

THEME INDEX
MUSEUM 22
MINDEX

GLOBAL ATTRACTIONS ATTENDANCE REPORT

AECOM



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THEME INDEX MUSEUM SOURCE CLOBAL ATTRACTIONS

ATTENDANCE REPORT

The definitive annual attendance study for the themed entertainment and museum industries.

Published by the Themed Entertainment Association (TEA) and the Economics practice at AECOM.

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JOHN ROBINETT

Senior Vice President, Economics, Americas

After a record breaking 2015, 2016 has given the industry mixed results, with slow, steady growth in many markets along with some minor declines in others.

The major theme park operators continued their positive performance, with a 4.3% increase in overall business volume growing from 420 million to 438 million annual attendees over the year. The top 25 theme parks showed a slight dip of about 1%, driven largely by anomalies in Asia (more on this and other factors in our regional write ups).

Looking at our major geographies, North America and Latin America showed modest, single-digit advances, while Europe and Asia were down by similar amounts.



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SLOW, STEADY GROWTH IN MANY MARKETS.

Turning to water parks and museums, we can report positive results for both. Globally, water parks continued their strong growth trend, with attendance increases of 3.6% at the top 20. Existing parks are doing well, and new parks are being built. This reflects, to some degree, the lower barriers to entry of this particular attraction category. The top 20 museums hit a new high this year of 108 million attendees, exceeding the previous record by over one million guests.

While weather, tourism, and political issues have tapped the brakes on growth a bit this year, we feel confident that the business, through some exciting new investments and operational improvements, along with strong leisure consumption globally, will continue its characteristically steady growth pattern over the long run.



TOP 10 THEME PARK GROUPS WORLDWIDE





| RANK | GROUP NAME | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 |
|------|----------------------------------|----------|--------------------|--------------------|
| 1 | WALT DISNEY ATTRACTIONS | 1.8% | 140,403,000 | 137,902,000 |
| 2 | MERLIN ENTERTAINMENTS GROUP | 1.2% | 61,200,000 | 60,500,000* |
| 3 | UNIVERSAL PARKS AND RESORTS | 5.5% | 47,356,000 | 44,884,000 |
| 4 | OCT PARKS CHINA | 11.9% | 32,270,000 | 28,830,000* |
| 5 | FANTAWILD | 37.0% | 31,639,000 | 23,093,000 |
| 6 | SIX FLAGS INC. | 5.4% | 30,108,000 | 28,557,000 |
| 7 | CHIMELONG GROUP | 16.0% | 27,362,000 | 23,587,000 |
| 8 | CEDAR FAIR ENTERTAINMENT COMPANY | 2.7% | 25,104,000 | 24,448,000 |
| 9 | SEAWORLD PARKS & ENTERTAINMENT | -2.1% | 22,000,000 | 22,471,000 |
| 10 | PARQUES REUNIDOS | -6.0% | 20,825,000 | 22,154,000 |
| TO | P 10 TOTAL ATTENDANCE 2016 | | 438,267,000 | 416,426,000 |
| TO | P 10 ATTENDANCE GROWTH 2015–16 | 4.3% | 438,267,000 | 420,360,000 |

4.3

Top 10 theme park groups attendance growth worldwide 2015–16

438<u>.</u>3M

Top 10 theme park groups worldwide attendance 2016

420.4M

Top 10 theme park groups worldwide attendance 2015

^{*} Adjustment versus the figure we published in last year's report

TOP 25 AMUSEMENT/THEME PARKS WORLDWIDE

| RANK | PARK Location | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 |
|------|---|----------|--------------------|--------------------|
| 1 | MAGIC KINGDOM AT WALT DISNEY WORLD, LAKE BUENA VISTA, FL, U.S. | -0.5% | 20,395,000 | 20,492,000 |
| 2 | DISNEYLAND, ANAHEIM, CA, U.S. | -1.8% | 17,943,000 | 18,278,000 |
| 3 | TOKYO DISNEYLAND, TOKYO, JAPAN | -0.4% | 16,540,000 | 16,600,000 |
| 4 | UNIVERSAL STUDIOS JAPAN, OSAKA, JAPAN | 4.3% | 14,500,000 | 13,900,000 |
| 5 | TOKYO DISNEY SEA, TOKYO, JAPAN | -1.0% | 13,460,000 | 13,600,000 |
| 6 | EPCOT AT WALT DISNEY WORLD, LAKE BUENA VISTA, FL., U.S. | -0.7% | 11,712,000 | 11,798,000 |
| 7 | DISNEY'S ANIMAL KINGDOM AT WALT DISNEY WORLD, LAKE BUENA VISTA, FL, U.S. | -0.7% | 10,844,000 | 10,922,000 |
| 8 | DISNEY'S HOLLYWOOD STUDIOS AT WALT DISNEY WORLD, LAKE BUENA VISTA, FL, U.S. | -0.5% | 10,776,000 | 10,828,000 |
| 9 | UNIVERSAL STUDIOS AT UNIVERSAL ORLANDO, FL, U.S. | 4.3% | 9,998,000 | 9,585,000 |
| 10 | ISLANDS OF ADVENTURE AT UNIVERSAL ORLANDO, FL, U.S. | 6.5% | 9,362,000 | 8,792,000 |
| 11 | DISNEY'S CALIFORNIA ADVENTURE, ANAHEIM, CA, U.S. | -0.9% | 9,295,000 | 9,383,000 |
| 12 | CHIMELONG OCEAN KINGDOM, HENGQIN, CHINA | 13.2% | 8,474,000 | 7,486,000 |
| 13 | DISNEYLAND PARK AT DISNEYLAND PARIS, MARNE LA VALLÉE, FRANCE | -14.2% | 8,400,000 | 9,790,000* |

| \ | |
|--------------------------------------|--------------|
| TEA THEMED ENTERTAINMENT ASSOCIATION | AECOM |
| • 1 | |

| PARK Location | % CHANGE | ATTENDANCE 2016 | ATTENDANCE |
|--|----------|--------------------|-------------|
| 14 LOTTE WORLD, SEOUL, SOUTH KOREA | 11.5% | 8,150,000 | 7,310,00 |
| 15 UNIVERSAL STUDIOS HOLLYWOOD, UNIVERSAL CITY, CA, U.S. | 13.9% | 8,086,000 | 7,097,00 |
| 16 EVERLAND, GYEONGGI-DO, SOUTH KOREA | -3.0% | 7,200,000 | 7,423,00 |
| 17 HONG KONG DISNEYLAND, HONG KONG SAR | -10.3% | 6,100,000 | 6,800,00 |
| 18 OCEAN PARK, HONG KONG SAR | -18.8% | 5,996,000 | 7,387,00 |
| 19 NAGASHIMA SPA LAND, KUWANA, JAPAN | -0.3% | 5,850,000 | 5,870,00 |
| 20 EUROPA PARK, RUST, GERMANY | 1.8% | 5,600,000 | 5,500,00 |
| 21 SHANGHAI DISNEYLAND, SHANGHAI, CHINA | _ | 5,600,000 | NEW ENTR |
| 22 WALT DISNEY STUDIOS PARK AT DISNEYLAND PARIS, MARNE LA VALLÉE, FRANCE | -1.6% | 4,970,000 | 5,050,000 |
| 23 DE EFTELING, KAATSHEUVEL, THE NETHERLANDS | 1.8% | 4,764,000 | 4,680,00 |
| 24 TIVOLI GARDENS, COPENHAGEN, DENMARK | -2.0% | 4,640,000 | 4,733,00 |
| 25 SEAWORLD FLORIDA, ORLANDO, FL, U.S. | -7.9% | 4,402,000 | 4,777,00 |
| TOP 25 TOTAL ATTENDANCE 2016 | | 233,057,000 | 228,081,00 |
| TOP 25 ATTENDANCE GROWTH 2015–16 | -1.1% | 233,057,000 | 235,568,000 |

-1.1%

Top 25 amusement/theme parks attendance growth worldwide 2015–16

233.1m

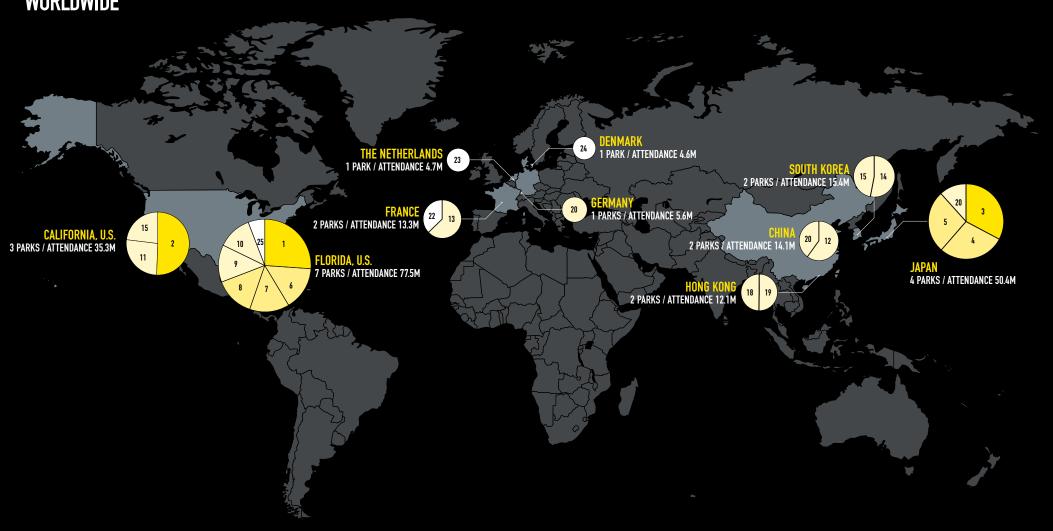
Top 25 amusement/ theme parks worldwide attendance 2016 235.6m

Top 25 amusement/ theme parks worldwide attendance 2015

^{*} Adjustment versus the figure we published in last year's report

TOP 25 AMUSEMENT/THEME PARKS WORLDWIDE







Upto 5m 5m-10m 10m-15m

Circles represent size of attendance at ranked parks at the geography indicated. Slices within circles represent proportion of attendance at the geography from the ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.

6ROWTH 2011–16 2011–12 2012–13 2013–14 2014–15 2015–16 -1.1% -5 0 5 27 4.3% 4.3% -1.1%

-1.1%

Top 25 amusement/theme parks attendance growth worldwide 2015–16

233.1m

Top 25 amusement/ theme parks worldwide attendance 2016 235.6m

Top 25 amusement/ theme parks worldwide attendance 2015

TOP 20 WATER PARKS WORLDWIDE



| RANK | PARK Location | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 |
|------|--|----------|--------------------|--------------------|
| 1 | CHIMELONG WATER PARK, GUANGZHOU, CHINA | 7.9% | 2,538,000 | 2,352,000 |
| 2 | TYPHOON LAGOON AT DISNEY WORLD, ORLANDO, FL, U.S. | -0.7% | 2,277,000 | 2,294,000 |
| 3 | BLIZZARD BEACH AT DISNEY WORLD, ORLANDO, FL, U.S. | -0.8% | 2,091,000 | 2,107,000 |
| 4 | THERMAS DOS LARANJAIS, OLIMPIA, BRAZIL | 11.2% | 1,959,000 | 1,761,000 |
| 5 | BAHAMAS AQUAVENTURE WATER PARK, PARADISE ISLAND, BAHAMAS | 0.0% | 1,868,000 | 1,868,000 |
| 6 | CARIBBEAN BAY, GYEONGGI-DO, SOUTH KOREA | 8.1% | 1,550,000 | 1,434,000 |
| 7 | AQUATICA, ORLANDO, FL, U.S. | -4.0% | 1,536,000 | 1,600,000 |
| 8 | OCEAN WORLD, GANGWON-DO, SOUTH KOREA | -2.4% | 1,473,000 | 1,509,000 |
| 9 | AQUAVENTURE WATER PARK, DUBAI, U.A.E. | 2.1% | 1,430,000 | 1,400,000 |
| 10 | HOT PARK RIO QUENTE, CALDAS NOVAS, BRAZIL | 7.2% | 1,381,000 | 1,288,000 |

| RANK PARK Location | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 |
|---|----------|--------------------|--------------------|
| 11 WET 'N WILD, ORLANDO, FL, U.S. | 0.0% | 1,310,000 | 1,310,000 |
| 12 SUNWAY LAGOON, KUALA LUMPUR, MALAYSIA | 17.9% | 1,270,000 | 1,077,000 |
| 13 THERME ERDING, ERDING, GERMANY | 0.8% | 1,245,000 | 1,235,000 |
| 14 WET 'N' WILD GOLD COAST, GOLD COAST, AUSTRALIA | 3.5% | 1,242,000 | 1,200,000 |
| 15 SHENYANG ROYAL OCEAN PARK WATER WORLD, FUSHUN, CHINA | 1.7% | 1,170,000 | 1,150,000 |
| 16 TROPICAL ISLANDS, KRAUSNICK, GERMANY | 13.1% | 1,133,000 | 1,002,000* |
| 17 ATLANTIS WATER ADVENTURE, JAKARTA, INDONESIA | 14.4% | 1,110,000 | 970,000 |
| 18 BEACH PARK, AQUIRAZ, BRAZIL | 7.6% | 1,044,000 | 970,000 |
| 19 SCHLITTERBAHN, NEW BRAUNFELS, TX, U.S. | 0.0% | 1,037,000 | 1,037,000 |
| 20 WUHU FANTAWILD WATER PARK, WUHU, CHINA | 44.6% | 1,024,000 | 708,000 |
| TOP 20 TOTAL ATTENDANCE 2016 | | 29,688,000 | 28,370,000 |
| TOP 20 ATTENDANCE GROWTH 2015–16 | 3.6% | 29,688,000 | 28,659,000 |

3.6%

Top 20 water parks attendance growth worldwide 2015–16

29.7m

Top 20 water parks worldwide attendance 2016

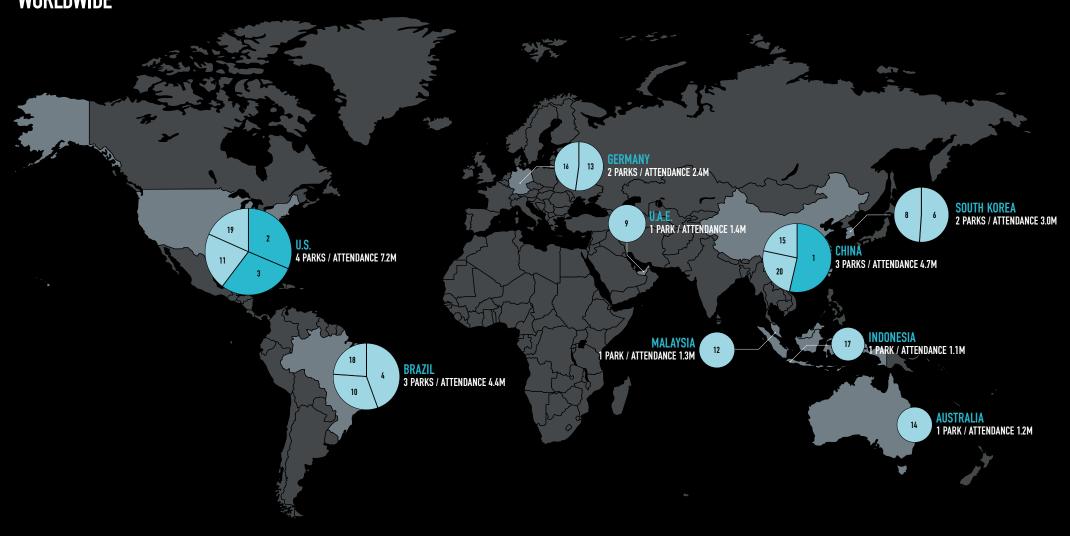
28.7m

Top 20 water parks worldwide attendance 2015

^{*} Adjustment versus the figure we published in last year's report

TOP 20 WATER PARKS WORLDWIDE

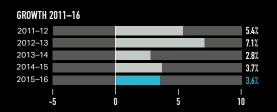




KEY

Up to 1m 1m-2m 2m+

Circles represent size of attendance at ranked parks at the geography indicated. Slices within circles represent proportion of attendance at the geography from the ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.



3.6%

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Top 20 water parks attendance growth worldwide 2015–16

29.7m

Top 20 water parks worldwide attendance 2016

28.7m

Top 20 water parks worldwide attendance 2015

TOP 20 MUSEUMS WORLDWIDE



| RANK | PARK | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 | FREE/PAID |
|------|--|----------|--------------------|--------------------|-----------|
| 1 | NATIONAL MUSEUM OF CHINA, BEIJING, CHINA | 3.6% | 7,550,000 | 7,290,000 | F |
| 2 | NATIONAL AIR AND SPACE MUSEUM , WASHINGTON, DC, U.S. | 8.7% | 7,500,000 | 6,900,000 | F |
| 3 | LOUVRE, PARIS, FRANCE | -14.9% | 7,400,000 | 8,700,000 | P |
| 4 | NATIONAL MUSEUM OF NATURAL HISTORY, WASHINGTON, DC, U.S. | 2.9% | 7,100,000 | 6,900,000 | F |
| 5 | THE METROPOLITAN MUSEUM OF ART, NEW YORK, NY, U.S. | 6.3% | 6,700,000 | 6,300,000 | P |
| 6 | BRITISH MUSEUM, LONDON, U.K. | -5.9% | 6,420,000 | 6,821,000 | F |
| 7 | SHANGHAI SCIENCE & TECHNOLOGY MUSEUM, SHANGHAI, CHINA | 6.2% | 6,316,000 | 5,948,000 | P |
| 8 | NATIONAL GALLERY, LONDON, U.K. | 6.0% | 6,263,000 | 5,908,000 | F |
| 9 | VATICAN MUSEUMS, VATICAN, VATICAN CITY | 1.1% | 6,067,000 | 6,002,000 | P |
| 10 | TATE MODERN, LONDON, U.K. | 23.9% | 5,839,000 | 4,713,000 | E |
| | | | | | |

| NATION Natur <i>a</i> | CAN MUSEUM OF NATURAL HISTORY, NEW YORK, NY, U.S. AL PALACE MUSEUM (TAIWAN), TAIPEI, TAIWAN AL HISTORY MUSEUM, LONDON, U.K. AL GALLERY OF ART, WASHINGTON, DC | 0.0% -11.8% -12.5% | 5,000,000 4,666,000 4,624,000 4,261,000 | 5,000,000 5,288,000 5,284,000 4,104,000 | THEF/PAID |
|--------------------------|---|--------------------------|--|--|-----------|
| | STATE HERMITAGE, ST PETERSBURG, RUSSIA CHINA SCIENCE TECHNOLOGY MUSEUM. BELJING. CHINA | 12.3% | 4,119,000 3,830,000 | 3,668,000 | |
| | NATIONAL MUSEUM OF AMERICAN HISTORY, WASHINGTON, DC | -7.3% | 3,800,000 | 4,100,000 | (F) |
| | REINA SOFÍA, MADRID, SPAIN National Museum of Korea, Seoul, South Korea | 12.2% 8.5% | 3,647,000 3,396,000 | 3,250,000 3,130,000 | P F |
| | CENTRE POMPIDOU, PARIS, FRANCE P 20 TOTAL ATTENDANCE 2016 | 6.3% | 3,300,000 107,798,000 | 3,105,000 105,771,000 | P |
| ror | 2 20 ATTENDANCE GROWTH 2015–16 | 1.2% | 107,798,000 | 106,514,000 | |

1.2%

Top 20 museums attendance growth worldwide 2015–16

107.8m

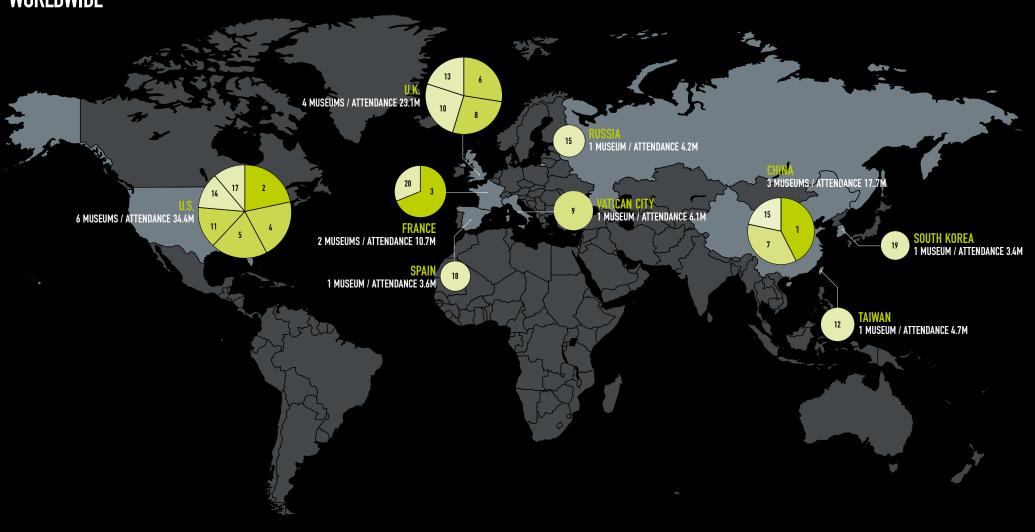
Top 20 museums worldwide attendance 2016

106.5m

Top 20 museums worldwide attendance 2015

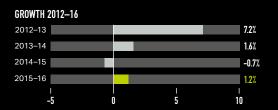
TOP 20 MUSEUMS WORLDWIDE







Circles represent size of attendance at ranked parks at the geography indicated.
Slices within circles represent proportion
of attendance at the geography from the
ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.



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Top 20 museums attendance growth worldwide 2015-16

107.8m

Top 20 museums worldwide attendance 2016

106.5m

Top 20 museums worldwide attendance 2015



BRIAN SANDS

Vice President, Economics, The Americas

GROWTH HERE, GROWTH THERE...

Looking at attendance alone at the top-visited theme parks in the Americas in 2016, visitation numbers add up to modest, year-over-year growth of just 1.2 percent. The only North American theme park operator to show significant increases during this period was Universal Studios, where the Harry Potter intellectual property (IP) exerts a powerful ongoing spell.

However, this lull in attendance growth, especially in the mature, North American market, is part of a complex business picture, where much has been happening and plenty more is on the way.

1.2

Top 20 amusement/ theme parks attendance growth North America 2015–16

THE AMERICA

148.0m

Top 20 amusement/theme parks North America attendance 2016

146.3m

Top 20 amusement/theme parks North America attendance 2015

NORTH AMERICA

Disney and Universal

Disney remains dominant by a very large margin. As the largest theme park operator in North America, if Disney attendance doesn't grow, the overall numbers won't rise by much even if competitors post significant increases as occurred in 2016. Domestically, Disney attendance numbers showed an overall decline of about one percent for the year, with the Magic Kingdom down about 0.5% and Disneyland down 1.8 %. Despite this, revenue was up 5% at domestic operations, reflecting increased quest spending, reportedly driven by higher average prices for admissions to theme parks and cruise line bookings, increased food, beverage, and merchandise spending, and higher room rates.

What's going on with attendance? Disney resources have lately been concentrated in Asia, with Shanghai Disney Resort having opened in mid-2016. Meanwhile, Universal's Harry Potter attractions have been a powerful draw in both Hollywood and Orlando. But

10.8M

Disney's Animal Kingdom at Walt Disney World, Lake Buena Vista, Florida, attendance 2016



MUCH HAS BEEN HAPPENING AND PLENTY MORE IS ABOUT TO HAPPEN

Disney has new IP magic of its own to deliver in its North American parks, most notably the Pandora land (Avatar) at Disney's Animal Kingdom at the start of the 2017 season, as well as the redesigned and renamed Disney Springs retail-dining-entertainment (RDE) area (which has a fictional, quasi-IP focused on settlement of the area in the mid-1800s by a cattle rancher who discovered the town's namesake springs...). For its part, Universal is also continuing to grow domestically, with its new second gate in Orlando, the "water theme park" Volcano Bay, opening around the same time as Pandora. Here too the combination of increases in guest spending and higher attendance drove significantly higher revenues at Universal's domestic theme park segment.

Getting into more detail about Universal's 2016 attendance surge: Our figures show Universal parks numbers in the US were up 7.4%, led by a nearly 14% increase at Universal Studios Hollywood (USH).





Most of it was attributable to Harry Potter, but credit also goes to the new Walking Dead attraction that opened in 2016, and to continued impact from attractions that were new at USH in 2015: Fast and Furious and Springfield (The Simpsons). In Orlando, at Universal Studios Florida, attendance increases were driven by Skull Island at Islands of Adventure (2016) and the renovation of The Hulk ride in addition to the continued positive effect of the Harry Potter attractions, that started with The Wizarding World of Harry Potter in 2010, followed by Diagon Alley and Hogwarts Express in 2014, as well as the new Sapphire Falls hotel in 2016 which added about 1.000 rooms to the resort.

Both Disney and Universal are doing well with the resort model which entails a continually improving and growing mix of hotel capacity, new/upgraded attractions, better food and beverage and retail, and additional gates. At Universal Orlando, Volcano Bay is a significant element of this, as the operator has closed its previous water park Wet & Wild, which was not contiguous to the main property, the old site of which may eventually be redeveloped into a major new Universal lodging area.

Six Flags, Cedar Fair and SeaWorld

Our figures show Six Flags parks reported 5% increase in attendance and 4% growth in revenue for 2016, reflective of increased season pass sales and higher ticket prices. Six Flags Magic Mountain was up a remarkable 7.3%, driven by the growth of tourism to the Los Angeles area and improvements at the park, including the addition of VR to The New Revolution ride. Similarly strong performance in the range of 5.0% or more was experienced at Six Flags Great Adventure, Six Flags Great America, and Six Flags Mexico, driven by the continued success of and addition of new IP-branded rides, such as The Battle for Metropolis, The Joker, Harley Quinn Crazy Train, and VR-overlays on some existing rides.

The Cedar Fair parks chain was up 2.7% in attendance for 2016. Cedar Fair revenues were also up for the year, which the operator attributes to season pass pricing adjustments, higher season pass visitation, new live entertainment and new rides. Knott's Berry Farm attendance growth, estimated at 3.8% was helped by significant renovations of Ghost Rider and the revered Mrs. Knott's

Chicken Dinner Restaurant. Canada's Wonderland was up 2.9%; it added some new small rides and VR headsets to the Thunder Run coaster. Cedar Point added the new coaster Valravn and was up 3.0%.

Under the leadership of new CEO Joel Manby and his team, SeaWorld parks are still in transition as the operator repositions itself, placing more emphasis on thrills and experience while continuing its role in conservation and education, and making plans for new parks overseas. Across the network of SeaWorld parks in the US, attendance was down 2.1%. According to our estimates, SeaWorld Florida was down almost 8%, and Busch Gardens was down 2% in spite of both parks having opened new attractions in 2016. SeaWorld San Diego attendance was flat, which is more encouraging, and the industry — not just the theme park industry, but the zoo and aquarium industry as well will be watching as it rolls out the new Orca Encounter experience in summer 2017.

Revenues up, big data pays off

Having more customer data to work with than ever before, through such innovations as the Magic Band and other customer tracking systems, Disney has found ways to enhance quest experience and increase revenue with such initiatives as pricing optimization, retail positioning, a tiered system for season passes with blackout dates and incentives, and vacation packages. Disney combines creativity and big data with efforts such as Haunted Mansion Ghost Post — a 2017 Thea Award recipient — that brought special value to season pass holders, new revenues to the operator, enables Disney to observe and encourage the behavior of a niche guest group, and changes the way pass holders utilize the park.

Six Flags Magic Mountain © Six Flags Big data helps uncover big revenue opportunities. It is a business maxim that it costs less to motivate existing customers to spend more, than to add new customers. Doing so also frees up cash flow for reinvestment, and in the attractions industry, continual reinvestment is the eternal driver of repeat business. Other operators are getting onboard the big-data train. Universal's new Volcano Bay, for example, has a modern enterprise system with RFID technology that will support flexibility for guests entering and exiting and enable more data collection.





IP, data and reinvestment

Intellectual property (IP) is going to continue to be a critical, essential factor for most park and ride development in the foreseeable future. IP is everywhere, and operators on all scales are using it. Six Flags parks, for instance, are having continued success with the Justice League rides they have been adding, notably coming to Six Flags Magic Mountain, Valencia, this year and so entering the LA entertainment markets. A differentiator is that the bigger operators have inherent IP as well — their own names are media brands — as well as fully realized stories and worlds, plus tremendous marketing exposure via associated films, television shows, DVDs, toys, books, clothing, and even Broadway shows.

Speaking of big data, IP has proved its value in ways that are now calculable when we compare investment track records at parks over the years. Using historic information from the TEA/AECOM Theme Index, AECOM researchers have analyzed the benefits of adding new lands and new rides — mostly IP branded — in terms of their impact on attendance over a three-year period after opening. In general, the median attendance impact of a new land over three years can be tremendously positive, and a new ride over the same period is also likely to have a strong positive attendance result. We have also developed a model to compare the relative value of IPs, and are helping operators



and developers select the best IP in which to invest for their attractions, including identifying as yet under-utilized IPs.

Water parks

The top 20 North American water parks overall showed an attendance decline of 0.7% for 2016, with uneven results across the map. There were a few notable exceptions though, with Six Flags Whitewater in GA, up by 5.0% due to the addition of a major ride, the Wahoo Racer. Six Flags Hurricane Harbor (Jackson, NJ) was up 2%, which can be credited to investment in renovations. In addition, the new water park Typhoon Texas (located in Katy, TX, near Houston) had a remarkably strong first year, with 440,000 visitors, placing it at position 15 in the list. Attendance at Disney's Typhon Lagoon and Blizzard Beach showed a marginal decline of about 1%, probably a result of Disney theme parks being down. SeaWorld Aquatica (Orlando) was down 4%.



LATIN AMERICA AND MEXICO

Water parks

Latin American water parks showed an overall attendance increase of 3.1% for year 2016. Leading the pack was Thermas dos Laranjais (Olímpia, Brazil), up an impressive 11.2% after reinvesting in a new Surf Master ride as well as an overall expansion, while also benefiting from earlier investments in previous expansions to their onsite and nearby lodging. More broadly, the park also benefited from growth in tourism, primarily domestic. Due to ongoing macro-economic challenges in Brazil and an associated exchange rate decline, fewer Brazilians traveled to the Orlando area in 2016 and this benefited many attractions in Brazil.

Also in Brazil, Hot Park (Rio Quente) posted a 7.2% visitation increase having added new rides. Beach Park (Aquiraz) surpassed the one-million attendance mark, up 7.6%, having added a new retail-dining-entertainment zone and the new ride Vaikuntudo, and also benefiting from previous investments in onsite lodging. Thermas Water Park in São Pedro grew a dramatic 29%, driven by major improvements to its pools, which included

heating the water, as well as improved food and beverage offerings and a strong marketing program.

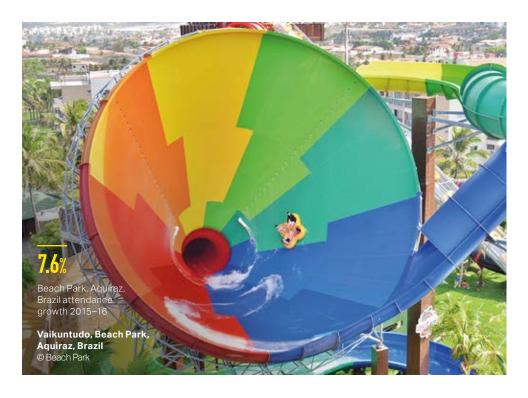
In Columbia, Piscilago (Bogotá) attendance was down 3.7% due to wet weather. Guatemala's Parque Acuatico Xocomil was down nearly 11%; the operator added new features but also cut back on marketing as the park had been overcrowded the previous year, so this might be seen as a deliberate correction in order to improve visitor experience.

The healthy growth of the Latin American water parks market is driven by a combination of the generally good climate in much of Latin America for water parks, the relatively low cost to build such parks, and the inclusion of lodging onsite in most cases. It is a smart model — one that extends the season, provides good value for operators and guests, and keeps revenue onsite. We expect to see more and more onsite integration of water parks and resorts in Latin America, North America, and globally.









Theme parks

Elsewhere in Latin America and Mexico, theme park attendance was nearly flat with an overall increase of about 0.4% that reflected ups and downs across the region in 2016. Six Flags Mexico was up 5%; the park added a Justice League dark ride, plus tourism overall was up to Mexico City, and the economy doing well in Mexico more generally. Parque Xcaret was up 8.9%; this reflects strong tourism growth in the Cancun Riviera Maya region and the continued popularity of this park, which is well suited to a combination of the Mexican and international tourist market.

Beto Carrerro Brazil was up 4%, benefiting from good domestic tourism, as did the water parks in the area. But Hopi Hari was down 12%; plagued by labor problems and strikes, as well as wet weather, with the park unfortunately going into bankruptcy in 2016.



In Columbia, there is a new entrant into the Top 10 list for this region: Theme Parque Nacional del Café (Coffee Park) located in Quindío, and up 5% in attendance over the previous year. In Bogotá, Parque Mundo Aventura suffered a 15% attendance decline, attributable largely to wet weather. Fantasilandia in Santiago, Chile, did well, up 8.2%, due to a combination of new rides, an extended season, and good weather.

TOP 20 AMUSEMENT/THEME PARKS NORTH AMERICA



| Marie W. | |
|---|--|
| DHO US | ONTARIO, CANADA 1 PARK / ATTENDANCE 3.7M |
| 2 PARKS / ATTENDANCE 7.0M 1 PARK / ATTENDANCE 7.0M 1 PARK / ATTENDANCE 7.0M | PENNSYLVANIA, U.S. 1 PARK / ATTENDANCE 3.3M NEW JERSEY, U.S. 1 PARK / ATTENDANCE 3.2M |
| CALIFORNIA, U.S. 6 PARKS / ATTENDANCE 46.2M | FLORIDA, U.S. 8 PARKS / ATTENDANCE 81.7M |

| RANK | PARK Location | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 |
|------|---|----------|--------------------|--------------------|
| 1 | MAGIC KINGDOM AT WALT DISNEY WORLD, LAKE BUENA VISTA, FL | -0.5% | 20,395,000 | 20,492,000 |
| 2 | DISNEYLAND, ANAHEIM, CA | -1.8% | 17,943,000 | 18,278,000 |
| 3 | EPCOT AT WALT DISNEY WORLD, LAKE BUENA VISTA, FL | -0.7% | 11,712,000 | 11,798,000 |
| 4 | DISNEY'S ANIMAL KINGDOM AT WALT DISNEY WORLD, LAKE BUENA VISTA, FL | -0.7% | 10,844,000 | 10,922,000 |
| 5 | DISNEY'S HOLLYWOOD STUDIOS AT WALT DISNEY WORLD, LAKE BUENA VISTA, FL | -0.5% | 10,776,000 | 10,828,000 |
| 6 | UNIVERSAL STUDIOS AT UNIVERSAL ORLANDO, FL | 4.3% | 9,998,000 | 9,585,000 |
| 7 | ISLANDS OF ADVENTURE AT UNIVERSAL ORLANDO, FL | 6.5% | 9,362,000 | 8,792,000 |
| 8 | DISNEY'S CALIFORNIA ADVENTURE, ANAHEIM, CA | -0.9% | 9,295,000 | 9,383,000 |
| 9 | UNIVERSAL STUDIOS HOLLYWOOD, UNIVERSAL CITY, CA | 13.9% | 8,086,000 | 7,097,000 |
| 10 | SEAWORLD FLORIDA, ORLANDO, FL | -7.9% | 4,402,000 | 4,777,000 |
| 11 | BUSCH GARDENS TAMPA BAY, TAMPA, FL | -2.0% | 4,169,000 | 4,252,000 |
| 12 | KNOTT'S BERRY FARM, BUENA PARK, CA | 3.8% | 4,014,000 | 3,867,000 |
| 13 | CANADA'S WONDERLAND, MAPLE, ONTARIO, CANADA | 2.9% | 3,723,000 | 3,617,000 |
| 14 | CEDAR POINT, SANDUSKY, OH | 2.8% | 3,604,000 | 3,507,000 |
| 15 | SEAWORLD SAN DIEGO, SAN DIEGO, CA | 0.0% | 3,528,000 | 3,528,000 |
| 16 | KINGS ISLAND, KINGS ISLAND, OH | 1.5% | 3,384,000 | 3,335,000 |
| 17 | SIX FLAGS MAGIC MOUNTAIN, VALENCIA, CA | 7.3% | 3,332,000 | 3,104,000 |
| 18 | HERSHEY PARK, HERSHEY, PA | 0.0% | 3,276,000 | 3,276,000 |
| 19 | SIX FLAGS GREAT ADVENTURE, JACKSON, NJ | 5.5% | 3,220,000 | 3,052,000 |
| 20 | SIX FLAGS GREAT AMERICA, GURNEE, IL | 5.6% | 2,950,000 | 2,793,000 |
| TO | P 20 TOTAL ATTENDANCE 2016 | | 148,013,000 | 146,283,000 |
| TO | P 20 ATTENDANCE GROWTH 2015–16 | 1.2% | 148,013,000 | 146,270,000 |



Circles represent size of attendance at ranked parks at the geography indicated. Slices within circles represent proportion of attendance at the geography from the ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.



1.2

Top 20 amusement/theme parks attendance growth North America 2015–16

148.0m

Top 20 amusement/theme parks North America attendance 2016

146.3m

Top 20 amusement/theme parks North America attendance 2015

TOP 10 AMUSEMENT/THEME PARKS LATIN AMERICA



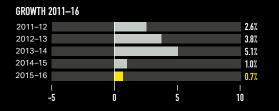


| MONTERREY, MEXICO 1 PARK / ATTENDANCE 1.2M S CANCÚN, MEXICO 1 PARK / ATTENDANCE 1.4M MEXICO CITY, MEXICO 2 PARKS / ATTENDANCE 4.1M 1 PARK / ATTENDANCE 1.2M |
|--|
| COLOMBIA 10 B 2 PARKS / ATTENDANCE 1.4M |
| CHILE 1 PARK / ATTENDANCE 1.1M |
| |

| RANK | PARK Location | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 |
|------|---|----------|--------------------|--------------------|
| 1 | SIX FLAGS MEXICO, MEXICO CITY, MEXICO | 5.0% | 2,486,000 | 2,368,000 |
| 2 | BETO CARRERO WORLD, SANTA CATARINA, BRAZIL | 4.0% | 2,080,000 | 2,000,000 |
| 3 | LA FERIA DE CHAPULTEPEC, MEXICO CITY, MEXICO | 0.4% | 1,591,000 | 1,584,000 |
| 4 | HOPI HARI, SÃO PAULO, BRAZIL | -12.0% | 1,468,000 | 1,668,000 |
| 5 | PARQUE XCARET, CANCÚN, MEXICO | 8.9% | 1,401,000 | 1,287,000 |
| 6 | PLAZA DE SESAMO, MONTERREY, MEXICO | 0.0% | 1,221,000 | 1,221,000 |
| 7 | MUNDO PETAPA, GUATEMALA CITY, GUATEMALA | 1.8% | 1,220,000 | 1,199,000 |
| 8 | PARQUE MUNDO AVENTURA, BOGOTÁ, COLOMBIA | -15.0% | 1,180,000 | 1,389,000 |
| 9 | FANTASIALANDIA, SANTIAGO, CHILE | 8.2% | 1,085,000 | 1,003,000 |
| 10 | THEME PARQUE NACIONAL DEL CAFÉ, QUINDIO, COLOMBIA | 5.0% | 1,050,000 | 1,000,000 |
| TO | P 10 TOTAL ATTENDANCE 2016 | | 14,782,000 | 14,719,000 |
| TO | P 10 ATTENDANCE GROWTH 2015–16 | 0.7% | 14,782,000 | 14,675,000 |

KEY

Circles represent size of attendance at ranked parks at the geography indicated.
Slices within circles represent proportion
of attendance at the geography from the
ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.



Top 10 amusement/theme parks attendance growth Latin America 2015–16

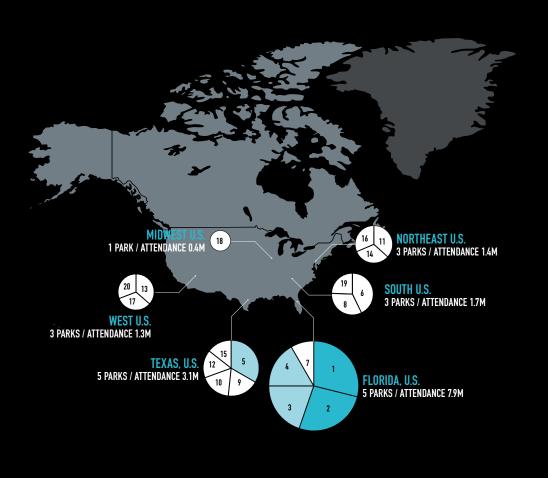
Top 10 amusement/ theme parks Latin America attendance 2016

14.7m

Top 25 amusement/ theme parks Latin America attendance 2015

TOP 20 WATER PARKS NORTH AMERICA



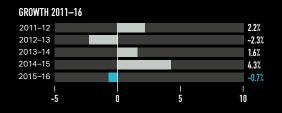


| RANK | PARK Location | % CHANGE | ATTENDANC 2016 | ATTENDANC 2015 |
|------|--|----------|-------------------|-------------------|
| 1_ | TYPHOON LAGOON AT DISNEY WORLD, ORLANDO, FL | -0.7% | 2,277,000 | 2,294,000 |
| 2 | BLIZZARD BEACH AT DISNEY WORLD, ORLANDO, FL | -0.8% | 2,091,000 | 2,107,000 |
| 3 | AQUATICA, ORLANDO, FL | -4.0% | 1,536,000 | 1,600,000 |
| 4 | WET 'N WILD, ORLANDO, FL | 0.0% | 1,310,000 | 1,310,000 |
| 5 | SCHLITTERBAHN, NEW BRAUNFELS, TX | 0.0% | 1,037,000 | 1,037,000 |
| 6 | WATER COUNTRY USA, WILLIAMSBURG, VA | 1.0% | 733,000 | 726,000 |
| 7 | ADVENTURE ISLAND, TAMPA, FL | -2.0% | 650,000 | 663,000 |
| 8 | SIX FLAGS-WHITE WATER, MARIETTA, GA | 5.0% | 568,000 | 541,000 |
| 9 | SCHLITTERBAHN, GALVESTON,TX | 2.0% | 562,000 | 551,000 |
| 10 | SIX FLAGS-HURRICANE HARBOR, ARLINGTON, TX | 0.0% | 549,000 | 549,000 |
| 11 | SPLISH-SPASH, CALVERTON NY | 0.0% | 513,000 | 513,000 |
| 12 | WET'N'WILD SPLASHTOWN, HOUSTON, TX | 0.0% | 501,000 | 501,000 |
| 13 | WET N' WILD, PHOENIX, AZ | 0.0% | 481,000 | 481,000 |
| 14 | SIX FLAGS HURRICANE HARBOR, JACKSON, NJ | 2.0% | 449,000 | 440,000 |
| 15 | TYPHOON TEXAS, KATY, TX | - | 440,000 | NEW ENTRY |
| 16 | CAMELBEACH, TANNERSVILLE, PA | 0.0% | 437,000 | 437,000 |
| 17 | HYLAND HILLS WATER WORLD, DENVER, CO | -2.3% | 434,000 | 444,000 |
| 18 | ZOOMEZI BAY, POWELL, OH | 0.0% | 423,000 | 423,000 |
| 19 | DOLLYWOOD'S SPLASH COUNTRY, PIGEON FORGE, TN | 0.0% | 416,000 | 416,000 |
| 20 | RAGING WATERS, SAN DIMAS, CA | 0.0% | 403,000 | 403,000 |
| TO | P 20 TOTAL ATTENDANCE 2016 | | 15,810,000 | 15,436,000 |
| TO | P 20 ATTENDANCE GROWTH 2015–16 | -0.7% | 15,810,000 | 15,921,000 |

^{*} Adjustment versus the figure we published in last year's report



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-0.7%

Top 20 water parks attendance growth North America 2015–16 15.8m

Top 25 water parks North America attendance 2016 15.9m

Top 25 water parks North America attendance 2015

TOP 10 WATER PARKS LATIN AMERICA



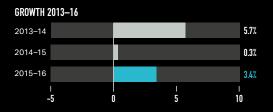




| RANK | PARK Location | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 |
|------|---|----------|--------------------|--------------------|
| 1 | THERMAS DOS LARANJAIS, OLÍMPIA, BRAZIL | 11.2% | 1,959,000 | 1,761,000 |
| 2 | BAHAMAS AQUAVENTURE WATER PARK, PARADISE ISLAND, BAHAMAS | 0.0% | 1,868,000 | 1,868,000 |
| 3 | HOT PARK RIO QUENTE, CALDAS NOVAS, BRAZIL | 7.2% | 1,381,000 | 1,288,000 |
| 4 | BEACH PARK, AQUIRAZ, BRAZIL | 7.6% | 1,044,000 | 970,000 |
| 5 | PISCILAGO, GIRARDOT (BOGOTÁ), COLOMBIA | -3.7% | 970,000 | 1,007,000* |
| 6 | PARQUE ACUATICO XOCOMIL, SAN MARTÍN ZAPOTITLÁN, RETALHULEU, GUATEMALA | -10.9% | 838,000 | 940,000 |
| 7 | PARQUE ACUATICO EL ROLLO, MORELOS, MEXICO | 2.0% | 520,000 | 510,000 |
| 8 | WET 'N WILD SAO PAULO, SÃO PAULO, BRAZIL | -2.0% | 486,000 | 496,000 |
| 9 | RIO WATER PLANET, RIO DE JANEIRO, BRAZIL | -2.0% | 392,000 | 400,000 |
| 10 | THERMAS WATER PARK, SÃO PEDRO, BRAZIL | 29.4% | 330,000 | 255,000 |
| TO | P 10 TOTAL ATTENDANCE 2016 | | 9,788,000 | 9,495,000 |
| TO | P 10 ATTENDANCE GROWTH 2015–16 | 3.4% | 9,788,000 | 9,462,000 |

KEY

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3.4%

Top 10 water parks attendance growth Latin America 2015–16

© 2017 TEA / AECOM

9.8m

Top 10 water parks Latin America attendance 2016 9.5m

Top 10 water parks Latin America attendance 2015

^{*} Adjustment versus the figure we published in last year's report



hanted Storybook Castle, Shanghai Disneyland, Shanghai Disney Resort, Shanghai, China © Disney



CHRIS YOSHII

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REINVESTMENT AND MARKETING ARE KEY FACTORS TO GROWTH

On the whole, 2016 was a strong year for Asia's theme park group operators, with substantial growth led by OCT, Fantawild and Chimelong. Attendance increases for these three operators came from newly opened locations as well as same-park growth.

Effective marketing campaigns helped drive the growth, as did smart reinvestment and facility upgrades. New entertainment programming at some parks also stimulated attendance. Asian park operators have been adopting increasingly sophisticated promotions to drive repeat visitation and bring more guests in during slower periods, using pricing incentives and social media engagement. Some groups are also extending their scope of operations by forming management agreements with scenic areas and smaller attractions nearby.

The top-performing operators are working to influence visitation patterns along with growing attendance. A characteristic of this market is that there can be very sharp differences in attendance levels on holidays vs other times — visitation might be in the tens of thousands on a holiday weekend, yet only a few thousand on an average weekday. Operators are having some success in using targeted marketing to help even out those attendance patterns, with regular outreach via WeChat and similar online forums. Tickets are typically bought on the spot using a mobile device, and when visitors arrive at the park they gain admission by scanning a QR code on their devices.

In addition to such promotions as food offers and special ticket deals, there are content angles. Some operators — OCT for one — have added more entertainment programming. Some are using tie-ins with domestic IP (intellectual property) to appeal to their family markets. Fantawild, for example, has an agreement with a popular, local cartoon series, Boonie Bears, allowing them to have characters from the series in the park.

Economy, tourism and per caps

Asia's economy remains quite robust and this helps to drive rising theme park attendance. There are individual differences from one country to another, but in general 2016 was a very stable year, and the outlook remains very positive. Tourism is very strong: in most places, we're seeing double digit growth in terms of visitor arrivals, both domestically and internationally.

Domestic parks, however, tend to have unrealized income potential. We see that these parks are — as the bigger players are doing — upgrading slowly and steadily improving facilities, often adopting domestic IP, and generally doing better in their markets and marketing through the use of social media. But in contrast to the larger parks, domestic parks in Asia are below average when it comes to guest in-park spending. While focusing on driving attendance, these operators are still leaving money on the table in regard to potential revenue in retail, games, food and beverage, and VIP experiences.



Shanghai Disneyland opens

We don't yet have a full year of numbers for Shanghai Disneyland. However, the opening of Shanghai Disneyland has already shown itself to be a watershed event. The park is performing even better than expected and therefore has proven, without a doubt, the depth of opportunity China's market represents. It demonstrates that the Chinese market will support the price point of a Disney park: tickets have been selling, and guests have been coming in the millions. Disney did a very good job, making a significant investment and producing a world-class park with state-of-the-art attractions. It paves the way for future development: Universal Studios is surely happy to see this, with Universal Studios Beijing currently under development, and we see other developers and brands moving forward with their own plans as well.

The overall forecast still holds, that by the year 2020, attendance at theme parks in China will surpass that of the US. It's simply a matter of arithmetic — China's market is four times the population of the US.

Asia's Top 20 parks — Regional ups and downs

Parks in China did very well in 2016, while parks in Hong Kong struggled. Elsewhere in Asia, there were some marked successes while other numbers were flat or even in decline. This uneven performance may point to what we can expect to be a normal pattern as the Asian sector continues to evolve: while growing very quickly, competition and sharp changes in tourism can greatly impact performance.

The market is far from saturated. OCT Shanghai is a good example. Even with such formidable competition as a new Disney park in the same market, OCT Shanghai had a creditable performance in 2016. OCT did take the trouble to invest in their facility to remain competitive.

4

THE OVERALL FORECAST STILL HOLDS, THAT BY THE YEAR 2020, ATTENDANCE AT THEME PARKS IN CHINA WILL SURPASS THAT OF THE US.

Fantawild had several new parks pass their first full year of operation in 2016 and deliver large increases in attendance. New attractions and a flexible pricing system helped drive the growth.

Universal Studios Japan had another strong year with more than 14 million visits, largely due to the continuing appeal of its Harry Potter attractions. Attendance at theme parks in the rest of Japan was largely flat.

Both Hong Kong Disneyland and Ocean Park Hong Kong experienced sharp visitation declines, respectively 10.3% and 18.8%. It was the second year of declines for both. A primary reason was the reduced level of tourism from Mainland China. The Chinese tourists have been going to other destinations such as Thailand, Japan and Korea. (The sheer volume of tourism to Hong Kong has sparked some negative local reactions that have discouraged visitation.) There is also more competition in that Chinese now have many theme parks to visit in their own country, meaning that when they do travel to Hong Kong they don't necessarily visit a theme park. Both Hong Kong Disneyland and Ocean Park Hong Kong have new attractions in the works, so we expect to see their numbers recover soon. Existing parks can't sit still; they need to continually reinvest, upgrade, and improve their offers and marketing to maximize their revenue streams.

South Korea also had mixed results with Lotte World benefiting from higher foreign tourist arrivals and enjoying a sharp increase of 11%. This was something of a rebound from the previous year, where tourism had been negatively affected by concerns about MERS. Everland's numbers for 2016 were relatively flat.

A change of category affects Chinese operator Songcheng Worldwide in relation to the 2016 Theme Index. Songcheng is a successful attraction operator with a growing number of properties and attendance. However as this operator's focus is on large performance shows with small supporting areas, we are no longer considering Songcheng in the same category as full-day, large-scale theme parks. Therefore Songcheng Worldwide is not included in

the 2016 report. This change contributes to the -2.8% decline in the top 20 Asia-Pacific theme park attendance growth. When we compare the growth of same parks open for both years, it is a healthy growth of 1.6%.

The industry evolves, and TEA helps

AECOM continues to partner with TEA on producing the annual Theme Index but also in support of TEA's efforts around the globe to promote excellence and growth within the visitor attractions industry. The TEA Asia Pacific Division is active throughout the region with events including regular networking mixers in Beijing and Shanghai, presentations at trade events and conferences, behind-the-scenes visits to parks and educational programming.



Ocean Park Hong Kong SAR, attendance 2016

Water parks — still growing

Overall, water parks performed very strongly in 2016 in Asia with 6.9% overall growth. Chimelong retained the designation of top-attended water park worldwide, with solid attendance growth as a result of more entertainment programming and a longer operating season. Water parks in other cities in China generally experienced growth or flat performance despite a significant number of new facilities.

Many new, smaller, water park/water play areas opened up in China in 2016; several online sources indicate as many as 50. These are not always what we would consider a full-fledged water park, hence the term "water play area." Either way, the trend is continuing. Such facilities can be built very quickly, with relatively little expense and on a smaller footprint than a theme park.

In Korea, Caribbean Bay had a standout year with strong recovery from the MERS scare and poor weather of the previous year. In the meantime, other Korean water park attendance numbers were mostly flat.

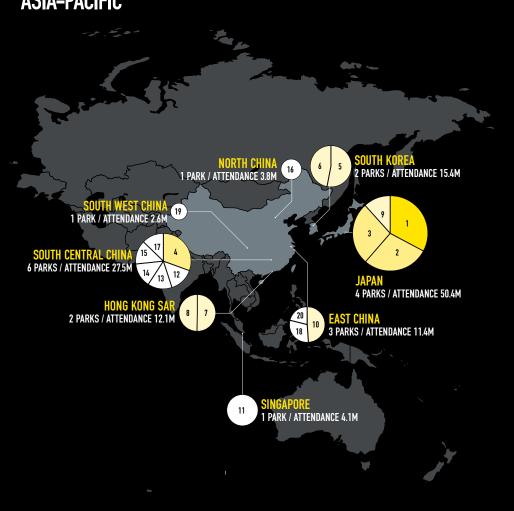
In Southeast Asia, Sunway Lagoon in Kuala Lumpur added a Nickelodeon water park extension, which boosted attendance significantly. Sunway's Perak property also had a very strong result due to the launch of two new attractions, the Ultimate Night Park and the Lost World Petting Zoo.

The Jungle Water Adventure in Bogor, Indonesia had a dramatic rise in attendance, due to better economic conditions and aggressive marketing campaigns as well as revised entry pricing.

TOP 20 AMUSEMENT/THEME PARKS ASIA-PACIFIC







| RANK | PARK Location | % CHANGE | ATTENDANC 2016 | ATTENDANC 2015 |
|------|--|----------|-------------------|-------------------|
| 1 | TOKYO DISNEYLAND, TOKYO, JAPAN | -0.4% | 16,540,000 | 16,600,000 |
| 2 | UNIVERSAL STUDIOS JAPAN, OSAKA, JAPAN | 4.3% | 14,500,000 | 13,900,000 |
| 3 | TOKYO DISNEY SEA, TOKYO, JAPAN | -1.0% | 13,460,000 | 13,600,000 |
| 4 | CHIMELONG OCEAN KINGDOM, HENGQIN, CHINA | 13.2% | 8,474,000 | 7,486,000 |
| 5 | LOTTE WORLD, SEOUL, SOUTH KOREA | 11.5% | 8,150,000 | 7,310,000 |
| 6 | EVERLAND, GYEONGGI-DO, SOUTH KOREA | -3.0% | 7,200,000 | 7,423,000 |
| 7 | HONG KONG DISNEYLAND, HONG KONG SAR | -10.3% | 6,100,000 | 6,800,000 |
| 8 | OCEAN PARK, HONG KONG SAR | -18.8% | 5,996,000 | 7,387,000 |
| 9 | NAGASHIMA SPA LAND, KUWANA, JAPAN | -0.3% | 5,850,000 | 5,870,000 |
| 10 | SHANGHAI DISNEYLAND, SHANGHAI, CHINA | _ | 5,600,000 | NEW ENTRY |
| 11 | UNIVERSAL STUDIOS SINGAPORE, SINGAPORE | -2.4% | 4,100,000 | 4,200,000 |
| 12 | OCT EAST, SHENZHEN, CHINA | 0.5% | 3,960,000 | 3,940,000 |
| 13 | OCT WINDOW OF THE WORLD, SHENZHEN, CHINA | 13.7% | 3,910,000 | 3,440,000 |
| 14 | OCT HAPPY VALLEY, SHENZHEN, CHINA | 18.8% | 3,860,000 | 3,250,000 |
| 15 | CHIMELONG PARADISE, GUANGZHOU, CHINA | 6.0% | 3,836,000 | 3,619,000 |
| 16 | OCT HAPPY VALLEY, BEIJING, CHINA | 2.4% | 3,830,000 | 3,740,000 |
| 17 | FANTAWILD ADVENTURE, ZHENGZHOU, CHINA | 24.1% | 3,509,000 | 2,828,000 |
| 18 | FANTAWILD ORIENTAL HERITAGE, NINGBO, CHINA | _ | 3,441,000 | NEW ENTRY |
| 19 | OCT HAPPY VALLEY, CHENGDU, CHINA | -1.5% | 2,550,000 | 2,590,000 |
| 20 | OCT HAPPY VALLEY, SHANGHAI, CHINA | 2.1% | 2,390,000 | 2,340,000 |
| TO | P 20 TOTAL ATTENDANCE 2016 | | 127,256,000 | 116,323,000 |
| TO | P 20 ATTENDANCE GROWTH 2015–16 | -2.8% | 127,256,000 | 130,944,000 |

KEY

5m-10m 10m-15m

Circles represent size of attendance at ranked parks at the geography indicated. Slices within circles represent proportion of attendance at the geography from the ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.

6ROWTH 2011-16

2011-12

2012-13

2013-14

2014-15

2015-16

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5.8%

4.9%

6.9%

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-2.8%

Top 20 amusement/theme parks attendance growth Asia-Pacific 2015–16

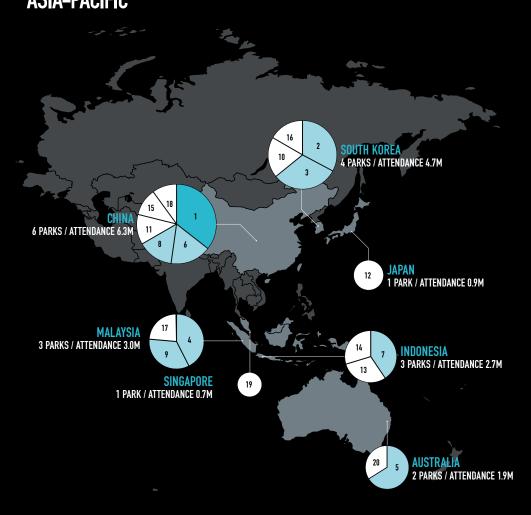
127.3m

Top 20 amusement/ theme parks Asia-Pacific attendance 2016 130.9m

Top 20 amusement/ theme parks Asia-Pacific attendance 2015

TOP 20 WATER PARKS ASIA-PACIFIC





| RANK | PARK Location | % CHANGE | ATTENDANC 2016 | ATTENDANC 2015 |
|------|---|----------|-------------------|-------------------|
| 1 | CHIMELONG WATER PARK, GUANGZHOU, CHINA | 7.9% | 2,538,000 | 2,352,000 |
| 2 | CARIBBEAN BAY, GYEONGGI-DO, SOUTH KOREA | 8.1% | 1,550,000 | 1,434,000 |
| 3 | OCEAN WORLD, GANGWON-DO, SOUTH KOREA | -2.4% | 1,473,000 | 1,509,000 |
| 4 | SUNWAY LAGOON, KUALA LUMPUR, MALAYSIA | 17.9% | 1,270,000 | 1,077,000 |
| 5 | WET 'N' WILD GOLD COAST, GOLD COAST, AUSTRALIA | 3.5% | 1,242,000 | 1,200,000 |
| 6 | SHENYANG ROYAL OCEAN PARK — WATER WORLD, FUSHUN, CHINA | 1.7% | 1,170,000 | 1,150,000 |
| 7 | ATLANTIS WATER ADVENTURE, JAKARTA, INDONESIA | 14.4% | 1,110,000 | 970,000 |
| 8 | WUHU FANTAWILD WATER PARK, WUHU, CHINA | 44.6% | 1,024,000 | 708,000 |
| 9 | SUNWAY LOST WORLD OF TAMBUN, PERAK, MALAYSIA | 16.4% | 1,000,000 | 859,000 |
| 10 | WOONGJIN PLAYDOCI WATERDOCI, GYEONGGI-DO, SOUTH KOREA | 0.2% | 900,000 | 898,000 |
| 11 | PLAYAMAYA WATER PARK, SHANGHAI, CHINA | 38.1% | 870,000 | 630,000 |
| 12 | SUMMERLAND, TOKYO, JAPAN | -5.8% | 862,000 | 915,000 |
| 13 | THE JUNGLE WATER ADVENTURE, BOGOR, WEST JAVA, INDONESIA | 42.7% | 815,000 | 571,000 |
| 14 | OCEAN PARK WATER ADVENTURE, JAKARTA, INDONESIA | 0.1% | 805,000 | 804,000 |
| 15 | ZHENGZHOU FANTAWILD WATER PARK, ZHENGZHOU, CHINA | 15.6% | 802,000 | 694,000 |
| 16 | LOTTE WATER PARK, SEOUL, SOUTH KOREA | 0.9% | 779,000 | 772,000 |
| 17 | LEGOLAND WATER PARK, JOHOR, MALAYSIA | 0.0% | 700,000 | 700,000 |
| 18 | PLAYAMAYA WATER PARK, WUHAN, CHINA | -5.5% | 690,000 | 730,000 |
| 19 | ADVENTURE COVE WATER PARK, SINGAPORE | 0.0% | 660,000 | 660,000 |
| 20 | WET 'N' WILD SYDNEY, SYDNEY, AUSTRALIA | -5.9% | 635,000 | 675,000 |
| T0 | P 20 TOTAL ATTENDANCE 2016 | | 20,895,000 | 19,308,000 |
| TO | P 20 ATTENDANCE GROWTH 2015–16 | 5.4% | 20,895,000 | 19,547,000 |

KEY

Up to 1m
1m-2m
2m+

Circles represent size of attendance at ranked parks at the geography indicated. Slices within circles represent proportion of attendance at the geography from the ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.

GROWTH 2011-16

2011-12
2012-13
2013-14
2014-15
2015-16
1
5.4%
1
1.0%
1
1.0%

5.4%

Top 20 water parks attendance growth Asia-Pacific 2015–16

© 2017 TEA / AECOM

20.9M

Top 20 water parks Asia-Pacific attendance 2016 19.5M

Top 20 water parks Asia-Pacific attendance 2015



Futuroscope's (Poitiers, France) attendance numbers rose more than 5% on the back of some very good promotional campaigns. Futuroscope has strengthened its image in the market over the last couple of years with an increasing image of 'fun' over 'education' though it still very much delivers on the educational messages it set out to promote.

In Germany, Phantasialand (Brühl), achieved an attendance increase of more than 5% following upon their investment in the new themed land, Klugheim, a new expansion featuring immersive attractions and two signature roller coasters. Developed within a limited footprint, this new land was created with great attention to design detail, from the audio to the food and beverage. The way the two coasters are intertwined is a spectacle in itself.

Decline in Paris

Despite some of the best 2016 theme park attendance increases for the EMEA region being in France, Disneyland Paris experienced a steep decline, with attendance falling by around 14%. A variety of factors including economic and political events, as well as a rainy start to the season and flooding in Paris, brought down overall tourism numbers to the greater Paris region. From 2015 to 2016, tourism was down 1.5 million — a decline of 1.5%, which in turn was down 1.1% from 2014. However, considering that attendance to Walt Disney Studios Park was down by only 1.6%, we would suggest that other elements, such as overdue re-investment, may have had an effect. We expect it to take some time before these numbers right themselves again.

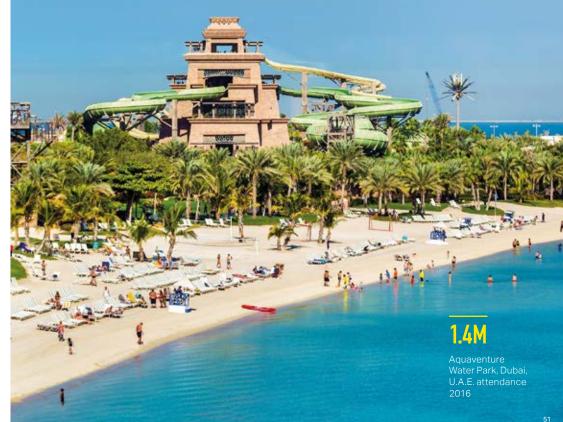


Water parks

Overall, we see that water parks in the EMEA region also experienced a pretty stable year, with some outstanding performers:

In Spain, Siam Park (Tenerife) recorded impressive growth of more than 15%, which can be attributed to a large increase in tourism to this area. The healthy and growing economy in Spain's domestic markets is a boon here just as it was for Parque Warner's increase in attendance, mentioned above.

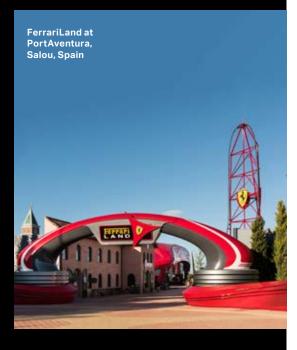
In Germany, Tropical Islands (near Berlin) recorded an impressive, double-digit increase of 13%. Tropical Islands began as a traditional indoor water park built in an old aircraft hangar. The operator opened an outdoor component in 2016 that transformed the property into an all-seasons resort — an investment that seems to be paying off. The park is now looking forward to building on this year-round provision and is increasing its accommodation stock.



Trends — Theme parks and water parks

The trend to build or expand into multi-gated resorts is continuing. And, to illustrate this, we have included a schedule that shows some of that development. Attendance in this schedule reflects combined attendance to the multiple gates of each of these resorts. PortAventura recently opened its new addition, Ferrari Land, and we are keen to see how attendance to this third gate will develop, just as we are keen to give that vertical ride a go!

We are all eager to see how recent openings in the Middle East will perform. The 2016 report numbers do not incorporate the numbers for IMG Worlds of Adventure, nor for Dubai Parks & Resorts, as both these large, new resorts opened mid-year in the UAE, and none of the parks has yet had a full year of operations. Attendance expectations for all these parks were set high, and we hope to be able to incorporate them in the 2017 Theme Index if they are high enough.



| ATTRACTION | ESTIMATED COMBINED 2016 ATTENDANCE | THEME PARK | SECOND PARK | WATER PARK | HOTEL KEVS | CAMPING | RDE | CONFERENCE | ОТНЕК |
|---------------------|---------------------------------------|------------|-------------|------------|------------|---------|-----|------------|-----------------------|
| DISNEYLAND PARIS | 13,370,000 | • | • | | 5,800 | | • | • | |
| EUROPA PARK | 5,600,000 | • | | 0 | 953 | • | | • | |
| PORTAVENTURA | 3,650,000 | • | • | • | 2,100 | | | • | Golf, Beach Club |
| GARDALAND | 2,880,000 | • | • | | 336 | | | | |
| PUY DU FOU | 2.220,000 | • | • | | | | | | |
| ALTON TOWERS | 1,980,000 | • | | • | 391 | • | | • | Golf, Spa, High Ropes |
| PARQUE WARNER | 1,800,000 | • | | • | | | | • | • |
| PLOPSALAND DE PANNE | 1,623,000 | • | | • | 0 | | | | |
| SLAGHAREN | 1,219,000 | • | | • | | | | | |
| CANEVAWORLD RESORT | 909,000 | • | | • | | | | | |

OpenOpening 2017Opening 2018/19

The year ahead

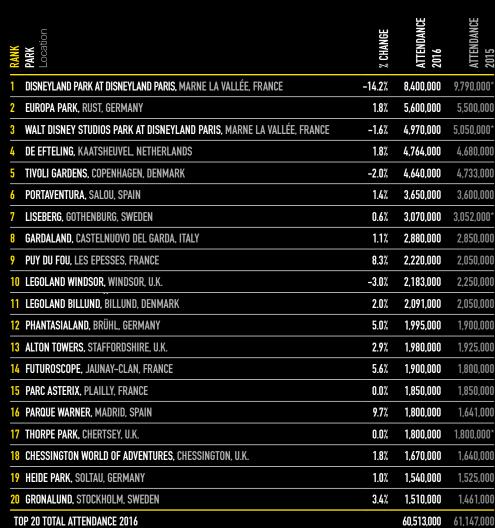
We live in tumultuous times, and it's hard to make a confident forecast in such times. We are treading carefully, with our hopes on the various economies that drive attendance to EMEA visitor attractions.

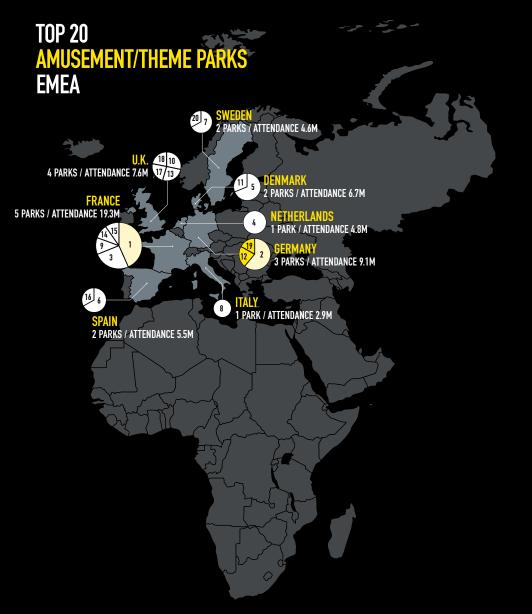
The attractions in the Middle East may gain from the wider markets to which they have access, such as India and Africa. Our innovative industry is characterized by fertile minds, dynamic teamwork and can-do attitudes. That, in itself, will help drive new developments that will in turn, at least to some degree, counteract the uncertainty in the wider economic environment. I for one am looking forward to seeing what great new things our industry will create in the year ahead.

I FOR ONE AM LOOKING FORWARD TO SEEING WHAT GREAT NEW THINGS OUR INDUSTRY WILL CREATE IN THE YEAR AHEAD.





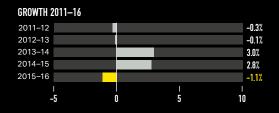




* Adjustment versus the figure we published in last year's report

Up to 5m XEX 10m 15m-15m 15m+

Circles represent size of attendance at ranked parks at the geography indicated. Slices within circles represent proportion of attendance at the geography from the ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.



-1.1%

Top 20 amusement/theme parks attendance growth EMEA 2015–16

TOP 20 ATTENDANCE GROWTH 2015-16

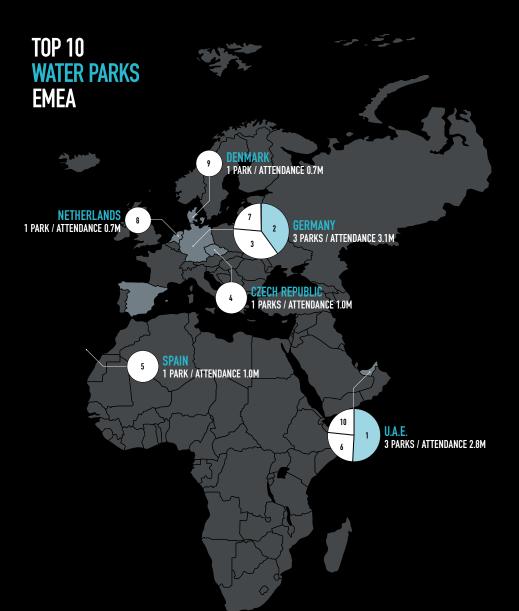
0.5m

Top 25 amusement/ theme parks EMEA attendance 2016 61.2m

Top 25 amusement/ theme parks EMEA attendance 2015

-1.1% 60,513,000 61,205,000

54 © 2017 TEA/AECOM © 2017 TEA/AECOM





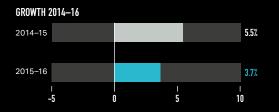
| RANK | PARK Location | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 |
|------|---|----------|--------------------|--------------------|
| 1 | AQUAVENTURE WATER PARK, DUBAI, U.A.E. | 2.1% | 1,430,000 | 1,400,000 |
| 2 | THERME ERDING, ERDING, GERMANY | 0.8% | 1,245,000 | 1,235,000 |
| 3 | TROPICAL ISLANDS, KRAUSNICK, GERMANY | 13.1% | 1,133,000 | 1,002,000 |
| 4 | AQUAPALACE, PRAGUE, CZECH REPUBLIC | 2.6% | 1,023,000 | 997,000 |
| 5 | SIAM PARK, SANTA CRUZ DE TENERIFE, SPAIN | 15.6% | 1,000,000 | 865,000 |
| 6 | WILD WADI, DUBAI, U.A.E | 2.1% | 730,000 | 715,000 |
| 7 | NETTEBAD, OSNABRÜCK, GERMANY | -2.0% | 729,000 | 744,000 |
| 8 | DUINRELL TIKI POOL WASSENAAR, THE NETHERLANDS | 0.0% | 700,000 | 700,000 |
| 9 | LALANDIA, BILLUND, DENMARK | 1.8% | 692,000 | 680,000 |
| 10 | YAS WATERWORLD, ABU DHABI, U.A.E | 0.0% | 650,000 | 650,000 |
| TOF | 2 10 TOTAL ATTENDANCE 2016 | | 9,332,000 | 8,988,000 |
| TOI | P 10 ATTENDANCE GROWTH 2015–16 | 3.7% | 9,332,000 | 9,001,000 |

^{*} Adjustment versus the figure we published in last year's report



56

Circles represent size of attendance at ranked parks at the geography indicated. Slices within circles represent proportion of attendance at the geography from the ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.



3.7%

Top 10 water parks attendance growth EMEA 2015–16

© 2017 TEA / AECOM

9.3m

Top 10 water parks EMEA attendance 2016

9m

Top 10 water parks EMEA attendance 2015

MUSEUMS





LINDA CHEU

Vice President

With contributions by **Beth Chang**, Executive Director, Economics, Asia-Pacific; and **Margreet Papamichael** Director, EMEA

MUSEUMS... A DECADE OF CHANGE

Museum Index Celebrates five Years

This year is the fifth year of the Museum Index, so we are able to look at trends and market share over time.

The largest museums in each region have shown themselves to be a relatively stable market with respect to attendance. Attendance fluctuates from year to year as blockbuster exhibitions come and go, but the aggregates remain steady. Significant increases or decreases that we have seen have typically been a result of external factors affecting regions.

Overall, we have seen between 2% and 3% growth in museum attendance since 2012, with Asia accounting for most of the growth. US and European markets are mature, with approximately 1% growth annually. With the US and Europe, there are individual museums in certain regions that are growing at higher rates due to significant increases in tourism. In Asia, we have seen growth of 9% annually over the past few years, in large part due to the Chinese government's policy directive to develop hundreds of new museums every year and its investment in the provision of free admission.

Ongoing challenges for the museum industry

The industry faces significantly different challenges in each region. In Asia, museums are being rapidly developed, but may lack essential components such as collections, exhibits, trained curatorial, conservation, and other museum professionals, education programs, adequate business planning, and operating funds.

In North America, museum attendance at the largest museums in the country has been fairly stable on an absolute basis, but penetration rates have not kept pace with growth in resident and tourist markets. While some of this market share may be captured by the great number of cultural institutions with attendance under 1 million that are not on our top 20 list, museums are increasingly competing with technology that has made entertainment and culture much more accessible to people at home.

Changing demographics, including the large, tech-savvy millennial generation and the growth of the Hispanic market with traditionally lower museum participation rates, remains a significant challenge for the museum industry. The museum "product" or visitor experience has started to evolve in order to meet changing supply and demand conditions.

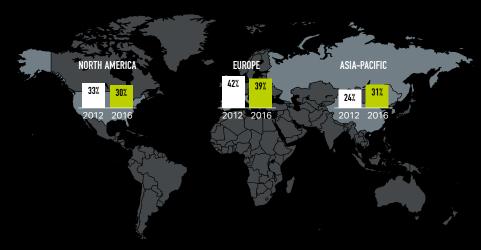
Historic change

Museums have gone through a decade of historic change, and more change can be expected. The impact of the recession, technology trends, market changes, and erosion of government funding have all had an effect. Museums, more hesitant to rely as heavily on charitable contributions after the recession, have had to re-focus on developing sources of earned revenue. They have had to re-examine the guest experience to reach out to younger and more diverse audiences, to respond to demographic shifts within their communities, and to continue to serve the needs of educators, which are also changing.

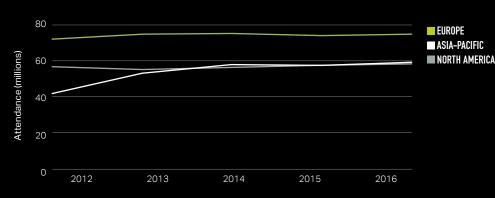
Philanthropic giving has not gone away, but the millennial generation approaches it differently. Studies show that millennials do engage in charitable giving, but they tend to expect certain kinds of results and accountability in return. This is a very participatory audience and museums strive to accommodate millennials as the future of visitation, membership and contributed income.

Worldwide museum trends

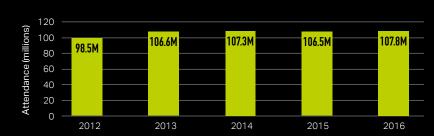
TOP 20 WORLDWIDE MUSEUMS ATTENDANCE REGION DISTRIBUTION 2012–16



FIVE YEAR ATTENDANCE TRENDS BY REGION



FIVE YEAR ATTENDANCE TREND AT TOP 20 MUSEUMS WORLDWIDE



Visitor experience — what's gained and lost

As we have often noted in these pages, one of the ways museums have adapted over the past decade is by re-shaping the visitor experience. We have seen them become more directly competitive for the leisure and family audience, and more technologically sophisticated. They have incorporated tools of themed entertainment and experience design, and embraced blockbuster exhibitions and IP storytelling. The role of the collection has likewise shifted — how it is presented, how it can be accessed.

Layered over that are the demographic shifts of the last 10 years. Urban areas have more diverse populations, including groups that in the past have not been museum-goers. Interestingly, while we see museums making efforts to engage and attract these more diverse audiences, demographically the average museum's attendance — especially art museums — does not mirror the diversity of the surrounding population. At least, not yet. Museums are still undergoing major change. They are still recovering from the recession, still rethinking their role in the community, still adopting new technologies.

A year ago, just a handful of museums were looking at VR and AR. Now, it's pervasive — museums of all sizes are considering how to use VR either to create visitor experiences or access their collections in unique ways.

Community, partnership and experimentation

Museums continue to rely on facility rentals as a source of earned revenue, and this is being more heavily emphasized in expansions and new builds, with a view to potential new uses as community space. We're seeing a wide range of customized experiences that use the museum perhaps more for its atmosphere and unique open space than its original purpose: yoga, themed parties, scavenger hunts, and even bachelorette parties. These cultural institutions are redefining themselves, but also trying to stay true to mission.

This cultural tug-of-war has always existed to some extent within museums. It is a healthy tension, and it produces the kinds of interesting experimentation we are seeing everywhere — from facility rentals to edgy programming and exhibits, and even upscale dining experiences. We see museums





entering into partnerships with universities, licensing agreements, second gate cultural attractions, and endeavors to extend their brand to other locations geographically and online.

Museums are experimenting with customized, immersive experiences and various innovative ways of generating earned revenue. Nighttime events have grown exponentially and represent a significant attendance stream for today's museums. They are not a novelty anymore, everyone is doing it. VR is headed that way. Some museums are now deliberately catering to photo opportunities. The museum becomes a backdrop for selfies, which stimulates user engagement and social media presence.

However, the very technology that is enabling museums to attract more visitors is also a threat to attendance, as collections and exhibits can now be accessed online from anywhere in the world. While yoga classes may bring more visitors to museums, they

also present scheduling challenges with more traditional museum programs and museum visitors.

Reinvestment is essential

While there are many changes, what has not changed is the basic principle of attendance — that to maintain stability and work towards continued growth, museums must reinvest to avoid attendance erosion, either in temporary exhibits, expansions, or renovation of existing exhibits.

AECOM's general advice to museums: Look at your market. Not all markets are the same. What works in a major metropolitan area may not work in a smaller city. Who are your residents, who are your tourists and what are their demographics? What are the competitive offerings in your market, beyond just museums? The answers will speak to your strategy for attracting and retaining visitors and market share.

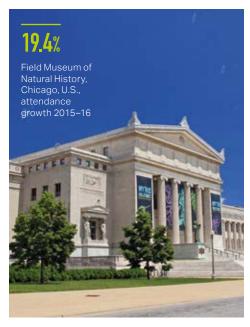
62

North America

As discussed above, museum attendance at most of the top 20 museums has been relatively stable, with fluctuations from year to year driven primarily by special exhibits or programming.

Top performers in North America still include many of the free institutions, including the National Air and Space Museum and the National Museum of Natural History in Washington, D.C. The largest paid museums are the Metropolitan Museum of Art and the American Museum of Natural History in New York.

Exceptionally strong, double-digit year-overyear percentage increases in attendance were seen at the Field Museum of Natural History and the Art Institute in Chicago, the Museum of Science in Boston, and the Denver Museum of Nature and Science.





Asia

The museums sector in Asia had a good year overall, with 3.1% attendance growth in 2016. The National Museum of China in Beijing became the highest-attended museum in the world for the first time. This is due to three main factors: sheer population size, free admission, and being in a major tourist destination city.

China continues to progress toward free admission for all government-owned museums. School groups are becoming a regular source of visitors. Attendance levels are expected to continue to rise.

Several museums saw substantial increases in attendance based off new and improved exhibitions. On the other hand, Taiwan's National Palace Museum saw, in 2016, the largest decrease in attendance due to the decline in Mainland China visitors since Taiwan's presidential election in January 2016. In recent years, Mainland Chinese visitors had constituted some 75–80% of visitors to this museum.

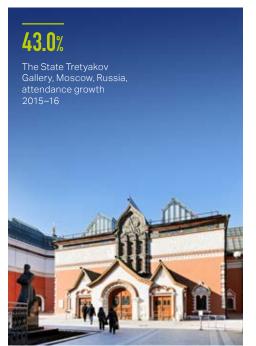


SEVERAL MUSEUMS SAW SUBSTANTIAL INCREASES IN ATTENDANCE BASED OFF NEW AND IMPROVED EXHIBITIONS.



Europe

The EMEA museum market is mature and In Russia, Tretyakov Gallery (Moscow) grew stable, and dramatic increases or decreases its attendance by nearly half. These numbers in attendance are almost always attributable are attributable to strong tourism in Moscow to a major expansion — or a blockbuster and two very successful exhibitions including 'Ivan Aivazovsky' for the 200th Anniversary in exhibition having either opened or closed. There seems to have been a dearth of topthe summer, which attracted nearly 600,000 drawing blockbusters in 2016 and as a result, visits, and 'From Elizabeth to Victoria: English attendance appears down. Nevertheless, Portraits from the Collection of the National within this general picture, our top 10 Portrait Gallery' with nearly 80,000 visitors. museums for the EMEA region show some The State Hermitage in St. Petersburg distinct results on the high and low end. also turned in double-digit attendance attendance © Tate Modern



There were clearly museums that did less well this year. Heading that list, in France, is the Louvre in Paris. While the Louvre remains in top position in the ranking, the attendance drop was significant at around 15% due to a drop in tourism which they attribute to external factors. Also in Paris, the Musée d'Orsay experienced a double digit drop in visitation. However, the Centre Pompidou and Cité des Sciences have managed to grow their attendance despite these events.

While the Tate had a record year, five other museums in London recorded lower attendance in 2016 than 2015, as can be seen in the table. All had had a couple of very successful years with great exhibitions bringing in the visitors, so it may well just be an adjustment following that. Although there also may have been a small decline to international tourism to London in 2016, conclusive numbers are not yet readily available.

In the U.K., the Tate Modern, London, opened its new expansion in June 2016 and increased attendance by nearly one-quarter — from 4.7 million to over 5.8 million. The expansion itself — a much-acclaimed structure, designed by Herzog & de Meuron — attracted lots of attention on its own merit. This, coupled with the new exhibits it houses, and some excellent exhibitions during the year, led to the stunning attendance increase.

In Poland, the Auschwitz-Birkenau museum had another strong year: growth of 19% on top of last year's growth of 12%. The museum has been attracting increasing attendance and renewed attention since the 70th anniversary of the end of World War II.

Others with double-digit growth included the Van Gogh Museum in Amsterdam, attributable to an extension in summer opening hours and very successful online marketing, and the Prado in Madrid, credited to the growth in tourism to this region.



TOP 20 MUSEUMS NORTH AMERICA

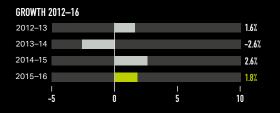


| 19 INDIANAPOLIS 1 Museum / Attendance 1.3m | |
|---|--|
| CHICAGO, IL 3 MUSEUMS / ATTENDANCE 4.9M 16 BOSTON, MA 1 MUSEUM / ATTENDANCE 1.5M | |
| DENVER, CO 1 MUSEUM / ATTENDANCE 1.9M 1 MUSEUM / ATTENDANCE 1.4M NEW YORK, NY 3 MUSEUMS / ATTENDANCE 14.5M | |
| LOS ANGELES, CA 2 MUSEUMS / ATTENDANCE 3.6M HOUSTON, TX 1 MUSEUM / ATTENDANCE 2.3M WASHINGTON D.C. 7 MUSEUMS / ATTENDANCE 27.1M | |

| RANK | PARK Location | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 | FREE/PAID |
|------|---|----------|--------------------|--------------------|-----------|
| 1 | NATIONAL AIR AND SPACE MUSEUM , WASHINGTON, D.C. | 8.7% | 7,500,000 | 6,900,000 | E |
| 2 | NATIONAL MUSEUM OF NATURAL HISTORY, WASHINGTON, D.C. | 2.9% | 7,100,000 | 6,900,000 | E |
| 3 | THE METROPOLITAN MUSEUM OF ART, NEW YORK, NY | 6.3% | 6,700,000 | 6,300,000 | P |
| 4 | AMERICAN MUSEUM OF NATURAL HISTORY, NEW YORK, NY | 0.0% | 5,000,000 | 5,000,000 | P |
| 5 | NATIONAL GALLERY OF ART, WASHINGTON, DC | 3.8% | 4,261,000 | 4,104,000 | F |
| 6 | NATIONAL MUSEUM OF AMERICAN HISTORY, WASHINGTON, D.C. | -7.3% | 3,800,000 | 4,100,000 | E |
| 7 | THE MUSEUM OF MODERN ART, NEW YORK, NY | -7.3% | 2,790,000 | 3,010,000 | P |
| 8 | HOUSTON MUSEUM OF NATURAL SCIENCE, HOUSTON, TX | 0.0% | 2,295,000 | 2,295,000 | P |
| 9 | CALIFORNIA SCIENCE CENTER, LOS ANGELES, CA | -22.5% | 2,038,000 | 2,630,000 | F |
| 10 | DENVER MUSEUM OF NATURE AND SCIENCE, DENVER, CO | 11.8% | 1,900,000 | 1,700,000 | P |
| 11 | THE ART INSTITUTE OF CHICAGO, CHICAGO, IL | 15.5% | 1,790,000 | 1,550,000 | P |
| 12 | FIELD MUSEUM OF NATURAL HISTORY, CHICAGO, IL | 19.4% | 1,650,000 | 1,382,000 | P |
| 13 | UDVAR-HAZY CENTER, WASHINGTON, D.C. | 0.0% | 1,600,000 | 1,600,000 | F |
| 13 | U.S. HOLOCAUST MEMORIAL MUSEUM, WASHINGTON, D.C. | 0.0% | 1,600,000 | 1,600,000 | P |
| 15 | THE J. PAUL GETTY CENTER , LOS ANGELES, CA | -0.6% | 1,570,000 | 1,580,000 | E |
| 16 | MUSEUM OF SCIENCE, BOSTON, MA | 10.9% | 1,530,000 | 1,380,000 | P |
| 17 | MUSEUM OF SCIENCE AND INDUSTRY, CHICAGO, IL | 0.0% | 1,500,000 | 1,500,000 | P |
| 18 | CALIFORNIA ACADEMY OF SCIENCES, SAN FRANCISCO, CA | 0.0% | 1,400,000 | 1,400,000 | P |
| 19 | THE CHILDREN'S MUSEUM OF INDIANAPOLIS, INDIANAPOLIS, IN | 1.6% | 1,270,000 | 1,250,000 | P |
| 20 | DONALD W. REYNOLDS CENTER FOR AMERICAN ART AND PORTRAITURE, Washington, D.C. | -7.7% | 1,200,000 | 1,300,000 | F |
| TO | P 20 TOTAL ATTENDANCE 2016 | | 58,494,000 | 57,481,000 | |
| TO | P 20 TOTAL ATTENDANCE 2015 | 1.8% | 58,494,000 | 57,481,000 | |



Circles represent size of attendance at ranked parks at the geography indicated. Slices within circles represent proportion of attendance at the geography from the ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.



1.8%

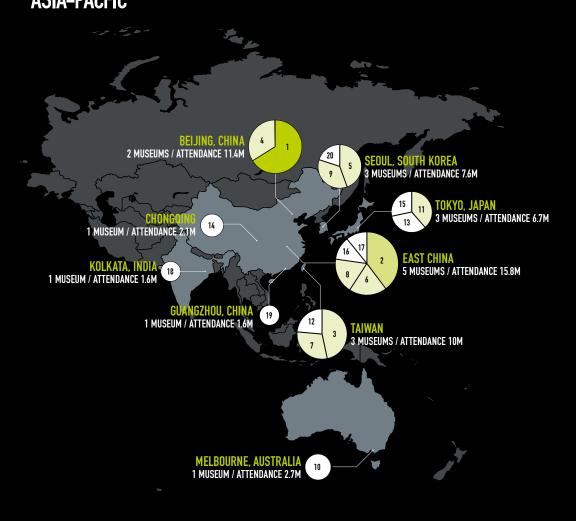
Top 20 museums attendance growth North America 2015–16 58.5m

Top 20 museums North America attendance 2016 57.5m

Top 20 museums North America attendance 2015

TOP 20 MUSEUMS ASIA-PACFIC





| RANK | PARK Location | % CHANGE | ATTENDANCE 2016 | ATTENDANCE 2015 | FRFF/PAIN |
|------|--|----------|--------------------|--------------------|-----------|
| 1 | NATIONAL MUSEUM OF CHINA, BEIJING, CHINA | 3.6% | 7,550,000 | 7,290,000 | E |
| 2 | SHANGHAI SCIENCE & TECHNOLOGY MUSEUM, SHANGHAI, CHINA | 6.2% | 6,316,000 | 5,948,000 | Р |
| 3 | NATIONAL PALACE MUSEUM (TAIWAN), TAIPEI, TAIWAN | -11.8% | 4,666,000 | 5,288,000 | Р |
| 4 | CHINA SCIENCE TECHNOLOGY MUSEUM, BEIJING, CHINA | 14.0% | 3,830,000 | 3,360,000 | P |
| 5 | NATIONAL MUSEUM OF KOREA, SEOUL, SOUTH KOREA | 8.5% | 3,396,000 | 3,130,000 | F |
| 6 | ZHEJIANG MUSEUM, HANGZHOU, CHINA | -8.3% | 3,060,000 | 3,338,000 | F |
| 7 | NATIONAL MUSEUM OF NATURAL SCIENCE, TAICHUNG, TAIWAN | -4.3% | 2,944,000 | 3,075,000 | P |
| 8 | NANJING MUSEUM, NANJING, CHINA | 11.5% | 2,880,000 | 2,582,000 | F |
| 9 | NATIONAL FOLK MUSEUM OF KOREA, SEOUL, SOUTH KOREA | 3.6% | 2,714,000 | 2,620,000 | F |
| 10 | NATIONAL GALLERY OF VICTORIA, MELBOURNE, AUSTRALIA | 10.7% | 2,668,000 | 2,411,000 | F |
| 11 | NATIONAL ART CENTER, TOKYO, JAPAN | 5.8% | 2,609,000 | 2,466,000 | P |
| 12 | NATIONAL SCIENCE & TECHNOLOGY MUSEUM, KAOHSIUNG, TAIWAN | 20.0% | 2,350,000 | 1,958,000 | P |
| 13 | NATIONAL MUSEUM OF NATURE AND SCIENCE, TOKYO, JAPAN | 4.8% | 2,200,000 | 2,100,000 | P |
| 14 | CHINA THREE GORGES MUSEUM (CHONGQING MUSEUM), CHONGQING, CHINA | -0.6% | 2,068,000 | 2,081,000 | F |
| 15 | TOKYO NATIONAL MUSEUM, TOKYO, JAPAN | -0.7% | 1,901,000 | 1,915,000 | P |
| 16 | SHANGHAI MUSEUM, SHANGHAI, CHINA | -2.4% | 1,877,000 | 1,924,000 | F |
| 17 | SUZHOU MUSEUM, SUZHOU, CHINA | 0.6% | 1,700,000 | 1,690,000 | F |
| 18 | SCIENCE CITY, KOLKATA, INDIA | 10.8% | 1,597,000 | 1,441,000 | P |
| 19 | GUANGDONG PROVINCE MUSEUM, GUANGZHOU, CHINA | 4.6% | 1,557,000 | 1,489,000 | F |
| 20 | NATIONAL PALACE MUSEUM OF KOREA, SEOUL, SOUTH KOREA | 40.6% | 1,513,000 | 1,076,000 | F |
| TO | P 20 TOTAL ATTENDANCE 2016 | | 59,396,000 | 57,182,000 | |
| TO | P 20 TOTAL ATTENDANCE 2015 | 3.1% | 59,396,000 | 57,615,000 | |



. Up to 2.5m . 2.5m–5.0m . 5.0m–7.5m

Circles represent size of attendance at ranked parks at the geography indicated. Slices within circles represent proportion of attendance at the geography from the ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.

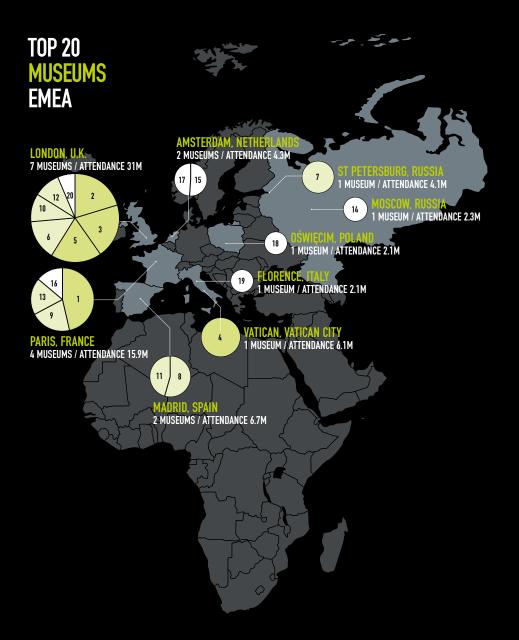
GROWTH 2012–16 2012–13 2013–14 2014–15 -0.4% 2015–16 3.1% -15 0 15 30

3.1%

Top 20 museums attendance growth Asia-Pacific 2015–16 59.4m

Top 20 museums Asia-Pacific attendance 2016 57.6m

Top 20 museums Asia-Pacific attendance 2015







. 2.5m–5.0m . 5.0m–7.5m

Circles represent size of attendance at ranked parks at the geography indicated. Slices within circles represent proportion of attendance at the geography from the ranked park indicated by number. Shading indicates attendance at the ranked park versus all other ranked parks.

CROWTH 2012–16

2012–13

2013–14

2014–15

2015–16

0.9%

-20

-10

0 10

0.9%

Top 20 museums attendance growth EMEA 2015–16 74.8m

Top 20 museums EMEA attendance 2016

74.1m

TEA THEMED ENTERTAINMENT ASSOCIATION

AECOM

Top 20 museums EMEA attendance 2015

ABOUT THE STUDY

Methodology and evolution of the TEA/AECOM Theme Index and Museum Index

This is the eleventh annual Theme Index and Museum Index collaboration between the Themed Entertainment Association (TEA) and AECOM, although the study itself has been in existence for much longer. The report has evolved over the years, starting as just a report on major U.S. theme parks, with additional regions (EMEA, Asia, Latin America) and attraction types (water parks, museums) added over time. The report represents a significant body of international research and annual tracking.

Inclusion in the annual Theme Index and Museum Index is now seen as a benchmark of success among operators, parks, and museums. Every year AECOM hears from parks and museums desiring to share their attendance increases and earn a place on the list. Those who believe their properties should be included in the report are encouraged to contact the AECOM office in their region, after studying the criteria for consideration given below. The more feedback and information we receive, the more accurate this report will become.

AECOM obtains the figures used to create the TEA/AECOM Theme Index and Museum Index through a variety of sources, including statistics furnished directly by the operators, historical numbers, financial reports, the investment banking community, local tourism organizations, and professional estimates where necessary. The global market is studied as a whole, and each of its main regions is also studied separately: the Americas, EMEA, and Asia.

For a theme park or water park to be included in the report, at a minimum the property must be gated (entry ticket required) and the park generally must be focused on the visitor experience. To be included in the top theme park groups list, an operator must have theme parks in its portfolio in which it has controlling ownership and or that are branded by the operator (i.e., licensed).

FREQUENTLY ASKED QUESTIONS

Why should parks share their numbers?

When operators share their information it is good for the industry. It ties directly into re-investing wisely in ways that bring in more attendance and more repeat visitation, driving revenue and profits. Tracking differences and fluctuations in attendance helps the industry recognize what drives changes in attendance. Knowing what works, what doesn't work — and where and why — allows operators to make wise investment decisions and to know what results can be expected. That's the heart of market and feasibility analysis.

Do some operators exaggerate in order to look more successful? What can you do about that?

Our role is to share what the industry operators say officially or, if that information is not provided, to share our best professional estimate. It's possible that some are overreporting their numbers. We can't control that. However, all of the major operators are publicly owned and therefore obliged to report total attendance and financial performance information at the corporate level, even if they don't break it down to the park level.

Over-reporting may get an operator temporarily higher on the list than its competitors, but it will cause problems, some in the near term and others down the road. In the near term, if attendance is up but revenues or profitability are not, it raises questions. In the longer term, eventually, they'll hit a point where the numbers are too far off to be believable. Misrepresenting also complicates the picture if the company eventually goes public, or is acquired or wants to sell off an individual property. Operators know this. Misreporting also raises false expectations. If you're trying to make an investment decision and forecast future performance, you need accurate information. If a property

is not investing in regular improvements, yet reports that numbers are stable or growing, the numbers are suspect. Moreover, it's not the kind of secret that can be kept for long. People move from one operator to another and they take that knowledge with them. Consultants are called upon to help interested parties evaluate ongoing operations as well as potential new investments and activities.

In other words, over-reporting will eventually come to a point of correction. Our advice is to trust the process.

How do you estimate figures for individual parks and museums that don't report them?

Fortunately, with more than 50-years experience working in the attractions industry, AECOM's Economics practice has a strong understanding of what drives performance at the park level and a robust process to estimate attendance where necessary. The following outlines our general process:

- We start by reviewing publicly available information about the performance of the multi-park/attraction operators and also the individual parks/museums. We also review information that we have collected as part of the previous year's report and throughout the year.
- Where park/museum-level information is missing, we then ask the multi-park operators and the individual parks/ museums to provide us with their attendance figures, and many of them do so directly.
- Where we do not receive specific park/ museum-level figures from the operator, we use a detailed methodology that considers the following: historic attendance trends at the park/museum; generally available

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information on the park/museum and/or operator; park/museum changes, such as new rides, areas, shows, exhibits, ticket prices, intellectual property connections, etc.; general economy of the nation and the specific metropolitan area; tourism trends nationally and in the metropolitan area; for parks, weather trends in the area, particularly during peak periods; the performance of nearby parks/museums and other attractions; media coverage about the operator/park/museum; and select factors as relevant.

- Park/museum operators are also given
 the opportunity to review and comment
 on AECOM's estimate before the Theme
 Index and Museum Index are finalized and
 published. Of those that don't provide
 official figures at the park/museum
 level, we generally receive some form of
 feedback regarding the individual parks/
 museums. Leadership at TEA (the Themed
 Entertainment Association, which publishes
 and helps edit the report) plays an important
 role here, encouraging responses.
- As the leading provider of business planning studies worldwide for attractions, our group also works frequently with all of the major operators, parks, and museums, providing us with the opportunity to periodically compare our estimates with actual exact figures. We use this to adjust our methodology where necessary.
- As part of our active work in these markets and our awareness of what drives performance and the macroeconomics of different countries, we visit the parks and museums, watching for new development and trends. We help to bring professional processes to the industry so that a higher level of quality can be transmitted from more developed markets into emerging markets. We frequently work for operators who are looking to enter the attractions business, or to grow or

improve their existing operations. We also team with attraction master planners and designers to help correctly position and right-size parks and museums to match their market potential and optimize their financial performance. In addition, we regularly speak at industry events, such as those sponsored by TEA, IAAPA, WWA, AAM, AZA, ULI, and many others, about industry trends, and also contribute to articles to industry publications and in more general media publications.

What causes wide swings in performance at parks and museums?

As can be seen from the process outlined above, there are a lot of factors affecting the performance of a park or museum, including past performance, new offerings, the economy, tourism, weather, media coverage, management, and more. Typically, large changes in attendance, up or down, are driven by major changes in one or more of these factors, with the relationship between the two frequently clear when examined in detail.

How is a water park defined for the purposes of the Theme Index?

A water park must have a minimum of three water slides / flumes, a wave pool, retail and food areas, and at least two of the following other elements: tube rides; free-form pool; lazy river; and kids water play area. In Asia and America, the water parks are defined as outdoor facilities.

Why aren't other attraction types included, such as zoos and aquariums, observation experiences, and sports and performance venues?

The report has evolved over the years, starting as just a report on major U.S. theme parks, with additional regions (EMEA, Asia, Latin America) and attraction types (water parks, museums) added over time. That said, we are indeed considering additional attraction types and will include these as interest is shown and resources allow.

TEA and AECOM express thanks to the numerous park and museum operators who graciously and generously furnished attendance information, enabling this report to be as complete and accurate as possible.

About AECOM

AECOM is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. A Fortune 500 firm, AECOM had revenue of approximately \$17.4 billion during fiscal year 2016.

See how we deliver what others can only imagine at aecom.com and @AECOM.

About TEA

The TEA (Themed Entertainment Association) is an international, nonprofit membership association founded in 1991 and based in Burbank, CA USA. TEA's 1,300+ member companies encompass some 10,000 creative specialists working in some 1,000 firms in 40 different countries. TEA presents the annual Thea Awards and the TEA Summit and hosts the annual SATE conference on Experience Design. TEA also produces a variety of print and electronic publications, and is pleased to collaborate with AECOM every year on the TEA/AECOM Theme Index and Museum Index. TEA has four regional Divisions serving the industry worldwide.

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