

**The Contribution of the Golf Industry
to the Maine Economy**

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Executive Summary

This study examines the economic activity generated annually by Maine's golf courses and the additional spending of individuals from outside the state that play golf in Maine. The golf industry's economic contribution is the total spending that occurs at Maine's golf courses (i.e., the gross revenue earned by golf courses) and the multiplier effects that ensue as this money circulates through the state economy. Also included is the spending of out-of-state residents on lodging, food, gas and retail items while golfing in Maine. The study uses information from a survey of Maine golf course owners and industry profiles from various secondary sources. The study does not consider the economic impact of the golf industry, which is the economic activity that would be lost if the industry no longer existed in Maine. Further, the study does not account for the economic activity of golf equipment manufacturers or off-course retailers.

Study findings indicate that 1.7 million eighteen-hole equivalent rounds of golf were played in Maine during 1999. Survey results indicate that golfers from outside of the state played about 30 percent of these rounds. The 1.7 million total rounds resulted in an estimated \$85.7 million in spending at Maine golf courses, and the out-of-state golfers spent an additional \$40.7 million on other goods and services. The total economic contribution of this \$126.4 million in spending, including the multiplier effects, is \$205.4 million in output. Included in this amount is an estimated \$70.2 million in labor income resulting from 4,753 full-time, part-time and seasonal jobs that are directly or indirectly supported by the golf industry.

The Contribution of the Golf Industry to the Maine Economy

I. Background information and recent industry trends

The golf industry is an important and growing part of the economy in many areas of the United States. An estimated 26.4 million people over the age of twelve played golf in 2000, which represents a 33-percent increase in the number of golfers in the United States since 1986. Over a similar time period, the number of golf courses in the United States increased by 25 percent, from 13,353 courses in 1986 to 16,743 courses in 1999. Furthermore, the rate of new course construction has accelerated in recent years: 496 new courses opened in 1999, compared to approximately 150 new courses in 1986. (National Golf Foundation, 2001)

Using information from several sources, we identified 138 golf courses operating in Maine during the 1999 golf season. Based on our survey results, we estimate that Maine residents played approximately 1.2 million eighteen-hole equivalent rounds of golf during 1999, while visitors to the state played just over 500,000 rounds. As shown in figure 1, the number of courses in Maine has grown steadily over the past century. Since 1990, 22 new courses have opened in eight counties across the state. The National Golf Foundation reports that there were five new golf facilities under construction in Maine as of March 31, 2001 (two nine-hole courses, two eighteen-hole courses and one twenty-seven-hole facility). Furthermore, four additional courses were in the planning stages at that time (National Golf Foundation, 2001).

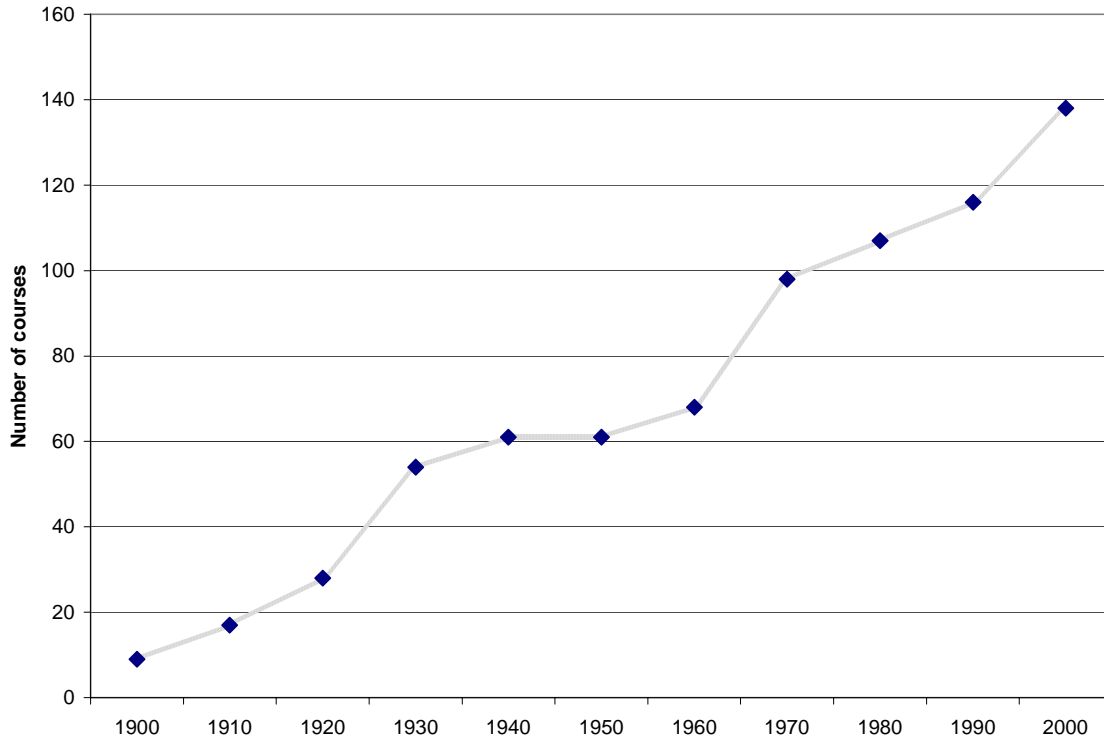


Figure 1. Growth of the Maine golf industry, 1900 to 2000.

Figure 2 shows that, although there are golf courses located in every county of the state, the industry appears to be concentrated in southern Maine and along the coast. This pattern generally reflects the overall geographic distribution of the Maine population and the popularity of the coastal region for summer tourism. Of the 138 courses operating in Maine during 1999, there were 77 nine-hole courses, 58 eighteen-hole courses and 3 facilities with twenty-seven holes. Over 50 percent of the state’s golfing facilities (75 courses) are municipally or privately owned operations, classified as “public” courses, that are open to the public on a daily fee basis. The 36 semi-private courses in the state include various types of membership clubs that allow play by non-members. There are 13 private courses in the state that restrict course access to members and their guests.

Seven of the courses in Maine are part of a resort facility where lodging accommodations, food service and other amenities are available. The remaining courses include a military course and six others whose status was unknown based on the available information.

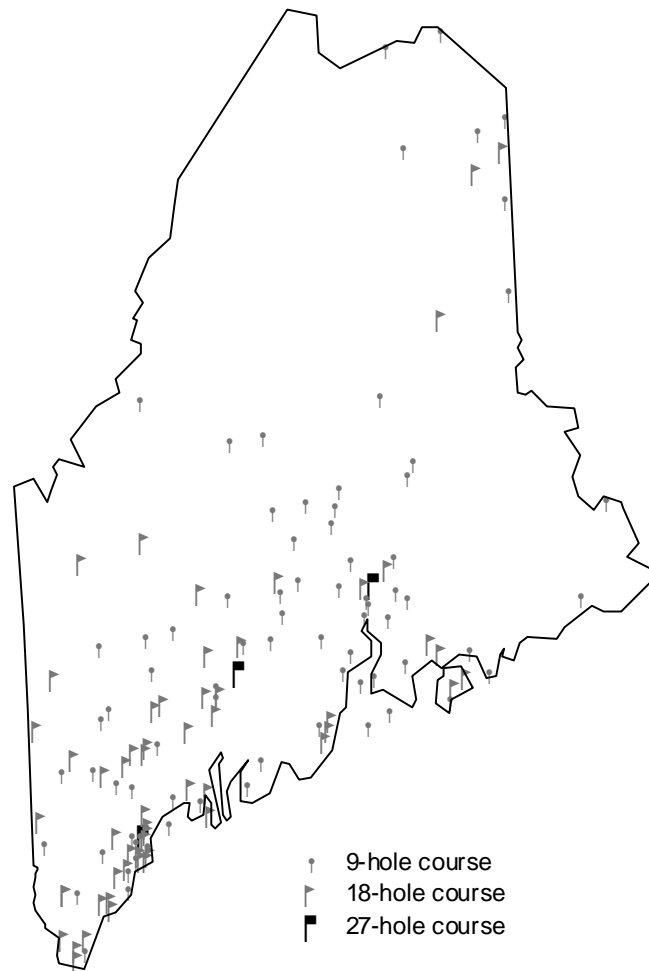


Figure 2. Location and size of Maine golf facilities, 2000.

II. The economic contribution of the Maine golf industry

Table 1 presents a summary of the economic contribution of the golf industry to the Maine economy. The golf industry annually contributes \$205.4 million in gross revenue to the Maine economy. This figure consists of a direct contribution of \$126.4 million, and estimated multiplier effects of \$79 million (indirect contribution of \$43.1 million plus induced contribution of \$35.9 million). Included in its total gross revenue of \$205.4 million, the golf industry annually provides \$70.2 million in personal income to Maine workers, and the industry supports 4,753 full-time, part-time and seasonal jobs.

Table 1. The annual contribution of the golf industry to the Maine economy.

	Gross Revenue	Labor Income	Employment
Direct	\$ 126,442,867	\$ 41,613,534	3,371
Indirect	\$ 43,065,825	\$ 15,311,776	782
Induced	\$ 35,938,632	\$ 13,301,647	600
Total	\$ 205,447,324	\$ 70,226,957	4,753

The direct contribution of Maine's golf industry

The golf industry's direct contribution of \$126.4 million is comprised of:

- Revenue earned by Maine's golfing facilities; and
- Revenue earned by Maine's tourism-oriented businesses (based on expenditures made by out-of-state golfers).

Maine's golf facilities directly contribute \$85.7 million in annual revenue to the state economy. This figure is an estimate of the revenue in 1999 that was generated by

green fees, membership fees, and sales of food and other merchandise at Maine’s 138 golf courses.

As shown in table 2, the primary sources of revenue for Maine golf courses are green fees and membership fees. Across all types of courses, these two categories account for approximately two-thirds of the total revenue earned by Maine golf courses. Golf cart rentals, and sales of food drink and golf merchandise account for a quarter of golf course revenue. The remaining revenue is derived from rentals and sales of golf clubs, fees for golf lessons and driving range fees

Table 2. Sources of revenue at Maine golf courses.

Revenue Source	percent of total
Green fees	38.9
Membership fees	27.5
Golf cart rentals	12.0
Sale of food, drink and snacks	8.4
Sale of golf merchandise	5.1
Golf club rentals	1.6
Sale of golf clubs	1.4
Golf lessons	1.1
Driving range fees	1.0
Other	2.9
Total	100.0

Based on the estimated total revenue and total rounds played, the average golf course in Maine generated total sales of approximately \$50.00 per eighteen-hole round of golf. This number is comparable to golf course revenues reported in economic impact studies of golf in other states including South Carolina (\$40 per round), Massachusetts (\$44 per round) and Michigan (\$50 per round) (Barkley, Henry and Evatt, 1995; National Golf Foundation, 2000; Stynes, Sun and Talhelm, 2000).

Maine's tourism-oriented businesses annually contribute \$40.7 million in revenue to the state economy from the expenditures made by golfers from outside the state. This figure is estimated using information on the number of rounds played in 1999 by golfers from outside the state (516,503 rounds) and our estimates on the average amount spent per day by golf tourists on accommodations, transportation, food, shopping and sightseeing (approximately \$78.84 per person per day).

Of the total 1,682,420 rounds played in Maine in 1999, an estimated 516,503 rounds were played by visitors from outside the state. This figure is based on information collected from our survey of golf course owners, which found that visitors played 30 percent of all rounds of golf played in Maine. The state's tradition as a tourism destination appears to carry over to golfing activity as this proportion of out-of-state golfers places Maine in the middle to high range when compared to other states. For example, tourists account for 6 percent of golf rounds in Massachusetts, 28 percent of rounds in Michigan, and 42 percent of rounds in South Carolina (Barkley, Henry and Evatt, 1995; National Golf Foundation, 2000; Stynes, Sun and Talhelm, 2000).

As shown in figure 3, the percentage of rounds played by tourists is highest in the mid-coastal area of the state and lowest in the northern and interior sections. Visitors

played approximately 40 percent of all rounds of golf in the coastal region that includes Hancock, Knox, Lincoln, Sagadahoc and Waldo Counties. In the western area of the state, including Androscoggin, Cumberland, Oxford and York Counties, visitors accounted for approximately 30 percent of the total rounds played. In the remaining area, tourists played approximately 20 percent of the total rounds of golf.

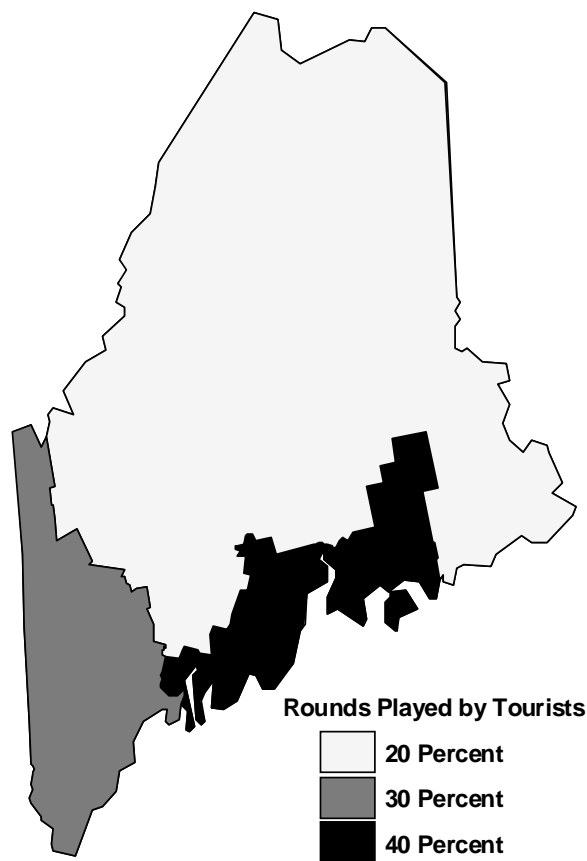


Figure 3. Percentage of golf rounds played by tourists, 1999.

We used information from a study of tourism in Maine to estimate the average daily expenditures of a typical overnight tourist (Longwoods International, 2000). Study

findings show that overnight tourists in Maine spent a combined \$1.3 billion on accommodations, transportation, food, shopping and sightseeing. These expenditures were associated with 4,300,000 “overnight marketable trips” that occurred in Maine during 1999. After dividing the total expenditures by the total number of trips, and dividing that amount by the average “length of stay” of a trip (1.7 days), we arrive at an average expenditure per day of approximately \$54.00. A recent study of golfer spending patterns found that, on average, golf tourists spend approximately 46 percent more on tourism-related goods and services than other tourists (Charney and Leones, 1997). This information is used to adjust the spending of a typical Maine tourist (\$54 per person per day) to reflect the spending of an out-of-state golfer (\$78.84 per person per day).

Multiplier effects of Maine’s golf industry

The multiplier effects associated with Maine’s golf industry are based on the expenditures made by Maine golf courses and businesses that supply goods and services to the industry (the indirect contribution), and the spending of individuals employed by Maine’s golf courses or other businesses affiliated with the industry (the induced contribution). Detailed information about business-to-business transactions is required to calculate an industry’s indirect contribution and information about the purchasing patterns of Maine households is needed to calculate an industry’s induced contribution. This study uses the Maine IMPLAN model to estimate the indirect and induced contributions of the golf industry (Minnesota IMPLAN Group, 1999).

The golf industry indirectly contributes \$43.1 million in gross revenue to the Maine economy. This figure is derived using information on the estimated expenditures

made by Maine’s golf courses and IMPLAN estimates for the expenditures made by Maine businesses that supply goods and services to the golf industry. The expenditure patterns of Maine golf courses shown in table 3 are based on the average expenditures by public and private golf courses in the northern climate states as identified by the National Golf Foundation. This region includes Maine, New Hampshire, Vermont, and the northern areas of Michigan, Minnesota, New York and Wisconsin.

Table 3. Non-payroll expenditure patterns of public and private golf courses.

Expenditure Category	Public Courses	Private Courses
	percent of total	
Food and beverage	17.8	33.1
Merchandise	17.4	13.4
General administrative	13.6	23.1
Fertilizers	9.3	4.9
Golf cart leasing	9.5	3.9
Property taxes	7.3	8.5
Insurance	5.5	5.0
Utilities	5.1	4.4
Equipment leasing	2.6	0.2
Advertising	3.0	0.8
Other	8.9	2.7
Total	100	100

Source: National Golf Foundation, 1999.

The golf industry has an annual induced contribution of \$35.9 million in gross revenue to the Maine economy. This figure is derived using IMPLAN estimates for the spending of Maine workers that are employed by businesses affiliated with the golf industry. As with the industry's indirect contribution, the induced contribution of the golf industry is felt by almost every major industry in the Maine economy.

The golf industry's contribution to income and employment

The total economic contribution of \$205.4 million represents the gross revenue earned by Maine businesses and individuals that are affiliated with the golf industry. A portion of this revenue is passed on to Maine workers and other individuals in the form of wages, salaries and distributed profits. Based on information collected from our surveys and estimates from the Maine IMPLAN model, the industry annually contributes \$70.2 million in personal income to Maine workers. This figure represents a direct contribution of \$41.6 million, an indirect contribution of \$15.3 million and an induced contribution of \$13.3 million. The industry also supports an estimated 4,753 full-time, part-time and seasonal jobs. Of these jobs, 3,371 are directly supported by the industry, 782 are indirectly supported by the industry, and 600 are supported by the spending of workers that are affiliated with the golf industry.

The golf industry's direct contribution of \$41.6 million to personal income is figured as the wages, salaries and distributed profits earned by workers in Maine's golf courses and tourism-oriented businesses that are supported by out-of-state golfers. The jobs directly supported by the industry are the full-time, part-time and seasonal jobs held by individuals that work at the golf facilities and these tourism-oriented businesses. The

ratio of income (\$41.6 million) to jobs (3,371) directly associated with the industry suggests that the workers employed within the industry receive relatively low annual earnings (\$12,345 per job). This reflects the part-time and seasonal nature of the golf industry and Maine's tourism-oriented businesses.

Estimates from the Maine IMPLAN model imply that the golf industry indirectly contributes \$15.3 million in personal income to Maine workers and indirectly supports a total of 782 full-time, part-time and seasonal jobs. The average income of jobs indirectly affiliated with the industry (\$19,580 per job) is higher than the jobs at Maine's golf courses and other tourism-oriented businesses. This is not surprising given that a large number of jobs supported by the expenditures made by Maine's golf courses and other tourism-oriented businesses are not necessarily part-time or seasonal.

It was further estimated using the Maine IMPLAN model that the spending of workers associated with the golf industry contribute \$13,301,647 in personal income and support 600 full-time, part-time and seasonal jobs. The ratio of personal income to jobs suggests that these jobs also are higher paying (\$22,168 per job) than the jobs directly or indirectly supported by the golf industry. This is not surprising because a large majority of the jobs supported by worker spending are outside of the golf industry and are less likely to be part-time or seasonal jobs.

III. Study limitations

Any study that attempts to measure an industry's economic importance or contribution to the economy is subject to limitations regarding the scope of the issues that the research can reasonably address. Furthermore, the findings reported in these types of

studies are at least partially influenced by assumptions made by the researchers. This study is no different. For this reason, this section discusses some limitations of the empirical methods and assumptions made in the study that should be considered when interpreting the study findings.

Given this study's focus on the spending at Maine's golf courses and the off-course spending by out-of-state golfers, it should be noted that there are other important components of the golf industry that are not included in this report. For example, the activity occurring at off-course golf driving ranges is not included because these driving ranges are not organized in a way that is conducive to a survey for determining their combined economic activity. Also, this study does not include retail sales of golfing supplies or equipment that occur away from the golf course. A measure of that activity would require a survey of golfers that was beyond the scope of this study. Finally, the study does not account for the economic activity associated with golf equipment manufacturers that are located in Maine. It is believed that the amount of golf-related manufacturing in Maine is quite small, consisting primarily of some wood products manufacturing (golf tees) and a small portion of the leather footwear industry (golf shoes).

The analysis presented in this report also focuses on the economic contribution of the Maine golf industry rather than the industry's economic impact, as commonly defined by economists. Whereas the economic contribution of Maine's golf industry is the gross revenue earned by businesses and individuals affiliated with the industry, its economic impact is the revenue that would "be lost" if the industry were no longer part of the economy. Thus, although study findings suggest that businesses and individuals

affiliated with the golf industry annually generate \$205.4 million in gross revenue, the study does not imply that this amount would necessarily be lost if the industry were no longer a part of the economy. In the industry's absence, sales in other Maine industries would likely increase as some of the individuals that previously played golf found alternative sources of recreation.

The economic contribution of the golf industry can, however, be interpreted as the upper limit of the industry's economic impact under the (unlikely) scenario that the revenue earned by businesses in the industry would be entirely lost to other states if the industry were to disappear. Translating the economic contribution of the golf industry into the economic impact of the industry would require making assumptions about whether:

- Maine golfers would leave the state to golf if courses were not available in the state;
- Maine's golf course owners would invest their money in other in-state ventures;
- Out-of-state golfers would visit Maine for other reasons.

Another key factor to consider when interpreting the study findings is that there are costs and benefits of the golf industry that are unrelated to its economic contribution as defined in this study. Although this study focuses on the output, income and employment associated with the industry, Maine's golf industry may have costs and benefits that fall outside the realm of economics. Thus, findings presented in the report should be interpreted as a part, but not the whole, of the evidence in evaluating the effects of Maine's golf industry.

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