

MAINE MUSEUMS

AN ECONOMIC IMPACT STUDY

PREPARED FOR THE MAINE ARTS COMMISSION BY CHUCK LAWTON AND LINDSAY ROWE



Participating Maine Museums:

<u>MUSEUM (LOCATION)</u>	<u>ABBREVIATED NAME OF MUSEUM</u>
Abbe Museum (Bar Harbor)	Abbe
Bates College Museum of Art (Lewiston)	Bates
Bowdoin College Museum of Art (Brunswick)	Bowdoin
Colby College Museum of Art (Waterville)	Colby
Farnsworth Art Museum (Rockland)	Farnsworth
Institute of Contemporary Art at Maine College of Art (Portland)	ICA
Maine Maritime Museum (Bath)	Maine Maritime
Maine State Museum (Augusta)	Maine State
Monhegan Museum (Monhegan)	Monhegan
Ogunquit Museum of American Art (Ogunquit)	Ogunquit
Portland Museum of Art (Portland)	PMA
Tides Institute and Museum of Art (Eastport)	Tides
University of Maine Museum of Art (Bangor)	UMMA
University of New England Art Gallery (Portland)	UNE

The Maine Arts Commission thanks these museums for their participation in this survey.

Executive Summary

The purpose of this survey was to investigate the economic impact of Maine's museums. A visitor survey was conducted during the summer of 2009 at 14 museums. The sites were selected based on their diversity in terms of size, subject matter of exhibitions and collections, and location.

Results from the survey show that, in 2009, approximately 442,000 visitors to the 14 participating museums spent nearly \$71 million. Using current multiplier modeling programs, it is estimated that the direct spending of these museum visitors creates a sales impact totaling nearly \$148 million. This spending generates tax revenues for state and local government of more than \$7.5 million.

The survey results identify characteristics of museum visitors including place of residence, primary reason for their trip, mode of transportation and how much money they spent during their trip in terms of lodging, food, transportation, shopping and recreation.

According to the survey results, visitors are most likely to:

- reside in a state other than Maine
- identify the primary purpose of their trip as vacation
- use their own car to arrive in the area
- stay overnight at a hotel or bed & breakfast

Maine museums are also significant tourism drivers. According to the survey, one in five visitors identified the museum visit as the primary reason for their trip and the spending associated with their trip.

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Although the general spending patterns vary by museum, the survey results show that the average:

- overnight museum visitor spends \$243 per day (double that of overnight visitors who came to Maine for "leisure" purposes [\$104 per day*])
- overnight museum visitor spends nearly three times that of overnight visitors who came to Maine to visit friends and family (\$89 per day*)
- day trip museum visitor spends \$92 per day

It is important to keep in mind that these results reflect only the 14 museums participating in the study and do not account for the hundreds of millions of additional dollars resulting from the direct and indirect impact of visitor spending generated by the hundreds of other museums in the state.

* When compared with the Maine Office of Tourism *Visitor Tracking Research 2008 Annual Report*.

Introduction: Maine's Museums and Their Economic Impact

People visit Maine's museums for many reasons: to sample the state's artistic output, to learn about its history or natural environment, to see a special exhibit, to entertain visiting family or friends, or to deepen their own aesthetic development. For these and other reasons, Maine's museums constitute a central pillar of the state's cultural wealth. Without museums, the people of Maine—residents and visitors alike—would be profoundly impoverished, as would the state's economy.

Maine's museums are substantial economic enterprises and drivers. They employ hundreds of people; maintain millions of dollars of buildings and equipment; and collect, preserve, protect, and display a priceless and ever-changing stock of cultural artifacts. They provide millions of dollars of sales to the Maine businesses that clean their spaces, plow their parking lots, maintain and repair their equipment, advertise their exhibits and shows, handle their banking and provide the hundreds of other services museums require to run their operations. Finally, and most importantly, each year they attract hundreds of thousands of visitors, who stay in local hotels, motels and bed & breakfasts, and spend money in local stores and restaurants. These visitors have a substantial economic impact throughout the state.

The purpose of this report is to quantify that impact. The report is presented in four sections. The first section summarizes the number of days the 14 Maine museums participating in this study are open per year, as well as the number of visitors and their distribution over the summer and winter season. The second section analyzes survey results to show visitors' place of residence, primary reason for the trip, mode of transport and how long they stayed. The third section analyzes survey results to show how much money these visitors spent as part of their trip that included a museum visit and what the economic impact of this spending was on the state's economy. Finally, the report contains appendices that provide an explanation of how the results were tabulated and analyzed, information about each of the 14 participating museums and a copy of the survey questionnaire distributed at each museum.

1. The Number of Visitors to Participating Maine Museums

Table 1 presents a list of the estimated number of people who visited the 14 participating Maine museums in 2009.

Table 1: No. of Visitors to Participating Maine Museums in 2009

MUSEUM	Municipality	Annual Visitors
Abbe Museum	Bar Harbor	24,000
Bates College Museum of Art	Lewiston	11,757
Bowdoin College Museum of Art	Brunswick	20,000
Colby College Museum of Art	Waterville	20,000
Farnsworth Art Museum	Rockland	60,000
Institute of Contemporary Art	Portland	16,300
Maine Maritime Museum	Bath	45,000
Maine State Museum	Augusta	54,500
Monhegan Museum	Monhegan	5,500
Ogunquit Museum of American Art	Ogunquit	16,000
Portland Museum of Art	Portland	150,000
Tides Institute and Museum of Art	Eastport	3,000
University of Maine Museum of Art	Bangor	6,600
University of New England Art Gallery	Portland	9,000
Total		441,657

Source: Maine Arts Commission.

The most striking finding evident in Table 1 is the importance of the Portland Museum of Art. While it accounts for only 10% of all the days available for visitation, it accounts for 34% of all visits. This finding must be kept in mind in any examination of the patterns and impacts of museum visitation.

Table 2 summarizes the seasonal pattern of visitation for the participating museums.

Table 2: No. of Visitors to Participating Maine Museums in 2009

MUSEUM	Days Open Summer	Days Open Winter	Visitors per Day Summer	Visitors per Day Winter
Abbe	153	69	67	58
Bates	97	129	57	47
Bowdoin	130	170	128	92
Colby	120	178	108	67
Farnsworth	151	156	325	109
ICA	79	105	61	110
Maine Maritime	153	209	216	60
Maine State	108	137	250	193
Monhegan	99	0	51	0
Ogunquit	123	0	130	0
PMA	151	180	505	390
Tides	75	45	33	11
UMMA	113	151	33	25
UNE	96	133	44	36
Totals/Averages	1,648	1,662	143	86
Weighted Averages			162	111

Source: Maine Arts Commission. Summer = June through October; Winter = November through May. Seasonal variation for UNE estimated using seasonal ratio for Bates.

The number of visitors per day to the state's museums is much higher in the summer (June to October) season than in the winter season, even though the total number of days open for visitation is nearly equal in both seasons. This is not surprising given Maine's summer-oriented seasonal pattern of visitation. This trend is further affected by the fact that two museums (Monhegan and Ogunquit) are open only during the summer season.

A second important fact evident in Table 2 is the wide variation in visits per day. In the summer season, they range from 33 per day for Tides and UMMA to more than 500 per day for the PMA. In the winter season, they vary from 11 per day at Tides to nearly 400 per day at the PMA.

The significance of the PMA is again evident in the average visitation data. The average of the averages is 143 visitors per day for the summer season. The overall weighted average (total visits divided by total days open) is 162 visitors per day. This figure reflects the greater "weight" of the PMA. While both figures are useful, it is important to keep the distinction in mind in evaluating the impact data that follows.

2. Where Do Museum Visitors Come From? Why Do They Come? How Do They Get Here? Where Do They Stay?

Table 3 presents the place of residence of museum visitors. Visitors were divided into five categories based on the home zip code that they listed on their survey: local Maine residents (who reside within a 50-mile radius of the museum), non-local Maine residents (who do not reside within a 50-mile radius of the museum), seasonal Maine residents who reside outside of Maine but maintain a residence in Maine and reside there for part of the year, visitors from other states and visitors from other countries.

Table 3: Visitor Origin

MUSEUM	Local Residents (50-Mile Radius)	Non-local Maine Residents	Seasonal Maine Residents	U.S. Residents Outside of Maine	International Residents
Abbe	6%	12%	12%	65%	5%
Bates	41%	9%	16%	34%	0%
Bowdoin	17%	1%	16%	65%	1%
Colby	30%	12%	14%	44%	0%
Farnsworth	9%	8%	14%	67%	2%
ICA	56%	5%	2%	34%	3%
Maine Maritime	7%	2%	7%	78%	6%
Maine State	38%	6%	13%	41%	2%
Monhegan	8%	11%	19%	60%	2%
Ogunquit	9%	3%	7%	77%	4%
PMA	13%	4%	11%	70%	2%
Tides	8%	24%	15%	45%	8%
UMMA	49%	12%	10%	24%	5%
UNE	87%	0%	0%	13%	0%
Averages	27%	8%	11%	51%	3%
Weighted Averages	19%	7%	11%	60%	3%

Source: Maine Arts Commission.

Table 3 indicates that residents of the United States from outside of Maine comprise the largest group of visitors for most museums. This is true of all museums except for Bates, ICA, UMMA and UNE, where the largest group of visitors is local Maine residents (people residing within a 50-mile radius of the museum). Overall, the percentages of non-local Maine residents as well as seasonal Maine residents are much lower than local Maine residents and people from other states. This finding shows that, when considering museum visitation in the state of Maine, Maine residents are most likely to visit museums within a 50-mile radius of their residence. However, when considering local residents, non-local Maine residents and seasonal Maine residents as a single group, people residing in Maine at the time of their museum visit make up almost half of all museum visitors. For all museums, the lowest percentage of visitors is international visitors. Of the international visitors, 51% were from Canada, 39% were from Europe and 10% were from other countries.

Table 4 presents the visitor's primary reason for taking the trip.

Table 4: Primary Reason for Trip

MUSEUM	Museum Visit	Vacation	Visit Friends/Family	Personal Business	Business	Combo Personal/Business	Other
Abbe	3%	76%	10%	1%	1%	4%	4%
Bates	21%	29%	13%	5%	5%	8%	18%
Bowdoin	16%	47%	22%	1%	4%	6%	3%
Colby	34%	26%	11%	0%	3%	6%	19%
Farnsworth	28%	51%	15%	1%	0%	2%	3%
ICA	12%	29%	22%	1%	7%	12%	17%
Maine Maritime	18%	61%	12%	4%	1%	0%	4%
Maine State	33%	36%	20%	4%	2%	2%	3%
Monhegan	6%	69%	9%	0%	0%	4%	12%
Ogunquit	22%	57%	12%	1%	1%	2%	5%
PMA	25%	50%	14%	3%	2%	3%	5%
Tides	11%	58%	14%	1%	0%	8%	8%
UMMA	11%	37%	21%	5%	6%	11%	9%
UNE	25%	0%	50%	0%	25%	0%	0%
Averages	19%	45%	18%	2%	4%	5%	8%
Weighted Averages	21%	52%	14%	2%	2%	3%	6%

Source: Maine Arts Commission.

While nearly half of all respondents listed their primary reason for making the trip as vacation, the second most common primary reason for the trip was to visit a specific museum. Museums were the primary reason that 1 in 5 museum visitors decided to travel to (and spend money on food and/or lodging in) a particular area. This finding further reinforces the importance of museums not only as pillars of cultural wealth but also as significant economic and strong tourism drivers in their local communities as well as for the entire state.

Table 5 presents the means of transportation that museum visitors used to arrive in the area.

Table 5: Mode of Transportation

MUSEUM	Own Car	Bus	Airplane	Rental Car	Train	Other
Abbe	58%	21%	7%	0%	7%	7%
Bates	97%	0%	3%	0%	0%	0%
Bowdoin	56%	27%	7%	6%	1%	3%
Colby	80%	9%	0%	0%	2%	9%
Farnsworth	65%	20%	1%	1%	9%	4%
ICA	55%	6%	2%	2%	13%	23%
Maine Maritime	64%	21%	1%	1%	9%	4%
Maine State	67%	17%	3%	0%	7%	6%
Monhegan	44%	10%	2%	0%	11%	34%
Ogunquit	84%	7%	1%	1%	6%	2%
PMA	65%	14%	2%	2%	12%	5%
Tides	77%	10%	0%	0%	9%	4%
UMMA	72%	8%	4%	0%	11%	4%
UNE	86%	0%	0%	0%	14%	0%
Averages	69%	12%	2%	1%	8%	8%
Weighted Averages	66%	14%	2%	1%	9%	7%

Source: Maine Arts Commission.

For all museums, respondents overwhelmingly reported using their own cars to get to the area, which means a considerable amount of money was spent at local gas stations and on highway tolls. Many of the 7% of respondents who reported that they used “other” means of transportation explained that they arrived in the area on a cruise ship or personal boat.

Table 6 presents the type of lodging that visitors utilized.

Table 6: Type of Accommodations for Overnight Visitors

MUSEUM	Home of Friends/Family	Hotel/Motel	Inn/Bed & Breakfast	Condo/Timeshare	Seasonal Home	Campground	Other
Abbe	11%	37%	16%	1%	9%	15%	11%
Bates	26%	43%	4%	4%	9%	4%	9%
Bowdoin	29%	22%	10%	2%	12%	3%	22%
Colby	36%	30%	9%	0%	6%	6%	12%
Farnsworth	23%	22%	23%	2%	9%	2%	18%
ICA	43%	32%	3%	0%	4%	0%	19%
Maine Maritime	17%	37%	17%	2%	6%	8%	14%
Maine State	40%	22%	5%	3%	14%	9%	8%
Monhegan	13%	21%	34%	1%	13%	2%	15%
Ogunquit	19%	38%	19%	6%	5%	3%	9%
PMA	19%	46%	13%	2%	9%	2%	9%
Tides	32%	13%	13%	0%	11%	13%	18%
UMMA	39%	30%	5%	1%	10%	6%	8%
UNE	50%	50%	0%	0%	0%	0%	0%
Averages	28%	32%	12%	2%	8%	5%	12%
Weighted Averages	22%	34%	16%	2%	9%	5%	12%

Source: Maine Arts Commission.

Roughly 50% of all respondents who stayed overnight reported that they stayed in either a hotel/motel or bed & breakfast/inn. This finding is significant because it means that 50% of overnight visitors to the 14 participating museums spent a considerable amount of money on accommodations. Seasonal Maine residents accounted for almost 10% of visitors while roughly 25% of the respondents stayed at the homes of family or friends. Most respondents who listed their type of lodging as "other," explained that they stayed in a rented house/cabin/cottage or on a boat.

3. The Economic Impact of Visitors to Maine's Museums

To set this report into a familiar context for those in the Maine tourism industry and to be able to compare the spending patterns of museum visitors to those of other visitors to Maine, this report follows the format presented in the Maine Office of Tourism's (MOT) survey of visitor spending.¹ That format gathers spending data for an entire party of visitors (be it a single individual or a group tour), asks the length (number of days) of the visit and calculates spending per visitor per day. In addition, as in the MOT report, this report distinguishes between the spending of parties that pay for lodging to stay one or more nights in Maine and the spending of parties that do not pay for lodging.²

However, unlike the MOT report, this report calculates and reports on the indirect (or multiplier) effects of visitor spending. This section therefore is divided into three parts—spending by visitors who pay for overnight accommodations, spending by visitors who do not pay for overnight accommodations and indirect impacts of visitor spending.



Photo by Sandy Agrafiotis, courtesy of the Ogunquit Museum of American Art.

¹ See Maine Office of Tourism *Visitor Tracking Research 2008 Annual Report*.

² In the case of this survey, those not paying for lodging are not necessarily "day-trippers." Responses to this survey included those who stayed in seasonal homes, stayed with family or friends, stayed on a boat or were part of a cruise. For survey respondents who cited these accommodation choices and listed other spending as well as number of days of trip and number of people in the party, we calculated non-lodging spending per visitor per day and included these data with those who did stay only one day.

a. *Spending by visitors who pay for overnight accommodations.*

Table 7 lists the average spending per day by museum visitors who, as part of the trip that included visiting a museum, paid for overnight accommodations. It also compares that spending pattern to those of “overnight travel” visitors as reported in the MOT survey.

Table 7: Spending per Overnight Visitor per Day by Category of Spending

MUSEUM	Lodging	Food & Beverages	Transport	Shopping	Recreation	Total
Abbe	\$117	\$55	\$27	\$38	\$26	\$263
Bates	\$41	\$19	\$12	\$2	\$3	\$77
Bowdoin	\$137	\$68	\$31	\$22	\$23	\$281
Colby	\$77	\$40	\$35	\$20	\$6	\$178
Farnsworth	\$147	\$59	\$22	\$29	\$15	\$272
ICA	\$80	\$30	\$21	\$16	\$6	\$153
Maine Maritime	\$129	\$45	\$39	\$24	\$16	\$253
Maine State	\$112	\$55	\$13	\$46	\$30	\$256
Monhegan	\$197	\$58	\$32	\$22	\$13	\$322
Ogunquit	\$169	\$66	\$24	\$45	\$15	\$319
PMA	\$102	\$44	\$25	\$23	\$13	\$207
Tides	\$80	\$38	\$17	\$17	\$7	\$159
UMMA	\$65	\$31	\$43	\$14	\$8	\$161
UNE	\$16	\$0	\$5	\$16	\$16	\$53
Museum Visitor	\$125	\$50	\$27	\$26	\$15	\$243
Leisure Tourist	\$38	\$25	\$14	\$21	\$5	\$104
Family/Friends Tourist	\$25	\$23	\$17	\$20	\$6	\$89

The most striking finding evident in Table 7 is the level of spending by museum visitors who stay overnight. Their total spending (\$243 per day) is nearly double that reported by general overnight visitors coming to Maine for “leisure” purposes (\$104 per day) and nearly three times the level spent by overnight visitors coming to Maine to visit friends and family (\$89). Clearly, the people who visit Maine’s museums are ideal tourists for Maine shopkeepers, innkeepers, restaurant owners and other local businesses.

A second striking fact revealed by this data is the differences in level of spending by museum. Average spending per visitor per day ranges from a low of \$53 for UNE to a high of \$322 for Monhegan. Clearly this high total reflects the cost of getting to and staying on Monhegan Island, but spending by those visiting Ogunquit is hardly lower at \$319.

Similarly high variations in spending for food and beverages and for shopping indicate that there are significant differences either between the types of visitors at various museums or between the shopping and eating choices available to them. This finding points to a need for integration of museum programs with local businesses.

b. *Spending by visitors who do not pay for overnight accommodations.*

Table 8 lists the average spending per day by visitors to the participating museums who did not pay for overnight accommodations and compares that spending pattern to those of “day travel” visitors as reported in the MOT survey.

Table 8: Spending per Day Visitor per Day by Category of Spending

MUSEUM	Food & Beverages	Transport	Shopping	Recreation	Total
Abbe	\$41	\$37	\$8	\$10	\$96
Bates	\$28	\$12	\$15	\$5	\$60
Bowdoin	\$10	\$4	\$9	\$4	\$27
Colby	\$38	\$5	\$14	\$6	\$63
Farnsworth	\$44	\$13	\$28	\$10	\$95
ICA	\$39	\$18	\$16	\$11	\$84
Maine Maritime	\$59	\$18	\$31	\$21	\$129
Maine State	\$30	\$21	\$20	\$8	\$79
Monhegan	\$28	\$10	\$6	\$4	\$48
Ogunquit	\$66	\$10	\$43	\$25	\$144
PMA	\$44	\$13	\$28	\$10	\$95
Tides	\$44	\$9	\$12	\$10	\$75
UMMA	\$39	\$26	\$28	\$14	\$107
UNE	\$30	\$4	\$27	\$18	\$79
Museum Visitor	\$42	\$17	\$22	\$10	\$92
Leisure Tourist	\$28	\$22	\$44	\$9	\$103
Family/Friends Tourist	\$23	\$23	\$24	\$5	\$75

The MOT report distinguishes between visitors coming to Maine for leisure and those coming to visit family and friends. Their spending patterns are listed in the last two rows of Table 8. It is interesting to note that museum day visitors spend more than tourists visiting family and friends but less than leisure tourists. This difference is the result of the fact that museum visitors tend to spend:

- substantially more on food and beverages than both leisure and family/friends tourists
- substantially less on transportation than both leisure and family/friends tourists
- substantially less on shopping than leisure tourists

This distinction points to an opportunity for museum shops or perhaps for retail-museum commercial partnerships. In any case, the topic deserves further investigation.

It is important to consider that both local (residing within a 50-mile radius of the museum) and non-local Maine residents who visited the museum and listed spending were considered day visitors for the purposes of this survey, while the MOT report was based solely on tourist spending. This could

account for the discrepancy between amounts spent by museum visitors and leisure tourists in Table 8 because tourists typically spend more money on day trips than Maine residents.

The other interesting finding evident in Table 8 is the variation in spending among museums. Visitors to Ogunquit, Maine Maritime and UMMA spend well above the all-museum average, while visitors to the Bowdoin, Bates, Colby and UNE spend well below the all-museum average. These facts point to opportunities in some communities to enhance the economic impact of local museums and indicate the value in continuing to investigate the relationship between museum visitation and community economic development.



Photo courtesy of the Portland Museum of Art.

c. Indirect impacts of visitor spending.

It is possible to estimate the total spending associated with museum visitation by multiplying the average spending patterns of museum visitors by the number of visitors and the division of those visitors between overnight and day visitors. Table 9 summarizes the values needed for these calculations as drawn from the visitor survey.

Table 9: Indices of Visitor Spending by Museum

MUSEUM	Average Spending per Visitor per Day				Annual Visitors	Estimated Total Spending
	Overnight Visitors	Daily Visitors	% Overnight	% Daily		
Abbe	\$262	\$96	75%	25%	24,000	\$5,284,392
Bates	\$78	\$60	35%	65%	11,757	\$781,160
Bowdoin	\$281	\$27	38%	62%	20,000	\$2,476,262
Colby	\$178	\$62	28%	72%	20,000	\$1,897,937
Farnsworth	\$271	\$104	55%	45%	60,000	\$11,760,293
ICA	\$152	\$84	17%	83%	16,300	\$1,561,120
Maine Maritime	\$253	\$130	72%	28%	45,000	\$9,817,746
Maine State	\$256	\$87	27%	73%	54,500	\$7,208,106
Monhegan	\$321	\$48	75%	25%	5,500	\$1,396,062
Ogunquit	\$319	\$146	55%	45%	16,000	\$3,850,278
PMA	\$207	\$95	52%	48%	150,000	\$22,983,262
Tides	\$160	\$79	45%	55%	3,000	\$344,971
UMMA	\$161	\$107	23%	77%	6,600	\$789,105
UNE	\$54	\$79	13%	88%	9,000	\$682,070
All Museums	\$243	\$92	50%	50%	441,657	\$70,832,764

The total spending in Maine of visitors to the 14 participating Maine museums in 2009 amounted to nearly \$71 million. Totals associated with individual museums vary widely both because of the wide variation in overnight versus day visitors among museums and because of the variation in general spending patterns by museum.

Table 10 presents totals by general spending category.

Table 10: Visitor Spending by Product Category and Museum

MUSEUM	Lodging	Food & Beverages	Transport	Shopping	Recreation
Abbe	\$1,761,238	\$1,392,530	\$924,424	\$677,008	\$529,192
Bates	\$146,264	\$303,836	\$143,838	\$131,417	\$55,805
Bowdoin	\$451,706	\$796,611	\$348,322	\$600,035	\$279,588
Colby	\$230,270	\$946,517	\$207,472	\$355,066	\$158,612
Farnsworth	\$3,491,925	\$3,762,669	\$1,784,681	\$1,911,887	\$809,131
ICA	\$140,609	\$657,983	\$309,360	\$271,501	\$181,667
Maine Maritime	\$3,583,625	\$2,519,691	\$1,478,584	\$1,337,686	\$898,160
Maine State	\$913,033	\$2,415,827	\$1,467,961	\$1,664,718	\$746,567
Monhegan	\$643,603	\$393,832	\$175,986	\$112,503	\$70,138
Ogunquit	\$1,124,684	\$1,230,656	\$274,640	\$820,565	\$399,733
PMA	\$5,883,774	\$7,639,875	\$2,906,564	\$4,634,748	\$1,918,301
Tides	\$78,850	\$147,731	\$39,399	\$47,786	\$31,205
UMMA	\$74,187	\$255,136	\$194,761	\$177,665	\$87,356
UNE	\$25,836	\$227,048	\$40,186	\$228,016	\$160,984
All Museums	\$18,549,604	\$22,689,942	\$10,296,178	\$12,970,601	\$6,326,439

While the business sales and jobs resulting directly from the visitor spending are substantial, they fall short of telling the entire story of the economic impact that museum visitation has on the state. In addition to its direct impact, visitor spending sets in motion a flow of indirect impacts across the state. The motels, gas stations, retail shops and restaurants that serve visitors pay their employees and suppliers, channeling visitor money through all the Maine businesses that supply tourist-oriented stores.

At the same time, the owners and employees of all these tourist businesses and their suppliers spend their wages on groceries, rent, home mortgages, health care, travel, entertainment and the other consumer goods and services that they buy. This spending becomes sales revenue to scores of other Maine businesses. These consumer-oriented businesses pay their vendors and employees, thus spreading the ripples of the economic impact of museum visitors still further across the state.

To measure indirect multiplier effects, the Maine Arts Commission used the IMPLAN³ (Impact analysis for PLANning) model of the Maine economy.

³ IMPLAN is a computer based input-output modeling program originally developed by the U.S. Department of Agriculture, Forest Service for resource management planning. It contains a mathematical representation of the purchasing patterns that take place between sectors of an economy. Built into the IMPLAN data files are all of the industry sales, employment and income data for each sector of the Maine economy. IMPLAN uses these data along with national purchasing patterns (national input-output matrices) to create regional models.

Table 11 lists the indirect multiplier effects.

Table 11: Economic Impact of Museum Visitors

Activity	Sales	Jobs	Payroll
Direct Impact	\$70,800,000	1,300	\$30,200,000
Indirect Impact	\$16,600,000	160	\$5,900,000
Induced Impact	\$60,400,000	660	\$26,000,000
Total Impact	\$147,800,000	2,120	\$62,100,000
Multiplier	2.1	1.6	2.1

Source: Maine Arts Commission Survey Data and IMPLAN Pro economic model of Maine.

Based on current average employment and payroll data for the tourist industries patronized by museum visitors, the nearly \$71 million resulting directly from museum visitor spending supports approximately 1,300 jobs earning slightly more than \$30 million in total income.

This spending supports another nearly \$17 million in sales to Maine businesses supplying tourist businesses. These sales support another 160 jobs earning nearly \$6 million in total income.

These direct and indirect sales, in turn, lead to sales of more than \$60 million for the consumer oriented Maine businesses where the employees of both the direct tourist-oriented businesses and their suppliers spend their incomes. These sales support approximately 660 jobs earning total income of \$26 million.

In short, when cycled through successive rounds of spending through the supply chain and through the consumer spending of employees of these commercially linked businesses, the direct spending of approximately \$71 million by museum visitors creates a total sales impact of nearly \$148 million, indicating a sales impact of 2.1. This \$148 million in sales supports more than 2,100 jobs earning total income of more than \$62 million.

Finally, these sales and the income they generate produce tax revenues for Maine state and local government of more than \$7.5 million. Table 12 lists these totals.

Table 12: Tax Revenue Generated by Economic Impact of Museum Visitors

Tax Category	Amount
State Government	\$4,800,000
Income Taxes	\$2,110,000
General Sales Taxes	\$1,420,000
Selective Sales Taxes	\$860,000
Licenses & Other Taxes	\$470,000
Local Government	\$2,750,000
Property Taxes	\$2,720,000
Excise & Other Taxes	\$30,000
Total Tax Revenue	\$7,550,000

4. Appendices

Appendix I: The Museum Visitation Survey, 2009

To estimate the economic impact of visitors to Maine's museums, the Maine Arts Commission conducted a museum visitation survey.⁴ Fourteen Maine museums were selected to participate in this study based on their diversity in terms of size, subject matter of exhibitions and collections, and location. The survey was conducted between July 20 and September 20, 2009. During this period, museum staff asked all visitors to fill out one survey per party. Visitor participation was voluntary.

Table A1 shows the number of surveys that were returned to the Maine Arts Commission by each of the participating museums as well as the number of useable responses for purpose of analysis.

Table A1: List of Useable Survey Responses by Museum & Purpose

MUSEUM	Responses Received	Useable for Visitor Origin	Useable for Overnight Spending	Useable for Day Trip Spending
Abbe	138	136	92	31
Bates	46	44	13	24
Bowdoin	82	81	29	47
Colby	75	74	16	41
Farnsworth	377	376	181	149
ICA	127	126	17	82
Maine Maritime	184	184	104	41
Maine State	128	126	28	76
Monhegan	169	169	110	36
Ogunquit	216	215	104	86
PMA	888	882	414	382
Tides	85	85	33	41
UMMA	263	260	46	152
UNE	16	16	1	7
Totals	2,794	2,774	1,188	1,195

Although 2,794 surveys were returned to the Maine Arts Commission, only those surveys that included zip codes were considered useable for the visitor origin analysis (2,774 surveys). Only those surveys that included the number of people in the party, the number of nights spent in the area and spending on lodging were considered useable for the overnight spending analysis (1,188 surveys). It was assumed that surveys that included the number of people in the party and spending but did not include the number of nights spent in the area, type of lodging and money spent on lodging, reflected day trips to the area. Both these surveys and surveys that listed zero nights in the area and included the number of people in the party and at least one spending category amount were considered useable for daytrip spending analysis (1,195 surveys).

⁴ A sample of the survey is included as Appendix III at the end of this report.

Appendix II: Profiles of Participating Museums



Photo courtesy of Maine Maritime Museum.



Abbe Museum

22 Mount Desert Street

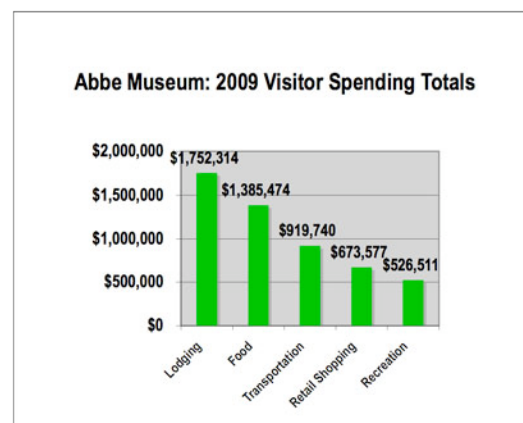
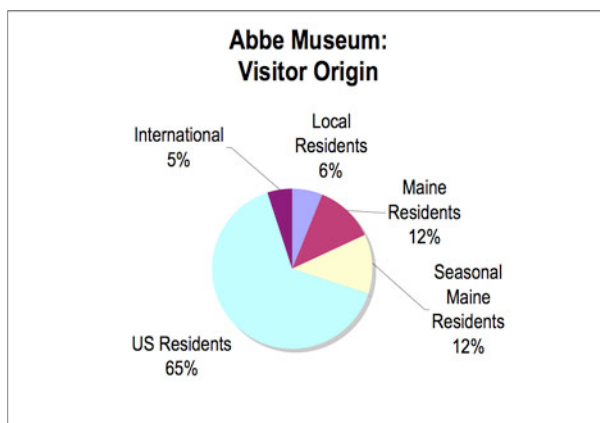
Bar Harbor

207/277-3519

www.abbemuseum.org

Photo courtesy of the Abbe Museum.

The mission of the Abbe Museum is to inspire new learning about the Wabanaki Nations with every visit. The Abbe offers innovative exhibitions and programs on Maine's Native American heritage at its trailside museum at Sieur de Monts Spring in Acadia National Park, and contemporary museum in the heart of downtown Bar Harbor. Visitors find dynamic and stimulating exhibitions and activities interspersed with spaces for quiet reflection. The history and cultures of Maine's Native people, the Wabanaki, are showcased through changing exhibitions, special events, teacher workshops, archaeology field schools and craft workshops for children and adults. The Abbe also serves as an essential resource for helping teachers and students comply with state legislation, known as "the Wabanaki Initiative," that requires the teaching of Wabanaki cultures and history in Maine schools.





Bates College Museum of Art

75 Russell Street

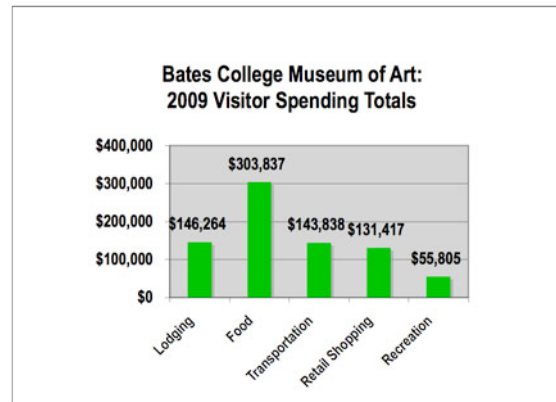
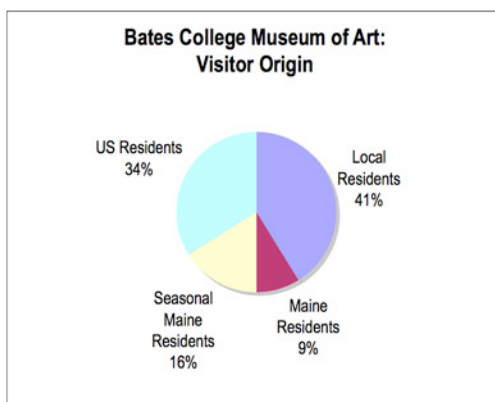
Lewiston

207/786-6158

www.bates.edu/museum.xml

Photo courtesy of the Bates College Museum of Art.

The Bates College Museum of Art is a laboratory, providing an environment for broad audiences to explore and discover synergies created by the visual arts across the academic disciplines of Bates' liberal arts education. The museum works collaboratively with artists, students, faculty and fellow museums throughout the region to create educational programming and original exhibitions that offer innovative and diverse scholarly explorations. Through a growing collection, the museum commits to expanding the traditional study of the history and practice of art, while addressing local and global issues.





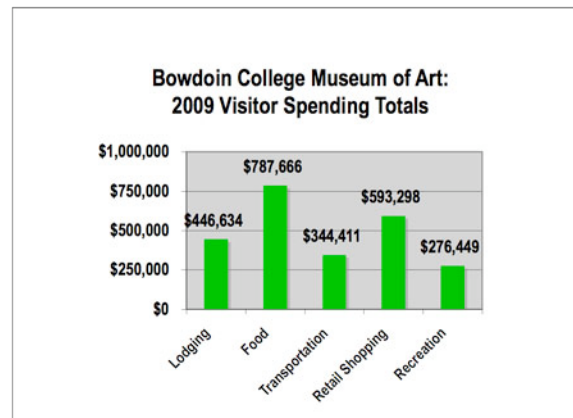
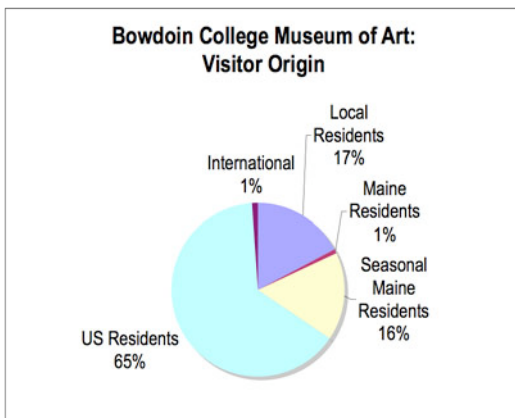
Bowdoin College Museum of Art

Walker Art Building
9400 College Station
Brunswick
207/725-3275

www.bowdoin.edu/art-museum

Photo courtesy of the Bowdoin College Museum of Art.

The Bowdoin College Museum of Art, one of the oldest college art collections in the nation, began with a gift of 70 paintings and a portfolio of Old Master drawings bequeathed to the College by James Bowdoin III in 1811. Its current collections encompass more than 15,000 objects in categories including Ancient; European; American; Non-Western; Modern & Contemporary; and Prints, Drawings and Photography. The museum celebrated its public reopening on October 14, 2007, following a two-year, \$20.8 million renovation and expansion of the Walker Art Building. The design, by architects Machado and Silvetti Associates of Boston, integrates the museum's traditional features with a dramatic new entry pavilion, an inviting glass curtain wall, and a complete renovation of the entire interior of the building. The expansion and renovation project has enhanced the museum's role as a central component in campus life and the leading edge of arts and culture at Bowdoin.





Colby College
 Museum of Art
 5600 Mayflower Hill Drive
 Waterville
 207/859-5600
www.colby.edu/museum/

Photo courtesy of the Colby College Museum of Art.

Founded in 1959 and now boasting four wings, more than 6,000 works and more than 28,000 square feet of exhibition space, the Colby College Museum of Art possesses a superb collection of American art from the Eighteenth century to the present as well as smaller, but exemplary, holdings in Asian, Classical and European art. Each year, the museum offers an array of public programs including film screenings, concerts, lectures, family workshops, gallery tours, Noontime Art Talks and First Thursdays.

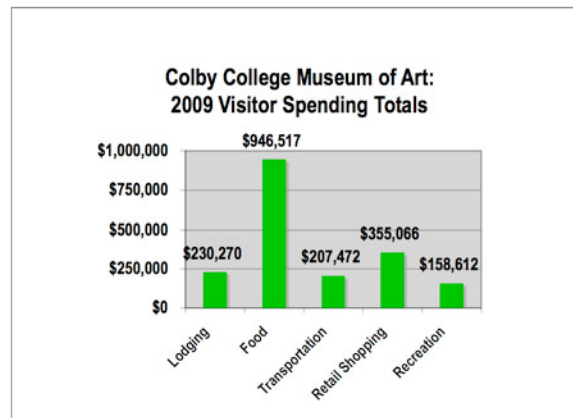
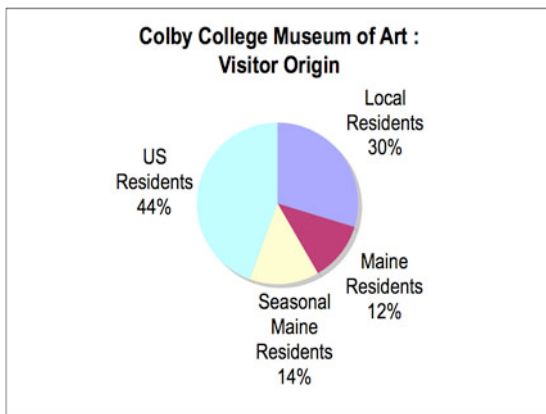




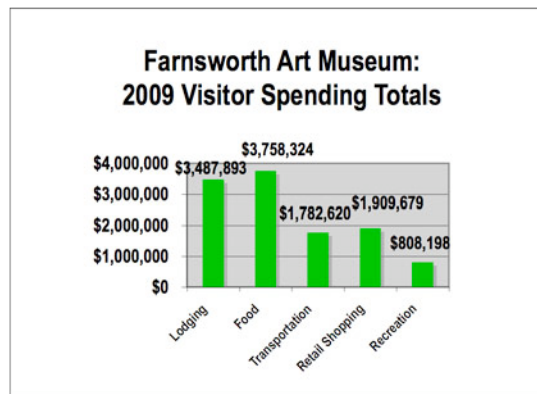
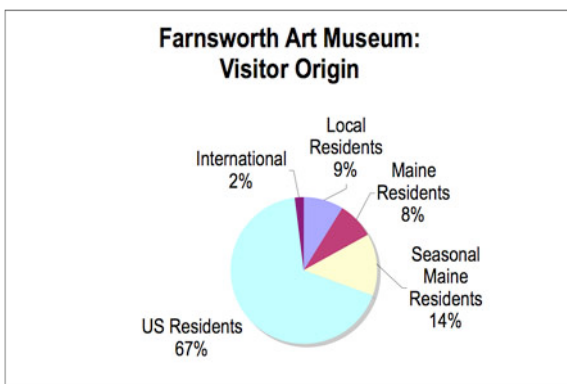
Photo courtesy of the Farnsworth Art Museum.

Farnsworth Art Museum

16 Museum Street
 Rockland
 207/596-6457

www.farnsworthmuseum.org

The Farnsworth Art Museum celebrates Maine's ongoing role in American art. It offers a nationally recognized collection of works from many of America's greatest artists, with 20,000 square feet of gallery space and more than 10,000 works in the collection. The Farnsworth has the second-largest public collection of works by premier 20th-century sculptor Louise Nevelson, while its Wyeth Center features works of N.C., Andrew and Jamie Wyeth. Julia's Gallery for Young Artists and two National Register historic sites, the Farnsworth Homestead and the Olson House, complete the museum complex.





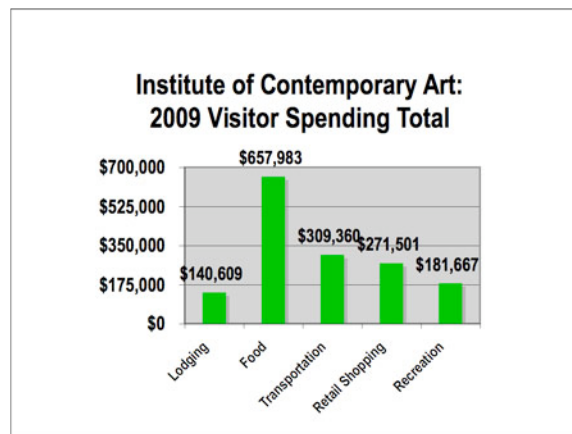
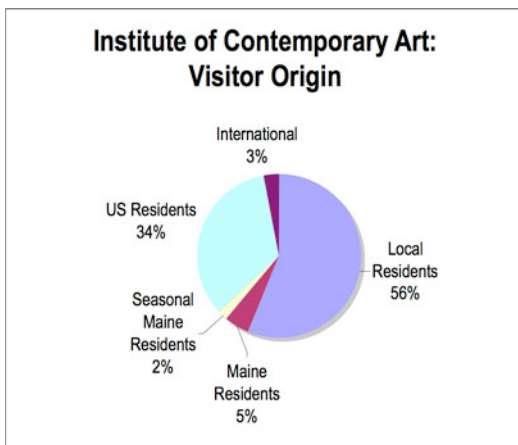
Institute of Contemporary Art at Maine College of Art

522 Congress Street
Portland
207/699-5029

www.meca.edu/meca-life/ica

Photo courtesy of the Institute of Contemporary Art.

The Institute of Contemporary Art at Maine College of Art (the ICA at MECA) features leading-edge exhibitions and public programs that showcase new perspectives and new trends in contemporary art. Located in stunning galleries in MECA's landmark Porteous Building in downtown Portland, the ICA presents innovative work in a range of media by influential national and international artists as well as emerging artists. A rich array of public programs enhance the ICA's exhibition schedule, including provocative talks by leading artists and critics, timely forums on current issues in art and design, and interactive workshops for young people. The ICA is an essential part of MECA's educational resources for students and faculty, providing opportunities to engage visiting artists and to explore new approaches in curatorial practice and museum education. The ICA at MECA serves a critical regional role in its commitment to presenting contemporary, provocative work by living artists from Maine and around the globe.





Maine Maritime Museum

243 Washington Street

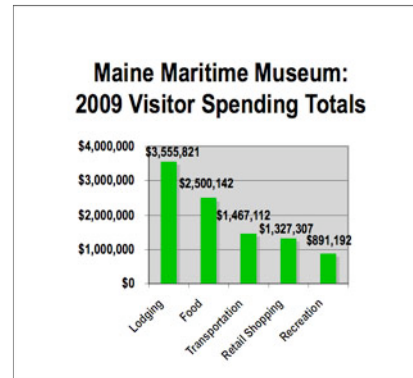
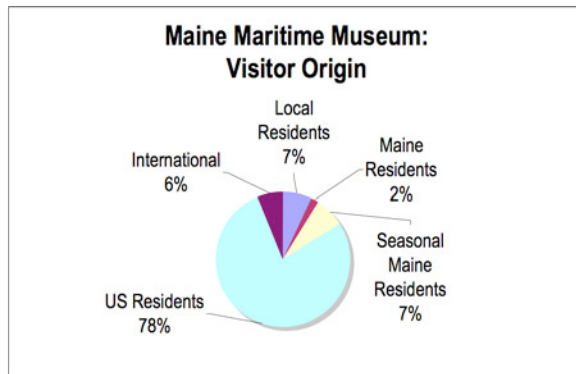
Bath

207/443-1316

www.mainemaritimemuseum.org

Photo courtesy of Maine Maritime Museum.

Maine Maritime Museum celebrates Maine's maritime heritage and culture in order to educate the community and a worldwide audience about the important role of Maine in regional and global maritime activities. The museum accomplishes its stewardship through: discriminate collection, preservation and dissemination of historic materials and information, engaging educational programs, relevant and compelling exhibitions, and a unique historic shipyard, all connecting the past to contemporary and future issues.





Maine State Museum

230 State Street

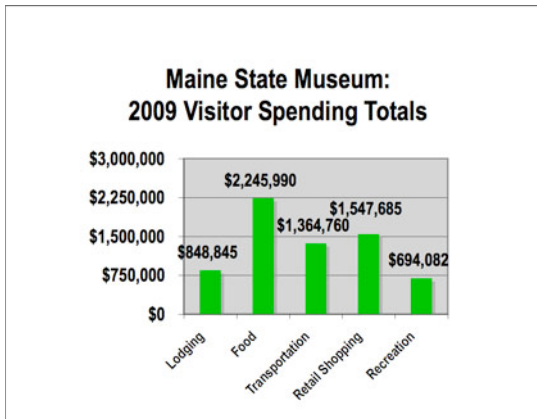
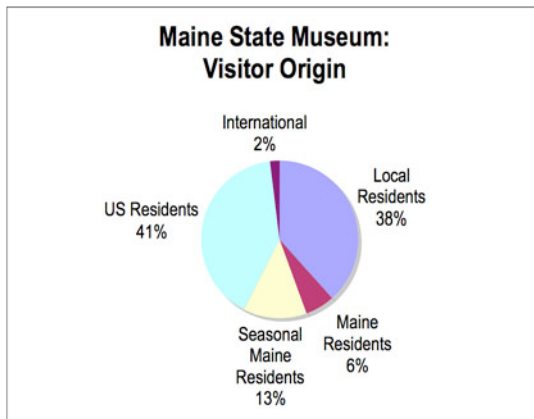
Augusta

207/287-2301

www.mainestatemuseum.org

Photo courtesy of the Maine State Museum.

Located adjacent to the State House in Augusta, the Maine State Museum is the only museum that collects, preserves and exhibits objects and specimens from Maine's cultural and natural past. Its goal is to promote public awareness of Maine's natural resources and historical richness. The museum features excellent collections, four floors of exhibits and varied, engaging educational programs. The museum also manages and exhibits historical and natural science collections in the State House and Blaine House.





The Monhegan Museum

Lighthouse Hill
 Monhegan
 207/596-7003

www.monheganmuseum.org

Photo courtesy of the Monhegan Museum.

The Monhegan Museum displays a wide variety of exhibits relevant to the natural, social, cultural and artistic heritage of Monhegan Island. It is the creation of many dedicated volunteers with a commitment to preserving, documenting and exhibiting materials that convey the unique and appealing life of Monhegan. The museum is housed in the historic Monhegan Island Light Station.

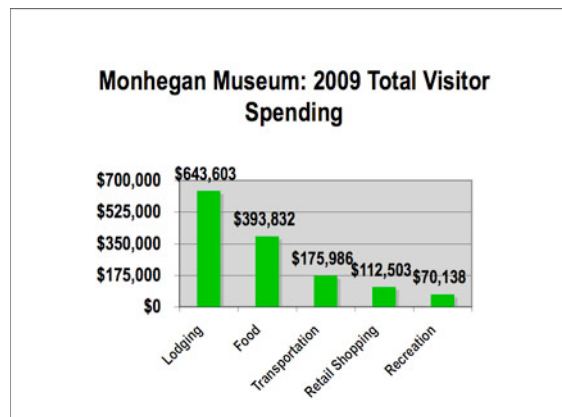
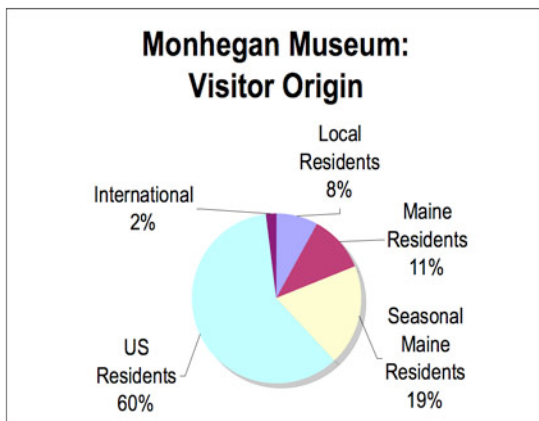




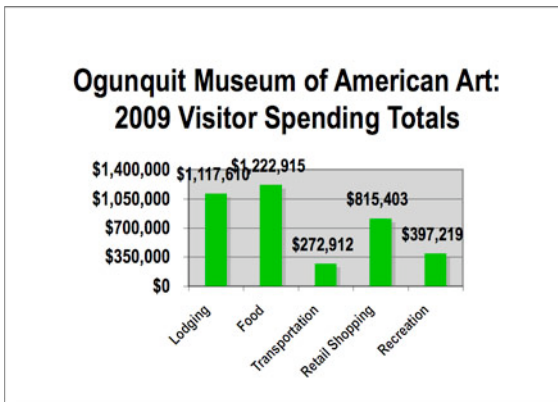
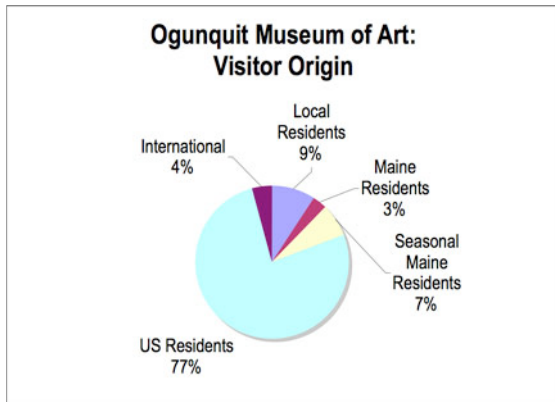
Photo courtesy of the Ogunquit Museum of American Art.

Ogunquit Museum of American Art

543 Shore Road
Ogunquit
207/646-4909

www.ogunquitmuseum.org

The Ogunquit Museum of American Art first opened its doors in 1953 as a museum for the people of Ogunquit and the state of Maine, according to founder Henry Strater. Since that time, the museum has earned a reputation for a high quality American art collection, one that strongly reflects, and has grown from, the museum's origins. The museum's renowned collections feature many works from artists who were active in the Ogunquit art colony in the first half of the twentieth century, American art from the nineteenth century through the twenty-first century and many outdoor sculptures featuring Maine artists. The museum is located on a carefully chosen property overlooking Narrow Cove and the Atlantic Ocean. The grounds are covered by beautifully maintained gardens, a reflecting pond and contemporary sculpture throughout.





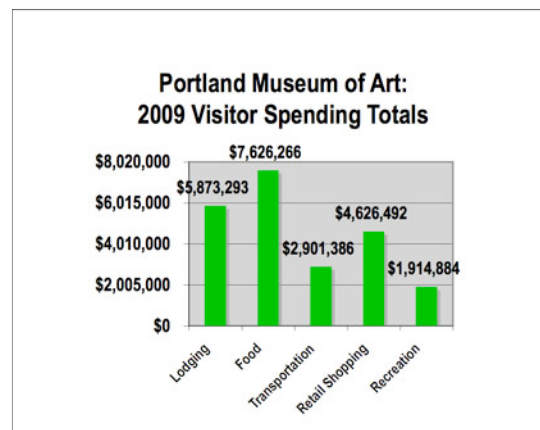
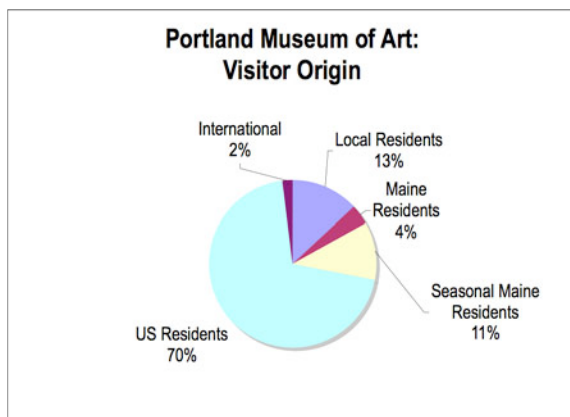
Portland Museum of Art

7 Congress Square,
Portland
207/775-6148

www.portlandmuseum.org

Photo courtesy of the Portland Museum of Art.

The Portland Museum of Art, founded in 1882, is Maine's oldest and largest public art institution. The museum's three architecturally significant buildings unite three centuries that showcase the history of American art and culture. With more than 17,000 objects, the museum's collection includes decorative and fine arts dating from the Eighteenth century to the present. The heart of the museum's collection is the State of Maine Collection, which features works by artists such as Winslow Homer, Marsden Hartley, John Marin, Louise Nevelson and the Wyeth family. The museum has the largest European collection in Maine. The major European movements from Impressionism through Surrealism are represented by works by Mary Cassatt, Edgar Degas, Claude Monet, Pablo Picasso and Pierre-Auguste Renoir. In addition to exhibitions, the museum offers a host of dynamic educational programs for all ages including family festivals, films, lectures, art classes and musical performances.





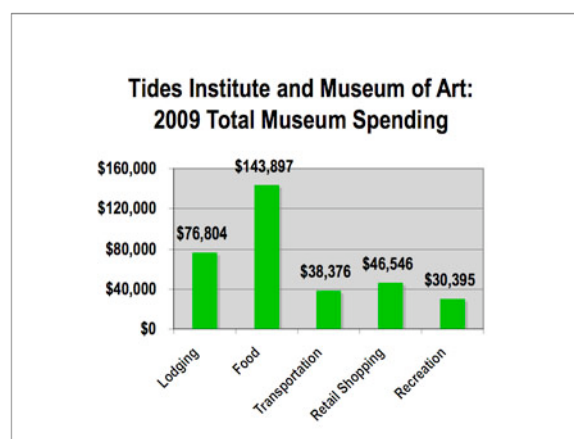
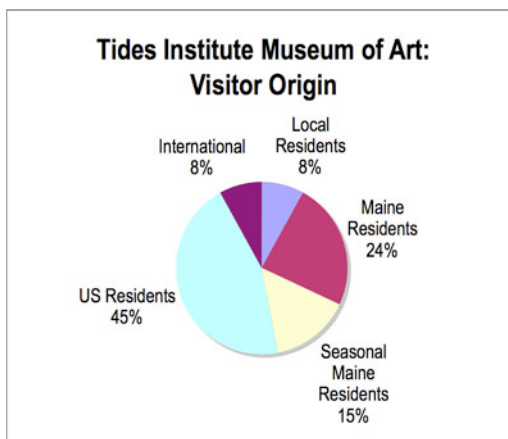
Tides Institute and Museum of Art

43 Water Street
 Eastport
 207/853-4047

www.tidesinstitute.org

Photo courtesy of the Tides Institute and Museum of Art.

The Tides Institute and Museum of Art (TIMA) serves as a broad-based cultural anchor, resource and catalyst for Maine's eastern coast. Operating in a rural, sparsely populated region, TIMA has sought to build critical mass and connectedness through an array of overlapping collaborations and alliances throughout the region and to the outside. It does so by building and exhibiting cultural collections, creating new cultural works, and strengthening cultural ties within the region, to New England and the Atlantic Provinces, and to the wider world. It is meticulously restoring a cornerstone downtown building that was threatened with destruction, aggressively building the first substantial regional cultural collections with a particular focus on art, developing a printmaking and letterpress studio space, and implementing the first year of a Visual Thinking Strategies arts educational program with teachers throughout Washington County linked with consulting staff from the Isabella Stewart Gardner museum in Boston.





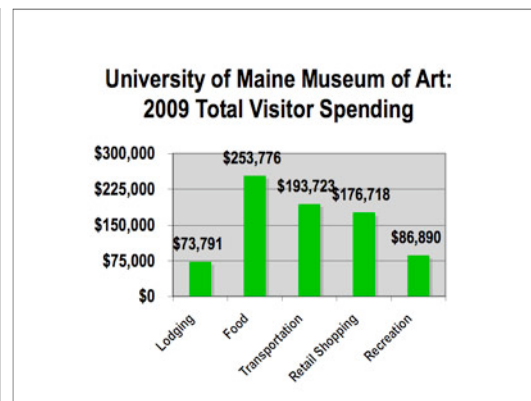
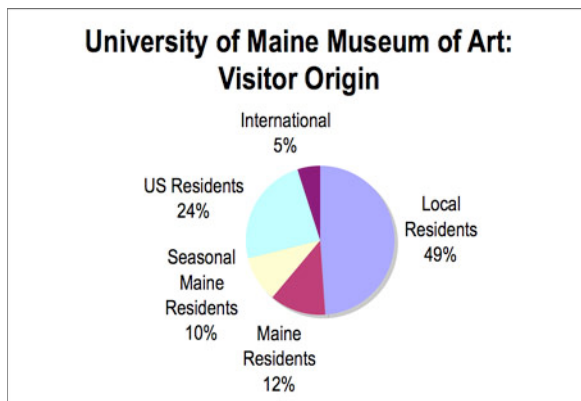
University of Maine Museum of Art

40 Harlow Street
Bangor
207/561-3350

www.umma.umaine.edu

Photo courtesy of the University of Maine Museum of Art.

The University of Maine Museum of Art has four galleries that feature changing exhibitions (new shows every three months) of modern and contemporary art and frequent rotations of the museum's collection. The collection consists of more than 7,000 works and encompasses an array of visual art including painting, photography and prints created since 1910.





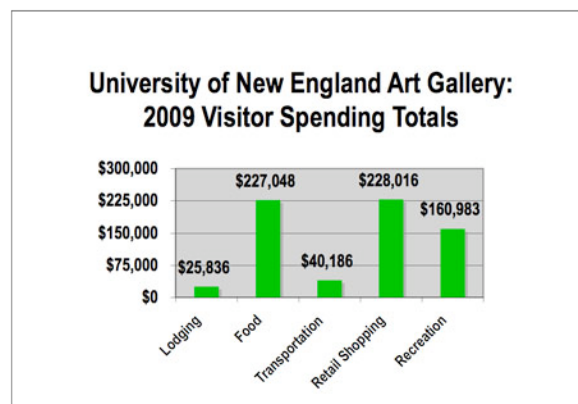
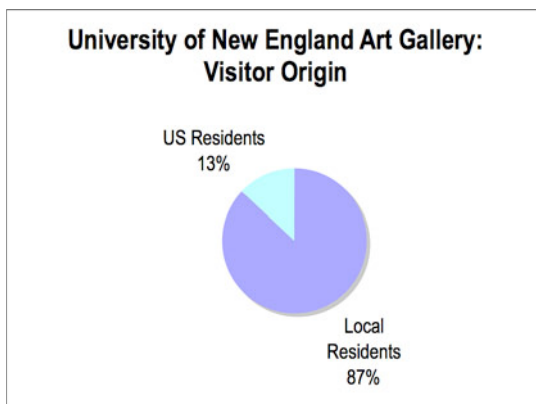
University of New England Art Gallery

716 Stevens Avenue, Portland
207/221-4499

www.une.edu/artgallery/index.cfm

Photo courtesy of the University of New England Art Gallery.

The University of New England Art Gallery mounts six exhibitions annually, ranging from contemporary fine art photography, international themes to works by women and Maine artists, in a variety of mediums. In addition, from June through October, an Annual Sculpture Garden Invitational is featured around the gallery's exterior. On occasion, exhibitions are arranged at other locations on both of UNE's Portland and Biddeford campuses. The UNE Art Gallery also houses a permanent collection of paintings, drawings, photographs and sculpture by nationally and internationally known artists.



Appendix III: Copy of *Maine Museums: An Economic Impact Study* survey



Maine Museums: An Economic Impact Study

You can help! Please take a few minutes to fill out this survey. It is a tool to measure the importance of Maine's museums to the local economy. Your participation is completely voluntary and confidential, and will help to ensure that our results are as accurate as possible.

1. What is your home zip code/postal code? (If you are a seasonal resident please list both)

2. Do you live within a 50 mile radius of this local area? Yes (SKIP TO QUESTION 7) No

3. What is your primary purpose for being in this local area? (PLEASE CHECK ONLY ONE)

- To attend this museum
- Business (work, meeting, etc.)
- Vacation/holiday
- Combination of business and pleasure
- To visit friends or relatives
- Other (PLEASE SPECIFY):
- Personal business (wedding, funeral, pleasure, etc.)

4. How did you arrive in this local area (CHECK ALL THAT APPLY)

- By your own car
- By bus
- By airplane
- By a rental car
- By train
- Other (PLEASE SPECIFY):

5. How many nights away from home did you or will you spend in this local area during this trip?

(IF "0" SKIP TO QUESTION 7)

6. Where did you or will you stay overnight?

- At the home of family or friends
- Condominium or timeshare
- Hotel or motel
- Seasonal home
- Inn/bed and breakfast
- Campground
- Other (PLEASE SPECIFY):

7. How many people are in your party? # of Adults # of Children

8. List below the estimated total amount that you and the members of your party have spent or plan to spend in *this local area*. (INCLUDE MONEY SPENT BEFORE, AFTER, AND DURING MUSEUM VISIT)

- \$ Lodging (hotel, bed and breakfast, camping, etc.)
- \$ Food/beverage (restaurants, groceries, take-out, etc.)
- \$ Transportation (public transportation, gas, airfare, etc.)
- \$ Retail shopping (clothes, souvenirs, etc.)
- \$ Recreation (concerts, movies, theater, other museums, outdoors related activities, etc.)

Thank you for completing this survey!



Photo courtesy of the Institute of Contemporary Art.

AUTHORS

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Chuck Lawton is the chief economist at Planning Decisions, Inc., a South Portland-based consulting firm. He specializes in economic policy, fiscal impact studies, smart growth, and economic development studies. He has worked in private business as well as state government and was a professor at the University of Maine at Farmington. He holds a Ph.D. from The Fletcher School at Tufts University and writes a weekly column on the Maine economy for the *Maine Sunday Telegram*.

Lindsay Rowe

Lindsay Rowe is the Arts Recovery and Reinvestment Coordinator at the Maine Arts Commission. She holds a B.A. in Art History from McGill University. She is currently pursuing a Master's Degree in Museology from the Amsterdam School of the Art's Reinwardt Academy in Amsterdam, the Netherlands.

Commissioned by the Maine Arts Commission under the direction of Donna McNeil.



MAINE ARTS
COMMISSION

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Augusta, ME 04333-0025
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