

The Global Economic Contribution of Cruise Tourism 2013



Prepared for:

CLIA

September 2014

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Introduction

Business Research and Economic Advisors (BREA) was engaged by the Cruise Lines International Association (CLIA) to provide estimates of the contribution of the cruise industry to the global economy in 2013.¹ Data on passengers by source and destination market, as well as the global deployment of the global cruise fleet were obtained from sources published by CLIA. Research reports on passenger and crew expenditures and the economic impact of the industry in specific national and regional markets were assembled and reviewed.

Methodology

The global impact relied heavily on existing reports by BREA and other researchers and represents an aggregation of the results reported in these studies plus estimates developed for regions where data were not readily available. The majority of the global economic contribution reported below is derived directly from studies prepared for CLIA by BREA. Data on passenger and crew visits, direct expenditures of the cruise lines and their passengers and crew and the resulting economic impacts were taken directly from these reports and shown in the regional data for the United States, Europe EU+3 and Australia. These reports were:

- I. BREA, The Economic Contribution of the North American Cruise Industry to the U.S. Economy in 2013, prepared for Cruise Lines International Association, September 2014.
- II. BREA and G. P. Wild (International) Ltd., Contribution of Cruise Tourism to the Economies of Europe, 2013, prepared for CLIA Europe, June 2014.
- III. BREA, The Contribution of Cruise Tourism to the Australian Economy in 2013, prepared for CLIA Australasia, July 2014.

Combined, these three regions accounted for approximately 85% of the global total output contribution of cruise tourism.

The estimates of the global contribution for the Rest of North America were estimated by extrapolating the 2012 estimates for the Caribbean, Canada and Mexico from the following reports.

- IV. BREA, Economic Contribution of Cruise Tourism to the Destination Economies, 2011-12 Cruise Year, prepared for The Florida-Caribbean Cruise Association, September 2012.

¹ The terms economic contribution and economic impact are used interchangeably throughout this report.

- V. BREA, The Economic Contribution of the International Cruise Industry in Canada, 2012, prepared for CLIA North West & Canada Cruise Association and Partnering Cruise Associations, March 2013.

The data on spending by cruise lines and their passengers and crew were extrapolated to 2013 by adjusting average spending rates for inflation as reported by the appropriate government and monetary authorities. Passenger and crew visits were updated with data for 2013 as obtained from the destination ports and the Caribbean Tourism Organization. Given the extrapolated visit and spending data, the direct cruise sector expenditures were estimated for each of the markets. The resulting economic impacts were estimated with the same models that were used to estimate the economic impacts for 2012. The Rest of North America accounted for about 8% of the total global economic impacts.

Limited data was available for the Rest of the World which consisted primarily of Asia and South America. Data for Brazil and New Zealand were obtained from the following reports.

- VI. FGV Projetos, Maritime Cruises: Study on Profile and Economic Impacts in Brazil, prepared for CLIA Abremar Brasil, June 2014.
- VII. M.e Spatial, Economic Impact of the New Zealand Cruise Sector, prepared for Cruise New Zealand, August 2013.

The expenditure and economic impact data reported in these studies were directly included in the estimated impacts for the Rest of World. Estimates for all of South America were estimated utilizing the Brazilian data and passenger and crew visit data for the rest of South America. Estimates for the remaining global destinations were estimated from average cruise line, passenger and crew expenditure rates for home port and transit port destinations as derived from the above seven studies. The resulting estimated impacts accounted for 7% of the global total output impacts.

Global Economic Impacts

As noted above, the global impact relied heavily on existing reports by BREA and other researchers and represents an aggregation of the results reported in these studies plus estimates developed for regions where data were not readily available. All data that were reported in local currencies, i.e., expenditures, output, income, etc., were converted to US\$ for purposes of aggregation.

As shown in **Table 1**, the 114.87 million onshore visits by passengers and crew generated \$52.31 billion in direct cruise sector expenditures at destinations and source markets around the world. These also include the direct expenditures of the cruise lines for goods and services in support of their cruise operations.

Table 1–Total Global Economic Contribution of the Cruise Sector – 2013

Category	Global
Passenger and Crew Onshore Visits (Mil)	114.87
Total Direct Expenditures (US\$ Bil)	\$52.31
Total Output Contribution (US\$ Bil)	\$117.15
Total Income Contribution (US\$ Bil)	\$38.47
Total Employment Contribution	891,009

These expenditures generated total (direct, indirect and induced) global output of \$117.15 billion. The production of this output required the employment of 891,009 FTE² employees who earned \$38.47 billion in income. The details of this global contribution are discussed in the following sections of this report.

² Full-time Equivalent

Background: Cruising - A Global Industry

The cruise industry has enjoyed dynamic growth over a period of 30 years, driven initially by demand from North America and then by growing demand from Europe and more recently Australasia. **Table 2** sets out international cruise sector growth between 2003 and 2013.

Table 2–International Demand for Cruises, 2003 to 2013

Millions of passengers

Region	2003	2008	2009	2010	2011	2012	2013	10-Year Growth
North America	8.23	10.29	10.40	11.00	11.44	11.64	11.82	43.6%
Europe ^①	2.71	4.47	5.04	5.67	6.15	6.23	6.40	136.2%
Subtotal	10.94	14.76	15.44	16.67	17.59	17.87	18.22	66.5%
Rest of the World ^②	1.08	1.54	2.15	2.40	2.91	3.03	3.09	186.1%
Total	12.02	16.30	17.59	19.07	20.50	20.90	21.31	77.3%

^① Including Russia and Central and Eastern European countries outside the EU-27. ^② Rest of the world: Largely estimated and adjusted from 2009 to take account of dynamic growth in the southern hemisphere. Source: G. P. Wild (International) Limited from CLIA, IRN and other sources.

Over the ten years from 2003 to 2013 demand for cruising worldwide has increased from 12.0 million passengers to 21.3 million (+77%) with 2.0% growth achieved in 2013. Over a similar period, global tourist arrivals, mainly land-based tourism, has risen by around 57% to an estimated 1.087 billion tourists in 2013.³ The UNWTO reports that 5% of global tourists arrived at their destination by water, cruise and ferry in 2013.⁴

Since 2003 passengers sourced from North America have increased by 44% and the region remains the dominant source market. Coinciding with the strong global growth has been the emergence of new source and destination markets. As a result of the emergence of these new markets, North America's share of the global cruise market has moved to 55.5% in 2013. At the same time Europe's share has risen from 22.5% in 2003 to 30.0% in 2013 while the share of the Rest of the World rose from 9.0% to 14.5% over the 10-year period.

As an illustration of the dynamic and shifting pattern of growth in the global cruise industry, from 2003 to 2008, passengers sourced from Europe increased by 65% while those sourced from the Rest of the World increased by 43%. Over the next five years, Europe's growth slowed to 43% while growth in the Rest of the World rose to 101%.

³ Source: World Tourism Organization (UNWTO)

⁴ UNWTO Tourism Highlights, 2014 Edition.

Not surprisingly, the capacity deployed by the cruise industry, as measured by bed days⁵, has followed a similar growth and distribution profile. Overall, the global supply of bed days has increased by 84.2% from 2003 through 2013, increasing from 73 million bed days to 134.5 million (see **Table 3**).

Table 3—Global Deployment of Capacity, 2003 to 2013

Millions of bed days

Region	2003	2008	2009	2010	2011	2012	2013	10-Year Growth
Caribbean	35.1	36.9	39.1	46.2	45.5	48.0	48.1	37.0%
Other North America	14.4	20.0	17.7	16.5	16.6	16.0	15.0	-4.4%
North America	49.5	56.9	56.8	62.7	62.1	64.0	63.1	27.4%
Northern Europe	4.5	8.0	10.2	9.7	11.4	13.2	13.9	209.0%
Mediterranean	13.7	27.8	29.4	31.7	38.1	35.5	35.7	160.6%
Europe	18.2	35.8	39.6	41.4	49.5	48.7	49.6	172.5%
North America + Europe	67.7	92.7	96.4	104.1	111.6	112.7	112.7	66.5%
Rest of the World	5.3	11.3	13.2	13.8	15.1	20.7	21.8	296.4%
Total	73.0	104.0	109.6	117.9	126.7	133.4	134.5	84.2%

Source: CLIA and G. P. Wild (International) Limited.

The Caribbean is the principal cruise destination for passengers sourced from North America. While its share of the cruise industry's global deployment has fallen from 48% in 2003 to 36% in 2013, it still remains the largest destination market with 48.1 million bed days deployed in the region during 2013. As shown in Table 3, this is a 37% increase over the ten-year period.

Europe, as a whole, has seen bed day capacity increase by 172% over the 10-year period, rising from 18.2 million bed days to 49.6 million. Overall, the growth in Northern Europe has been stronger than that in the Mediterranean as a result of an actual decline in deployed capacity in the Mediterranean in 2012 and 2013. As a consequence European capacity has increased from about half of that deployed in the Caribbean in 2003 to 103% of Caribbean capacity in 2013. Now, the Caribbean and Europe account for more than 70% of the global capacity of the cruise industry.

Driven by strong growth in Australasia, the Rest of the World has seen bed day capacity increase by nearly 300% since 2003. With 21.8 million bed days deployed in the Rest of the World, it accounted for 16% the cruise industry's global capacity in 2013, up from 7% in 2003.

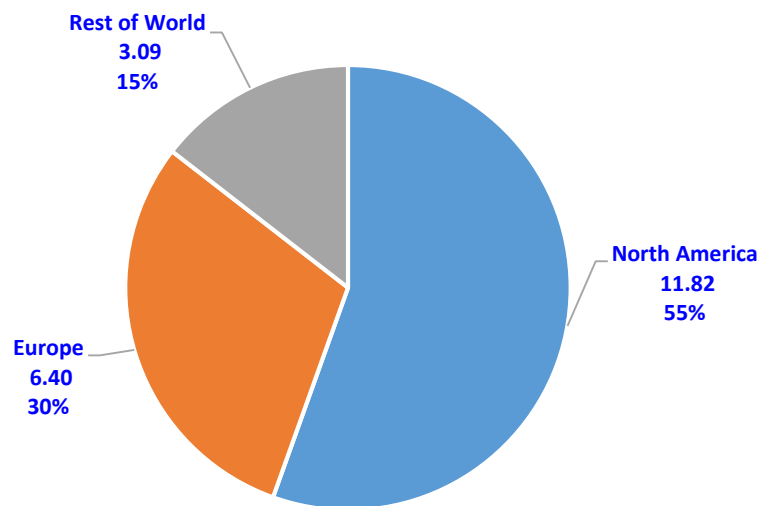
⁵ Passenger bed days are the number of days that all berths could be occupied at 100% occupancy. For example, a cruise ship with 2,000 lower berths on a 7-day cruise generates 14,000 potential bed days.

Thus, the cruise industry is truly a global industry with passengers sourced from around the world and with cruise itineraries destined for countries and ports around the globe. It is also a dynamic industry with overall global growth rates exceeding that of land-based tourism over the past ten years. The dynamism also carries over to the geographic distribution of growth which has shifted from North America, to Europe and now to Australasia. As a result, the industry impacts the global economy generating jobs, income and tax revenues in all regions of the world.

Source Markets: Where do cruise passengers reside?

As discussed in the Introduction, cruise passengers are sourced from around the world. In this section, we focus on the global distribution for 2013. As shown in **Figure 1**, North America accounted for 55% of all cruise passengers with 11.82 million passengers. Europe was next with 30% and 6.40 million passenger and the Rest of the World accounted for the remaining 15% with 3.09 million passengers. The potential for growth in the Rest of the World is illustrated by the fact that it accounts for about nearly 85% of the world's population⁶ and only 15% of world cruisers.

Figure 1 – Global Distribution of Cruise Passengers by Source Market – 2013
Millions of passengers



Source: G. P. Wild (International) Limited from CLIA, IRN and other sources.

North America

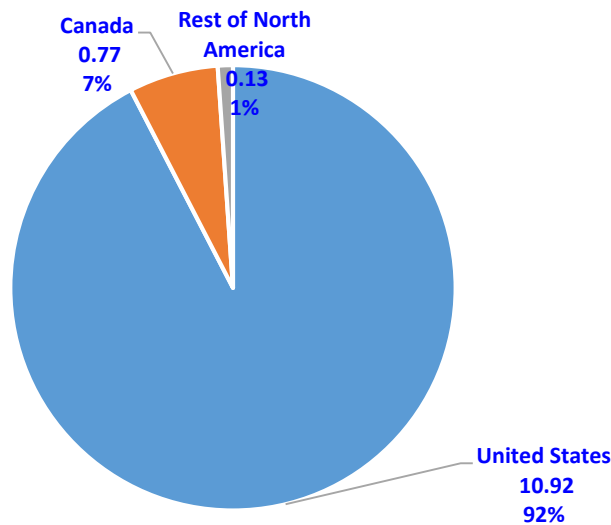
Within North America, the 10.92 million passengers sourced from the United States accounted for 92% of the market's cruise passengers (see **Figure 2**). Canada accounted for 7% with 770,000 passengers while the remaining 1% resided elsewhere in North America. The largest of these other North American source markets are: Mexico, Panama, Bermuda and Barbados.

In addition to being the largest source market, North America is also the largest originator of cruises. During 2013, more than 4,000 cruises originated from ports throughout North America carrying an estimated 10.94 million passengers. Thus passenger embarkations in North America accounted for 51% of global cruise passengers. The five largest cruise ports, Miami,

⁶ Population Reference Bureau, [2013 World Population Data Sheet](#), 2014.

Port Everglades, Port Canaveral, Galveston and New York, accounted for 62% of the passenger embarkations in North America with 6.77 million passengers.

Figure 2 –Distribution of Cruise Passengers Sourced from North America – 2013
Millions of passengers



Source: G. P. Wild (International) Limited from CLIA, IRN and other sources.

Note: Rest of North America consists of Mexico, Bermuda, Central America and the Caribbean.

Europe

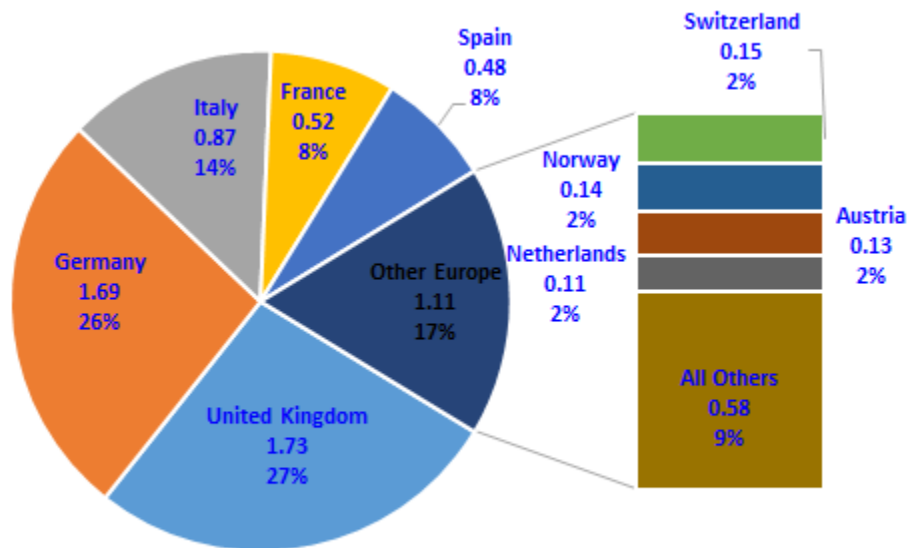
As shown in **Figure 3**, the five largest source countries in Europe accounted for 83% of the passengers sourced from Europe in 2013. The cruise industry sourced about 1.7 million passengers from both United Kingdom and Germany. Thus these two countries alone accounted for just over half (53%) of the passengers sourced from Europe. An additional 1.9 million passengers were sourced from Italy, France and Spain, 30% of European-sourced passengers.

Among the other European countries, four countries provided more than 100,000 cruise passengers. These were Switzerland, Norway, Austria and the Netherlands. Combined 533,000 passengers were sourced from these four countries, about 8% of European sourced passengers. Finally, another 584,000 cruise passengers were sourced from the remaining European countries, 9% of European-sourced passengers.

With 6.4 million passengers being sourced from Europe, an estimated 6.1 million passengers embarked on their cruise from European ports. Thus, a significant number of Europeans board cruises outside Europe. Among the top non-European cruise destinations for European residents are: the Caribbean, Bermuda and the U.S./Canada. The top ten European home ports include: Southampton, Barcelona, Venice, Civitavecchia, Savona, Genoa, Hamburg, Palma Majorca, Copenhagen and Marseille. More than 200,000 passengers embarked on

cruises from each of these ports. Combined these ten ports accounted for nearly 75% of all European embarkations.

Figure 3 –Distribution of Cruise Passengers Sourced from Europe – 2013
Millions of passengers



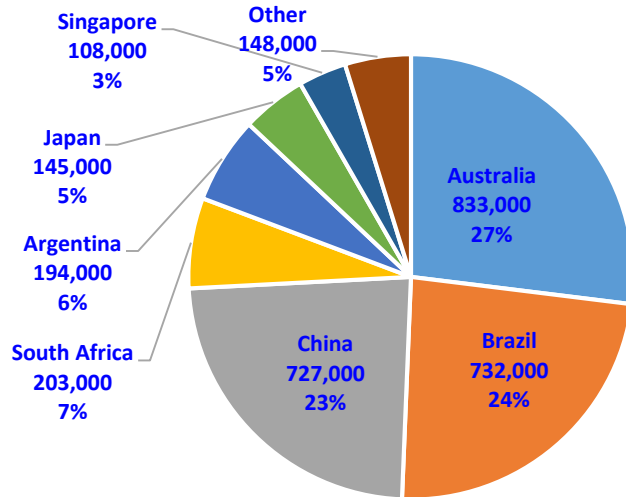
Note: United Kingdom includes Ireland

Source: G. P. Wild (International) Limited from CLIA, IRN and other sources.

Rest of the World

As shown in **Figure 4**, the three principal source countries in the Rest of the World are Australia with 833,000 passengers, Brazil with 732,000 passengers and China with 727,000 passengers. Combined these three countries accounted for 74% of all passengers sourced from the Rest of the World. The next four countries, South Africa, Argentina, Japan and Singapore accounted for 21% of the passengers sourced from the Rest of the World. A total of 650,000 passengers were estimated to have been sourced from these countries during 2013. Finally, an estimated 148,000 passengers were estimated to have been sourced from other countries, 5% of the passengers sourced from the Rest of the World.

Figure 4 –Distribution of Cruise Passengers Sourced from the Rest of the World – 2013

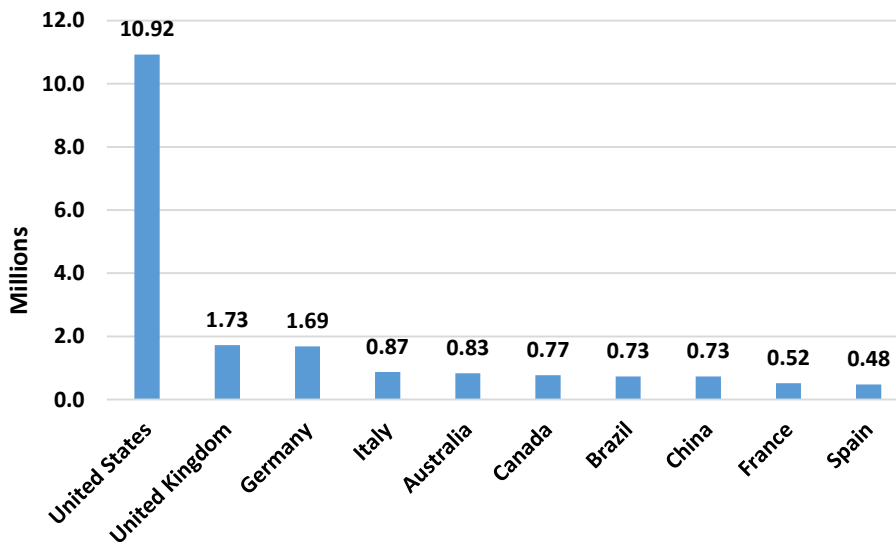


Source: G. P. Wild (International) Limited from CLIA, IRN and other sources.

Top Ten Countries

In summary, a total of 19.3 million passengers were sourced from the top ten countries, 90% of global cruise passengers. As indicated in **Figure 5**, these countries are located in all major global regions.

Figure 5 –Cruise Passengers Sourced from the Top 10 Countries - 2013



Source: G. P. Wild (International) Limited from CLIA, IRN and other sources.

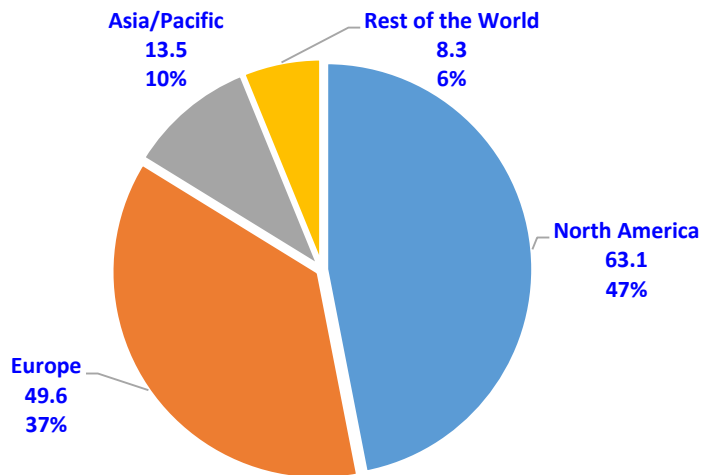
The United States with 10.92 million passengers was the largest source country by far accounting for just over half (51%) of global cruise passengers. The next two countries, the United Kingdom and Germany, accounted for 16% of global passengers. About 1.7 million passengers were sourced from each of these countries. Between 800,000 and 900,000 passengers were sourced from the next two countries, Italy and Australia. Combined, these two countries accounted for 8% of global passengers with 1.7 million passengers sourced from the two countries. Thus, the top five countries, located in North America, Europe and Australasia, accounted for 75% of global passengers.

Around 750,000 passengers each were sourced from Canada, Brazil and China during 2013. Cruise lines also sourced approximately 500,000 passengers from both France and Spain.

Destination Markets: Where are cruise ships deployed?

As discussed in the Introduction, cruise lines deploy their ships around the globe. In this section, we focus on the global distribution of bed day capacity for 2013. As shown in **Figure 6**, North America accounted for 47% of the global bed day capacity with 63.1 million bed days. Europe was next with 37% and 47.6 million bed days. The Asia/Pacific region came in with 13.5 million bed days, 10% of the global capacity and the Rest of the World accounted for the remaining 6% with 8.3 million bed days.

Figure 6 – Global Distribution of Passenger Bed Days – 2013
Millions of bed days



Source: CLIA and G. P. Wild (International) Limited.

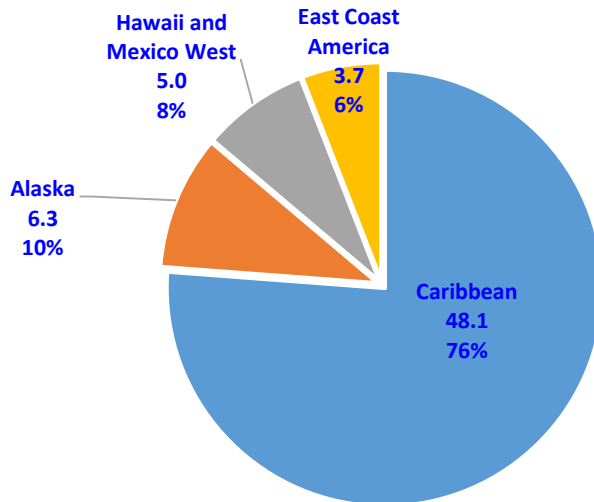
North America accounted for a smaller share of global capacity than global passengers, 47% versus 55%. Europe, on the other hand accounted for a larger share of capacity than passengers, 37% versus 30% while the Rest of the World, including Asia/Pacific, had about equal shares for capacity and passengers, 16% and 15%.

North America

Within North America, the Caribbean, with 48.1 million bed days, accounted for more than three-fourths (76%) of the capacity deployed in the market (see **Figure 7**). Alaska was the next largest region with 6.3 million bed days or 10% of the capacity in the market. Combined, Hawaii and Mexico West (ports on Mexico's Pacific coast) accounted for 8% of the North American capacity with 5.0 million bed days. Finally, cruise lines deployed 3.7 million bed days among destinations in Canada, and the Atlantic coast of the United States, 6% of the capacity deployed in North America.

Figure 7 –Distribution of Passenger Bed Days in North America – 2013

Millions of bed days



Source: CLIA and G. P. Wild (International) Limited.

Notes: East Coast America includes Canada/New England and Bermuda. The Caribbean includes the Bahamas, U.S. and Mexican ports on the Caribbean and Transcanal (Panama) cruises.

Data published by the Caribbean Tourism Organization (CTO)⁷ showed that seven Caribbean destinations had passenger arrivals⁸ in excess of one million passengers during 2013. These were: the Bahamas (4.71 million), Cozumel (2.75 million), U.S. Virgin Islands (2.0 million), St. Maarten (1.78 million), the Cayman Islands (1.38 million), Jamaica (1.29 million) and Puerto Rico (1.18 million). Combined these seven destinations accounted for about 70% of the 22 million cruise passenger arrivals reported for the 23 destinations covered in the CTO report.

Within the United States, BREAs reported that 9.96 million passengers embarked on their cruises from U.S. ports (excludes San Juan, PR) while 5.4 million passengers visited U.S. ports as transit passengers. As noted previously the five largest embarkation ports in the U.S. during 2013 were: Miami (2.02 million), Port Everglades (1.85 million), Port Canaveral (1.70 million), Galveston (.61 million) and New York (.63 million). Thus these five ports accounted for 68% of embarkations among all U.S. ports.

The major transit ports were the Alaska ports of Juneau (992,000), Ketchikan (955,000) and Skagway (824,000) and the Florida ports of Key West (765,000) and Port Canaveral (370,000). These five ports accounted for about 72% of all passenger arrivals at U.S. transit ports.

⁷ Caribbean Tourism Organization, *Latest Statistics 2013*, June 26, 2014

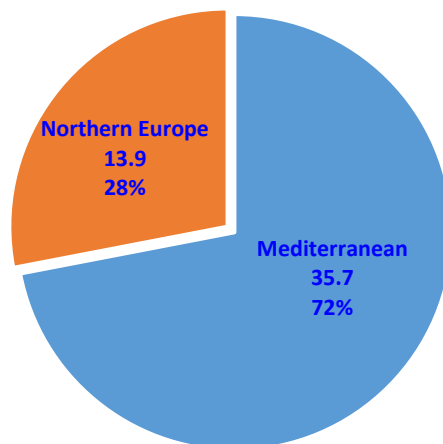
⁸ Passenger arrivals are the number of passengers on cruise ships that arrive at destination ports. Since not all passengers will disembark at a given port, passenger arrivals are larger than passenger onshore visits.

In Canada the principal home ports were Vancouver, Montreal and Quebec. Vancouver, along with Seattle, is a major home port for Alaska cruises and handled more than 625,000 passengers while the two ports along the St. Lawrence handled nearly 175,000 home port and transit port passengers. Finally, the ports of Atlantic Canada handled about 660,000 passengers during 2013.

Europe

Within Europe the Mediterranean accounted for 72% of the capacity deployed in Europe during 2013 with 35.7 million bed days (see **Figure 8**). The Mediterranean is a fairly self-contained market with most cruise originating and terminating within the region. As noted previously the major home ports in the Mediterranean are Barcelona, Civitavecchia, Venice and Piraeus (Athens). Major destination or transit ports include Marseille, Naples, Dubrovnik, Santorini, Corfu and Livorno.

Figure 8 – Distribution of Passenger Bed Days in Europe – 2013
Millions of bed days



Source: CLIA and G. P. Wild (International) Limited.

Notes: The Mediterranean includes the Atlantic Isles while Northern Europe includes the Black Sea.

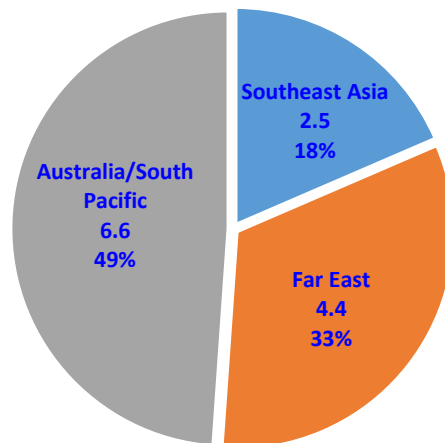
Cruise lines also deployed an estimated 13.9 million bed days in Northern Europe. Like the Mediterranean, most cruises originate and terminate within the region. The principal home ports are Southampton, Copenhagen and Hamburg. Major cruise destinations in Northern Europe include Lisbon, St. Petersburg, Tallinn, Cadiz, Stockholm and Rostock/Warnemunde.

Asia/Pacific

As noted previously the Asia/Pacific destination market accounted for 10% of the cruise industry's global bed day capacity. As shown in **Figure 9**, the Australia/South Pacific region

accounted for about half (49%) of the capacity deployed in this market with 6.6 million bed days. Sydney serves as the primary homeport in the region with cruises primarily destined for New Zealand and South Pacific destinations as well as other Australian ports.

Figure 9 –Distribution of Passenger Bed Days in Asia/Pacific – 2013
Millions of bed days



Source: CLIA and G. P. Wild (International) Limited.

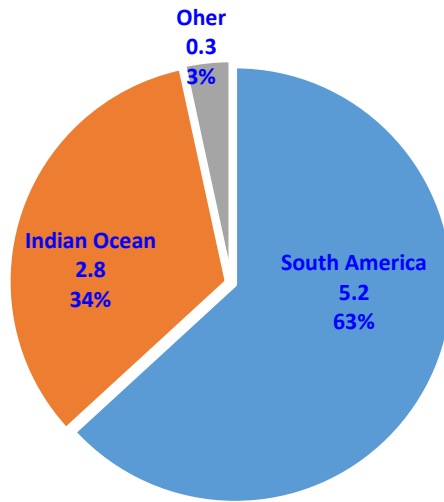
Notes: Southeast Asia includes Singapore, Indonesia, Malaysia, Thailand and Vietnam among others. Far East includes China, Japan, Hong Kong and others.

The Far East region, led by China, accounted for one-third of the capacity deployed in the market with 4.4 million bed days. This was followed by Southeast Asia with 18% of the capacity in the market and 2.5 million bed days. Most cruises in this region originate in Singapore with calls at destinations in Indonesia, Malaysia, Thailand and Vietnam.

Rest of the World

The Rest of the World accounted for 6% of the cruise industry's global capacity with 8.3 million bed days. South America was the largest region within this destination market with 5.2 million bed days, 63% of the market's capacity. Brazil and Argentina are the largest destinations within this region. Another 2.8 million bed days were deployed in the Indian Ocean region, 34% of the market's capacity. Finally about 300,000 bed days were deployed elsewhere in the world primarily for transatlantic and global cruises.

Figure 10 –Distribution of Passenger Bed Days in the Rest of the World – 2013
Millions of bed days



Source: CLIA and G. P. Wild (International) Limited.

Notes: The Indian Ocean includes cruises in the Red Sea, the Middle East and to South Africa.

Passenger and Crew Onshore Visits

As shown in **Table 4**, the cruise industry generated nearly 115 million passenger and crew visit days at ports around the globe. These consisted of 21.32 million passenger embarkations, 71.8 million transit passenger visit days and 21.75 million crew visit days. European ports accounted for 36% of these while ports throughout North America accounted for 51% of global passenger and crew visit days.

Table 4—Passenger and Crew Onshore Visits – Global and Regional Markets – 2013

Millions of Visit Days

Category	Global	Regional Markets				
		United States ^①	Rest of North America ^②	Europe (EU+3) ^③	Australia ^④	Rest of World ^⑤
Passenger Embarkations	21.31	9.96	1.39	6.05	1.23	2.68
Transit Passengers	71.80	5.44	30.40	28.66	0.72	6.58
Crew	21.75	6.55	5.08	6.15	0.29	3.68
Total	114.86	21.95	36.87	40.86	2.24	12.94

① United States consists of all US ports including those in Alaska and Hawaii.

② Rest of North America consists of ports in Bermuda, Canada, the Caribbean, Central America and Mexico.

③ Europe EU+3 includes the ports of the 27 member states of the EU plus Iceland, Norway and Switzerland.

④ Australia consists solely of the ports in Australia.

⑤ Rest of the World consists of ports in South America, Asia and the South Pacific, excluding Australia.

Of the 21.31 million cruise passengers sourced from around the world, 9.96 million, 47%, embarked on their cruise from a port in the United States. Of these 62% boarded cruises from Florida's five cruise ports, Miami, Port Everglades, Port Canaveral, Tampa and Jacksonville. Another 1.39 million passengers, 6% of the global total, embarked on cruises from other ports in North America. The principal embarkation ports were San Juan in the Caribbean and Vancouver in Canada. Combined these two ports accounted for nearly 75% of embarkations at the other ports in North America.

European ports with 6.05 million passenger embarkations accounted for another 28% global passenger embarkations. The major embarkation ports in Europe included Barcelona, Civitavecchia, Venice and Piraeus (Athens) in the Mediterranean and Southampton, Copenhagen and Hamburg in northern Europe. Combined, these seven ports accounted for more than half of the passenger embarkations in Europe.

A total of 1.23 million passengers embarked on cruises at Australian ports, 6% of the total. Sydney accounted for 82% of these. Finally, the ports in the remaining regions (Rest of the World) generated 2.68 million passenger embarkations, 13% of the total.

An analysis of global cruise itineraries and passenger arrivals indicated that the average length of a cruise was approximately seven days. On a seven day itinerary, the typical cruise ship made between three and four calls in addition to the home port call. Thus, the 21.32 million cruise passenger embarkations generated another 71.8 million visit days at transit calls at ports around the globe.

The ports of the Rest of North America accounted for the largest share at 42% with 30.4 million visit days. The Caribbean, including Mexico and Central America accounted for 82% of these visit days. Europe was next with 28.66 million visit days, 40% of the total. Europe's major transit ports included Barcelona, Civitavecchia, Dubrovnik, Naples and Piraeus in the Mediterranean and St. Petersburg, Lisbon, Tallinn, Stockholm and Bergen. Combined, these ten ports accounted for about one-third of transit visit days throughout Europe. The ports of the United States generated 5.44 million transit passenger visit days, 8% of the total. The principal transit ports in the United States are located in Alaska, Hawaii and Florida. Since Australia is principally a source market for cruises to the South Pacific, Australian ports generated only 720,000 transit passenger visits days, 1% of the total. In contrast, the ports elsewhere in the world are predominantly transit ports and thus accounted for 9% of global transit visit days with 6.58 million days.

Finally crew onboard cruise ships also disembark and visit in both home and transit ports. Based upon data collected as part of regional and port specific cruise studies, BREA has estimated that between 40% and 45% of crew disembark at each port call. Thus, on a global basis cruises generated an estimated 21.75 million crew visit days.

The ports of the United States and Europe generated 6.55 million and 6.15 million crew visits days, respectively. Combined this accounted for 58% of global crew visit days. The Rest of North America and the Rest of the World generated 5.08 million and 3.68 million crew visit days while Australia generated the remaining 290,000 crew visit days.

Direct Expenditures Generated by Cruise Tourism

The direct expenditures generated by cruise tourism were analyzed for three segments: i) cruise passengers, ii) crew members and iii) cruise lines. Passengers purchased pre- and post-cruise vacations, shore excursions, souvenirs and other retail goods while crew purchased a similar set of goods and services with a heavier concentration on retail goods. In addition, cruise lines purchased a variety of goods in support of their cruise operations, including food and beverages, hotel supplies, bunker fuel, and utilities while in port. Cruise lines also made payments for a variety of services in support of their global cruise operations, including travel agent commissions, expenditures for advertising and promotion and other professional and business services. As shown in **Table 5**, the estimated direct global spending by passengers, crew and cruise lines totaled \$52.31 billion during 2013.

Table 5–Direct Cruise Sector Expenditures – Global and Regional Markets – 2013

Billions of US\$

Category	Global	Regional Markets				
		United States	Rest of North America	Europe (EU+3)	Australia	Rest of World
Home Port Passengers	\$ 6.74	\$ 2.63	\$ 0.69	\$ 2.32	\$ 0.58	\$ 0.52
Transit Passengers	\$ 6.61	\$ 0.70	\$ 2.38	\$ 2.54	\$ 0.12	\$ 0.87
Passenger Total	\$13.35	\$ 3.33	\$ 3.07	\$ 4.86	\$ 0.70	\$ 1.39
Crew	\$ 1.23	\$ 0.30	\$ 0.48	\$ 0.19	\$ 0.03	\$ 0.23
Cruise Lines ^①	\$37.73	\$16.47	\$ 1.18	\$16.15	\$ 0.99	\$ 2.94
Total	\$52.31	\$20.10	\$ 4.73	\$21.20	\$ 1.72	\$ 4.56

^① Expenditures by cruise lines consists of purchases of goods consumed and used on ships, port charges and fees, travel agent commissions, administrative expenses and wages paid to shore side employees and crew among others.

On a global basis, passengers spent an estimated \$13.35 billion during home and transit port calls, accounting for 26% of total cruise sector direct expenditures. Crew spent another \$1.23 billion, 2% of the total. Finally, cruise lines spent \$37.73 billion on cruise operations, 72% of the total.

As shown in **Table 6**, passenger and crew expenditures were concentrated in three categories, travel to home port, tours and local transit and retail and other. Combined these three categories accounted for 82% of the global expenditures of passengers and crew. On average \$126.93 in expenditures was generated by each visit day.

Table 6–Global Passenger and Crew Spending by Category – 2013

Millions of US\$

Categories	Total	Home Port Passengers	Transit Passengers	Crew
Visit Days (Millions)	114.86	21.31	71.80	21.75
Accommodations	\$ 1,014	\$1,014	--	--
Travel to Home Port	\$ 3,841	\$3,841	--	--
Food & Beverages	\$ 1,600	\$ 541	\$ 758	\$ 301
Tours & Local Transit	\$ 3,445	\$ 477	\$2,779	\$ 189
Retail & Other	\$ 4,679	\$ 867	\$3,069	\$ 743
Total	\$14,579	\$ 6,740	\$ 6,606	\$ 1,233
Average Spend per Visit	\$126.93	\$316.28	\$ 92.00	\$ 56.69

On a regional basis, the United States and Europe had similar direct expenditure totals, \$20.1 and \$21.2 billion, respectively. Thus, each market accounted for about 40% of global direct expenditures. Since the U.S. serves primarily has a source market for cruises to the Rest of North America, expenditures by home port passengers account for 72% of passenger and crew spending in the United States. In Europe, on the other hand, cruises originate and make port calls within the European market. As a result, expenditures by home and transit port passengers were nearly identical, \$2.32 and \$2.54 billion.

Expenditures by cruise lines were also similar in both the United States and Europe, \$16.47 billion in the U.S. and \$16.15 billion in Europe. The key difference is that shipbuilding, including maintenance and refurbishment, accounted for one-third of the expenditures by cruise lines in Europe and only 6% in the United States.

As alluded to above, the Rest of North America is principally a destination market for cruises originating in the United States. As a result, expenditures by transit passengers, \$2.38 billion, accounted for 67% of all passenger and crew spending in the region. The \$1.18 billion in cruise line spending in the Rest of North America was largely concentrated in Canada which accounted for about 25% of the total spending in the region. In total, the \$4.73 billion in direct cruise sector expenditures in the Rest of North America accounted for 9% of global direct spending.

The \$4.56 billion in direct expenditures in the Rest of the World were similar to those in the Rest of North America. However, spending by cruise lines accounted for 64% of the expenditures in this region versus 25% in the Rest of North America. This is primarily due to the presence of cruise line headquarters and the construction and refurbishment of ships in Asia.

Finally, Australia accounted for 3% of global direct expenditures with \$1.72 billion. Spending by passengers and crew accounted for 42% of the regional total with \$0.73 billion in expenditures while cruise lines accounted for the remaining 58% with nearly \$1.0 billion in expenditures.

Economic Contribution Generated by Cruise Tourism in 2013

The objective of this analysis is to quantify the contribution of the spending generated by cruise tourism to the global economy during 2013. The quantification consists of the measurement of the direct expenditures and the resulting impacts on output, employment and income. The contribution analysis consists of three elements: i) the direct economic contribution, ii) the indirect economic contribution and the iii) the induced economic contribution.

The direct expenditures generated by the cruise industry and its passengers and crew that were quantified and discussed in the previous section, are the driving force of the industry's contribution to the global economy. These expenditures generate direct employment and employee income in support of providing the goods and services purchased by the cruise lines and their passengers and crew.

The indirect contribution results from the subsequent demand for goods and services generated by the directly impacted businesses. For example, food processors must purchase raw foodstuffs for processing; utility services, such as electricity and water, to run equipment and process raw materials; transportation services to deliver finished products to the cruise lines or wholesalers; and insurance for property and employees.

The induced contribution is generated by the spending of the employees of the cruise lines and their suppliers. The income of these employees is used to purchase a broad range of consumer goods and services including such goods as autos, food, clothing, furniture, health care and so forth. As a consequence, the induced contribution is concentrated in the final demand for final goods produced for the household sector.

As discussed in the Introduction, the estimates of the global direct, indirect and induced contribution are the sum of the impacts estimated for the regional markets. The regional estimates for 2013 are taken directly from published economic impact studies for 2013, extrapolated impacts for regions where studies were conducted in the past two years and estimates developed by BREA for those regions where recent economic impact data are unavailable.

Direct Economic Contribution

The \$52.31 billion in global direct cruise tourism expenditures by themselves generated a significant contribution to the global economy. As shown in **Table 7**, these direct expenditures generated 417,979 FTE jobs paying \$16.47 billion in employee income, including the shore side employees and crew of cruise lines.

Table 7—Direct Cruise Sector Economic Contribution – Global and Regional Markets – 2013

Billions of US\$

Category	Global	Regional Markets				
		United States	Rest of North America	Europe (EU+3)	Australia	Rest of World
Output (\$ Billion)	\$52.31	\$20.10	\$ 4.73	\$21.20	\$ 1.72	\$ 4.56
Share of Global		38.5%	9.0%	40.5%	3.3%	8.7%
Income (\$ Billion)	\$16.47	\$ 6.63	\$ 1.08	\$ 6.60	\$ 0.56	\$ 1.60
Share of Global		40.2%	6.6%	40.1%	3.4%	9.7%
Employment	417,979	147,898	51,188	164,804	8,378	45,711
Share of Global		35.4%	12.2%	39.5%	2.0%	10.9%

The table also shows the regional distribution of the direct economic contribution. Europe has the largest direct economic contribution accounting for about 40% of the global direct contribution of the cruise industry. The \$21.2 billion in direct expenditures generated 164,804 FTE jobs paying an estimated \$6.6 billion in employee income. As noted previously Europe's shipbuilding industry represents a significant component, about 15%, of the direct economic contribution of the cruise industry in Europe.

The share of the direct contribution in the United States was just slightly lower, just under 40%. The \$20.1 billion in direct expenditures generated an estimated 147,898 FTE jobs paying \$6.63 billion in employee income. Given the significant headquarters and home port operations in the U.S., the direct economic contribution is heavily weighted toward those industries that supply goods and services to the cruise ships, i.e., cruise ports, suppliers of food and beverages, fuel and equipment, and administrative support services such as, advertising, accounting and professional services and transportation services, including travel agents.

Elsewhere in North America, the cruise industry's direct expenditures of \$4.73 billion generated 51,188 FTE jobs paying \$1.08 billion in employee income. The share of the global economic contribution in this region ranged from 6.6% for the income contribution to 12.2% for the employment impact. The impacts in this region are largely generated by passenger and crew spending which accounted for 75% of the direct expenditures. Because these impacts primarily affect the retail trade and tour sectors, which have relatively low wages and productivity, the share of the employee income impact is lower than the share of the employment impact.

Australia accounted for 3.3% of the direct spending impacts and 3.4% and 2.0% of the global income and employment contribution with \$1.72 billion in direct expenditures generating 8,378 FTE jobs paying \$0.56 billion in employee income. In Australia, as in the United States,

cruise line spending accounted for the majority of the direct contribution and as a result impacted the higher wage and productivity industries. Thus, the share of the income contribution was higher than the share of the employment contribution.

Finally, the direct expenditures of \$4.56 billion in the Rest of the World generated 45,711 FTE jobs paying \$1.60 billion in employee income. The share of the global contribution ranged from 8.7% for the direct expenditures to 10.9% for employment.

Indirect and Induced Economic Contribution

As discussed previously, the indirect and induced contributions are generated by the spending of the directly impacted businesses and their employees. As a consequence, these impacts spread throughout the global and regional economies. The specific indirect and induced impacts are determined by the structure of the individual economies and as a result can vary significantly from region to region. As shown in **Table 8**, the \$52.31 billion in direct cruise tourism expenditures generated an additional \$64.84 billion in indirect and induced output, \$22.0 billion in employee income and 473,030 FTE jobs.

Table 8—Indirect and Induced Cruise Sector Economic Impact – Global and Regional Markets – 2013
Billions of US\$

Category	Global	Regional Markets				
		United States	Rest of North America	Europe (EU+3)	Australia	Rest of World
Output (\$ Billion)	\$64.84	\$23.99	\$ 4.26	\$31.08	\$ 1.39	\$ 4.12
Share of Global		37.1%	6.6%	47.9%	2.1%	6.3%
Income (\$ Billion)	\$22.00	\$11.64	\$ 0.93	\$ 7.34	\$ 0.35	\$ 1.74
Share of Global		52.9%	4.2%	33.4%	1.6%	7.9%
Employment	473,030	215,235	39,610	174,613	5,590	37,982
Share of Global		45.5%	8.4%	36.9%	1.2%	8.0%

Combined, the United States and Europe accounted for about 85% of the global direct and induced contribution. While Europe accounted for a larger percentage of the global output contribution than the U.S., the United States accounted for a larger percentage of the global employment and income contribution. The Rest of North America and the Rest of the World each accounted for between 6% and 8% of the global indirect and induced economic contribution with Australia accounting for between 1% and 2% of the global indirect and induced economic contribution.

Total Economic Contribution

Combining the direct, indirect and induced contributions, cruise tourism generated an estimated \$117.15 billion in total output of goods and services throughout the global economy during 2013. As a result of the production of this output, 891,009 FTE jobs were required. The workers who were employed in these jobs were paid \$38.47 billion in income (see **Table 9**).

Table 9—Total Cruise Sector Economic Contribution – Global and Regional Markets – 2013
Billions of US\$

Category	Global	Regional Markets				
		United States	Rest of North America	Europe (EU+3)	Australia	Rest of World
Output (\$ Billion)	\$117.15	\$44.09	\$ 8.99	\$52.28	\$ 3.11	\$ 8.68
Share of Global		37.5%	7.7%	44.5%	2.7%	7.6%
Income (\$ Billion)	\$38.47	\$18.27	\$ 2.01	\$13.94	\$ 0.91	\$ 3.34
Share of Global		47.5%	5.2%	36.2%	2.4%	8.7%
Employment	891,009	363,133	90,798	339,417	13,968	83,693
Share of Global		40.8%	10.2%	38.1%	1.6%	9.3%

The table also shows the regional distribution of the direct economic contribution. Europe has the largest total output contribution of \$52.28 billion and accounted for about 45% of the total global output contribution of the cruise industry. This output resulted in employment of 339,417 FTE workers paying an estimated \$13.94 billion in employee income. The employment and income contribution were second behind the United States and accounted for 36% and 38% of the total global income and employment contribution, respectively.

The total output contribution in the United States was \$44.09 billion, 37.5% of the total global output contribution. The \$44.09 billion in total output generated an estimated 363,133 FTE jobs paying \$18.27 billion in employee income. As noted above the employment and income contributions were the highest among the five regional markets and accounted for 47.5% and 40.8% of the total global income and employment contributions, respectively.

Elsewhere in North America, the cruise industry's total output contribution of \$8.99 billion generated 90,798 FTE jobs paying \$2.01 billion in employee income. The share of the global economic contribution in this region ranged from 5.2% for the income contribution to 10.2% for the employment impact. As noted previously, these impacts primarily affect the retail trade and tour sectors, which have relatively low wages and productivity, thus the share of the global employee income contribution is lower than the share of the employment contribution.

Australia accounted for 2.7% of the total global output contribution and 2.4% and 1.6% of the global total income and employment contribution with \$3.11 billion in total output generating 13,968 FTE jobs paying \$0.91 billion in employee income. As in the United States, total output impacted the higher wage and productivity industries. Thus, the share of the total income contribution was higher than the share of the total employment contribution.

Finally, the total output contribution of \$8.68 billion in the Rest of the World generated 83,693 FTE jobs paying \$3.34 billion in employee income. The share of the global contribution ranged from 7.6% for the total output contribution to 9.3% for total employment contribution.