

# Economic Impact of Commercial Hunting Outfitters and Clientele in Mississippi<sup>1</sup>

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**Abstract:** Hunting activities provide an economic enhancement to rural economies. Traditional economic impact analyses enumerate hunter expenditures and derive their economic impacts. However, hunting outfitters, an integral component of the hunting industry, have largely been ignored in these studies. In addition to their own expenditures, outfitters impact local economies by drawing large numbers of out-of-region hunters. These out-of-region hunters have a much greater impact on local economies than do local hunters. Their expenditures represent an import of dollars to a region and they generally spend more than locals. This study incorporates the economic contributions of both outfitters and their clientele. A survey of Mississippi outfitters and their clientele was conducted during the 1999-2000 hunting season to determine their expenditures in pursuit of white-tailed deer (*Odocoileus virginianus*), waterfowl (*Anas* spp.), quail (*Colinus virginianus*), and dove (*Zenaida macroura*). Results indicated that Mississippi outfitters generated \$13.8 million in total output, \$7.5 million in value-added, and 186 full- or part-time jobs. Clientele impacts include \$16.9 million in total output, \$10.2 million in value-added, and 247 full- or part-time jobs.

**Key Words:** hunting, hunting outfitters, economic impacts, rural economic development

## INTRODUCTION

Commercial hunting outfitters operating in Mississippi offer a wide variety of hunting opportunities and other related services. The level of service offered to clientele varies from providing access to a hunting site, to offering a full range of amenities that includes lodging, meals, clothing, supplies, and guided hunts. The variety of hunting opportunities and level of services offered attract local and out-of-state hunters. This study focused on Mississippi's commercial outfitters and their clientele. These businesses primarily provide hunting opportunities for white-tailed deer (*Odocoileus virginianus*), waterfowl (*Anas* spp.), Northern bobwhite quail (*Colinus virginianus*), and morning dove (*Zenaida macroura*).

Similar to other tourism related activities, the ability of commercial outfitters to attract out-of-state sportsmen provides a considerable monetary contribution to rural economies (Johnson and Moore 1993). The expenditures of out-of-state sportsmen tend to be greater than that of local hunters (USDI and USDC 2002). Steinback (1999) found that impacts resulting from expenditures of non-resident anglers were five times greater than that of local anglers. As a result, outfitter clientele expenditures can greatly enhance the economic impacts to local

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economies. Most of Mississippi's commercial outfitters operate in rural areas with small local economies. Their expenditures combined with those of out-of-region hunters represent a monetary influx to the local economy.

A number of studies have determined the economic contribution of hunters (Grado et al., 1997, Burger et al., 1999, Grado et al., 2001); however, the economic impact resulting from activities of hunting outfitters and their clientele have not been determined. Davis et al. (2002) studied the impact of commercial hunting outfitters on the Mississippi economy, but did not account for the impacts resulting from outfitter clientele. The economic contribution that results from the operation of commercial outfitters and local expenditures of their clientele may be substantial. The importance of commercial hunting outfitters can be appreciated by quantifying the economic contribution that results from their activity and that of the clientele they attract to Mississippi. This will assist public agencies and policy makers as they contemplate various regulations and laws that affect Mississippi's wildlife resources. Commercial markets based on wildlife are large, growing, and diversifying (Freese and Trauger 2000). Economic growth can be encouraged by the actions of federal and state governments and wildlife management agencies. These organizations enhance the resource base of this growing market, which utilizes Mississippi's wildlife and forest resources yet also spurs rural development.

## **Methods**

Hunting outfitters and their clientele were surveyed throughout Mississippi during the 1999-2000 hunting season. At the time of the study, there were 47 hunting outfitters in Mississippi that were members of the state's two professional hunting outfitter associations, the Mississippi Outfitters Association and the Mississippi Outfitters and Guides Association. Contact information for the 47 hunting outfitters was obtained from these two associations. Outfitters were contacted, the purpose of the survey described, and then they were invited to participate in the study. The outfitter survey included questions relating to operational and overhead expenses, level of service provided and associated charges to their clientele, the number of their full- and part-time employees, and salaries and wages paid. Thirteen outfitters permitted on-site and mail surveys of their clientele. Questions from these surveys related to daily outfitter and non-outfitter related expenditures incurred while hunting with an outfitter in Mississippi. All survey information was used to determine expenditures per activity day for outfitters and clientele. These expenditures were grouped by species pursued: deer, waterfowl, quail, and dove. The expenditure information, along with the number of clientele activity days, was used to determine economic impacts of hunting outfitters and their clientele by species on the Mississippi economy.

Economic impacts of commercial hunting outfitters and their clientele were determined with the Impact Analysis for Planning (IMPLAN) input-output software package (Olson and Lindall 2000). IMPLAN was used to model the Mississippi economy and identify impacts of outfitter and clientele expenditures. Weighted average expenditures were allocated to the appropriate IMPLAN sector and a determination was made on the resulting economic impacts. The impacts included total sales, value-added, and employment. This analysis was repeated for each game species. State-level economic impacts were determined by extending the weighted average expenditures and activity days by species to represent the total number of outfitters operating in Mississippi.

## Results

In the preliminary phone contact, 29 outfitters reported species hunted and the number of clientele activity days during the 1999-2000 hunting season. Ten of these outfitters agreed to participate in a more detailed survey concerning their business expenditures. Thirteen granted permission to survey their clientele.

Nine outfitters reported clientele attendance for deer, eleven for waterfowl, ten for quail, and four for dove. Five of these outfitters reported attendance for more than one species. To estimate total attendance by species for the 47 Mississippi outfitters, attendance by species for the 18 outfitters that did not provide attendance information was extrapolated from attendance rates for the 29 outfitters that did provide attendance data (Table 1.)

Table 1. Activity days of hunting for Mississippi outfitter clientele during the 1999-2000 hunting season.

	Known	Estimated	Total
Deer	3,236	1,713	4,949
Waterfowl	2,856	1,512	4,368
Quail	6,500	3,441	9,941
Dove	862	456	1,318
Total	13,454	7,123	20,577

Expenditure averages by activity day for outfitters and clientele were determined from survey responses (Table 2). Dove outfitters did not participate in the detailed outfitter survey, so expenditures were assumed similar to the most comparable of the other three, which was waterfowl.

Table 2. Average Mississippi outfitter expenditures per hunter activity day by species for the 1999-2000 hunting season (2002 dollars).

Species	Deer (n=4)	Waterfowl (n=4)	Quail (n=2)	Dove <sup>a</sup>
Expenditures (\$)	458.99	141.38	513.15	141.38

<sup>a</sup>Estimated from waterfowl survey data.

Clientele were surveyed at 13 outfitter locations, and at two of these locations clientele sought either one of two species. As a result, expenditure averages were available for 15 outfitter clientele as defined by species sought. Outfitter clientele reported average expenditures per activity day for the same four game species (Table 3).

Table 3. Average clientele daily expenditures by species in Mississippi for the 1999-2000 hunting season (2002 dollars).

Species	Deer (35/3) <sup>a</sup>	Waterfowl (81/8) <sup>a</sup>	Quail (20/2) <sup>a</sup>	Dove (15/2) <sup>a</sup>
Expenditures (\$)	665.83	372.27	418.03	334.33

<sup>a</sup>(Number of clientele surveyed/number of outfitters participating)

Activity days and expenditures by species for outfitters and clientele in Mississippi were combined to determine economic impacts of each group on the Mississippi economy. Economic impact of outfitters included direct, indirect, and induced effects and totaled nearly \$14 million in total sales output, \$7.5 million in value-added, and 186 full- or part-time jobs for the Mississippi economy (Table 4). The economic impact of outfitters was based on outfitter expenditures funded by clientele fees as well as other sources (e.g., debt and other hunting-related revenue).

Table 4. Economic impacts of Mississippi outfitters for the 1999-2000 hunting season (2002 dollars).

Species	Deer	Waterfowl	Quail	Dove	Total
Total Output (\$)	3,676,148	1,055,175	8,788,658	318,388	13,838,369
Value-added (\$)	1,799,199	574,215	4,977,476	173,263	7,524,153
Employment #	49	14	120	4	186

The economic impact of Mississippi outfitter clientele was even greater than outfitter impacts. Total economic impacts for clientele in the pursuit of deer, waterfowl, quail, and dove amounted to nearly \$17 million in total sales output, over \$10 million in value-added, and 247 full- or part-time jobs (Table 5).

Table 5. Economic impacts of Mississippi outfitter clientele for the 1999-2000 hunting season (2002 dollars).

Species	Deer	Waterfowl	Quail	Dove	Total
Total Output (\$)	5,686,831	2,926,365	7,554,931	789,866	16,957,993
Value-added (\$)	3,657,893	1,636,528	4,518,462	440,723	10,253,606
Employment #	87	41	109	11	247

## Discussion

Hunting outfitters operating in Mississippi create a sizable economic impact on the state's economy. This economic impact is the result of, not only the expenditures of the hunting outfitters, but also the expenditures of their clientele who purchase additional goods and services in the state during their trip. This additional spending is of great benefit to local economies and a direct result of the outfitter's ability to attract hunters from outside the region who engage the services of Mississippi's outfitters.

It is important to note that outfitter impacts are, to a large degree, included in clientele impacts. The primary source of funds available to outfitters for their operating expenditures are clientele payments. Any impacts resulting from these payments are accounted for in the computed clientele impacts. Only outfitter expenditures generated by funds other than clientele payments (e.g., savings, loans, and other revenues) generate additional economic impacts. Therefore, clientele economic impacts should be greater than outfitter impacts, unless outfitters receive substantial revenues from other sources, since clientele expenditures include purchases of additional goods and services in the state economy in addition to payments to the outfitters. The economic impacts of outfitters and their clientele can be summed if clientele payments to outfitters are excluded in the calculation of clientele impacts.

In our study, clientele impacts were greater than outfitters for all game species except quail. The expenditures per activity day for quail clientele are \$95 less than for quail outfitters, and the corresponding economic impacts for quail clientele are less than that of the quail outfitters. This resulted from corporate sponsorships that accounted for up to 80% of outfitter revenues (R. Halford, Longleaf Plantation, pers. commun., 2002). Quail clientele in this study reported expenditures that did not reflect outfitter fees that were paid through corporate sponsorships; however, these payments may be included in the total economic impact.

## **CONCLUSION**

During the 1999-2000 hunting season, Mississippi hunting outfitters and their clientele produced a substantial impact on the state's economy. The activities of outfitters and their clientele resulted in \$17 million in industry output, over \$10 million in value-added, and 247 full- or part-time jobs and nearly \$14 million in industry output, \$7.5 million in value-added, and 186 full- or part-time jobs, respectively. The activities of Mississippi's hunting outfitters resulted in a sizable impact on the state's economy, and the vast majority of this economic activity occurs in the state's rural areas where hunter expenditures can substantially enhance local economies and rural development. This study demonstrated the contribution of hunting outfitters to the Mississippi economy. Federal and state government and wildlife management agencies can increase the economic impact of the hunting outfitter industry by supporting legislation and policies that enhance the use of Mississippi's renewable wildlife and forest resources.

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