Bermuda. For example, tax per passenger is \$25/day in dockyard and \$20 for St George's and Hamilton (from April 1- Oct 31). We assumed a 10% increase in Length of Stay based on a graduated port fee structure, which would yield 10% more on-island spending by cruise passengers. While it is possible that a 10% increase in stay across a full-year of cruise ships will be challenging to achieve, it is reasonable to assume the gross increase in consumer spend could be 10% or more due to the increase of potential time on-island. For example, when a ship stay increases from one day to two days, the net increase of potential time spent on-island is well above 100% (eight hours turns into 32 hours).

Ultimately, we believe that a graduated tax on cruise ships is a lever which can be adjusted in order to incentivize longer stays. While cruise revenue from taxes is extremely important to the overall tourism industry's growth and relevant to government projects like infrastructure investments, it is also imperative to consider the indirect revenues gained through a graduated tax program. Cruise passengers who are interested in longer cruises with accompanying days in-port are likely to be the passengers who are interested in Bermuda's unique culture and natural resources, aligning with the next recommendation to focus on activity-based tourism and the creation and communication of better off-ship activities. Additionally, incentivizing longer cruise ship stays also has a positive impact to the environment by increasing the economic activity per port entry and exit rather than incentivizing additional short cruise ships that increases the number of port entries and exits per year. The discussions to implement such a change while recognizing a subsequent increase in LOS will need to occur directly with the cruise companies. Such discussions will consider other variables, relevant background info, and past precedents which our analysis was unable to consider based on our time and access constraints.

Recommendation #3

Heighten Visitor Awareness of the Environmental Impact of Tourism Activities

Many territories or countries have used creative mechanisms to heighten visitors' awareness of their environmental impact. One of the more famous examples is the 'Palau Pledge'^{clxxiv} which requires all visitors to physically sign a pledge upon their arrival not to damage the environment. The success of this program has led to others to replicate it, including the Icelandic Pledge^{clxxv}, New Zealand's Tiaki Promise^{clxxvi}, and Hawaii's Pono Pledge^{clxxvii}. Palau is now moving onto phase two of the project which includes launching a business accreditation programme, an educational curriculum for school-aged children that blends STEM education with conservation and growing the programme internationally by launching a global leadership scheme.

It is recommended that Bermuda consider a version of its own - looking to educate visitors from the time they arrive in Bermuda until the time they leave. In doing so this effort should;

- Increase visitors' awareness of their impact on the environment
- Discourage activities that have a negative effect on the environment (e.g. taking sand from Bermuda home with them)
- Do it in a way that is innovative and fun (e.g. include a scavenger hunt for children)

Conclusion

As one of the most heavily touristed destinations in the world, Bermuda needs to consider carefully how to manage its tourism development. This includes finding a balance between air and cruise tourists, reducing its extreme seasonality and ensuring it promotes activities that are both economically and environmentally sustainable – and that cover the entire island. Key metrics to prioritize are increased tourist length of stay, tourist distribution and tourist spending per head.

Given their varying complexity, our recommendations vary in the time frame required to implement. A possible sequencing is shared below. The below timelines (Figure T11) approximate the time needed to implement each recommendation.

	2021	2022	2023	2024	2025	2030
Rec 1: Promote Blue & Green Tourism	Analysis	Planning	Target			
Rec 2: Cruise Tax Restructuring	Planning	Discussions	Target	Adjust		
Rec 3: Heighten Visitor Awareness		Planning	Target			

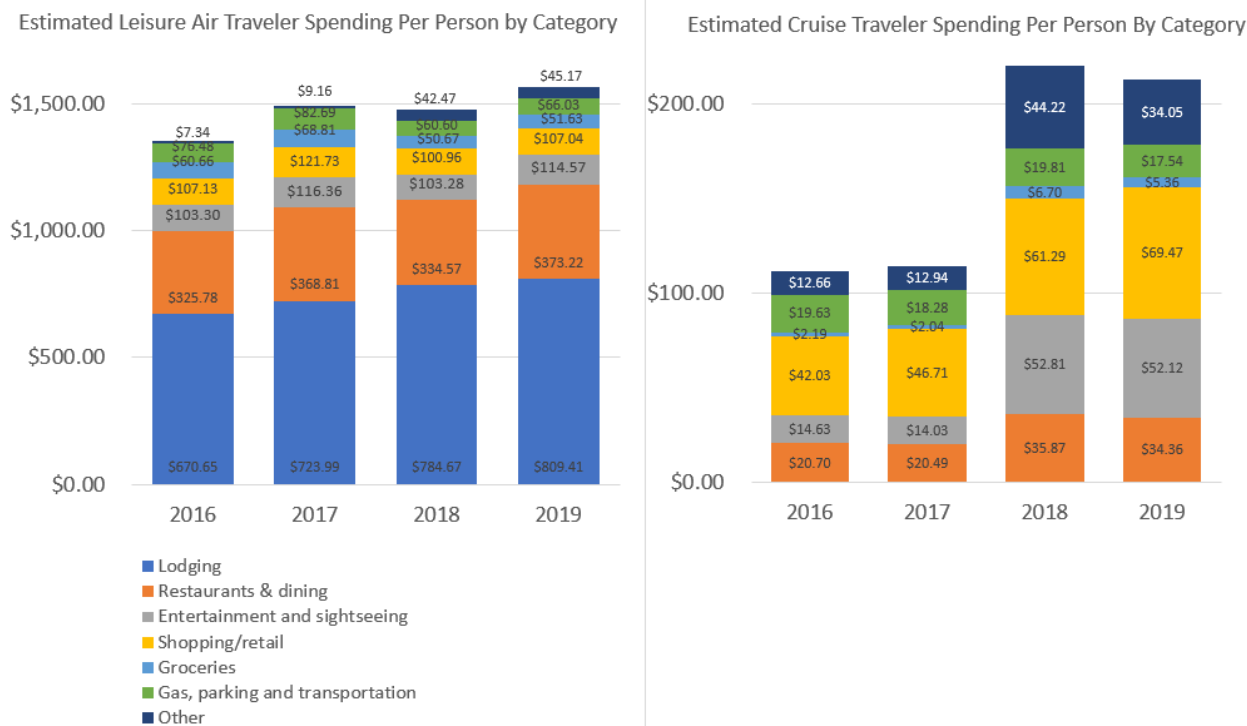
Figure T11: Implementation Schedule

APPENDICES

Appendix T1: Industry SWOT Analysis – Tourism: Bermuda

<p>Strengths</p> <ul style="list-style-type: none"> • Easy flight distance to much of U.S. Eastern seaboard • Unique geography with flora and fauna distinct from Caribbean • Pink sand beaches • Healthy coral reefs with minimal bleaching • Largest concentration of shipwrecks in the world • Rich culture and history, UNESCO World Heritage sight • Strong environmental groups and eco-conscious tourism sector 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Seasonality • Difficult on-island and inter-island transport • High cost relative to Caribbean destinations • Limited landmass and high population density • Lack of wilderness spaces • Tourist lodging is near capacity during high season and decreasing stock of tourist-zoned land along with declining airlift means short-term growth needs to occur in shoulder/low season • High cost of travel in Bermuda
<p>Opportunities</p> <ul style="list-style-type: none"> • Strengthening activity-based tourism • Increasing cruise calls in Hamilton and St. George's and continuing push to extend cruise season past traditional summer months • Pursuing luxury and small cruise market • Distributing tourism gains more evenly into historically disadvantaged areas • "Big moves" including banning single-use plastics and requiring reef-safe sunscreen • Adding additional flight routes with new airport terminal • Implementing usage fee for marine protected area 	<p>Threats</p> <ul style="list-style-type: none"> • Climate change and pollution: increased storm frequency and intensity, coral bleaching, cruise pollution • Overtourism: Bermuda has struggled to limit cruise traffic to stated caps and as cruise ships become larger, absorbing temporary visitors becomes more challenging

Appendix T2: Bermuda Tourist Spending 2019



Appendix T3: McKinsey Overtourism Framework^{clxxviii}: Benchmarks for Cities to Assess Overcrowding Risk.

	Top quintile (highest risk)	Second quintile	Third quintile	Fourth quintile	Fifth quintile (lowest risk)
Tourism share of GDP and employment	>8.5%	6.1–8.5%	4.5–6.0%	3.2–4.4%	<3.2%
Growth in tourist arrivals	>7.7%	6.2–7.7%	4.0–6.1%	2.0–3.9%	<2.0%
Number of visitors per square kilometer	>930,000	475,001–930,000	200,001–475,000	75,000–200,000	<75,000
Number of visitors per resident	>5.3	2.8–5.3	1.8–2.7	1.0–1.7	<1.0
Share of “poor” or “terrible” reviews among top attractions	>2.8%	2.0–2.8%	1.5–1.9%	1.1–1.4%	<1.1%
Difference in arriving-flight seats between high and low month	>1.36	1.29–1.36	1.19–1.28	1.14–1.18	<1.13
Share of reviews limited to top 5 attractions	>36%	33–36%	29–32%	22–28%	<22%
Annual mean PM10 concentration	>74.9	43.1–74.9	26.8–43.0	16.6–26.7	<16.5
Share of top 20 TripAdvisor attractions that are historic sites	>45%	31–45%	21–30%	7–20%	<7%

Appendix T4: McKinsey Overtourism Framework^{clxxxix} : 9 Metrics to Understand Potential

	Metric	Definition	Description and source
Overall context	Importance of tourism	Tourism share of GDP and employment (%)	Average contribution of direct tourism to GDP (as percent of total) and employment (as percent of total) in 2016, reflecting economic importance of tourism <i>Source: World Travel & Tourism Council analysis</i>
	Arrivals growth	Growth in tourist arrivals (% CAGR)	Average annual growth rate in international and domestic arrivals from 2011 to 2016; given data availability, includes only overnight arrivals in paid accommodation <i>Source: Oxford Economics</i>
Alienated local residents	Density of tourism	Number of visitors per square kilometer (#)	Calculated as 2016 arrivals divided by the number of square kilometers in the area encompassing TripAdvisor's top 20 attractions for the destination <i>Source: Oxford Economics, McKinsey analysis, TripAdvisor.com</i>
	Tourism intensity	Number of visitors per resident (#)	Calculated as 2016 arrivals divided by the population in the destination (using the same definition of each destination as arrivals data) <i>Source: Oxford Economics</i>
Degraded tourist experience	Negative TripAdvisor reviews	Share of "poor" or "terrible" reviews among top attractions (%)	Data captured from TripAdvisor's top 10 attractions in the destination as of July 2017, measuring the magnitude of negative sentiment in visitors' experiences <i>Source: TripAdvisor.com</i>
Over-loaded infrastructure	Arrival seasonality	Difference in arriving-flight seats between high and low month (ratio)	Calculated as value from month in 2016 with highest number of arriving-flight seats divided by value from month in 2016 with lowest number of arriving seats, representing degree of seasonality (used instead of hotel occupancy given more data availability) <i>Source: Diiio</i>
	Attraction concentration	Share of reviews limited to top 5 attractions (%)	Data captured from TripAdvisor as of July 2017 and calculated as reviews of top 5 attractions divided by reviews of all attractions to indicate concentration <i>Source: TripAdvisor.com</i>
Damage to nature	Air pollution	Annual mean PM10 particulate concentration (micrograms per cubic meter) ¹	Data captured by the World Health Organization on annual mean concentration of PM10 in cities for most recent year with official reporting (typically 2012–14 but varies by destination) <i>Source: World Health Organization Global Urban Ambient Air Pollution Database (updated 2016)</i>
Threats to culture and heritage	Historic site prevalence	Share of top 20 TripAdvisor attractions that are historic sites (%)	Data captured from TripAdvisor as of July 2017 on the top 20 attractions for the destination, analyzed to identify historical sites (eg, historic buildings, religious centers) and indicate potential risk to spiritual and physical integrity <i>Source: TripAdvisor.com</i>

¹ PM10 is particulate matter pollution consisting of small particles (less than 10 microns in diameter) floating in the air, coming from motor vehicles, fireplaces, industrial sources, etc.

Appendix T5: Billfish Tournament Impact Analysis

The Economic Impact of Billfish Tournament in Bermuda

1. Introduction

Bermuda is ideal for recreational fishing and for several decades now the country has offered some of the best deep-sea fishing in the Atlantic. The appeal of Bermuda in the world of big-game fishing lies in the availability of large blue marlin, as well as white marlin, tunas, and wahoo. Because of the size, power and intrigue of these fish, they draw anglers from many corners of the world to Bermuda. To capitalize on this natural resource, Bermuda has taken some steps to formalize these recreational activities both throughout the year as part of its regular coastal tourism offerings and in the form of tournaments that serve to both market the country and increase tourism revenues.

Although tourism accounts for over 50% of employment in Bermuda, its direct contribution to total value added at the end of 2018 was \$386 million or 5.3% of Gross Domestic Product (GDP). In addition, the main contributors to tourism direct gross value added (TDGVA) are accommodation (57%), transportation (16%), and retail trade (11%). In 2018, international tourism expenditure amounted to \$544 million. Several questions arise from these stylized facts: (1) To what extent can recreational fishing grow the coastal tourism sector and raise its direct value added contribution? (2) Are billfish tournaments, among others, avenues, efficient vehicles to achieve this?

Using an expenditure survey of July Bermuda Triple Crown Billfish Championship participants and input-output multipliers, this article attempts to measure the direct and overall economic impact of recreational fishing tournaments. The article concludes that the Triple Crown Billfish tournaments adds about \$4.6 million in direct expenditure to the island excluding sponsorship spending. When second round effects and induced spending are considered, the tournament accounts for just about \$6.9 million (or 1.8% of tourism direct gross value added) and adds nine new jobs.

2. Background and Description of the Billfish Tournament

Every July, Bermuda hosts the Bermuda Triple Crown Billfish Championship which is a series of fishing tournaments that are linked to the Blue Marlin World Cup. As the name suggests the Triple Crown comprises three major competitions: the Bermuda Billfish Blast, the Bermuda Big Game Classic, and the Seahorse Anglers Club Billfish Tournament. These competitions take place over three weeks with points accumulated at each event for the boat, the crew, and the anglers. In addition to Bermuda's appeal as a recreational fishing destination, this tournament has a significant cash purse for the winners and is used as an opportunity to socialize, network, and party. The Billfish tournament is often accompanied by other loosely associated events which add to its appeal.

In 2020 the Triple Crown featured 15 boats and anglers caught 73 billfish including 69 blue marlin and 4 white marlin. The main participants are Bermuda and United States based teams. Due to the global COVID-19 pandemic, 2020 participation in the competition fell significantly from 37 visiting boats in 2019.

3. Direct and Indirect Expenditures

Stylized Facts

Survey data from the 2019 Triple Crown illustrate the up market potential of recreational fishing tournaments in Bermuda. For example, the average travel party size is nine or more, the average vessel

size of participants was 76.8 feet and most importantly, tournament participants tend to stay for a long time (approximately 44 days).

Table 1 Stylized Tournament Participant Facts

Observation	Travel Party Size	Arrival Mode of Transportation	Accommodation	Vessel Type	Length of Private Vessel Stay	Vessel Size	Accumulated No. of Visits
1	11 or more	Fishing Vessel	Hotel, Vacation Rental, Yacht	Private	31 days	67 feet	12
2	11 or more	Private Jet	Hotel, Private Home, Yacht Club, Yacht	Private	32 days	97 feet	4
3	6	Fishing Vessel	Hotel, Private Home, Vacation Rental, Yacht	Private	38 days	53 feet	45
4	8	Yacht	Yacht	Private	91 days	86 feet	5
5	10	Fishing Vessel	Hotel, Yacht	Private	45 days	75 feet	10
6	10	Fishing Vessel	Yacht	Private	20 days	86 feet	16
7	11 or more	Fishing Vessel	Yacht	Private	35 days	75 feet	13
8	4	Fishing Vessel	Yacht	Private	56 days	75 feet	11
Average	8.9 or more	Fishing Vessel	Yacht	Private	43.5 days	76.8 feet	14.5

Note: In some cases averages refer to the mode. Yacht in this table refers to any sailing vessel

Sponsor Spending

The event is organized by Bonnier Corporation, the publishers of Marlin and Sport Fishing magazines. Their presence and promotion of the event had been instrumental to the tournaments success. Other corporations are also involved. Sporting events often represent major opportunities for companies to promote their brands through advertising in the form of direct sponsorship and promotional events. In 2019, the Triple Crown had 24 major sponsors (see Table 2). These sponsors spent in excess of \$540,000 in direct spending.

Table 2 Sponsors and their Spending

Sponsor	Amount (in \$)
Bermuda-GoToBermuda.com	100,000
Hamilton Princess Bermuda: Hotel, Beach Club, Marina	440,000
Vanmark Inc Jewelry Designers	...
KING Sailfish Mounts	...
YETI	...
Steve T Goione-MARINE ARTIST	...
HAWKINS Bermuda's Private Island	...
BACARDI	...
BODO MUCHE STUDIO-FOUNDRY	...
AFICO	...
MILES MARKET	...
GARMIN	...
WATERFRONT RESIDENCE	...
PW MARINE	...
FISHING TEASE.com	...
Release MARINE	...
RUBiS Energy Bermuda	...
BIG T Lures	...
SaltWater SPORTSMAN	...
ISLAND CONSTRUCTION SERVICES	...
GRUNDENS	...
SPORT FISHING	...
MARLIN	...
Total	>540,000

The Bermuda Tourism Association (BTA) spent \$100,000 in direct sponsorship spending. The Hamilton Princess Bermuda: Hotel, Beach Club, Marina discounted rooms by \$200 per night from \$475 to \$275. Assuming a conservative stay estimate of 30 days for two participants per vessel, we arrive at a baseline estimate of \$440,000. Sponsorship spending is likely to considerably exceed this estimate due to the exclusion of discounts on fuel which is a major spending category but this estimate serves as a benchmark.

Participant Spending

Table 3 presents a summary of expenditures by eight participants (groups) of the 2019 Triple Crown. Assuming the data is roughly representative of the entire sample (of 37), the expenditure estimates are scaled up to the total in the last column. The second column provides a much more conservative scaling of the aggregate.

Table 3 Tournament Spend by Category

Expenditure Category	Sample Expenditure (in \$)	Scaled Up Expenditure (in \$)	Scaled Up Expenditure (in \$)
Accommodation	125,500	290,219	580,438
Mooring/Berthing	220,320	509,490	1,018,980
Restaurants/Dining	100,100	231,481	462,963
Entertainment & Sightseeing	30,850	71,341	142,681
Shopping/Retail	28,000	64,750	129,500
Groceries	102,450	236,916	473,831
Fuel	235,835	545,368	1,090,737
Transportation	12,990	30,039	60,079
Specific Costs (e.g. Repairs and Maintenance)	11,320	26,178	52,355
Miscellaneous Cost	19,250	44,516	89,031
Sponsorship			540,000
Total	886,615	2,050,297	4,640,594

Note: The scale factors are 2.3 and 4.6 respectively. The larger scaling factor 4.6 is 37/8 which is a proportionate scaling whereas the smaller scaling factor is arbitrarily chosen at 50% of the full scale factor.

The results show that tournament participants spend up to \$4.6 million, a quarter of which comes directly from mooring/berthing fees, and another quarter spent on fuel. The remainder is spent on accommodation, restaurants, entertainment, shopping, and transportation. The analysis is focused on

the direct expenditure estimate based on the larger scaling factor but the smaller scaling factor estimates are presented as an ultra-conservative baseline.

4. Economic Impact

The direct in-scope expenditure amounts to \$4,640,594. To calculate the economy wide impact Bermuda's 2013 Input-Output based Type I and Type II multipliers are applied to each expenditure category based on the sector it best matches. Applying Type I multipliers allows for the calculation of indirect or secondary effects and applying Type II multipliers allows for the calculation of both indirect and induced expenditures. The multipliers were derived from Bermuda's national income accounts and obtained from Bermuda's Department of Statistics. Table 4 presents the results.

Table 4 Economic Impact

Change in Final Expenditure	Multipliers		Direct and Indirect Expenditure		Direct, Indirect, and Induced Expenditure	
	Type I	Type II	Impact-A (in \$)	Impact B (in \$)	Impact-C (in \$)	Impact-D (in \$)
Accommodation	1.48	2.41	429,524	859,048	699,428	1,398,856
Mooring/Berthing	1.32	1.5	672,527	1,345,054	764,235	1,528,470
Restaurants/Dining	1.48	2.41	342,592	685,185	557,869	1,115,741
Entertainment & Sightseeing	1.59	2.50	113,432	226,863	178,353	356,703
Shopping/Retail	1.50	2.46	97,125	194,250	159,285	318,570
Groceries	1.50	2.46	355,374	710,747	582,813	1,165,624
Fuel	1.61	2.21	878,042	1,756,087	1,205,263	2,410,529
Transportation	1.51	2.28	45,359	90,719	68,489	136,980
Specific Costs (e.g. Repairs and Maintenance)	1.50	2.46	39,267	78,533	64,398	128,793
Miscellaneous Cost	1.48	2.27	65,884	131,766	101,051	202,100
Sponsorship	1.48	2.14	799,200	799,200	1,155,600	1,155,600
Aggregate Impact			3,838,326	6,877,451	5,536,784	9,917,966

Source: Multipliers were obtained from the Bermuda Department of Statistics

The results show that the Triple Crown Billfish tournaments results in approximately \$2.3 million in indirect spending and approximately \$3.0 million in induced or household expenditure bringing the aggregate direct and indirect expenditure to \$6.9 million and the aggregate direct, indirect, and induced expenditure to \$9.9 million.

Using sales to employee ratios obtained from the Bermuda Department of Statistics and the indirect expenditure, changes in employment can be estimated. The results presented in Table 5 show that the Triple Crown Billfish tournaments generates nine additional jobs mostly occurring in the accommodation sector, restaurant and dining sector, and groceries.

Table 5 Employment Impact

	Sales per Employee	Employment Impact A	Employment Impact B
Accommodation	\$140,537.6	0.99	1.98
Mooring/Berthing	\$841,626.5	0.19	0.39
Restaurants/Dining	\$140,537.6	0.79	1.58
Entertainment & Sightseeing	\$118,859.9	0.35	0.71
Shopping/Retail	\$152,181.6	0.21	0.43
Groceries	\$152,181.6	0.78	1.56
Fuel	\$883,509.3	0.38	0.75
Transportation	\$215,510.4	0.07	0.14
Specific Costs (e.g. Repairs and Maintenance)	\$152,181.6	0.09	0.17
Miscellaneous Cost	\$156,863.8	0.14	0.27
Sponsorship	\$381,932.4	1.41	1.41
Aggregate Impact		5.40	9.39

Source: Sales to Employee ratios were obtained from the Bermuda Department of Statistics

5. Summary

Tourism in Bermuda accounts for 5% of GDP on average but over 50% of employment. This suggests significant potential for expansion of the sector by way of increasing value added. Recreational fishing represents an important value proposition because it typically involves upmarket clients with considerable disposable income, who are accustomed to mooring/berthing costs, charter costs and other associated fishing fees. This article, using primary survey data and input-output multipliers

investigates the economic impact (in terms of final demand changes) of the Triple Crown Billfish tournaments, a series of fishing tournaments held in July and linked to the Blue Marlin World Cup. The results suggest that this tournament alone makes a non-trivial contribution to tourism spending on the island. At \$6.9 million plus in spending or 1.8% of tourism direct gross value added, this tournament makes a significant splash. In addition, the findings show that the tournament creates nine new jobs. This evidence suggests that expanding participation in the tournaments could extract more value from tournament clients and increase tourism value added from this sector, but further investigation of capacity and other fixed assets is required

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1. Government of Bermuda, Department of Statistics, Input-Output Multipliers 2013.
2. Government of Bermuda, Tourism Satellite Account 2018.
3. Khan, H., Seng, C., & Cheong, W.(1990). Tourism multiplier effects on Singapore. *Annals of Tourism Research*, 17, 408–418.
4. Li, S. & Jago, L. (2013). Evaluating economic impacts of major sports events - A meta-analysis of the key trends, *Current Issues in Tourism*, 16(6), 591-611.

Appendix T6: Criteria Used to Evaluate Blue Ocean Activities for Promotion and/or Investment

In considering activities for economic development we utilized the criteria shown in the figure below.

Criterion	Responses	Notes
Is it ocean-based or related to the ocean?	Yes/No (note: items that are not ocean related are excluded from further analysis)	Some activities may not be on- or in-ocean but could depend on the ocean to exist or thrive. For example, Destination Weddings may not happen on a beach but one could argue without the scenery or ocean they would not occur in Bermuda
Does the activity attract visitors in the summer or non-summer months	Summer only Non-summer only Both summer and non-summer	Defining 'summer' months based on the BTA definition of June, July and August
Does it have potential to attract visitors to Bermuda?	1 = Very low 3 = Neutral 5 = Very high	If an activity is unique or adds to the attractiveness of Bermuda it would rank highly, e.g. Crystal Caves are not unique to Bermuda but their presence adds to the attractiveness of the island
Does it differentiate Bermuda?	1 = Not at all 3 = Neutral 5 = Unique	Activities that are unique to Bermuda are more likely to add to its allure, e.g. The Architecture, History, etc.
Revenue potential	1 = Very low 5 = Very high	Considered revenue potential for tourism operators and for the government (in the form of tax revenue)
Job creation potential	1 = Very low 5 = Very high	Some activities are more labor intensive and have the potential to generate jobs for Bermudians

Appendix T7: Overall Economic Impact of Key Visitor Activities

In this section we consider the economic impact of the various activities mentioned above. In order to do this, we drew on various sources. Given the chaotic effect of COVID-19 on the tourist economy in 2020, we have used 2019 figures in our analyses.

According to metrics provided by the BTA (see Figure A below), the average spend of all air² visitors to Bermuda is approx. \$1,483 over 5.4 days for an average spend of \$277 per person per day. Of this amount, 51% is spent on lodging, 24% is spent on food, and 7% is spent on entertainment and sightseeing. We will focus on this 7% which accounted for approx. \$28.7m in spend in 2019.

ALL Visitors (n=14,530)									
	Per Party Trip Spending	# of People Covered	Per Person Trip Spending	Per Person Trip Spending (Rounded)	Mean # of Nights	Per Person Daily Spending	Total Bermuda Visitors	Total Spending	% of Spend
Lodging/accommodations	\$1,692.08	2.25	\$753.51	\$754	5.4	\$140		\$203,253,792	51%
Restaurants & dining out	\$806.51	2.25	\$359.15	\$359	5.4	\$67		\$96,878,743	24%
Entertainment & sightseeing	\$239.35	2.25	\$106.59	\$107	5.4	\$20		\$28,750,829	7%
Shopping/any retail purchases	\$235.55	2.25	\$104.89	\$105	5.4	\$20		\$28,293,885	7%
Groceries	\$119.69	2.25	\$53.30	\$53	5.4	\$10		\$14,377,820	4%
Gas, parking & local transportation	\$142.49	2.25	\$63.45	\$63	5.4	\$12		\$17,115,611	4%
Other	\$95.64	2.25	\$42.59	\$43	5.4	\$8		\$11,488,379	3%
Total	\$3,331.31		\$1,483.48	\$1,483		\$277	269,743	\$400,159,059	100%

Figure A: Spend for all visitors (source: BTA) 2019 Data

Cruise passengers spent less per capita but when the number of cruise passengers is considered, the spend on entertainment and sightseeing is approx. the same as air visitors or \$27.9m. This is shown in the Figure B below.

ALL Visitors (n=1,964)								
	Per Party Trip Spending	40% commission	# of People Covered	Per Person Trip Spending	PP Spending (rounded, exclusive of commission)	PP Spending (rounded, inclusive of commission)	Total Bermuda Visitors	Total Spending (exclusive of commission)
Restaurants & dining out	\$79.64		2.32	\$34.36	\$34	\$34		
Entertainment & sightseeing	\$120.83		2.32	\$52.12	\$52	\$52		27,914,074
Shopping/any retail purchases	\$161.04		2.32	\$69.47	\$69	\$69		
Groceries	\$12.43		2.32	\$5.36	\$5	\$5		
Gas, parking & local transportation	\$40.66		2.32	\$17.54	\$18	\$18		
Other	\$15.42		2.32	\$6.65	\$7	\$7		
Excursions/Package Tours (purchased through cruise line)	\$151.84	\$60.73	2.32	\$39.30	\$39	\$65		
Total		\$521.13		\$224.81	\$225	\$251	535,541	\$120,392,648

Figure B: Spend for cruise passengers (Source BTA)

In order to understand where this approx. \$27m in entertainment and sightseeing spending from air visitors is being allocated, we looked at where visitors said they went while they were in Bermuda. In Figure C, we again used BTA exit-survey data to understand what air visitors did while in Bermuda. Based on this data, and the average spend per activity per person we were able to roughly calculate the value of each activity.

² We have included the average of Leisure, VFR and Business visitors. The reason for including all three categories is that although VFR and Business visitors come to Bermuda for varying reasons, they also spend money on entertainment and sightseeing and therefore to exclude them would be ignoring fairly significant spend

Air Visitors		269,743.00 Ave cost pp				
	% who did this activity	Ent and Sightseeing	Number of people	Cost pp	Total Spend	% of spend
Boating, sailing	27%	1	72,831	\$ 100.00	\$ 7,283,061.00	26%
Crystal Caves	27%	1	72,831	\$ 22.00	\$ 1,602,273.42	6%
Live ent	24%	1	64,738			Assume this covered in restaurants/bars
Historical tours	22%	1	59,343	\$ 50.00	\$ 2,967,173.00	11%
Guided tours	22%	1	59,343	\$ 50.00	\$ 2,967,173.00	11%
Tobacco Bay	18%	1	48,554	\$ 75.00	\$ 3,641,530.50	13%
Aquarium, Museum, Zoo	15%	1	40,461	\$ 30.00	\$ 1,213,843.50	4%
Water sports	12%	1	32,369	\$ 50.00	\$ 1,618,458.00	6%
Music Events	7%	1	18,882			Assume this covered in restaurants/bars
Scuba Diving	3%	1	8,092	\$ 150.00	\$ 1,213,843.50	4%
Deep sea fishing	2%	1	5,395	\$ 250.00	\$ 1,348,715.00	5%
Horseback riding	1%	1	2,697	\$ 100.00	\$ 269,743.00	1%
Visit to beach	84%	0	226,584	\$ 15.00	\$ 3,398,761.80	12%
Shopping	59%	0	159,148			Assume rental of umbrellas or other equipment
Walk, run, on streets	48%	0	129,477			Not covered in sightseeing
Railway Trail	29%	0	78,225			Not covered in sightseeing
Bus/Taxi tour	28%	0	75,528			Not covered in sightseeing/ free
Street festivals	17%	0	45,856			Not covered in sightseeing
Spa Visit	16%	0	43,159			Not covered in sightseeing
Golf	11%	0	29,672			Not covered in sightseeing
Tennis	3%	0	8,092			Not covered in sightseeing
			Total		\$ 27,524,575.72	

Figure C: Approximate spending on sightseeing and leisure activities

Explanation of Figure C

- **% who did this activity:** comes from the BTA exit survey, average for Dec 2019.
- **Ent. and sightseeing:** 1= covered in this category, 2 = not covered in this category. Note: we assumed that live entertainment and music events were covered in food/restaurants and not separate events
- **Cost pp** (per person): We derived average costs by investigating sources online including gotobermuda.com, expedia.com, airbnb.com and company websites. Prices may differ based on season.

Assumptions

- We understand that some activities may be combined e.g. sailing may be combined with snorkeling. In this case we assume most of the spend is on sailing and have used this spend figure.
- We have not included adjacent activities for example, when on a sailing boat, food and drink are charged extra. We assume that these charges are covered in the food and beverage value of Figure C.
- We also recognize that, because this data is based on an exit survey, it is based on the recollections of visitors - which may be imperfect. For this reason, readers should assume that the findings are directionally correct, but not exact.

Note on Cruises: No data exists on what cruise passengers did while on the Island but anecdotal evidence from interviews suggests that they partake in activities similar to air visitors - but paying for these as an excursion either on the ship (approx. 50%) or directly on island (approx. 50%). Given that we have no reliable data on where the cruise passengers spent their money on the island, we will use the air visitors spend as a proxy for all on-island activities.

The purpose of this analysis is to consider each type of activity and how it rates based on the criteria developed in Appendix T6. The rubric for evaluation is found in the table below and the scores for each subsequently.

METRIC	RESPONSES	NOTES
Is it ocean-based or related to the Ocean?	Yes/No	Using an ocean resource
Does it have the potential to attract visitors to Bermuda	Scale: 5 = very high, 1 = very low	
Does it differentiate Bermuda?	Scale: 5= unique, 1= Point of Parity	
What is the potential revenue for this activity	Size of the opportunity for 1) Tourism Operators (direct) 2) Government	
Job creation potential	Scale: 5= high, 1= low	
Equitable benefits across the population	Scale 5= high, 1 = low	

	APPROX. ECONOMIC SPENDING PA	ATTRACT PEOPLE IN NON-SUMMER MONTHS	POTENTIAL TO ATTRACT PEOPLE TO BDA	DIFFERENTIATE BERMUDA	JOB CREATION POTENTIAL
Beach activities:	\$25-100k	All months except winter	3	2	2
Bonfires					
Beach economy	\$10m	No	2	1	3
Beach horseback riding	\$100-200k	No	2	2	1
Beach: spas	\$12-15m	Yes	3	3	3
Beach: watersports	\$1.6m	No	3	1	3
Bermuda triangle	NA	Possibly	4	5	3
Motorboat rentals/ charters	\$8-20m	No	3	1	3
Sail boat rentals/ charters	\$2-4m	No	3	2	3
Boat racing	\$12-20m	Yes	5	5	4
Superyachts	\$1-3.4m	Yes	5	3	4
Cliff jumping	NA	No	3	3	2

	APPROX. ECONOMIC SPENDING PA	ATTRACT PEOPLE IN NON-SUMMER MONTHS	POTENTIAL TO ATTRACT PEOPLE TO BDA	DIFFERENTIATE BERMUDA	JOB CREATION POTENTIAL
Crystal caves	\$1.5-3m	Yes	3	3	2
Destination weddings	\$12-\$15m	Except winter	4	4	4
Diving/ shipwrecks	NA	Yes	5	5	3
Diving: scuba/ snorkeling	\$1.6-\$3m	Yes	3	3	3
Fishing: deep sea	\$6.9m	Yes	4	3	4
Fishing: reef fishing	NA (likely negligible)	Yes	2	2	2
Food: restaurant weeks	\$500-750k	Yes	2	2	4
Institutions: Dolphin-quest	\$1.5-\$2m	Yes	2	2	3
Institutions: Bermuda Aquarium and Zoo	\$1.5-3m	Yes	2	2	3
Institutions: BUEI	\$750-900k	Yes	4	3	2
Institutions: Bermuda National Museum	\$1.5m	Yes	3	3	2
Bird-watching	NA	Yes	3	4	1

Figure D: Evaluating different activities based on criteria from Appendix T6

Appendix T8: Analysis of Specific Ocean-Related Tourism Activities

Beach Activities: Bonfires

Description	<p>The Bermuda Government requires a permit for all beach and non-beach bonfires. Bermuda Bonfires will organize and set up bonfires not only at local beaches, but other Bermuda locations as well. Bermuda Bonfires is run by a small team who will provide the permit, set up and clean up, chairs and additional services such as food and music.</p> <p>Beach bonfires are hosted weekly and bi-weekly at Tobacco Bay and Snorkel Park</p>	
Appeals to	All visitors	<i>During COVID-19 19, bonfires have been used by locals as staycations</i>
Cost to visitors	\$35-100+ to attend weekly bonfires or a bonfire on demand	
Number of providers	3	<i>Tobacco Bay and Snorkel Park build bonfires as part of their full beach service. Bermuda Beach Bonfire does bonfires on demand</i>
Ave Rev per provider pa	\$24,000	<i>Tobacco Bay 35,000 annual visitors and Snorkel Park 100,000 - but bonfires are not separated from the total offering</i>
Adjacent revenue	Unknown- includes Food and Beverage + music	
Total Bermuda Revenue	\$25,000-\$100,000	<i>Estimate</i>
Total Employment	54	<i>1 FTE, 3 PTE and 15 FTE for Tobacco Bay and 35 FTE for Snorkel Park</i>
Environmental Impact		
Unique to Bermuda	2	
Attract people to BDA	3	
Attract people in non-summer	All except Winter	

Key Providers: Tobacco Bay, Snorkel Park and Bermuda Bonfires

Sources: Interview with Bermuda Bonfires, David , Dennie O'Connor

Beach Activities: Beach Economy

Description	Bermuda's beaches are arguably its most important tourist draw. However, many close locations have beautiful beaches. The BTA developed a 'Beach Economy Vision' where it canvassed a number of stakeholders in order to develop a clear Beach Economy plan that can generate jobs, improve amenities and facilities at the beaches and ensure it protects the pristine nature of the beaches and ocean. Five beaches were targeted for development: Horseshoe Bay, Shelly Bay, Clearwater Beach, Tobacco Bay and John Smith's Bay. Currently each of these beaches has some form of facilities/amenities to different degrees.	
Appeals to	All visitors	
Cost to visitors	Most beaches are free to use but the use of Amenities such as umbrellas, towels, etc. can cost \$25.00 - \$40.00	
Number of providers	Private beaches are served by the hotels that own them. Currently there are concessions on 4 beaches	<i>Current concessions: Tobacco Bay, Clearwater Bay, Horseshoe Bay, Snorkel Park</i>
Ave Rev per provider pa	There are four concessions but multiple providers of rental equipment on other beaches. So it is difficult to estimate average revenue	
Adjacent revenue	Significant adjacent revenue comes from transportation to/from the beach, sales of food, rental of equipment, etc.	
Total Bermuda Revenue	Direct revenue is approx. \$10m but with adjacencies such as food this could easily be 2-3x	
Total Employment	50	
Environmental Impact	Environmental impact could be significant and negative as beaches attract crowds. However, this could be mitigated in a number of ways e.g. concessionaires could be made responsible for beach cleanliness. Also, provision of toilets can prevent human waste on beaches and in the water	
Unique to Bermuda	1; Some aspects and activities can be unique e.g. Tobacco Bay sponsors 'white parties' and beach bonfires.	
Attract people to BDA	2	
Attract non-summer months	no	

Key Providers: Tobacco Bay, Snorkel Park, Horseshoe Bay, Clearwater Bay

Sources: Interview with Dennie O'Connor, Beach Boys

Beach Activities: Horseback Riding

Description	Horseback riding on the beaches in Bermuda is permitted 6 months of the year (Jan-April and Nov-Dec). There are 3 equestrian providers on the island. Rides offered include trails and sunset and sunrise rides on the beaches. Rides are offered for various skill levels and for adults and kids alike. With timing from 1.5 hours to 3 hours.	
Appeals to	All visitors	<i>Bronco Stables does carriage rides for 2 adults year-round including weddings</i> <i>Beach riding is winter months only</i>
Cost to visitors	\$100+ per hour	
Number of providers	3	<i>1 Carriage Rides – year-round, other providers part time</i>
Ave Rev per provider pa	Approx. \$100-200k	
Adjacent revenue	Unknown includes flowers, snacks, beverages	
Total Bermuda Revenue	Approx. \$300k - \$600k	
Total Employment	3-4 FTE	
Environmental Impact	Low	
Unique to Bermuda	2; No	
Attract people to BDA	2	
Attract non-summer months	no	

Key Providers: Bronco Stables, Watson Professional Horses

Sources: Interview Bronco Stables

Bermuda Triangle

Description	The Bermuda Triangle, also known as the Devil's Triangle or Hurricane Alley, is a loosely defined region in the western part of the North Atlantic Ocean where a number of aircraft and ships are said to have disappeared under mysterious circumstances. Most reputable sources dismiss the idea that there is any mystery. Currently there are multiple experiences related to the Bermuda Triangle. There is an exhibit to Unlock the Secret of the Bermuda Triangle BUEI. (Blue Underwater Exploration Institute), there are photo opportunities with Triangles throughout the island. The triangle can also be visited by rented boat, twilight cruises.	
Appeals to	All Visitors	<i>*BUEI has a new Bermuda Triangle Exhibit – open weekends only</i>
Cost to visitors	Depends on the experience	<i>For example: \$23-45 Tram Bermuda Triangle Tram</i>
Number of providers	Multiple	<i>Boat and scuba tours covered under boating</i>
Ave Rev per provider pa	Unknown	
Adjacent revenue	SEE BUEI Details	
Total Bermuda Revenue	Unknown	
Total Employment	Unknown	
Environmental Impact	Variable - depends on the activity	
Unique to Bermuda	5, Yes	
Attract people to BDA	4	
Attract non-summer months	Depends on activities	

Key Providers: BUEI and various boats

Sources: Interview with Tara Curtis, Director BUEI

Boat Tours: Motorboat Rentals

Description	Bermuda has a deep history in sailing and boating and this is one of the most popular activities in Bermuda with around 1 in 4 visitors going boating or sailing during their trips. Visitors can charter a boat or play captain of an easy-to-drive pontoon boat for the day. In addition Bermuda offers many options to explore the water via a private vessel. The crafts available for hire include: fishing boats and ski boats. Most providers offer some sort of 'themed activities including snorkeling, diving, whale watching, full moon, wine tasting, aquarium cruises, famous homes, Bermuda Triangle and glow worm tours. Vendors offering charters include Fantasea Diving and Watersports, Winsome Boat Tours and the Bermuda Reef Explorer, which has a glass-bottom boat ideal for snorkeling trips	
Appeals to	All visitors	
Cost to visitors	\$1,400 - \$3,000 for a full day, or around \$375/hour for a charter or ~\$80-100 to join a scheduled trip	<i>Costs will increase substantially for larger or more luxurious vessels</i>
Number of providers	~40-50	
Ave Rev per provider pa	\$250,000-500,000	<i>Most revenue will come from spring and summer seasons</i>
Adjacent revenue	Will include transportation to/from launch, food and beverage, entertainment	
Total Bermuda Revenue	~\$8m-20m per year but can be more with adjacent income	<i>This activity is popular among cruise passengers</i>
Total Employment	Approx. 200-300 people	<i>Full time employees will be the captains/owners. Crew will be part-time and often students home for the summer</i>
Environmental Impact	Can be negative if not controlled	<i>The impact can be negative if some owners/captains anchor in protected areas and/or litter. Noise pollution from some boats has also been reported</i>
Unique to Bermuda	1, No	
Attract people to BDA	3	
Attract non-summer months	no	

Key Providers: Ana Luna

Sources: Interviews with Ken Dallas

Boat Tours: Sail Boat Rentals

Description	<p>As with motorboats, visitors can charter a boat for a few hours or for a dayboat for the day, Bermuda offers many options to explore the water via a private vessel. The crafts available for hire include: yachts, catamarans and may include activities such as snorkeling, diving, whale watching, full moon, wine tasting, aquarium cruises, famous homes, Bermuda Triangle and glow worm tours. Sailboats are unlikely to be rented to visitors without a Captain and/or crew unless the visitor can prove sailing proficiency</p> <p>Vendors offering charters include Sail Bermuda, Ana Luna, Uber Vida, Rising Son Cruises</p>	
Appeals to	All visitors	
Cost to visitors	<p>\$1,400 - \$3,000 for a full day, or from \$250-\$400 per hour</p> <p>Dinner cruises start at ~\$200pp</p>	<i>Visitors can also join a scheduled trip for around \$75-100 per person</i>
Number of providers	5-10 providers	<i>Number operating will depend on season</i>
Ave Rev per provider pa	\$300,000 - \$500,000 pa	
Adjacent revenue	Will include drinks, catering, etc.	
Total Bermuda Revenue	\$2-4m	
Total Employment	30-50	<i>Vast majority except captains are part time</i>
Environmental Impact	Good - better than motorsports since emissions are lower	<i>Can also lead to reef damage, pollution if not properly controlled</i>
Unique to Bermuda	2, No	
Attract people to BDA	3	
Attract non-summer months	no	

Boating/Sailing: Racing

Description	Bermuda's long involvement with sailing has made it a popular location for sailing racing, culminating in its hosting of the Americas Cup in 2017. The largest regular race is the Gold Cup Regatta, which attracts approx. 20 boats each with a crew of 5 plus family/friends and supporters ³ . The Newport - Bermuda race is also a prestigious event that is well known and draws significant participation. Other events include regattas with RC34s and Dinghies. In addition sailing classes for novice sailors and youth are offered. There is also potential to offer Bermuda as a great location for collegiate sailing practice and other events around sailing	
Appeals to	Jetsetters, Active Families	
Cost to visitors	Most revenue to the Island will come in the form of additional visitors via lodging and food/beverage	
Number of providers	There is one sailing academy. Most racing is coordinated via the Royal Bermuda Yacht Club	
Ave Rev per provider pa	NA	
Adjacent revenue	Mostly in spend for crews, guests, supporters etc.	
Total Bermuda Revenue	TBD	<i>Awaiting Newport economic impact report from RBYC</i>
Total Employment	NA	
Environmental Impact	Mostly neutral because the races are tightly controlled by organizers with strict environmental rules	
Unique to Bermuda	5, Yes	
Attract people to BDA	5	
Attract non-summer months	no	

Source: Interviews with Nicole Butterworth and Jonathan Brewin (RBYC)

³ This race is held every 2 years and was cancelled in 2020

Superyachts

Description	Until 2020, Bermuda's exposure to Superyachts (SY) was limited due to restrictive legislation that made it uneconomical to charter large yachts in Bermudian waters. These restrictions were relaxed in 2020 and, together with Bermuda's acceptance of yachts during the COVID pandemic, there is more interest in Bermuda as a destination than ever before. Currently the BTA is developing a strategy to attract more Superyachts, particularly in late summer/fall as the boats make the crossing from the Caribbean to Europe and often pass by Bermuda along the way.	
Appeals to	Jetsetters	
Cost to visitors	Substantial. Guests on average can spend upwards of \$150k per week	
Number of providers	Bermuda has two SY concierges to service the SY who visit the island	<i>These concierges provide multiple services and organize other services from sewage collection to floral arrangements</i>
Ave Rev per provider pa	TBD	
Adjacent revenue	Substantial. Most revenue to Bermuda will come in the form of these adjacent services	
Total Bermuda Revenue	TBD - Awaiting SY strategy report estimated November 2020	<i>Superyachts during 2016 America's Cup brought \$1-3.4m (as one example)</i>
Total Employment	TBD	
Environmental Impact	Neutral	<i>Like other maritime activities, if boats take care, the impact is minimal, but the potential for negative impact is substantial if restrictions are not adhered to or enforced</i>
Unique to Bermuda	3; No - Bermuda is significantly behind other destinations in the maturity of its SY industry	
Attract people to BDA	5	
Attract non-summer months	yes	

Cliff Jumping

Description	<p>Rated as the 2nd best water activities in Bermuda. Cliff jumping from Admiralty House Park and Clarence Cove, recently named one of Men's Journal's 20 most adventurous beaches⁴. With its deep water and accessible shoreline, it's the island's most popular spot. After taking the plunge, visitors can explore the underground caves carved out by the British in the 1800s.</p> <p>Bermuda has 59 sport climbing routes and 280 deep water solos, which are particularly attractive to experienced climbers yet currently draw relatively few climbers.⁵ Due to water temperatures, deep water solos are most attractive in the summer and fall, while bouldering and sport climbing are best done outside of the hotter air temperatures of summer.⁶ 21.4% of 2018 Bermudian air travelers came from New York, which has at least 15 climbing gyms in its metro area.⁷ We recommend investigating targeted advertising and partnerships with New York-based climbing gyms and sponsoring a winter or spring climbing tournament to raise awareness. Other international destinations including Ha Long Bay in Vietnam have seen substantial growth in international climbers after investment and marketing by the government.⁸</p>	
Appeals to	Adventure Seekers	
Cost to visitors	Would be part of a guided tour so possibly \$80-120 pp	<i>As this is primarily done as an individual for experienced climbers only but there are rock-climbing guides.</i>
Number of providers	NA	
Ave Rev per provider pa	NA	
Adjacent revenue	Would often be part of day / guided tour	
Total Bermuda Revenue	There are no entry fees	
Total Employment	NA	
Environmental Impact	Neutral	
Unique to Bermuda	3, Yes	
Attract people to BDA	3	
Attract non-summer months	yes	

⁴ Men's Journal's 20 most adventurous beaches

⁵ Farquhar, Grant. "Climb De Rock." *Climb De Rock*, 25 Sept. 2019, climbderock.bm.

⁶ Personal interview.

⁷ Beale, Alex. "New York Climbing & Bouldering Gyms: The Complete List." *99Boulders*. Accessed 2 Jan. 2020, www.99boulders.com/new-york-climbing-gyms.

⁸ Personal Interview.

Crystal Caves

Description	Crystal Cave and Fantasy Cave are two caves in Hamilton Parish. They feature soaring stalagmites and icicles of white limestone dripping from the ceiling. As they connect to the ocean, visitors can cross the floating bridge to peer into a crystal-clear lake, which reveals more intricate rock formations underwater. Fantasy Cave was reopened in the summer of 2001 with all the pathways rebuilt and re-illuminated by artificial lighting. It was discovered and opened about the same time as Crystal Cave, but was closed by the owners in the 1940s. Outside the two caves is a sub-tropical garden lined with palm trees where many species of trees and flowers are located. There are other caves in the area including a cave at Grotto Bay Resort that is used as a Spa	
Appeals to	All Visitors, Kid friendly	
Cost to visitors	Basic cave entry: \$24, \$35 for both caves Spa services via Grotto Bay Hotel	
Number of providers	2	<i>Cave operator, Spa Operator</i>
Ave Rev per provider pa	18% of visitors to BDA visit the caves per year generating approx. \$1.5-3m per year	<i>Crystal and Fantasy caves have one owner. Other cave is on Grotto Bay property</i>
Adjacent revenue	Includes transportation to/from caves and spa services	
Total Bermuda Revenue	\$1.5m-3m	
Total Employment	Caves: 5-10, Spa 3-4	<i>Will also depend on season</i>
Environmental Impact	Neutral	
Unique to Bermuda	Partially (3)	<i>Caves are not unique to Bermuda but Spa services in a cave are unique</i>
Attract people to BDA	3	
Attract non-summer months	yes	

Destination Weddings

Description	Bermuda's extraordinary qualities endure: moonlit beaches, secluded coves, nighttime symphonies of tiny tree frogs and, most alluring of all, a timeless mystique – what frequent visitor Mark Twain called a “subtle, indefinable charm of remoteness.” These same qualities set Bermuda apart as an exceptionally romantic wedding and honeymoon spot. There is indeed a legal process required to ensure nuptials are legal in Bermuda and in the home country of the couple. Destination Wedding Bermuda provides guidance in the process and will file all correct paperwork as required.	
Appeals to	Wedding Couples and Guests	
Cost to visitors	Wide range inclusive \$3,500 + and up. 15-20 weddings* annually Total of over 125 weddings	* Plus Anniversary parties, vow renewals, engagement parties and corporate
Number of providers	4+	
Ave Rev per provider pa	\$75,000-\$200,000	Depends on average spend per wedding. This figure is only for wedding planners
Adjacent revenue	Florist, transportation, cruise ship arrivals, Food and Beverage, Music, Venue rentals, beauty, gifts	
Total Bermuda Revenue	\$12m-15m	Based on spending of 6046 air arrivals in 2019. Assuming ~240 weddings spending on average \$15,000 on wedding activities
Total Employment	FTE 12	The destination wedding industry itself has 4 main providers - but will subcontract out almost every aspect. So the actual number of people employed by destination weddings could be rather large
Environmental Impact	Neutral	
Unique to Bermuda	Partially based on locations i.e. the unfinished church (4)	
Attract people to BDA	4	
Attract non-summer months	Except winter	

Sources: Destination Weddings Bermuda, Get Married in Bermuda, My Bermuda Wedding, To have and to Hold

Interview: Yolanda Furbert

Diving: Shipwreck Diving

Description	<p>Bermuda has more shipwrecks per square mile than any other destination⁹. For that reason, Bermuda has been widely recognized as the shipwreck capital of the Atlantic Ocean. It was once called the "Isle of Devils" for good reason - the deceptive and treacherous reefs around the island have led to many a ship's sinking. Beneath its clear waters, you can dive, snorkel or simply skim over more than 300 sunken ships dating from the 1600s to 1997.</p> <p>There are over 10+ well known ships beneath the water for exploration. There are historic and modern wrecks on both the east and west of the island. There are multiple tour operators for both groups and individual shipwreck dives</p>	
Appeals to	All visitors	
Cost to visitors	Range \$79/hour - snorkeling \$70 includes equipment 2 tank dive = \$150 / 1 tank dive summer only \$95	Guide available for shipwreck diving additional costs
Number of providers	2	Fishing boats depart from 2 locations
Ave Rev per provider pa	N/A	
Adjacent revenue	Meals/drinks	
Total Bermuda Revenue	See Scuba diving section	
Total Employment	5 FTE + 2 PTE	
Environmental Impact	Need to manage to ensure safety of shipwrecks and reefs	
Unique to Bermuda	5, Yes	
Attract people to BDA	5	
Attract non-summer months	yes	

Sources: Dive Bermuda, Fantasea (Boat for sale at the end of the 2020 season)

Interview: Mark Diel

⁹ <https://www.smithsonianmag.com/travel/exploring-five-most-iconic-wreckage-sites-bermuda-180973637/>

Diving: SCUBA/SNUBA/Snorkeling

Description	Deep and accessible waters with healthy reefs and shipwreck make for world-class diving and snorkeling in Bermuda. There are various forms from scuba to snuba and both snorkeling and helmet diving offered throughout the year, depending on water temperature and the need for a wetsuit or not. For scuba diving, there is access to deep, calm water quickly and easily, for the viewing of sea life. Bermuda's vast underwater reserves and the fact that it has the highest number of shipwrecks in the world give it a year-round scuba diving season, with peak visibility in winter. Winter can also bring windy periods which can prevent access to dive sites for weeks; thus, increasing winter diving would be variable and require flexibility on the part of travelers. Divers are generally above-average income, high-yield tourists who stay longer at destinations in part because of the recovery time needed between diving and flying to avoid decompression sickness. ¹⁰ Globally, divers value healthy and protected reefs and are willing to pay a premium to dive in managed, limit-access areas. ¹¹ Stakeholder interviewees believe Bermuda has underinvested in diving relative to other destinations; despite the high number of wrecks current tourist demand only supports 4 dive shops during the summer months, with unused capacity. ¹²	
Appeals to	Adventure seekers	
Cost to visitors	Range \$79/hour - snorkeling \$70 includes equipment 2 tank dive = \$150 / 1 tank dive summer only \$95	Price includes: tanks, weights, mask, snorkel and fins
Number of providers	3+	2 Locations 4 times of dives per day in summer months
Ave Rev per provider pa	NA	
Adjacent revenue	Equipment rentals, instructors, guides	
Total Bermuda Revenue	\$1.6m-3m	
Total Employment	5 FTE 2 PTE	
Environmental Impact	Variable	Sunscreen and other chemicals can harm reefs
Unique to Bermuda	Partially (3)	
Attract people to BDA	3	
Attract non-summer months	3	

Sources: Dive Bermuda

Interview: Mark Diel

¹⁰ Musa G, Dimmock K, editors. Scuba diving tourism: contemporary geographies of leisure, tourism and mobility. UK: Routledge; 2013.

¹¹ Gelcich, Stefan, et al. "Financing marine protected areas through visitor fees: Insights from tourists willingness to pay in Chile." *Ambio* 42.8 (2013): 975-984.

¹² Personal Interviews.

Fishing: Deep Sea

Description	Leaving from Robinson's Marina, Somerset Bridge, visitors can experience the best fishing sites and the finest pristine reefs in Bermuda in minutes. Visitors can Fish the Edge, Challenger Bank or Argus Bank for Blue and White MARLIN, YellowFin and Black Fin Tuna, Wahoo, Barracuda, Snapper, Mahi-Mahi. Charters operate 1/2 day, ¾ day and full days. Paradise One Sports Fishing Charters and Reef Fishing Deep Sea Fishing (Apr-Nov) Reef Fishing Year round	
Appeals to	All Visitors	
Cost to visitors	Costs range from \$2,300 to 1,450+ full day / half day	
Number of providers	Multiple (Specialist – 1)	
Ave Rev per provider pa	Average over 300 trips per year Annually + commercial Fishing	
Adjacent revenue	Food and beverages can be included	
Total Bermuda Revenue		\$6.9 million annually from the single July billfish tournament
Total Employment	2FTE /1PTE	
Environmental Impact	Neutral	
Unique to Bermuda	3	
Attract people to BDA	4	
Attract non-summer months	yes	

Sources: Interview with Delvin Bean, owner Bermuda Dive

Fishing: Reef Fishing

Description	There are multiple locations on the island where visitors can fish from the shore. There are also multiple vendors to rent fishing equipment and if needed provide guides. There are 2 tour operators where visitors can catch fish and have their catch prepared and cooked with a local fisherman and a chef. Reef Fishing Year round
Appeals to	All Visitors
Cost to visitors	Costs range varies depended upon equipment needed
Number of providers	Multiple (Specialist 1)
Ave Rev per provider pa	N/A
Adjacent revenue	Food and beverages can be included
Total Bermuda Revenue	N/A
Total Employment	2
Environmental Impact	Neutral
Unique to Bermuda	2, No
Attract people to BDA	2
Attract non-summer months	Yes - except winter

Sources: Interview with Delvin Bean, owner

Food: Restaurant Weeks

Description	During the winter season Bermuda’s restaurants and the Bermuda Tourism Authority have come together to host a culinary blend of winter harvested foods, talented chefs and unique locations on the island. Although the event has been sponsored and hosted for the past 8years, the 2020 event featured re-purposed and re-imagine cultural sites to provide new food experiences in January/February. The Restaurant weeks in 2020 had participation from 90% of local restaurants. Offering specialized menus and fixed costs for both lunch and dinner.		
Appeals to	All Visitors		
Cost to visitors	Costs range from \$22 - \$52, specialty meals \$200+		
Number of providers	22	Fragrance and Food Pairing Picnic, Bermuda Cultural Heritage Dinner, and Fish Fry	
Ave Rev per provider pa	NA		
Adjacent revenue	Cultural venues used		
Total Bermuda Revenue	NA		
Total Employment	Varied		
Environmental Impact	Neutral		
Unique to Bermuda	2, No		
Attract people to BDA	2		
Attract non-summer months	Yes -		Restaurant week is in the late winter/early spring

Sources: BTA, Tashae Thompson

Museums And Institutions: Dolphin Quest

Description	Located inside the sheltered lagoons of the National Museum of Bermuda, Dolphin Quest provides visitors with year-round memorable and diverse ocean education opportunities. Visitors can relax and observe the Dolphins lagoon side while listening to a conservation chat or participate in a memorable small group or private dolphin interactive experience led by a Marine Mammal specialist.	
Appeals to	All Visitors, Family Friendly	
Cost to visitors	Entrance Costs \$65	<i>Full rental of event space for private events is available</i>
Number of providers	11,000 annual visitors + 2,000 locals youth education program participants	
Ave Rev per provider pa	~\$1.5-2m	
Adjacent revenue	Gift Shop revenue	
Total Bermuda Revenue	~\$1.5-2m	
Total Employment	15-40 + 9 interns annually	
Environmental Impact	Low to None	
Unique to Bermuda	2, No	
Attract people to BDA	2	
Attract non-summer months	Yes	

Sources: Interview with Sundee Faulkner, Christine Mihelcic

Museums And Institutions: *Bermuda Aquarium And Zoo*

Description	The Bermuda Aquarium is a facility located in Flatts Village, at the geographic center of Bermuda. It was established in 1926 "to inspire appreciation and care of island environments." The facility focuses on showing oceanic island species and in conservation, education, and research related to these species, and contains an aquarium, a natural history museum, and a zoo.	
Appeals to	All Visitors, Family Friendly	
Cost to visitors	Entrance Costs \$10	<i>The Aquarium and Zoo can be rented for events</i>
Number of providers	100,000 annual visitors	
Ave Rev per provider pa		
Adjacent revenue	Gift Shop + Donations	
Total Bermuda Revenue	\$1.25-\$3m	
Total Employment	NA	
Environmental Impact	None	
Unique to Bermuda	2, No	
Attract people to BDA	2	
Attract non-summer months	Yes	

Museums And Institutions: *Bermuda Underwater Exploration Institute*

Description	Explore deep-ocean environments the Institute is located in the City of Hamilton, the Ocean Discovery Centre at the Bermuda Underwater Exploration Institute (BUEI) houses artefacts and interactive exhibits to help promote an understanding of the oceans. Underwater artifacts housed in multiple exhibits. Open for private tours and events. Mission to explore and provide education about the Ocean. The Institute also houses an exhibit for the Bermuda Triangle, coral-encrusted coins and other treasures pulled from shipwrecks, a simulated dive and shark cage dive, an astounding seashell collection and exhibits revealing marine life of the sea-bottom.	
Appeals to	All Visitors, Family Friendly	<i>Open Weekends only during non-peak seasons</i>
Cost to visitors	Entrance Costs \$15	
Number of providers	1	
Ave Rev per provider pa	\$700k: 5 revenue streams: \$150,000 in room/facility rental: \$180,000 Summer Tuition, Bermuda Triangle Trolley/tour \$60,000 20,000 visitors 70% visitors 30% local residents	<i>Summer and holiday programs in tuition</i> <i>Whale watching and Glow Worm Tours breakeven. Donations an additional revenue stream.</i>
Adjacent revenue	Gift Shop	
Total Bermuda Revenue	\$750k estimated	
Total Employment	9.4 FTE + 1.4 PTE	
Environmental Impact	Low	Varied (Whale watching and Glow worm tours) have an impact but BUEI enhances education on ocean ecosystem
Unique to Bermuda	3, Yes	
Attract people to BDA	4	
Attract non-summer months	Yes	

Sources: Interview with Tara Curtis, Director

Museums: National Museum Of Bermuda

Description	<p>This museum was previously the Bermuda Maritime Museum, explores the maritime and island history of Bermuda. The Maritime Museum is located within the grounds of the fortress keep of the former Royal Naval Dockyard in Sandys Parish on the Ireland Island at the western end of Bermuda.</p> <p>Visitors can explore 500 years of local history and culture, displayed in military buildings on the extensive grounds of the Keep citadel, including the award-winning restored Commissioner's House. The museum also conducts archaeological research on land and underwater sites around Bermuda.</p>	
Appeals to	All Visitors, Family Friendly	<i>Open Year-round closed Christmas Day</i>
Cost to visitors	Entrance Costs \$12-15	
Number of providers	1 – 75,000 visitors 75% visitors the remaining residents	<i>Number of visitors annually does not include visitors to special events</i>
Ave Rev per provider pa	Admissions, venue rental, research and donations 1.5M	
Adjacent revenue	Landscaping, marketing, advertising	<i>Third party providers provide these services for the NMB</i>
Total Bermuda Revenue	\$1.5m	
Total Employment	8 FTE + 2 PTE	
Environmental Impact	Neutral	
Unique to Bermuda	3, Yes	
Attract people to BDA	3	
Attract non-summer months	Yes	

Sources: Interview: Elena Strong, Director of NMB

Other Beach Activities: Spas On The Beach/ Yoga/Wellness

Description	<p>Bermuda offers multiple on the beach and off the beach spa services. There are multiple types of spas available in Bermuda. There are 8 independent retail spa only providers with the remaining 10 spas available through multiple hotel properties. Spa services include body treatments and some beauty offerings such as manicures/pedicures and facials. The range of massage packages is varied and include; Hot Stone, Cave, Couple, Prenatal and more. The Spa packages are offered at several beach locations as well as in rooms.</p> <p>Bermuda would be an excellent location to host wellness events. Multi-day international retreats, often a week or longer, are rising in popularity but over a three-month span from November to February, Bermuda had no listings on BookRetreats, or BookYogaRetreats, two international booking platforms. International wellness travelers are high-yield tourists, spending an average of \$1,528 per trip in 2017, 53% more than the typical international tourist.^{clxxx} Bermuda's close ties with New York offer a chance to partner with New York-based yoga and wellness instructors to host retreats, marketing to a population that is well served by existing flights to Bermuda and that travels in winter. The Grotto Bay Beach Resort has hosted yoga retreats in the past and other island spaces are likely suitable for hosting a class. Deeply discounted January hotel stays offer this segment value compared to other destinations in the same period.</p>	
Appeals to	Adult visitors	<i>Some locations are child-free, couples only</i>
Cost to visitors	Cost varies based on services \$250 – \$1,000	<i>Half days and full day including spa lunch</i>
Number of providers	14-18	
Ave Rev per provider pa	15% of air visitors go to a spa in Bermuda	
Adjacent revenue	Tips to operator + food	
Total Bermuda Revenue	\$12m-15m	Assumes 15% of visitors go to a spa and spend \$300. Note: only a portion of these will be on a beach
Total Employment	Varies by location	
Environmental Impact	Neutral	
Unique to Bermuda	Specific Locations (3)	Some locations are unique
Attract people to BDA	3	
Attract non-summer months	Yes	

Key Providers: The Hamilton Princess, Grotto Bay, The Reefs, Elbow Beach, Rosewood Spa

Sources: online searches for spa prices

Other Beach Activities: Watersports

Description	Watersports in Bermuda are numerous in types and availability from multiple operators. Bermuda has a full menu of water sports for visitors, including flyboarding, where jets of water shoot you skyward, or kiteboarding, to fly over the water. Bermuda's ideal weather conditions make it a great place for wind-powered sports such as windsurfing. Bermuda is an excellent location for kayaking. Active visitors can find incredible on-the-water sights. Tours can be guided, individuals can paddle out to secluded coves, shipwrecks, and reefs. Outfitters will provide instructions, equipment, locations and safety.	
Appeals to	The Active Family, Adventure Seekers	
Cost to visitors	Varies by activity Jet Ski \$100/single WindSurfing - \$85-\$150 \$109/double	
Number of providers	6	
Ave Rev per provider pa	\$270k	
Adjacent revenue	Food and beverages + Tips to Operators	
Total Bermuda Revenue	\$1.6m	12% of visitors do some form of watersports
Total Employment	40 FTE	
Environmental Impact	Neutral to negative	Depends on activity
Unique to Bermuda	1, No	
Attract people to BDA	3	
Attract non-summer months	Yes	

Key Providers: Tobacco Bay, Snorkel Park, KS Watersports, BDA Watersports, Unwind Sports,

Sources: Interview with Dennie O'Connor

Bird watching

Description	<p>Nearly 400+ species of birds have been recorded in Bermuda; This is due to the island's isolated location in the North Atlantic, attracting birds from all directions, and placement in the path of migrant birds taking a break. Over 200 species are recorded on average each year. There are only 17 permanent resident breeding species in Bermuda, of which only eight are native. Three seabird species visit Bermuda to breed including the national bird, the Bermuda rare Cahow, and the iconic Longtail. Birding is primarily an individual attraction, however in Bermuda it is supported by The Bermuda Audubon Society and the National Trust. Both provide information on birding by season, places to birdwatch and checklist.</p> <p>Birding ecotourism is one of the fastest-growing forms of tourism generally and ecotourism specifically and birders are often willing to pay to see a particular species.^{clxxxii} Endemic birds like the Cahow and Bermuda white-eyed vireo are particularly appealing to these travelers. Birding visitors have a high willingness to pay, as exemplified by average spending per day for birding tours of \$300-\$400 in the Bahamas^{clxxxiii}</p>	
Appeals to	All Visitors	
Cost to visitors	Donations only for checklist and recommended locations for birdwatching	
Number of providers	2	
Ave Rev per provider pa	N/A	
Adjacent revenue	N/A Donations to the Audubon Society	
Total Bermuda Revenue	N/A	Likely to be bespoke tours
Total Employment	Unknown	No full time
Environmental Impact	Neutral	
Unique to Bermuda	Yes specific species only (4)	
Attract people to BDA	3	For some specific rare species
Attract non-summer months	Yes	

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