

The Impact of Cruise Ship Passengers in Maine: *The Example of Bar Harbor*

by Todd Gabe

Colleen Lynch

James McConnon



Maine's expanding cruise ship industry can provide local economic benefits and add to the state's already large tourism economy. The authors describe results of a survey they conducted among passengers from eight ship visits to Bar Harbor, a town that has emerged as a popular port-of-call on New England summer and autumn cruises. They found that cruise ship passengers have higher household incomes and spend substantially more per day than the typical Maine tourist. They make several suggestions for how ports can maximize the benefits from cruise ship passengers. These include using cruise ship visits to extend the local tourism season; converting "non-spending" passengers to "spenders"; implementing strategies to encourage and track return visits by passengers; and developing management plans to direct the flow of passengers through town. 🐚

INTRODUCTION

During its inaugural year in 2004, the Queen Mary II will make two one-day stops in Portland, Maine. As the world's largest luxury cruise liner, the Queen Mary II will bring passengers, publicity and economic activity to Portland, a city that saw an increase from 15 to 42 cruise ship visits between 1999 and 2002 (Associated Press 2003). Although on a smaller scale, a cruise ship industry also is developing in Bangor. Beginning in 2003, the American Eagle made Bangor its homeport. The American Eagle, with a capacity of 49 passengers and 19 crewmembers, is expected to generate between \$500,000 and \$750,000 in local sales revenue annually (Tuttle 2002). The cruise industries in Portland and Bangor are growing alongside the cities' waterfront commerce and redevelopment efforts. In 2002, Portland's marine economy (e.g., fishing, petroleum, and passenger trade) generated about \$750 million in local economic activity, compared to \$400 million in 1993 (Diesenhouse 2002). In Bangor, a \$183 million waterfront redevelopment project is currently in the planning stages (Tuttle 2002).

Even with their recent growth, the cruise ship industries in Portland and Bangor are relatively small compared to the industry in Bar Harbor. Given its small-town charm and close proximity to Acadia National Park, Bar Harbor has emerged as a popular port-of-call on New England summer and autumn cruises. Bar Harbor hosted 56 and 64 ship visits in 2001 and 2002, respectively, and 74 stops were scheduled for 2003 (Chapman 2002). The ships that docked in 2002 brought with them 97,190 passengers to explore the town and shop in local stores; together, they contributed an estimated \$12.1 million to the local economy (Gabe et al. 2003).

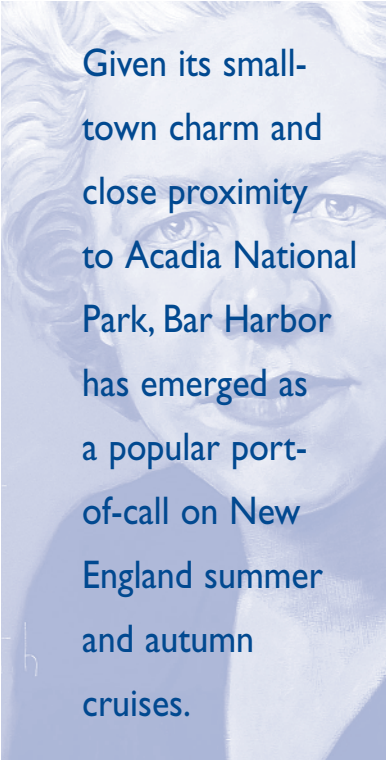
This article provides a close look at how these cruise ship passengers spent their time and money in Bar Harbor.¹ Policymakers, tourism promoters and local residents can use this information to assess the benefits of cruise ships to Maine ports. However, we should point out at the onset, we do not put a dollar value on the costs imposed by cruise ships from an increase in town congestion, disruption to working waterfronts,

and wastewater discharge from vessels entering Maine ports and traveling along Maine's coastline (Chapman 2002; Edgecomb 2004; Gabe et al. 2003; Maine Department of Environmental Protection 2004).

Instead, our analysis focuses on the local attractions that passengers visit during cruise-line sponsored tours and the parts of town that passengers explore on their own. We also examine the expenditures passengers make in local restaurants, bars and gift shops. Our findings suggest that passengers spend a good deal of money in port, but the majority of passengers generally do not venture beyond a small area of the downtown and a tour of Acadia National Park. Based on the information presented in this article, we offer some strategies for how Bar Harbor and other Maine cruise ship destinations can maximize the local benefits from the cruise ship industry. We leave it to future authors to discuss mitigation of the ongoing and serious issues associated with cruise ship visitations to Maine ports.

SURVEY INFORMATION AND PASSENGER DEMOGRAPHICS

The analysis presented in this article is based on passenger surveys from eight ship visits to Bar Harbor that occurred over seven days between August and October of 2002. We distributed mail surveys to 2,332 passengers from the Norwegian Sea and Norwegian Dream, which are a part of the Norwegian Cruise Lines fleet, the Princess Cruise Lines' Golden Princess and Royal Princess, and the Rotterdam, which is operated by Holland America Cruise Line. We received 1,080 returned surveys, which translates into an overall response rate of 46%. On average, the ships included in our study carried a



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larger number of passengers (close to 2,000 passengers) than the average cruise ship that docked in Bar Harbor during 2002 (about 1,500 passengers). Although our surveys were conducted in Bar Harbor, many of the cruise ships that visit Portland are comparable to those included in our analysis.

On average, cruise ship passengers appear to have higher household incomes than the typical Maine tourist. According to a Maine tourism study conducted by Longwoods International (2002), 40% of the visitors on “overnight marketable trips” to Maine have an annual household income of \$75,000 or higher, while 36% have an income of less than \$50,000. By comparison, close to 37% of the passengers surveyed in our study have an annual household income of over \$100,000; while only about 25% have an annual household income that is less than \$50,000. Cruise ship passengers are also considerably older and more likely to be female than the typical Maine tourist. The Longwoods study found that the average Maine tourist is close to 48 years old, and about 54% of Maine visitors are male. By comparison, we found that the average cruise ship passenger is about 60 years of age and roughly 70% are female.

...cruise ship passengers spend substantially more per day than the typical Maine tourist.

Bar Harbor’s cruise ship industry appears to expand the market for tourism in Maine. In general, Maine is known as a “drive market,” meaning the state typically draws visitors from areas within a one-day drive such as the New England states, New York, New Jersey, Pennsylvania, Maryland, Delaware and Washington, D.C. (Chapman 2003). The Longwoods tourism study found that 79% of the overnight trips to Maine had origins within this regional market. Comparatively, less than 35% of cruise ship respondents are from this area, and about 20% of the survey respondents are from the Pacific West region, which is well beyond Maine’s tourism market.

HOW DO PASSENGERS SPEND THEIR TIME?

The cruise ships included in the study arrived in Bar Harbor between 7 a.m. and noon, and left port between 3 p.m. and 7 p.m. On average, the ships were in port for about nine hours, with the Golden Princess spending 12 hours in Bar Harbor on September 18 and the ships of the Norwegian Cruise Line spending as few as seven hours in port. Survey respondents generally de-boarded the ship between 9:30 a.m. and noon and reboarded between 2:30 p.m. and 4:30 p.m. The average respondent spent just over five hours in Bar Harbor, and about two hours of this time was spent on a cruise-line sponsored tour. Just over 50% of the respondents felt that they needed additional time to see all they wanted in Bar Harbor.

Over one-half of the survey respondents took a tour sponsored by the cruise line while in port. About 78% of these tour-goers visited Acadia National Park, which was—by far—the most popular tour destination. Much smaller percentages of visitors walked around downtown Bar Harbor (16%), visited St. Saviour’s Episcopal Church (12%), and went on a whale-watching cruise (6%). Other sites and attractions seen on cruise-line sponsored tours include a lobstering demonstration, the ocean trail walk, historical homes and cottages in Bar Harbor, and the Reinhart Pavilion.

While not on tours, respondents occupied the rest of their time in port—about three-and-a-half hours—eating, shopping and exploring the downtown. However, information collected from the survey suggests that the majority of respondents stayed within a several block area of town that is close to the pier where tenders (i.e., smaller boats) brought the passengers from the ship. This part of Bar Harbor is primarily retail, and it hosts a variety of small shops and restaurants. Far fewer passengers indicated that they explored other areas of town.

HOW DO PASSENGERS SPEND THEIR MONEY?

We asked passengers to tell us about the types of purchases they made in Bar Harbor and how much money they spent. As shown in Table 1, the average respondent spent a total of \$105.82 while in

TABLE 1: Average Expenditures of Survey Respondents

	Food and Beverages	Drug and Beauty	Apparel	Household Items	Fine Art and Jewelry	Transportation	Tours	Rental Equipment	Other	Total
All Survey Respondents	\$20.51	\$1.39	\$22.96	\$7.43	\$16.47	\$1.61	\$25.62	\$0.35	\$9.48	\$105.82
"Spenders" *	\$28.36	\$9.46	\$45.53	\$40.37	\$96.59	\$41.93	\$39.69	\$36.70	\$29.93	NA

*The average expenditure figures of "spenders" are based on the respondents who reported positive amounts in the individual expenditure category. The number of respondents counted as "spenders" differs for each category. Therefore, it would be inappropriate to sum across the individual expenditure categories for the average "spender" to arrive at a total expenditure figure.

port, with a large amount of this money spent on food and beverages (\$20.51) and apparel items (\$22.96). On the other hand, the average respondent spent very little on transportation (\$1.61), drug and beauty items (\$1.39) and rental equipment (\$0.35).

When considering the individual categories in Table 1, it is informative to differentiate between "spenders," defined as passengers who reported positive expenditures in a given category, and the average survey respondent. For instance, respondents who bought fine art and jewelry reported average expenditures of close to \$97.00. On the other hand, the average respondent, which includes passengers who reported zero expenditures in the category, spent just under \$17.00 on fine art and jewelry. This information is interesting because it reveals the potential increased sales that could occur if "non-spenders" are converted into "spenders."²

Over half of the survey respondents took a cruise-line sponsored tour in Bar Harbor. Since the survey focused on expenditures made directly by passengers while in port, we did not collect information on the amounts paid to cruise lines for their tours. However, these tours provide revenue to some local businesses and attractions. In order to include the cruise-line sponsored tours in the overall passenger impact, we assumed that these tours cost \$39.69, which is the average amount a "spender" paid for a tour that was not sponsored by the cruise line. Using this amount as the price paid by the respondents who indicated they took a cruise-line sponsored tour, we find that the average passenger spent an estimated \$25.62 on tours.

On the basis of the expenditures made by the survey respondents, it appears that cruise ship passengers spend substantially more per day than the typical

Maine tourist. Cruise ship passengers spent over \$100.00 per day in Bar Harbor, including cruise-line sponsored tours, while the average Maine tourist spent less than \$40.00 per day (Longwoods International 2002). According to the Longwoods tourism study, 43 million tourist trips to Maine resulted in \$5.6 billion in direct expenditures in 2001. The retail sector accounted for 34% of tourism spending (\$1.9 billion) and food expenditures totaled 30% of the spending by Maine tourists (\$1.7 billion). With each trip made up of 3.4 people, the average tourist in Maine spent approximately \$38.30 per day, including \$13.00 on retail goods and \$11.50 on food.

Table 2 shows the estimated expenditures made by all cruise ship passengers in Bar Harbor during the 2002 season. These estimates are based on the total passenger capacity of the cruise ships that were scheduled to visit Bar Harbor in each month. Since some of the ships may have come to Bar Harbor with fewer

TABLE 2: Estimated Direct Expenditures Made by Cruise Ship Passengers, 2002

Month	Restaurants and Bars	Retail Stores	Other Businesses	Total
May	\$71,703	\$168,682	\$129,562	\$369,947
June	\$207,192	\$487,422	\$374,380	\$1,068,994
July	\$245,792	\$578,228	\$444,127	\$1,268,147
August	\$167,628	\$394,347	\$302,891	\$864,867
September	\$486,948	\$1,145,552	\$879,879	\$2,512,378
October	\$814,103	\$1,915,187	\$1,471,023	\$4,200,313
Total	\$1,993,366	\$4,689,418	\$3,601,862	\$10,284,646

passengers, these figures can be interpreted as an upper-bound estimate of passenger expenditures. Spending by ship personnel, however, may offset the diminished realized impact caused by ship vacancies and/or passengers who chose not to disembark in Bar Harbor.

Cruise ship passengers spent an estimated \$10.3 million in Bar Harbor, including \$2 million in restaurants and bars, and \$4.7 million in retail stores. Over \$4.2 million of the total estimated expenditures were made in October alone, when 20 ships and close to 40,000 passengers visited Bar Harbor. To put these figures into perspective, Bar Harbor's restaurants, bars and retail stores had a combined \$66.7 million in taxable sales during 2002 (Maine Revenue Services 2003).



An expanding cruise industry can provide local economic benefits and add to Maine's already large tourism economy,...

MAXIMIZING THE BENEFITS FROM CRUISE SHIP PASSENGERS

The information presented in this article presents a detailed picture of cruise ship passengers in Bar Harbor, which may be similar to the passengers who visit Portland on the same types of large passenger vessels. Individuals who visit Maine on cruise ships are older and have higher incomes than the typical Maine tourist, and they come to the state from areas outside of Maine's normal tourism market. During a five- to six-hour stay in port, the average passenger takes a tour and visits a few retail stores located near the pier. Including cruise-line sponsored tours, passengers spend about \$100 in port, which equates to about \$20 of expenditures per hour.

Based on the results from our study, we offer several strategies for how Maine ports can maximize the benefits from the cruise industry. First, ports can use cruise ship visits to extend local tourism seasons

beyond the traditional peak summer months. It appears that Bar Harbor has benefited from cruise ship visits during the "shoulder season" months of September and October. For example, over one-half of the ship visits to Bar Harbor in 2002 occurred in September (16 visits) and October (20 visits), and the expenditures by cruise ship passengers during these visits accounted for a sizable percentage of total local sales during this period (Gabe et al. 2003).

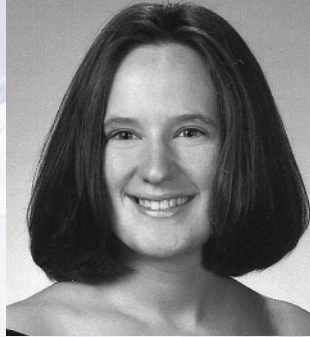
Second, local businesses can attempt to convert non-spenders into spenders. Although only 18% of the survey respondents purchased household items, these passengers spent an average of \$40.37 in Bar Harbor. Likewise, as indicated above, the respondents who purchased fine art and jewelry spent an average of \$96.59 in port. It is unrealistic to expect all passengers to make major purchases in Bar Harbor or other ports of call, but local businesses may be able to increase sales through additional marketing and by showcasing items desired by passengers. For example, 32 respondents indicated they would have liked to have purchased—but were unable to find—items by local artisans such as wooden products, jewelry and pottery. Similarly, 36 respondents would have liked to find a better selection of clothing, including "higher-quality" apparel such as sweaters, ties and clothing without a Bar Harbor logo.

Third, Maine's port towns can implement strategies to encourage and track return visits by cruise ship passengers. A day spent in port can showcase the town to thousands of potential repeat customers. Roughly three-quarters of the respondents indicated that their day in port was their first trip to Bar Harbor. Moreover, 33% of the total respondents indicated they were planning to return to Bar Harbor within the next two years, although it is not certain that all passengers will follow-up on their intentions. Local businesses could provide coupons to passengers, redeemable in future visits, which could encourage future visits and provide a convenient way to track the number of passengers who return to the area.

Finally, ports can develop management plans to direct the flow of passengers through town. As discussed in this article, the majority of cruise ship passengers in Bar Harbor explored a limited area of



Todd Gabe is an assistant professor in the Department of Resource Economics and Policy at the University of Maine. His research focuses on aspects of firm location, business growth and investment. He teaches courses in land use planning and local economic development.



Colleen Lynch is a master's student at the University of Maine studying community economic development. She received her B.S. in environmental management and policy from the University of Maine in 2002. Colleen is originally from Methuen, Massachusetts.



James C. McConnon, Jr. is a University of Maine Cooperative Extension business and economics specialist and associate professor of resource economics and policy at the University of Maine. His areas of specialization include small business management, entrepreneurship, and retail trade. He currently serves on the advisory board of the Maine Entrepreneurship Working Group.

town located near the pier. Passenger management plans could be used to either keep passengers confined to a small area (as is the case in Bar Harbor) or encourage exploration of a larger area of town. The first part of the plan would be to designate the areas of town where businesses, residents and town officials believe passengers should be encouraged to explore. Once these areas are designated, the town can use a combination of attractive signs, "official" walking tours, information kiosks and public transportation to lead cruise ship passengers through town. Although this type of management plan is not meant to confine passengers to certain parts of town, it could be used to guide passengers and, if needed, relieve congestion in some areas.

In summary, the number of cruise ships visiting Maine ports has increased steadily in recent years. An expanding cruise industry can provide local economic

benefits and add to Maine's already large tourism economy, which generated \$344 million in tax revenue, paid \$2.5 billion in wages and salaries, and supported 115,000 jobs in 2001 (Longwoods International 2002). However, an increase in cruise traffic could also lead to local congestion, disrupt Maine's working ports, and adversely affect water quality both in the ports and along the coast. Towns that host cruise ships should develop and implement proactive passenger management strategies in order to maximize the benefits—and decrease the costs—associated with this increasing and important sector of the Maine economy. 🐟

Please turn the page for article endnotes and references.

ENDNOTES

1. The findings reported in this article are part of a study conducted by the University of Maine Cooperative Extension, the University of Maine Department of Resource Economics and Policy, the Margaret Chase Smith Center for Public Policy, and the Maine Agricultural and Forest Experiment Station. Surveys were conducted in cooperation with the Bar Harbor Chamber of Commerce. MAFES external publication 2669.
2. The spender information should be interpreted with some caution. For example, since over 99% of all respondents reported zero expenditures on rental equipment, the average expenditure made by spenders is based on a very small number of respondents. Further, over 80% of the respondents reported zero expenditures on drug and beauty items, household items, fine art and jewelry, transportation and independent tours.

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