

# Economic Impact of Commercial Outfitters in Mississippi<sup>3</sup>

by

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## Abstract

Hunting outfitters in Mississippi primarily service out-of-state hunters. Expenditures by hunters represent a sizable economic input to the state's economy. Hunting outfitters were surveyed during 2000 to determine their expenditures for the purpose of assessing their economic impact on the state's economy. Outfitters contacted were members of Mississippi's two outfitter associations, the Mississippi Outfitter's Association and Mississippi Outfitter's and Guide's Association. Twenty-eight outfitters participated in an initial telephone survey and 10 of these also participated in a follow-up, on-site interview. Interviews were conducted to obtain information on annual costs and revenues of operating an outfitter business. Game species pursued by clients were white-tailed deer (*Odocoileus virginianus*), waterfowl (*Anas spp.*), and quail (*Colinus virginianus*). Average annual expenditures were \$80,150 for deer outfitters, \$603,745 for quail outfitters, and \$29,181 for waterfowl outfitters. Respondents accounted for 645 activity days of deer hunting (n = 4), 1,533 activity days of waterfowl hunting (n = 4), and 3,400 activity days of quail hunting (n = 2). In Mississippi, deer, waterfowl, and quail outfitters generated \$3,434,057 of output, \$1,902,050 of value added, and 55.5 full- or part-time jobs.

## INTRODUCTION

Commercial outfitters provide hunting and related services to clients. Related services vary dramatically between outfitters and by species hunted. Up-scale outfitters may provide a full range of services including plush accommodations, gourmet meals, and guided hunts, while other outfitters may only provide access to the hunting area. Because of the range of services provided, this industry draws hunters from throughout the world.

Expenditures by non-resident hunters represent a potentially significant economic input to the state's economy (Johnson and Moore 1993). Steinback (1999) found that the impacts of non-resident angler expenditures are generally five times greater than that of their resident counterparts. The economic impacts of non-residents represent an influx of dollars into an economy. Outfitters in Mississippi are located in rural areas where hunter expenditures can substantially boost the local economy.

In addition to the economic impact generated by expenditures of out-of-state hunters, commercial outfitters generate economic activity in the course of their operation that benefits local and state economies. Outfitters in Mississippi utilize the

state's wildlife resource base to provide hunting opportunities to their clientele. Although many studies have investigated the economic impact generated by hunters (Grado et al., 1997, Burger et al., 1999, Grado et al., In press.), the extent of the economic activity generated by outfitters and degree of impact have not been determined. Establishing these impacts will provide support for these outfitters from public agencies and foster legislative support for the wildlife resource on which the industry relies. Showcasing the attractiveness of this industry may encourage others to enter the commercial outfitting field; ultimately increasing the economic impact outfitters have on the economy.

## METHODS

### Study Area

The study area encompassed the state of Mississippi. Commercial hunting outfitters from all areas of the state were surveyed during 1999 and 2000.

### Survey Methods

Outfitters' names and telephone numbers were obtained from the State's two registering associations, the Mississippi Outfitters' Association and the Mississippi Outfitter's and Guide's

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Association. These associations represent a total population of 47 commercial hunting outfitters. Preliminary telephone calls were made to all outfitters listed in the Associations' directories. If members could not be contacted on the first attempt, at least two more attempts were made. In the preliminary telephone call, outfitters were given a brief overview of the study and asked to provide basic information about their operation and whether they'd be willing to participate in a more extensive survey. Basic information requested included species pursued, average annual number of hunts provided, standard hunt fees, and types of services provided. This general information was used to stratify the outfitter population by size and target species for survey purposes. Willing outfitters from each stratum were subsequently interviewed on-site or by telephone at their convenience.

### Survey Questionnaire

The outfitter survey was designed to provide annual costs and revenues associated with a commercial outfitter operation. Respondents were asked to report annual wages and salaries paid, annual business-related expenditures and number of full- and part-time workers employed. Expenditures were recorded by the state where they occurred, assuring that only Mississippi expenses were counted in the economic impact analysis. Business expenditures included items such as habitat management practices, payments to landowners, expenses related to providing the service (e.g., clothing, equipment, food and beverages), and overhead expenses (e.g., accountant fees, insurance, and advertising).

Outfitters were reluctant to report their annual gross revenues so they were asked a series of questions related to their gross revenues instead, including the average number of hunters for the past five years, percentage of out-of-state hunters, average trip length in days, and average fee per day. They were also asked to estimate miscellaneous revenues not included in the basic hunt fee (e.g., dog kenneling, merchandise, and transportation).

### Economic Impact Analysis

The economic impact of commercial outfitters on Mississippi's economy were estimated using IMPLAN (Olson and Lindall, 2000). Hunt revenues were estimated by multiplying the number of hunters by the average number of days per trip by the average daily fee. Annual gross revenues were the sum of estimated hunt revenues and miscellaneous revenues. Annual net revenues were computed by subtracting annual expenditures from gross revenues. Any outfitter showing a loss was considered to have net revenues of zero. Separate analyses were computed

by species. Average expenditures and net revenues per outfitter were allocated to the appropriate IMPLAN sectors. For each species, costs and revenues were matched with the respective number of outfitters in the state to generate state-level economic impacts, which included total sales outputs, total value added, and employment. The economic impacts by species were then aggregated to represent the statewide economic impact of commercial hunting outfitters.

### RESULTS

There were 47 total commercial hunting outfitters operating in Mississippi that were members of the state's two associations. These outfitters featured white-tailed deer, waterfowl, turkey, quail, or dove hunting. Of the total population, 37 outfitters could be contacted by telephone. Of those outfitters contacted, 28 provided at least some basic information requested. Ten outfitters agreed to participate in the detailed survey. Of the 10, four were deer outfitters, four were waterfowl outfitters, and two were quail outfitters. This sample represents approximately 25% of the total population of registered outfitter association members in Mississippi.

Respondents accounted for 645 hunter activity days of deer hunting (n = 4), 1,533 hunter activity days of waterfowl hunting (n = 4), and 3,400 hunter activity days of quail hunting (n = 2). They accounted for approximately 39% of the total hunter activity days reported by the 28 outfitters who provided hunter activity day information during the initial telephone contacts.

Average estimated gross revenues, costs, and net revenues of outfitters by species are shown in Table 1.

Table 1. Average annual gross revenues, costs, and net revenues by species during the 1999/2000 hunting season (2000 dollars).

	Deer (n=4) \$	Waterfowl (n=4) \$	Quail (n=2)\$
Gross Revenues	73,988	54,978	822,352
Costs	80,150	29,181	603,745
Net Revenues	- 6,163	25,798	218,607

For the 1999/2000 hunting season, the average estimated net revenues for deer outfitters were negative. Of the four deer outfitters surveyed, two had annual net losses. Net revenues for the group ranged from - \$133,000 to \$24,350. The two outfitters with annual losses were both relatively new

“high-fence hunting” operations. After deriving estimated net revenues, outfitters showing losses were contacted to verify the findings. Both outfitters acknowledged losing money due to start-up costs but expected to be profitable in approximately 3 to 5 years.

The majority of gross revenues for commercial outfitters were derived from hunt fees. Annual revenues derived from hunt fees were 99%, 98%, and 92% for deer, waterfowl, and quail, respectively. Remaining revenues were generated from the sale of miscellaneous goods and services.

There were 40 outfitters who featured deer, waterfowl, or quail in Mississippi. Economic impacts for these outfitters are reported in Table 2 by species. The remaining seven outfitters featured turkey or quail but none participated in the on-site survey. Therefore, their impacts are not reported.

Table 2. Estimated economic impacts of commercial outfitter association members in Mississippi for the 1999/2000 hunting season (2000 dollars).

	Deer	Waterfowl	Quail
Total Output	\$1,252,264	\$257,955	\$1,923,838
Value Added	\$665,377	\$150,184	\$1,086,489
Employment (# of jobs)	20.1	4.0	31.4

**DISCUSSION AND CONCLUSIONS**

Commercial hunting outfitters generate positive economic impacts in Mississippi. However, the degree of an outfitter’s impact is determined by the species hunted. Of the three major species targeted, quail outfitters generated the greatest economic impact. Quail outfitters reported the greatest number of hunter activity days annually in combination with high hunt fees. Deer outfitters generated the second greatest economic impact. Although waterfowl outfitters reported more hunter activity days than deer outfitters, hunt fees for deer outfitters, particularly high-fence operations, were much greater than for waterfowl hunting. In most cases, deer outfitters provided many more amenities with their hunts than did waterfowl outfitters, which was reflected in higher hunt fees. The larger economic impacts for quail and deer were generated, in part, by substantially greater expenditures required in these types of operations.

The majority of gross revenues were derived from hunt fees. Providing miscellaneous goods and services such as sporting clays, dog kenneling, airport transportation, and clothing generated additional

revenues. Quail hunting outfitters generated more miscellaneous revenues than deer or waterfowl outfitters by making more services and merchandise available to the client. While the revenues they generate are minimal, these goods and services add to the attractiveness of the site and may be responsible for attracting additional hunters.

Supporting and promoting the commercial outfitter industry can increase the economic impact created by the industry. Quantifying the economic impact of outfitters will provide support for favorable legislation and low impact tourism developments benefiting the outfitter industry.

**Future Research**

The economic impacts reported in the study are limited to the economic activity generated by outfitters in the operation of their businesses. These impacts do not include the economic impacts generated by clientele who purchase additional goods and services locally while hunting with Mississippi’s outfitters. Determining the total economic impact of commercial outfitters in Mississippi will require the incorporation of economic impacts generated by the outfitters’ clientele.

**LITERATURE CITED**

Burger, L. W., D. A. Miller, and R. L. Southwick. 1999. Economic impact of northern bobwhite hunting in the southeastern United States. *Wildlife Society Bulletin* 27(4):1010-1018.

Grado S. C., G. A. Hurst, and K. D. Godwin. 1997. Economic Impact and Associated Values of the Wild Turkey in Mississippi. *Proc. Annu. Conf. Southeast. Assoc. Fish and Wildl. Agencies.* 51:438-448.

Grado, S. C., R. M. Kaminski, I. A. Munn, and T. A. Tullos. (in press). Economic impacts of waterfowl hunting on public and private lands in the Mississippi Delta. *Wildlife Society Bulletin.*

Johnson, R.L. and E. Moore. 1993. Tourism impact estimation. *Annals of Tourism Research.* 20:279-288.

Olson, D. and S. Lindall. 2000. IMPLAN Professional. Version 2.0 MIG, Inc., Stillwater, Minnesota.

Steinback, S.R. 1999. Regional Economic Impact Assessments of Recreational Fisheries: An Application of the IMPLAN Modeling System to Marine Party and Charter Boat Fishing in Maine. *North American Journal of Fisheries Management.* 19:724-736.