Deer Hunter Economic Expenditure and Use Survey, Southeast Alaska

By Ginny Fay and Michael Thomas

Habitat Technical Report 86-10

Alaska Department of Fish & Game
Division of Habitat

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RESULTS OF THE 1985 DEER HUNTER EXPENDITURE AND USE SURVEY

Introduction

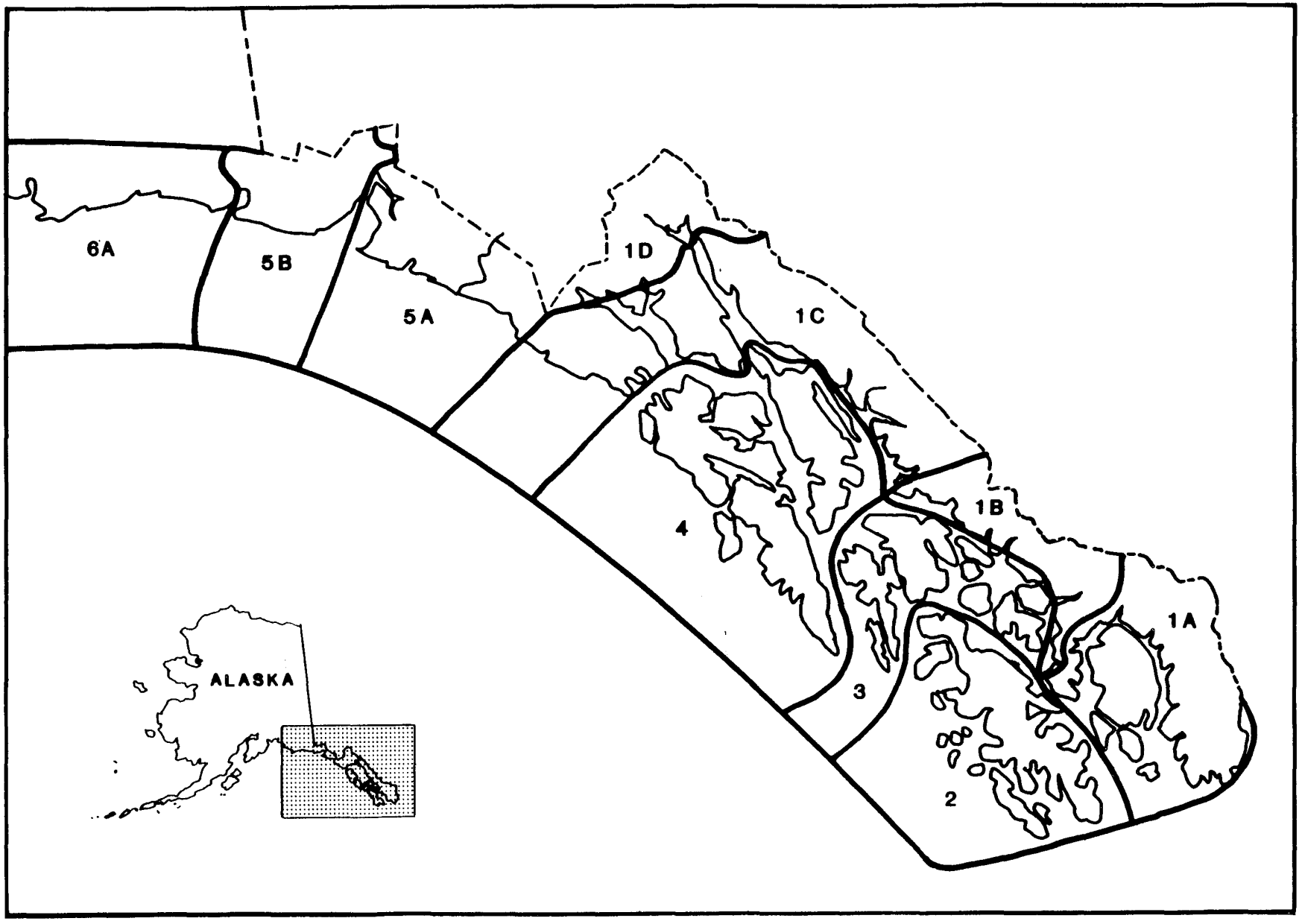
The deer hunter survey was a joint project of the Alaska Department of Fish and Game's (ADF&G) Divisions of Habitat, Game, and Subsistence. The survey was an expansion of the deer hunter mail questionnaire that has been conducted since 1980 by the Division of Game. The primary objective of the annual deer hunter survey is to provide information on the participation, effort, harvest, and success of reporting deer hunters in the Southeast Region on a community and harvest area basis. The survey was expanded in 1985 to obtain additional resource use information for area planning efforts for the Tongass National Forest Land Management Plan revision scheduled for completion in 1989. The expanded portion of the survey asked hunters how hunt area characteristics influenced their selection of hunt areas. It is also contained questions regarding hunters' age, household size, and income level, hunter travel modes and time, other activities engaged in while hunting, and hunting trip expenditures.

Hunting Background

In Southeast Alaska (map 1), Sitka black-tailed deer are indigenous to the mainland south of Berners Bay and most islands of game management units (GMUs) 1,2,3, and 4 (Johnson and Wood 1979). Deer were transplanted to the Yakutat area game management subunit (GMS) 5A in 1934, where they now occur at relatively low levels (ibid.). During the early 1950s, deer were also transplanted to Sullivan Island in Lynn Canal and the Taiya Valley near Skagway, but harvestable populations have not been established. The general distribution of deer in GMU 6 does not include the portion of GMU 6 within the Southeast Region (Doerr and Sigman 1986).

Deer comprise over 90% of the total big game animals harvested annually in the Southeast Region (ibid.). During 1960-1968, deer were abundant from Dixon Entrance to the Admiralty-Baranof-Chichagof Islands and the yearly estimated harvests by licensed resident hunters averaged 11,200 deer. In the late 1960s and the early 1970's, the deer population crashed throughout the Panhandle and the estimated average annual harvest during 1969-1974 declined to about 5,200. Since this decline, deer populations have increased to, and remained at, relatively high densities in GMU 4 and remained at low-to-moderate densities in most of the remainder of Southeast Alaska (ibid.). In 1985, an estimated 12,420 licensed hunters harvested an estimated 15,177 deer (tables 1 and 2). During 1980-1985, total harvests, number of deer hunters, and total hunter-days increased fairly steadily (tables 1-6) (Doerr and Sigman 1986). About 69% of the estimated deer harvest during the 1985 season occurred in GMU 4.

Surveys of hunters suggest that during 1960-1968, when deer populations were high, seasons were liberal, and the bag limit was four deer



Map 1. Game management units in southeast Alaska.

of either sex over most of the Southeast Region. Hunters in the communities of Juneau, Sitka, Wrangell, Ketchikan, and Petersburg killed an average of about two deer per hunter, spent an average of six days hunting deer each year, and had an average hunter-success rate of 75%. From 1969 through 1974, the hunter-success rate dropped to about 40% (with substantial variations among communities), the deer per hunter figure declined to less than one, and the average number of hunter-days per deer killed went from three to seven regionwide. Interestingly, the average days spent hunting deer per hunter remained at six per year. However, a substantial decline in the percentage of licensed hunters who hunted deer occurred in larger communities where the average effort per harvest adjacent to the community increased to the range of 8-13 hunter-days per deer (ibid.).

Surveys in the 1960s, 1970s, and 1980s indicate that hunters from smaller communities in the Southeast Region generally have somewhat higher success rates and higher average deer harvests per hunter than hunters in larger communities, if nearby deer densities are similar. Evidence suggests that deer harvests by rural residents and residents in smaller communities may have been underestimated in estimates of regionwide deer harvests (ibid.). For the years 1980 to 1985, however, it appears that response rates of smaller communities have been increasing (tables 2-6). Therefore, it is likely that harvest estimates for these communities have improved in accuracy.

Estimates from 1980 through 1984 have indicated that 15% of the people who picked up deer harvest tickets were Southeast Alaska residents outside the communities of Juneau, Sitka, Wrangell, Ketchikan and Petersburg. These people harvested an average of 20% of the deer taken in the Southeast Region. Only a minor percentage of the Southeast deer harvest is currently by nonresident hunters and Alaska hunters who reside outside the Southeast Region (ibid).

Hunter surveys have shown that when deer populations are high near a community, most of the community deer harvest occurs within approximately 30 miles of the community. When deer populations decline in the vicinity of a community, some hunters travel to other areas where deer populations are abundant and/or seasons are more liberal (e.g., Petersburg and Wrangell hunters increased their hunting efforts in GMU 4 since deer populations have declined in GMU 3). However, fewer hunters engage in deer hunting when they must travel greater distances. The number of active deer hunters, in relation to the number of licensed hunters, and the community deer harvests decline in areas where deer are not locally abundant. Dramatic changes in regional and community deer harvests, hunter success, average hunter-days/deer killed, average deer/hunter, and number of active deer hunters appear to be related to changes in deer densities (ibid.).

Economic Background

Two basic benefits result from the use of wildlife resources -- economic impact and economic value. An economic impact is the answer to the question: "What is the economic activity generated by the use

of the resource?" Economic value is the answer to the question: "How much value do people place on the resource?" These two benefits are distinct but they are not entirely separable. Neither type of benefit is more significant than the other but they answer two distinctly different questions (Rockland 1985).

Each question is important for different reasons. Public policy decisions are often based on economic impacts to communities and regions which translate into jobs, income, and tax receipts. In contrast, economic value is the value that people place on the resource. This concept is especially important to people who value the hunting experience and/or who value wildlife populations as a component of hunting or other outdoor experiences. Economic value, however, is more difficult to measure than economic impacts.

Values attributable to the Sitka black-tailed deer resource occur to both users and nonusers of the resource. Users derive value from consumptive or nonconsumptive use of the resource, vicarious use (reading or watching films about the resource), and indirectly as a result of scientific studies or the preservation of ecological balance. Nonusers can benefit both from option and existence values. Option values include the opportunity to use the resource at some other time (e.g., going hunting next year). Existence values include deriving pleasure from knowing that deer exist and are not extinct, bequest value (leaving deer for the enjoyment of future generations), and cultural values (the importance of deer in myth, legend, ceremony, religion or other aspects of culture). Figure one shows the relationship between different components of economic benefits and wildlife resources.

Because the information in this report comes exclusively from a portion (approximately 64% of a 25% random sample of reporting hunters or 16% of the total population) of hunters who obtained harvest tickets and reported hunting deer in Southeast Alaska during the 1985 season, only values derived from reported consumptive use are included in this report. This survey did not address the economic impacts and values of nonconsumptive recreational and tourism values, option, bequest, and existence values, ecological and scientific values, or cultural values. Because deer hunting is not a market activity, this project, unlike economic assessments of market commodities which provide information on the potential encomic impact and value of priced goods, did not attempt to determine the value of deer hunting to potential users nor did it attempt to compute the economic value of an individual deer or its income-generating potential to the Southeast Region. To analyze the economic tradeoffs regarding deer use and habitat for land use planning and cost-benefit analyses, these other components of economic benefits must also be considered.

The questionnaire obtained data on the direct economic impacts of consumptive use of deer in the region. Direct economic impacts are the initial purchases (or expenditures) by the users of the resource. Direct impacts result in both indirect and induced impacts which further affect the economy. The survey also obtained a considerable

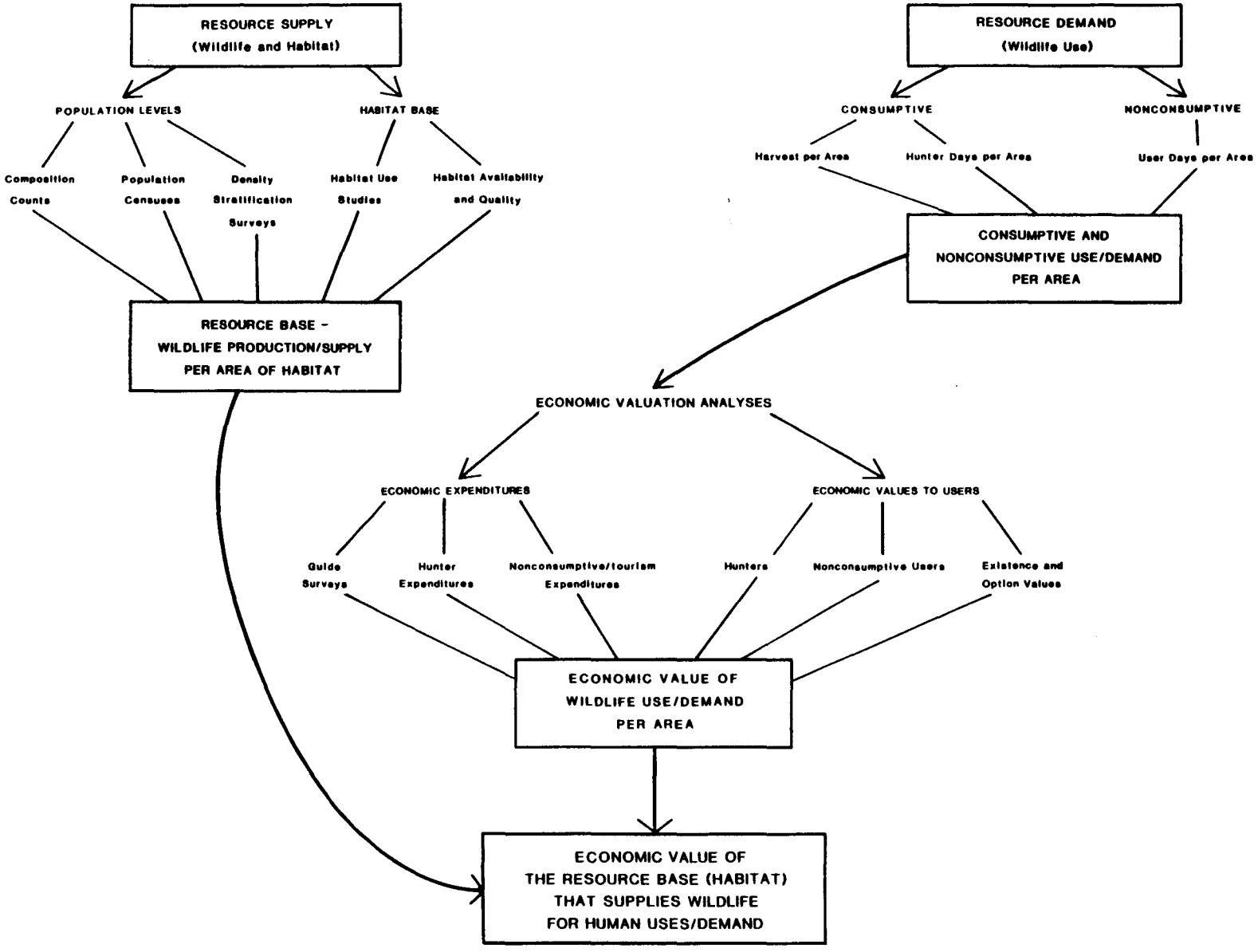


Figure 1. Interrelationship of major components of economic valuation analyses of demand and supply of wildlife for land use planning.

amount of information regarding hunter demographics, hunting patterns, hunt area characteristics, and transportation modes. The latter three categories of information are directly pertinent for land use planning. These results answer questions regarding hunter demand for facilities such as developed anchorages, trails, and roads. The information on hunt area characteristics and hunter demographics also provide information on the type of hunt being demanded and by whom. This is significant because hunters spend what they are able (subject to their incomes) and what is required (influenced by available access and transportation modes) to engage in a particular type of hunt (indicated by their response to hunt area characteristics). If hunt area characteristics in the region change considerably, it can be expected that demand for certain areas and expenditures to hunt in these areas would also change.

Results of this study must be viewed in light of the biological status of deer populations, access to hunting areas, and the hunting regulations which prevailed at the time of the survey. These temporal conditions can significantly alter use patterns and influence the economic data regarding resource use. For example, area closures or use regulations, access and season restrictions, and bag limits can all affect the measurable expenditures and values of hunting activities. Hunting regulations can also affect the size and characteristics of the population of hunters in a given area; this can significantly alter the measurable economic results. Examples of this are area closures that limit the number of users in specific areas or access restrictions that affect the cost of hunting in specific areas and thus the numbers and income levels of resulting hunters in the area. The allocation of permits between resident and nonresident hunters (as in some caribou, moose, Dall sheep, and brown bear hunts) is another example of how management policies and regulations can directly affect the results of economic studies. Southeast Alaska deer hunting regulations for the 1985 season are presented in table 7.

Methodology

The mail questionnaire was designed by Region I Divisions of Habitat, Game, and Subsistence staff in consultation with a number of economists from Juneau, Alaska and the University of Washington, Seattle. An information packet was initially sent to the economists and departmental staff. A meeting was subsequently held with the objective of developing a survey design and discussing technical problems associated with a deer hunter economic survey in Southeast Alaska. Following this meeting, a draft questionnaire was written and sent for review to the consulting economists and ADF&G staff. Following this review period, a final questionnaire was completed.

Information on the survey was presented to the Southeast Regional Council members in December 1985. This was done to explain the objectives of the questionnaire and potentially increase the response rates from smaller communities. The council members also pretested the survey. A copy of the questionnaire is attached in appendix one; a list of the economists who helped design the survey is located in appendix two.

The questionnaire format and design followed the Total Design Method described by Dillman (1978). Because this 1985 deer questionnaire was the expansion of the Division of Game's annual hunter survey, a primary objective of the survey design was to assure compatibility of annual harvest and effort data and response rates with the 1980-1984 hunter surveys. Also, two surveys of moose and mountain goat hunters had been conducted in Southeast Alaska for the 1984-1985 hunting season. In order to make the results of the deer questionnaire relatively comparable to these results, some of the same questions were asked on the deer survey.

A series of three questionnaires and one reminder postcard was mailed over the period January to March 1986. Questionnaires were sent to a random sample of 25% of persons who obtained harvest tickets for the 1985 season. The sample was drawn by community for all communities that had at least one harvest ticket recipient (table 8). This was done to assure proportional sampling of smaller communities that might otherwise be dominated by larger communities if the sample had been randomly drawn regionwide. The first mailing occurred in mid-January and was followed one week later by the reminder postcard. The second and third questionnaire mailings followed the first by approximately one and two months, respectively. An interesting pattern emerged from the survey returns -- the majority of respondents from larger communities returned their surveys after the first mailing and had relatively fewer responses after the second and third mailings. The response pattern was generally the opposite for the smaller communities in that there was an increasingly larger response with each questionnaire mailing. This could be an important factor to consider with mail surveys in order to address problems regarding lower response rates by rural residents.

After the survey questionnaires were returned, they were coded, keypunched, and loaded into an IBM 3081K computer for summary and analysis. Means and summary statistics were computed for survey questions as appropriate. Response rates averaged 64% (table 8) which prevented the reporting of reliable standard errors of our estimates. Response rates of smaller communities were some of the highest in the region which means smaller communities were well represented in the sample. Classical sampling literature suggests measures of variation on samples with less than a 95% response rate can be seriously misleading (Cochran 1963).

The concern with nonresponse is that nonrespondents might represent a different population of hunters than respondents and thus result in a nonresponse bias. One method to determine nonresponse bias is to test for significant trends in answers to specific questions over subsequent mailings. Another method involves sampling a portion of the nonrespondents and testing for differences with the original respondents. Time and budget constraints did not allow for subsampling nonrespondents. However, tests for trends in answers by mailings proved insignificant in previous surveys of deer hunters, indicating that respondents could be treated as an unbiased sample of the total population. Yet, without the opportunity to sample the nonrespondents

estimates of precision would be misleading and have therefore, not been made. Estimates of means and totals are general approximations of true values with no reliable measure of precision. For purposes of evaluating the relative importance of deer hunting to various sectors of the economy, general demographic composition of hunters, and characteristics important in choosing hunting sites, these estimates are adequate.

All means are the simple arithmetic averages of responding individuals. The number of responses for each question varied because all respondents did not answer all questions; calculations were made based on the number of actual responses. As in previous years, harvest data were expanded from the survey sample to the total population of deer harvest ticket holders who hunted during the 1985 season (see table 1). Deer hunter expenditures were also expanded by a factor based on the response rate of the hunters' community of residence. Here the total was expanded for all hunters who legally hunted deer in 1985 by multiplying the sample total by the inverse of the response rate providing an estimate of the total dollars deer hunting directly contributes to the regional economy.

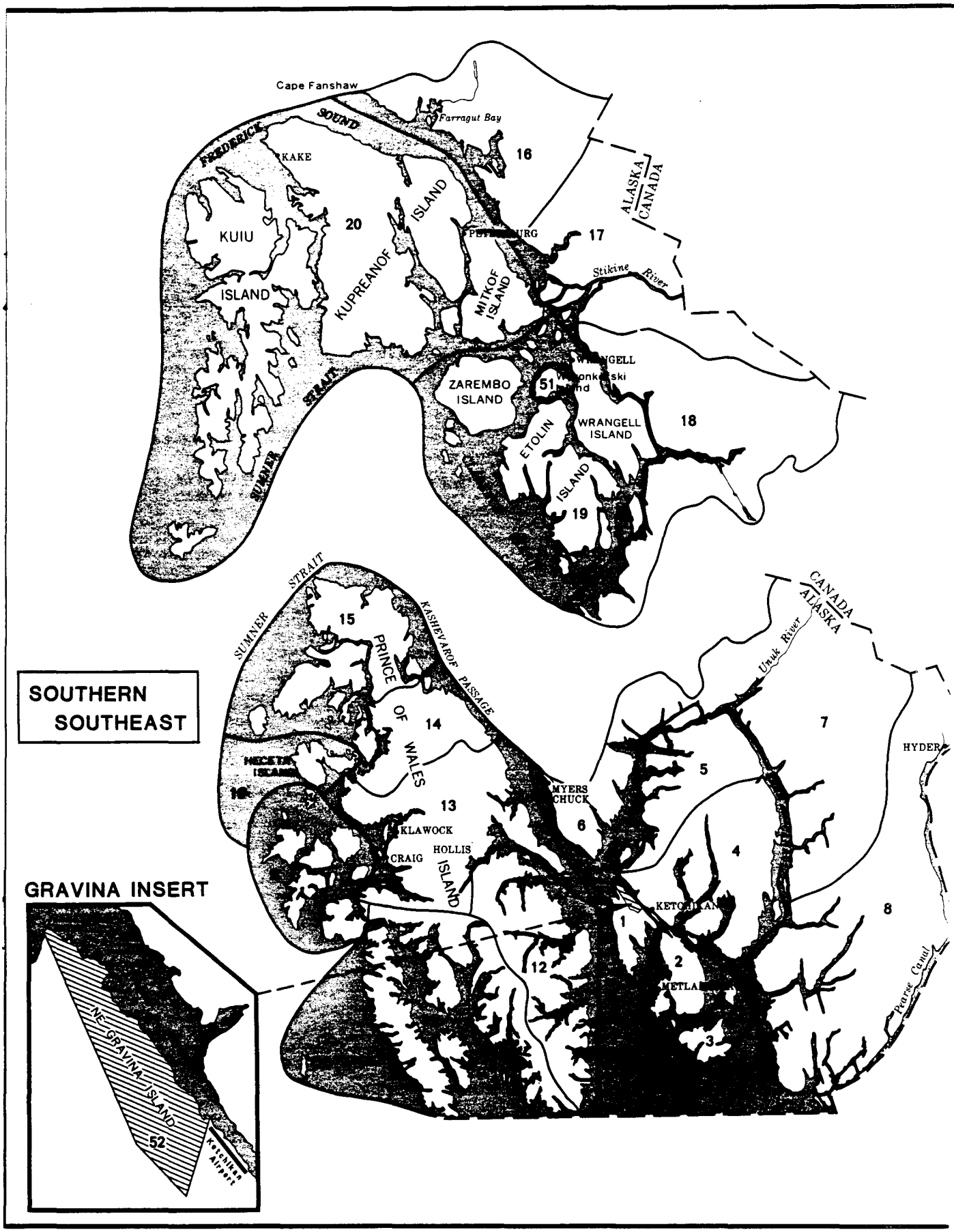
Results

Hunting Patterns

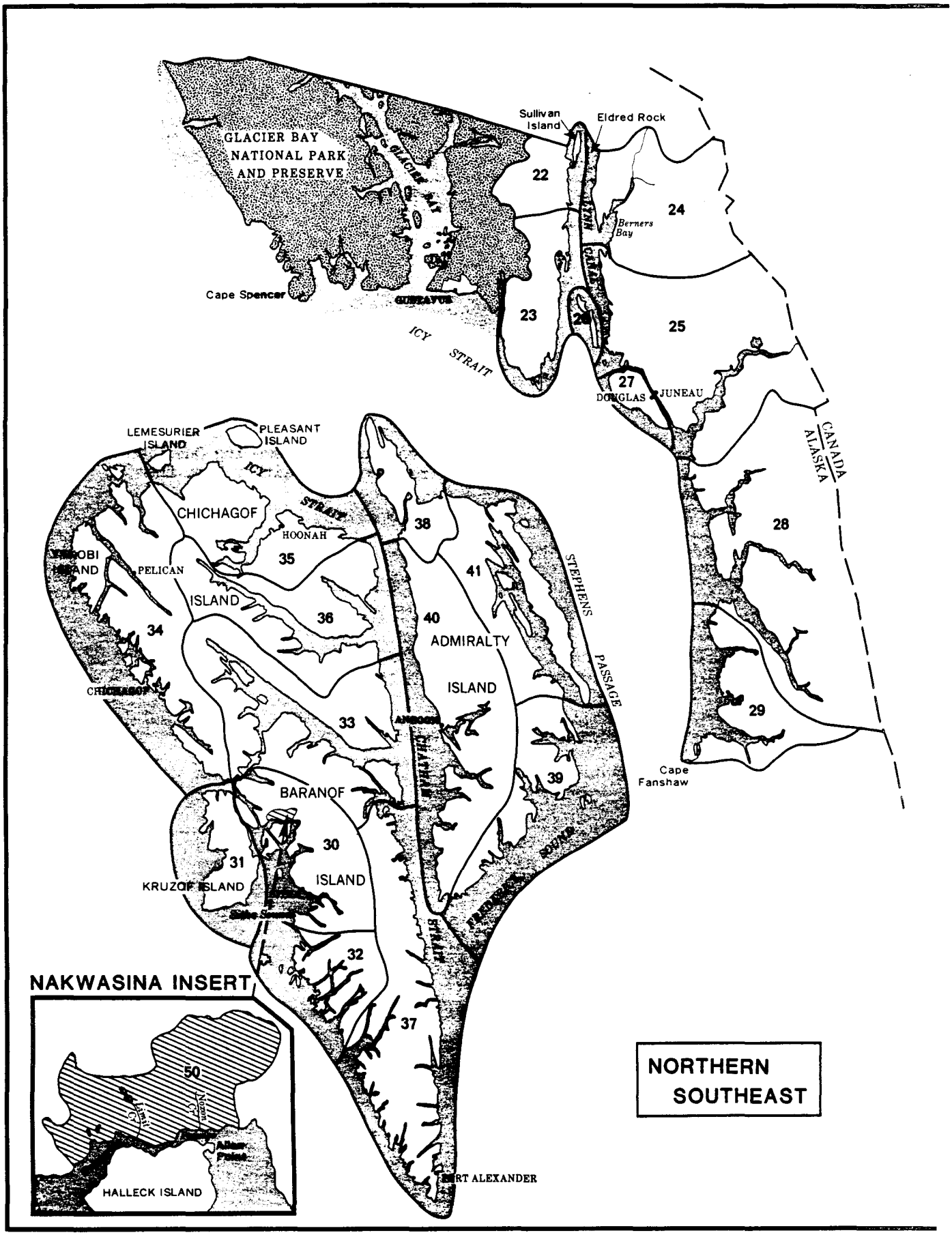
For most communities in the Southeast Region, deer hunting occurred in areas immediately adjacent or surrounding the town (table 9, map 2). The exceptions to this were larger communities (Juneau, Ketchikan, and Sitka) and/or communities where deer densities were relatively low and deer hunting closed (Haines, Yakutat, Wrangell, Petersburg) (Doerr and Sigman 1986). Nonresidents and other Alaskans also hunted in a variety of harvest areas but most of these tended to be in GMU 4 where deer populations were high and hunt areas uncrowded (table 9, maps 1 and 2).

The majority of effort, in terms of hunter days, and number of trips taken was from hunters who were residents of GMU 4 which is similar to previous survey results that indicate that deer hunter participation is influenced by hunter success. As mentioned previously, GMU 4 resident hunters also harvested the majority of deer in the region during the 1985 season (tables 10 and 11). Also consistent with previous results, hunters from smaller communities generally had higher success in terms of deer per hunter day and hunter days per deer (table 12). Hunter days of effort, deer harvest, and success rates varied considerably between harvest areas (table 13). For the region as a whole, however, hunters averaged approximately 1.8 deer per hunter and 2.3 hunter days per deer which is a relatively high rate of success (table 12).

Hunters in the region averaged 2.7 hunting trips during the season. The mean number of trips taken by community ranged from one in Yakutat to four in Elfin Cove (table 14). The total estimated number of deer hunting trips taken during the 1985 season was 22,653 (table 14).



Map 2. Sitka Black-tailed deer management harvest areas in Southeast Alaska.



Map 2. Sitka Black-tailed deer management harvest areas in Southeast Alaska.

Hunt Site Characteristics

Question number one on the survey asked whether a hunt site characteristic caused the survey recipient to select or avoid a particular hunt site or whether the characteristic did not matter. The question also asked hunters to rank the five hunt area attributes that they considered most important. The results are presented in tables 15 and 16. Out of the 25 characteristics hunters were asked to evaluate, 10 did not matter to the majority of respondents. These included float-plane, wheelplane, and ATV access, public and private cabins, developed or undeveloped campgrounds, other hunting or sport fishing opportunities, or outstanding scenery. Nine characteristics were selected by the majority of respondents. These included good chance of getting a deer, protected waters and boat anchorage or landing, close enough for a one-day trip, wilderness or natural area, uncongested, alpine area, muskegs, and hunting partners' preferred areas. No characteristic was avoided by the majority of respondents. The attribute of development (private homes, logging camps, shoreline development, for example) however, was avoided more than it was selected or did not matter. In terms of ranking of hunt site characteristics, the order generally reflected attributes that were selected, followed by those that did not matter, with those that were more avoided being lowest on the list.

In summary, reporting hunters in Southeast Alaska generally wanted a good chance of getting a deer in an area that was close to home and accessible by boat. It was also important that this area be an uncongested natural or wilderness area. These results are compatible with the hunting pattern results presented in table 9 which indicate that the majority of hunters hunted relatively close to their community of origin. Hunter transportation information (table 22) demonstrates that the majority of respondents used boats (either alone or in combination with other transportation methods) to access their hunting areas.

Hunter Demographics

The median taxable income for the Southeast Region based on 1980 U.S. Bureau of Census data was $25,388. The relationship, however, between taxable income and gross (before taxes) household income in this survey is unknown because the number of wage earners in the sampled household is unknown. This discrepancy makes the survey income information less useful for planning purposes because it is not comparable to regional income figures. For planning, hunter income information could be used to anticipate changes in hunter numbers based on changes in income or shifts between hunt areas or types of access as a result of changes in income.

Reported deer hunter income in the Southeast Region during 1985 ranged from the income category of $0-$9,999 to over $100,000 (table 17). The median category was $30,000-39,999; over 50% of the responding deer hunters' household before tax incomes were over $30,000. The majority (69%) of responding deer hunters were either self-employed

(21%) or employed in a year-round job (48%) at the time of their 1985 deer hunt. Fifteen percent reported that they were unemployed and 14% indicated that they were employed part of the year but not during their 1985 deer hunt (table 18). These figures indicate that during the deer hunting season (August through December), the unemployment rate for survey respondents could have ranged from 15% to 29% (depending on how the 15% and 14% unemployed groups overlapped over the hunting season time period).

Official unemployment statistics reported a 9.7% rate of unemployment for the total population of the Southeast Region for the same period (U.S. Dept. Labor 1986). The discrepancy between these figures could result from the official statistics not accurately measuring unemployment rates. This can occur because people are only officially considered unemployed if they are not working and actively seeking employment. If a person is unemployed but not looking for work through official channels or receiving unemployment benefits, they are not included in official unemployment figures. It is also possible that the responding deer hunters were a different subpopulation with a higher rate of unemployment. Most likely it was a combination of both of these factors that resulted in the difference between the survey and U.S. Department of Labor statistics.

While the survey income figures are not comparable to standardized income statistics, they are comparable to the income results for the mountain goat and moose surveys completed in the region. These results indicate that as a whole, the average mountain goat hunter's income was higher than moose or deer hunters but that average moose hunter income was above deer hunters (Fay and Thomas 1986a,b). The hunter survey results are internally consistent which means that comparison of deer survey results is valid between communities or hunt areas.

The average reported hunter household size for the region was 3.3 persons. The U.S. Bureau of Census 1980 information reports that the average household size in the Southeast Region was 2.96 persons and the average family size was 3.32 persons. A household is defined as the number of unrelated persons occupying a given housing unit. A family is defined as the number of related person living in a housing unit and must be at least two persons. The questionnaire did not determine if the respondent was a member of a household or family by the above definitions. It is likely that the questionnaire sampled a combination of households and families and the reported average household size is a combination of the two. The survey average was approximately equivalent to the average regional family size. Two possible explanations for the relatively larger hunter respondents' household size are that 1) the larger number of people provides greater incentive for harvesting wild meat making hunting more cost effective and 2) people with families are more long-term residents of the region and hunt as part of the area's lifestyle. The reported deer hunter average household size was slightly below the average mountain goat and moose hunter household size of 3.4 (Fay and Thomas 1986a,b).

Deer hunters in the region ranged from under 12 years old to over 75 years old (table 19). The median age category was 25 to 35 years old. These results indicate that deer hunters in the Southeast region were on average younger than moose and mountain goat hunters (Fay and Thomas 1986a, b).

Hunters who answered the survey had on average hunted deer in Alaska for 11 years. The average number of deer eaten per household, including deer meat received from others, was 3.1 deer. For all persons who hunted in the region: 80% indicated that the harvested deer meat was eaten by their household; 19% gave meat as gifts to other households; 3% traded deer meat for other meat; fish, or goods; 3% hunted primarily for a trophy; and 3% preserved the deer for future use. More than one answer was possible (table 20).

Table 21 provides information regarding alternative meat sources if hunting trips in 1985 were unsuccessful. The majority of respondents (54%) would purchase more food from the store. Thirty-two percent would go fishing more than usual, 27% would eat less meat, and 18% would receive meat from others. Other smaller percentages of respondents indicated that they would hunt goat, moose, bear, grouse, and/or waterfowl more than usual. These results indicate that approximately one-fifth of the wild deer that was harvested in the Southeast Region in 1985 was shared between households. Alves (1981) reported a similar result in a study of the use of wild resources in the region. Appendix four contains the results of the use of deer questions for communities in the Southeast Region.

Hunter Transportation Modes

Question nine on the survey obtained information on hunter transportation methods by trip. Answers to this question were categorized into travel modes for each trip taken (i.e., all answers indicating the use of boats, e.g., "own boat", "friend's boat", were grouped into a "boat" mode response) and analyzed with respect to community of origin of the hunter. Table 22 displays the number and percentage of trips taken by deer hunter survey respondents using specific modes or combinations of modes of transportation by selected communities of residence. Selection of communities was based on having a sample size of at least 10 trips by respondents.

Boats were the most frequently reported mode of travel for all communities (46% regionwide) except Craig, Hoonah, Klawock, and Thorne Bay. Reported use of boats by residents of other Southeast communities ranged from 39% in Juneau-Douglas to 100% in Pelican and Port Alexander (table 22). Many respondents also reported using a combination of a boat with a car or truck, which in most cases, was a boat trailered to a boat launching area.

Cars or trucks were reported as the most frequently used mode of transportation by hunters from Craig (60%), Hoonah (49)%, Klawock (83%), and Thorne Bay (90%). Other communities reporting the sole use of cars or trucks on hunting trips included Elfin Cove (42%), Haines

(12%), Hydaburg (38%), Juneau-Douglas (19%), Ketchikan (25%), Petersburg (5%), Sitka (11%), Wrangell (6%), other Alaska (11)%, and nonresidents (9%). Eleven percent of Ketchikan respondents also reported using a combination of car or truck and ferry. Cars or trucks accounted for approximately 21% of the regionwide travel modes (table 22).

As mentioned previously, the community of residence information is based on the permanent address provided to the department when a hunter obtains deer harvest tickets and is not necessarily the community from which a hunter made trips. This could explain the sole use of cars or trucks for Elfin Cove (which has no road system), Haines (which had no areas open to deer hunting that were connected to the road system), and other Alaska and nonresidents (who would have to use other transportation means to travel to hunting areas in the Southeast Region). No difference between community of residence/mailing address and community from which hunting trips originated, would probably mean that the hunter misunderstood the question and answered it incorrectly.

Small planes were used infrequently by most reporting deer hunting (approximately 5% overall). They were reported used, however, by 11% of Juneau-Douglas hunters, 12% of Other Alaska hunters, and 7% of Petersburg hunters. A combination of small plane and boat was used by approximately 1% of the responding hunters. This combination was primarily used by Juneau-Douglas hunters (table 22).

Walking as a sole means of transportation, was reported by some respondents from Craig (2%), Haines (10%), Hoonah (1%), Juneau-Douglas (2%), Ketchikan (3%), Klawock (2%), Sitka (6%), Tenakee Springs (42%), Other Prince of Wales (4%), and Wrangell (3%). Walking accounted for 3% of the reported travel modes regionwide (table 22).

Most combinations of travel modes other than boat with car or truck were reported infrequently by respondents. As compared to surveyed moose and goat hunters in the region (Fay and Thomas 1986 a,b), deer hunters used less of a variety of transportation modes and relied more extensively on boats. The use of boats as a primary mode of access by deer hunter survey respondents reflects the general nature of transportation systems in Southeast Alaska, which are primarily marine. Most communities have a limited road system with ferries and/or airplanes providing the only means of transportation between communities or out of the region. Prince of Wales Island and the northern portion of Chichagof Island are two areas with more extensive road networks as a result of relatively recent timber harvesting in those areas. The greater availability of roads is reflected in the use of cars or trucks by respondents from Prince of Wales Island communities (Craig, Hydaburg, Klawock, and Other Prince of Wales) and Hoonah. Ellanna and Sherrod (1986) provide an evaluation of the response of Klawock hunting patterns to the changes in hunting access technologies in recent years. Others studies by the ADF&G Division of Subsistence, Leghorn and Kookesh (1986) and Schroeder and Kookesh (1986), provide more information on the effects of roading on hunting

patterns and hunter success in the communities of Tenakee Springs and Hoonah.

Hunter Expenditures

Questions 12 and 13 on the survey asked hunters what their 1985 hunting expenditures were in a variety of categories. The types of expenses in question 12 are examples of variable costs because they vary or can change with the number of trips or the duration of trips. In contrast, the expenditure categories in question 13 are for durable equipment or capital goods which can be used over a number of years and for purposes other than hunting deer. Equipment expenses are fixed in that the cost of a rifle remains the same regardless of how many times it is used (ammunition and cleaning would be the variable costs) but the costs would be prorated or accounted for over the number of times and/or years it is used.

Costs of equipment in expenditure surveys pose problems because it is difficult for respondents to account for the costs of items used repeatedly and for different purposes. Also, the useful life of equipment and the variety of other activities the equipment can be used for may vary considerably between users. For these reasons, it is especially important that questions regarding equipment costs be carefully designed and worded and only ask for equipment cost in the year the survey is conducted. If that is done most problems can be resolved. The problem posed by the fact that equipment use spanning a number of years is accounted for by the fact that only a portion of users purchase these items in the survey year. For example, if rifles on average are used for ten years, then 10% of the survey sample would report rifle expenditures in 1985. These expenditures would accurately portray costs for the group assuming there is an adequate sample size. Similarly, if tents are on average used five years, then 20% of the sample would have tent expenditures listed under the "camping equipment" category. The deer questionnaire asked only for 1985 expenses and for the portion of use that was directly attributable to deer hunting. Therefore, expenditure results reflect annual dollars spent on equipment for the purpose of deer hunting.

Tables 23 to 31 provide the results of the expenditure questions by expense categories. These results are presented for the region and by selected communities. The selection of communities is based on having an adequate sample size (approximately $n > 10$) to make the results meaningful. Within these tables, average expenditures are presented in two ways. One is the average cost for all responding hunters (referred to as "all"), the other is the average cost for the responding hunters who used a particular category (referred to as "users"). The total expenditures are based on the number of hunters who hunted in an area and answered at least one expenditure category on the survey. The expenditures by selected communities are for a sample of hunters and, therefore, are not the actual total expenditures. Because response rates varied by communities (tables 8) and these totals were not expanded, this should be taken into consideration when using these results.

Tables 32 and 33 summarize the average deer hunter expenditures per hunter, per hunter day, per trip, and per deer killed for the Southeast Region by hunter community of residence and hunter game management unit of residence. Average costs per day totaled $120 for the region as a whole and ranged from approximately $34 for hunters from Gustavus to $244 for nonresident deer hunters. Expenditure per day information is not as reliable for communities with very small sample sizes because if a major equipment expense occurred there is not an adequate number of hunters over which to spread these expenses accurately. This should be considered when comparing values between communities. Deer hunters in the Southeast Region who responded to the expenditure question on the survey spent an estimated $696,791 in direct expenses to hunt deer in 1985. When this value is expanded from the sampled hunters to the total population of 1985 hunters, the direct hunter expenditures totalled $4,603,068. The total economic impact on the regional or local economies can exceed these direct expenditures because hunter purchases may result in further expenditures by businesses.

Because hunter participation is responsive to hunting success rates (deer per day) and deer hunting success rates are generally a function of deer densities, the total amount of deer hunter expenditures is ultimately influenced by deer population levels. The average days hunted per hunter has remained relatively constant over the past 20 years for which there are data. Results of this survey as well as previous surveys indicate that the number of hunters in the field, varies with the likelihood of hunter success. It is likely that economic benefits to the Southeast Region tend to increase with larger hunter participation as a result of relatively higher deer densities and hunter success rates. The extent to which these are net benefits, as opposed to the shifting of expenditures between economic sectors, depends on the substitutability of these expenditures between sectors. On one hand, additional hunter expenditures could completely retain dollars which would otherwise leave the region or they could merely transfer expenditures around within the regional economy. Increases in nonresident hunters, however, would be additional net benefits.

In order to evaluate the effects of these expenditures, it is helpful to look at the Southeast Alaska regional economy. Rogers (1985) described the economy of the region as a colony of the continental United States and Japan. Most of its land is under public ownership (the U.S. Forest Service and the State of Alaska) and its land and marine resources under public management. Its economic system produces raw or semi-processed materials from its natural resources for export, provides state government services for the rest of the State of Alaska, and offers scenic and recreational resources for enjoyment of its residents and tourists. It is far from self-sufficient. Virtually all of the goods required by its residents and the supplies and equipment and most of the capital required by its industries must be imported from outside the region. Given the simplicity of the system being represented, overly elaborate economic modes (e.g., input/output) are not appropriate (Rogers 1985).

A simple and useful model to describe this type of regional economy is an "export-base" model. This model was used in studies for the Tongass Land Management Plan (Rogers 1978) and the Alaska National Interest Land Conservation Act section 706b review (Rogers 1985). Using this traditional export-base model, total employment (i.e., economic market activity) divided into three categories; the basic, support, and local/state government sectors (the federal government is assumed to part of the basic sector (ibid.). Non-market or mixed-cash components of the regional economy introduce further complications which were not considered by this survey. For more information on these aspects of local economies see Wolfe and Walker 1986.

The basic sector of the regional economy is comprised primarily of industries producing goods and services for use outside the region. In Southeast Alaska this includes fish harvesting and processing, logging and forest products, mineral extraction, and tourism. Production of goods and services for regional consumption, however, would be considered part of the support or residentiary sector (a bakery producing bread for local consumption, for example). Employment in the support sector (which is retail and wholesale trade, transportation, communication, utilities, finance, insurance, real estate, and services) is indirectly a function of employment in the basic, government, and support sectors. The degree to which changes in one sector result in growth or expansion in other sectors in the economy depends on "leakages" in the economy; the effect of growth or decline is called the multiplier effect. The size of the multiplier is dependent on the amount of leakage of dollars out of the regional economy.

Because the Southeast Alaska regional economy is primarily an import-export economy, these leakages tend to be fairly large and dollars leave the region after relatively few rounds of spending. For example, if a pay raise results in out-of-state vacation using an out-of-state transportation means, the region receives little benefit from this additional income. In contrast, if the person buys a boat and goes fishing in the region, a larger portion of dollars remains within the regional economy. The boat, however, if manufactured elsewhere and imported to the region is creating a partial leakage because its wholesale value was paid out of the region. The wages paid by the local business and the profits it receives for selling the boat, however, can result in further rounds of local spending.

Deer hunting activity in the Southeast Region is part of the basic tourism and recreation industry. However, no reliable or useable data exist for making accurate estimates of tourism/recreation employment (Rogers 1985) and of the multiplier effects of deer hunting to the regional economy. The total economic effects of deer hunter expenditures on the regional economy may exceed direct expenditures because hunter purchases result in further expenditures by businesses. The extent to which this subsequent indirect and induced economic activity remains in Southeast Alaska as opposed to "leaking out" of the region or state is uncertain.

Because deer hunting does not attract many people to the region, especially nonresident hunters, a relatively small portion of the dollars spent on deer hunting is a direct influx of receipts into the regional economy. It can be argued that deer hunting expenditures by residents of the region inject few "new" dollars and their expenditures would be funnelled into substitute goods or activities given changes in the opportunity to deer hunt. This would especially be true for expenditure categories such as groceries because people buy food and eat regardless of their activities. It could also be argued that if the state of Alaska encouraged the marketing of goods and services associated with deer hunting by non-resident hunters in Southeast Alaska, substantial "new" money could be added to the state and regional economy. Deer populations in Southeast Alaska could sustain increase hunter effort and harvest if it was distributed to relatively underutilized areas within the region.

Expenditures by resident hunters would only be insignificant to the regional economy, however, if within the region there existed perfect substitutes for deer hunting to which hunters would shift their expenditures. It is possible that substitutes for deer hunting do not exist or that substitutes would result in a net flow of dollars out of the region (hunting in other parts of Alaska or Canada or purchase of meat imported from out-of-state, for example). If the alternative to resident deer hunting expenditures in the region would be substitutes that result in the export of dollars from the region, then spending by resident hunters would not be an insignificant recycling of dollars but significant inputs to the regional economy by reducing leakages. This project did not determine substitutes for deer hunting in the region. In this regard, the economic effects (or impact) of changes in the opportunity to hunt deer in Southeast Alaska is uncertain.

As the majority (97%) of the reported motives for deer hunting in the Southeast Region was for meat, the replacement value of the deer meat was calculated to determine the economic benefits of a locally available food source. These values are presented in table 34. The calculation of useable pounds of deer is based on an average of 80 pounds per deer (Kookesh 1986, pers. comm.; George 1986, pers. comm.; Johnson 1986, pers. comm.). The replacement cost of meat (beef) for individual communities was calculated by conducting phone interviews to retail food outlets in each community. The price per pound of meat is based on a one-third each breakdown of hamburger, steak, and roast cuts, i.e. an average of the three prices per pound. Meat was not available in all communities. In these cases purchasers would pay the price per pound plus freight costs from the nearest retail outlet; this was also the price used in replacement cost calculations. The estimated replacement values of reported deer harvest in Southeast Alaska during 1985 was approximately $3,602,124. Southeast Alaska resident hunters spent approximately $4,373,444 in direct expenses to harvest deer which resulted in a net replacement value of approximately -$771,320 for the region (table 34). Although the regionwide net replacement figure was negative, meaning more dollars where spent to hunt deer than the harvested meat was worth to replace, the individual figures for 16 communities were positive and 8 were nega-

tive. The negative values were generally for the larger communities in the region and large enough to offset the cost effectiveness of hunting in the smaller communities.

It is likely that on an individual basis some hunters in all communities have a positive net replacement value while others do not. The overall cost effectiveness of individual hunters is probably significantly influenced by their personal incomes and what they can afford to pay to go hunting. For communities as a whole, however, the cost effectiveness for hunting for meat is greater in the smaller communities.

The negative net replacement value for some of the communities in the Southeast Region is an indication that for at least a portion of the hunters in the communities, there are benefits of hunting other than the harvesting of meat. This conclusion is based on the assumption that people will only incur cost up to the point where the good or service they are buying is valued at least as much as the cost. These benefits most likely include recreational benefits. The communities with positive net replacement values many also have recreational and other benefits, but these are in addition to the positive net replacement value of the meat harvested. Because the questionnaire did not attempt to measure recreational benefits, these values are unknown. It is also possible that beef is not considered a perfect substitute for wild deer meat by hunters. The replacement cost for deer meat using the price of beef is thus an underestimate and reduces the net replacement cost accordingly.

The replacement cost values are only a partial value of deer hunting in the region because the meat from hunting is only one potential benefit to hunters and the regional economy of deer hunting activities. Other benefits of deer hunting include a variety of recreational values, cultural values, and social values. This survey, did not attempt to measure these other benefits so net replacement cost values, which subtract hunter costs, are strictly a value for deer meat alone and not other components of deer hunting activity.

It is important to note that hunter expenditures do not equal the value hunters place on the resource. Expenditure data underestimate value because it is assumed that people will buy a good or service if the benefits exceed the costs. Expenditures provide information on the input into the economy made by hunting activities but are less than the value and the benefits to hunters of hunting deer.

For land use planning and cost-benefit analysis for alternative uses of lands and waters, the economic expenditure information in this report accounts for a portion of the benefits to the Southeast Alaska regional economy and to consumptive users of deer populations in the Southeast Region. Therefore, to fully assess trade-offs involved with enhancement or loss of deer hunting opportunities in the region, these other benefits of the use of the deer resource need to be analyzed and considered.

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Table 1. Southeast Alaska Deer Hunter Participation and Harvest, 1980-1985

	1980	1982	1983	1984	1985
Harvest Ticket Recipients	9,095	10,632	11,377	11,812	12,420
Active Hunters	5,110	6,940	8,135	8,600	8,502
Successful Hunters	2,610	3,545	4,750	5,055	5,803
Deer Killed	5,690	7,550	11,050	11,930	15,176
Hunter Days	31,820	45,670	52,550	54,840	50,658

Source: Flynn, in prep.

Table 2. Deer Harvest Statistics by Residents of Southeast Alaska Communities, Based on a Mailed Survey[a], 1985 (for communities with at least one respondent)

Community	Population (1984)	Harvest Ticket Recipients	Active Hunters	Number of Successful Hunters	Estimated No. Deer Killed	Deer Per Active Hunter	Deer Per Successful Hunter	Deer Per Capita[e]	Response Rate (%)
Angoon	470	137 (29)[b]	97 (71)[c]	76 (78)[d]	312	3.22	4.11	0.66	58
Craig	881	368 (42)	248 (67)	200 (81)	464	1.87	2.32	0.53	51
Elfin Cove[f]	20	24 (120)	18 (75)	12 (67)	48	2.67	4.00	2.40	80
Funter Bay[f]	---	4 (---)	4 (100)	4 (100)	16	4.00	4.00	---	100
Gustavus	218	38 (17)	12 (32)	8 (75)	28	2.33	3.50	0.13	100
Haines	1,839	179 (10)	115 (64)	94 (82)	289	2.51	3.07	0.16	80
Hoonah	803	338 (42)	267 (79)	260 (97)	821	3.07	3.16	1.02	59
Hydaburg	371	56 (15)	56 (100)	42 (75)	105	1.88	2.50	0.28	57
Juneau/Douglas	23,729	3,832 (16)	2,587 (68)	1,608 (62)	4,122	1.59	2.56	0.17	68
Kake	574	154 (27)	127 (82)	76 (60)	220	1.73	2.89	0.38	47
Ketchikan	12,705	2,434 (21)	1,638 (67)	938 (57)	2,088	1.27	2.23	0.16	58
Klawock	532	228 (43)	177 (78)	143 (81)	473	2.67	3.31	0.89	52
Metlakatla	1,134	63 (6)	40 (63)	30 (75)	80	2.00	2.67	0.07	40
Meyers Chuck	52	16 (31)	12 (75)	8 (75)	20	1.67	2.50	0.38	100
Pelican	206	89 (43)	59 (66)	35 (59)	88	1.49	2.51	0.43	68
Petersburg	3,188	689 (22)	441 (64)	356 (81)	1,034	2.34	2.90	0.32	72
Point Baker	93	30 (32)	17 (57)	11 (65)	28	1.65	2.55	0.30	83
Port Alexander	162	20 (12)	20 (100)	20 (100)	60	3.00	3.00	0.37	100
Sitka	7,611	2,311 (30)	1,649 (71)	1,325 (80)	3,742	2.27	2.83	0.49	64
Skagway	794	18 (2)	8 (44)	0 (0)	0	0.00	0.00	0.00	50
Tenakee Springs	156	50 (32)	44 (88)	39 (89)	149	3.39	3.82	0.96	73
Other Prince Wales[g]	775	257 (33)	209 (81)	168 (80)	404	1.93	2.40	0.52	60
Wrangell	2,376	687 (29)	424 (62)	253 (60)	437	1.03	1.73	0.18	65
Yakutat	453	8 (2)	8 (100)	8 (100)	32	4.00	4.00	0.07	
TOTAL SOUTHEAST REGION	59,142	12,036 (20)	8,277 (69)	5,714 (69)	15,060	1.82	2.64	0.26	63
Other Alaska	---	276	149 (54)	61 (41)	83	0.56	1.36	---	69
Nonresident	---	108	76 (70)	28 (37)	36	0.47	1.29	---	67
TOTAL		12,420	8,502 (68)	5,803 (68)	15,179	1.79	2.62	---	64

Source: Flynn, in prep.; ADL 1985.

--- Means no data available.

[a] Survey was sent to 25% of the people who obtained harvest tickets; numbers are estimated totals based on community response rates.

[b] Percentage of 1984 community population who received harvest tickets.

[c] Percentage of persons who obtained harvest tickets that hunted at least one time.

[d] Percentage of hunters who were successful.

[e] Based on 1984 Alaska Department of Labor population estimate.

[f] Includes Excursion Inlet, Funter Bay and Chatham.

[g] Includes Edna Bay, Thorne Bay, North Whale Pass, Cape Pole, Coffman Cove, and Laboucher Bay.

Table 3. Deer Harvest Statistics by Residents of Southeast Alaska Communities, Based on a Mailed Survey[a], 1980

Community	Population (April 1980)	Harvest Ticket Recipients	Active Hunters	Number of Successful Hunters	Estimated No. Deer Killed	Deer Per Active Hunter	Deer Per Successful Hunter	Deer Per Capita	Response Rate (%)
Angoon	465	86 (18)[b]	55 (64)[c]	50 (91)[d]	140	2.55	2.80	0.30	51
Craig	527	139 (26)	90 (60)	60 (67)	125	1.39	2.08	0.24	71
Elfin Cove	28	13 (46)	10 (77)	10 (100)	30	3.00	3.00	1.07	62
Funter Bay[e]	---	6 (---)	5 (83)	5 (100)	15	3.00	3.00	---	83
Gustavus	98	31 (32)	20 (65)	15 (75)	40	2.00	2.67	0.41	77
Haines	993	122 (12)	40 (33)	25 (63)	60	1.50	2.40	0.06	82
Hoonah	680	200 (9)	140 (70)	110 (79)	310	2.21	2.82	0.46	62
Hydaburg	298	18 (6)	10 (56)	5 (50)	15	1.50	3.00	0.05	61
Hyder	77	5 (6)	5 (100)	--- (---)	---	---	---	---	80
Juneau/Douglas	19,528	2,827 (14)	1,560 (55)	720 (46)	1,540	0.99	2.14	0.08	70
Kake	555	92 (17)	40 (43)	35 (88)	95	2.38	2.71	0.17	64
Kasaan	25	6 (24)	5 (83)	--- (---)	---	---	---	---	--
Ketchikan	11,316	2,149 (19)	1,170 (54)	460 (39)	810	0.69	1.76	0.07	68
Klawock	318	72 (23)	50 (69)	30 (60)	55	1.10	1.83	0.17	63
Metlakatla	1,056	58 (5)	25 (43)	10 (40)	20	0.80	2.00	0.02	71
Meyers Chuck	50	17 (34)	10 (59)	5 (50)	10	1.00	2.00	0.20	71
Pelican	180	84 (47)	60 (71)	40 (67)	110	1.83	2.75	0.61	69
Petersburg	2,821	566 (20)	230 (41)	130 (57)	300	1.30	2.31	0.11	78
Point Baker	90	29 (32)	10 (34)	5 (50)	10	1.00	2.00	0.11	90
Port Alexander	86	5 (6)	5 (100)	5 (100)	15	3.00	3.00	0.17	60
Sitka	7,803	1,836 (24)	1,100 (60)	660 (60)	1,570	1.43	2.38	0.20	70
Skagway	768	23 (3)	10 (43)	5 (50)	15	1.50	3.00	0.02	74
Tenakee Springs	138	35 (25)	30 (86)	20 (67)	50	1.67	2.50	0.36	69
Other Prince Wales[f]	693	116 (17)	70 (60)	50 (71)	85	1.21	1.70	0.12	85
Wrangell	2,184	560 (26)	210 (38)	100 (48)	150	0.71	1.50	0.07	74
TOTAL SOUTHEAST REGION	50,777	9,095 (18)	4,881 (54)	2,515 (52)	5,510	1.13	2.19	0.11	72
Unknown	---	48	9 (19)	5 (56)	5	0.56	1.00	---	35
Other Alaska	---	---	160 (---)	60 (35)	120	0.75	2.00	---	74
Nonresident	---	---	60 (---)	30 (50)	55	0.92	1.83	---	69
TOTAL	---	---	5,110	2,610 (51)	5,690	1.11	2.18	---	72

Source: Flynn, in prep.; ADL 1985.

--- Means no data available.

[a] Survey was sent to 100% of the people who obtained harvest tickets; numbers are estimated totals based on community response rates.

[b] Percentage of 1980 community population who received harvest tickets.

[c] Percentage of persons who obtained harvest tickets that hunted at least one time.

[d] Percentage of hunters who hunted and were successful.

[e] Includes Excursion Inlet, Funter Bay, and Chatham.

[f] Includes Edna Bay, Thorne Bay, North Whale Pass, Cape Pole, Coffman Cove, and Laboucher Bay.

Table 4. Deer Harvest Statistics by Residents of Southeast Alaska Communities, Based on a Mailed Survey[a], 1982

Community	Population (1982)	Harvest Ticket Recipients	Active Hunters	Number of Successful Hunters	Estimated No. Deer Killed	Deer Per Active Hunter	Deer Per Successful Hunter	Deer Per Capita	Response Rate (%)
Angoon	562	98 (17)[b]	85 (87)[c]	70 (82)[d]	210	2.47	3.00	0.37	44
Craig	604	190 (31)	150 (79)	110 (73)	230	1.53	2.09	0.38	56
Elfin Cove*	20	8 (40)	8 (100)	5 (63)	5	0.63	1.00	0.25	100
Funter Bay[e]	---	5 (---)	5 (100)	5 (100)	20	4.00	4.00	---	100
Gustavus*	185	57 (31)	40 (70)	20 (50)	50	1.25	2.50	0.27	79
Haines	1,078	141 (13)	70 (50)	20 (29)	50	0.71	2.50	0.05	67
Hoonah	864	307 (36)	220 (72)	170 (77)	490	2.23	3.88	0.57	39
Hydaburg	412	43 (10)	30 (70)	10 (33)	15	0.50	1.50	0.04	43
Juneau/Douglas	22,030	3,010 (14)	2,070 (69)	850 (41)	1,860	0.90	2.19	0.08	62
Kake	631	89 (14)	40 (45)	30 (75)	220	1.00	1.33	0.06	63
Kasaan	70	2 (3)	2 (100)	0 (0)	0	0.00	0.00	0.00	100
Ketchikan	8,081	2,327 (29)	1,430 (61)	620 (43)	960	0.67	1.55	0.12	63
Klawock	433	135 (31)	80 (59)	40 (50)	80	1.67	1.67	0.18	42
Metlakatla*	1,057	52 (5)	30 (58)	20 (67)	40	1.00	2.00	0.04	41
Meyers Chuck*	50	15 (30)	15 (100)	15 (100)	25	1.33	2.00	0.50	40
Pelican	185	92 (50)	60 (65)	50 (83)	120	2.00	2.40	0.65	50
Petersburg	3,094	606 (20)	360 (59)	230 (64)	575	1.60	2.50	0.19	63
Point Baker*	90	25 (28)	20 (80)	5 (25)	5	0.25	1.00	0.06	75
Port Alexander	98	15 (15)	10 (67)	10 (100)	15	1.50	1.50	0.15	40
Sitka	8,223	2,224 (27)	1,530 (69)	950 (62)	2,210	1.44	2.33	0.27	55
Skagway	790	24 (3)	20 (83)	15 (75)	30	1.50	2.00	0.04	63
Tenakee Springs	141	51 (36)	30 (59)	20 (67)	40	1.33	2.00	0.28	71
Other Prince Wales[f]	727	134 (42)	110 (82)	60 (55)	120	1.09	2.00	0.38	80
Wrangell	2,376	639 (27)	310 (49)	140 (45)	250	0.81	1.79	0.11	62
TOTAL SOUTHEAST REGION	51,801	10,289 (20)	6,725 (65)	3,465 (52)	7,440	1.11	2.15	0.14	62
Other Alaska	---	232 (---)	125 (54)	50 (40)	80	0.64	1.60	---	68
Nonresident	---	106 (---)	90 (85)	30 (33)	30	0.33	1.00	---	50
Unknown	---	5 (---)	0 (---)	--- (---)	---	---	---	---	--
TOTAL	---	10,632 (---)	6,940 (---)	3,545 (51)	7,550	1.09	2.13	---	62

Source: ADL 1983, 1984; Flynn, in prep.

--- Means no data available.

* 1983 population figures because 1982 not available.

[a] Survey was sent to 25% of the people who obtained harvest tickets; numbers are estimated totals based on community response rates.

[b] Percentage of 1982 community population who received harvest tickets.

[c] Percentage of persons who obtained harvest tickets that hunted at least one time.

[d] Percentage of hunters who hunted that were successful.

[e] Includes Excursion Inlet, Funter Bay, Chatham.

[f] Includes Edna Bay, Thorne Bay, North Whale Pass, Cape Pole, Coffman Cove, and Laboucher Bay.

Table 5. Deer Harvest Statistics by Residents of Southeast Alaska Communities, Based on a Mailed Survey[a], 1983

Community	Population (1983)	Harvest Ticket Recipients	Active Hunters	Number of Successful Hunters	Estimated No. Deer Killed	Deer Per Active Hunter	Deer Per Successful Hunter	Deer Per Capita	Response Rate (%)
Angoon	465	100 (20)[b]	80 (80)[c]	60 (75)[d]	215	2.69	3.58	0.42	48
Craig	936	292 (32)	250 (86)	155 (62)	290	1.16	1.87	0.32	44
Elfin Cove	20	16 (80)	8 (50)	3 (38)	5	0.63	1.67	0.25	40
Funter Bay[e]	---	2 (---)	2 (100)	2 (100)	5	2.50	2.50	---	100
Gustavus	185	46 (25)	40 (87)	20 (50)	70	1.75	3.50	0.38	46
Haines	1,116	154 (14)	60 (39)	40 (67)	100	1.67	2.50	0.09	63
Hoonah	877	368 (43)	300 (82)	230 (77)	650	2.17	2.83	0.75	45
Hydaburg	429	34 (8)	30 (88)	10 (33)	15	0.50	1.50	0.03	75
Hyder	79	5 (6)	5 (100)	0 (0)	0	0.00	0.00	0.00	25
Juneau/Douglas	23,009	3,301 (12)	2,390 (72)	1,260 (53)	3,095	1.29	2.46	0.12	58
Kake	574	83 (12)	70 (84)	50 (71)	105	1.50	2.10	0.16	55
Kasaan	70	5 (7)	5 (100)	0 (0)	0	0.00	0.00	0.00	25
Ketchikan	12,584	2,364 (30)	1,560 (66)	760 (49)	1,300	0.83	1.71	0.16	53
Klawock	527	196 (39)	165 (84)	120 (73)	210	1.27	1.75	0.41	51
Metlakatla	1,057	62 (6)	40 (65)	25 (63)	50	1.25	2.00	0.05	33
Meyers Chuck	50	24 (48)	20 (83)	10 (50)	20	1.00	2.00	0.40	57
Pelican	213	92 (43)	65 (71)	45 (69)	105	1.62	2.33	0.49	61
Petersburg	3,013	672 (22)	460 (68)	350 (76)	865	1.88	2.47	0.28	67
Point Baker	90	43 (48)	30 (70)	20 (67)	55	1.83	2.75	0.61	57
Port Alexander	96	13 (13)	10 (77)	10 (100)	30	3.00	3.00	0.30	54
Sitka	7,665	2,192 (27)	1,700 (78)	1,180 (69)	3,160	1.86	2.68	0.39	62
Skagway	811	31 (4)	25 (81)	5 (20)	15	0.60	3.00	0.02	67
Tenakee Springs	144	53 (37)	40 (75)	30 (75)	90	2.25	3.00	0.63	77
Other Prince Wales[f]	727	167 (23)	120 (72)	100 (83)	205	1.71	2.05	0.28	64
Wrangell	2,361	716 (29)	390 (54)	155 (40)	240	1.62	1.55	0.10	64
TOTAL SOUTHEAST REGION	57,098	11,031 (19)	7,865 (71)	4,640 (59)	10,895	1.39	2.35	0.19	57
Other Alaska	---	262 (---)	225 (54)	80 (36)	125	0.56	1.56	---	60
Nonresident	---	84 (---)	45 (27)	30 (67)	30	0.67	1.00	---	44
TOTAL	55,551	11,377 (---)	8,135 (70)	4,750 (60)	11,050	1.39	2.33	---	58

Source: Flynn, in prep.; ADL 1985.

--- Means no data available.

[a] Survey was sent to 25% of the people who obtained harvest tickets; numbers are estimated totals based on community response rates.

[b] Percentage of 1983 community population who received harvest tickets.

[c] Percentage of persons who obtained harvest tickets that hunted at least one time.

[d] Percentage of hunters who hunted that were successful.

[e] Based on 1984 Alaska Department of Labor population estimate.

[f] Includes Edna Bay, Thorne Bay, North Whale Pass, Cape Pole, Coffman Cove, and Labouchere Bay.

Table 6. Deer Harvest Statistics by Residents of Southeast Alaska Communities, Based on a Mailed Survey[a], 1984

Community	Population (1984)	Harvest Ticket Recipients	Active Hunters	Number of Successful Hunters	Estimated No. Deer Killed	Deer Per Active Hunter	Deer Per Successful Hunter	Deer Per Capita	Response Rate (%)
Angoon	470	130 (28)[b]	95 (73)[c]	50 (53)[d]	180	1.89	3.60	0.38	41
Craig	881	332 (38)	250 (75)	170 (68)	300	1.20	1.76	0.34	57
Elfin Cove	20	20 (100)	20 (100)	0 (0)	0	0.00	0.00	0.00	20
Funter Bay[e]	---	10 (---)	10 (100)	10 (100)	40	4.00	4.00	---	63
Gustavus	218	47 (22)	30 (64)	30 (100)	50	1.67	1.67	0.23	64
Haines	1,839	138 (8)	60 (43)	40 (67)	110	1.83	2.75	0.06	72
Hoonah	803	303 (38)	260 (86)	200 (77)	560	2.15	2.80	0.70	48
Hydaburg	371	46 (12)	30 (65)	20 (67)	40	1.33	2.00	0.11	63
Juneau/Douglas	23,729	3,367 (14)	2,590 (71)	1,480 (57)	3,510	1.36	2.37	0.15	62
Kake	574	75 (13)	35 (47)	30 (86)	80	2.29	2.67	0.14	39
Kasaan	70	10 (14)	10 (100)	10 (100)	20	2.00	2.00	0.29	40
Ketchikan	12,705	2,373 (19)	1,750 (74)	760 (43)	1,480	0.85	1.95	0.13	55
Klawock	532	216 (41)	195 (90)	110 (56)	300	1.54	2.73	0.56	55
Metlakatla	1,134	69 (6)	50 (72)	20 (40)	30	0.60	1.50	0.03	63
Meyers Chuck	52	14 (27)	10 (71)	5 (50)	10	1.00	2.00	0.19	100
Pelican	206	98 (48)	60 (61)	50 (83)	150	2.50	3.00	0.73	65
Petersburg	3,188	752 (24)	550 (73)	300 (55)	750	1.36	2.50	0.24	70
Point Baker	93	45 (48)	40 (89)	30 (75)	70	1.75	2.33	0.75	50
Port Alexander	162	19 (12)	15 (79)	15 (100)	50	3.33	3.33	0.31	75
Sitka	7,611	2,193 (29)	1,730 (79)	1,290 (75)	3,320	1.92	2.57	0.44	61
Skagway	794	22 (3)	10 (45)	5 (50)	5	0.50	1.00	0.01	100
Tenakee Springs	156	45 (29)	40 (89)	30 (75)	75	1.86	2.50	0.48	100
Other Prince Wales[f]	775	174 (22)	160 (92)	90 (56)	210	1.31	2.33	0.27	69
Wrangell	2,376	658 (28)	420 (64)	210 (50)	370	0.88	1.76	0.16	71
TOTAL SOUTHEAST REGION	58,759	11,457 (20)	8,420 (73)	4,955 (59)	11,710	1.39	2.36	0.20	61
Other Alaska	---	266 (---)	120 (45)	70 (58)	190	1.58	2.71	---	56
Nonresident	---	89 (---)	60 (67)	30 (50)	30	0.50	1.00	---	70
TOTAL	---	11,812 (---)	8,600 (73)	5,055 (59)	11,930	1.39	2.36	---	61

Source: Flynn, in prep.; ADL 1985.

--- Means no data available.

[a] Survey was sent to 25% of the people who obtained harvest tickets; numbers are estimated totals based on community response rates.

[b] Percentage of 1984 community population who received harvest tickets.

[c] Percentage of persons who obtained harvest tickets that hunted at least one time.

[d] Percentage of hunters who hunted that were successful.

[e] Based on 1984 Alaska Department of Labor population estimate.

[f] Includes Edna Bay, Thorne Bay, North Whale Pass, Cape Pole, Coffman Cove, and Labouchere Bay.

Table 7. Location, Season Length, and Bag Limits of 1985 Sitka Black-tailed Deer Hunts in Southeast Alaska

Location GMU/GMS	Open Season	Bag Limit
Units 1(A) and 2	Aug. 1-Nov. 30	Three antlered deer.
Unit 1(B)	Aug. 1-Nov.30	Two antlered deer.
Unit 3, that portion south of Sumner Strait and Eastern Passage, including level, Vank Sokolof, Rydna, Kadin, Coronation and Conclusion Islands	Aug. 1-Nov.30	One antlered deer.
Remainder of Unit 3	No open season.	
Unit 4, all drainages on the west side of Admirality Island from Point Marsden to Point Gardner	Aug. 1-Dec.31	Four deer; however, anterless deer maybe taken only from Sept. 15-Dec. 31.
Unit 4, all drainages of Barnof Island north and west of the divide between North Cape and Portage Point, and all drainages of Chichagof Island south of the divide between Point Leo and Point Hayes, and all adjacent islands within this area, including Kruzof and Catherine Islands	Aug. 1-Dec.31	Four deer; however, anterless deer maybe taken only from Sept. 15-Dec. 31, and the daily bag limit from Dec. 1-Dec.31 is one deer.
Unit 1(C) and the remainder of Unit 4	Aug. 1-Dec.31	Four deer; however, antlerless deer maybe taken only from Sept. 15-Dec.31.
Units 1(D) and 5	No open season.	

Source: ADF&G 1985.

Table 8. Response for the 1985 Southeast Alaska Deer Hunter Economic Survey by Hunter Community of Origin

Community	Harvest Tickets Issued	Surveys Mailed	Survey Respon-dents	Undeli-verable Surveys	Response Rate
Angoon	137	33	19	0	0.58
Craig	368	92	46	0	0.51
Elfin Cove	24	6	4	1	0.80
Funter Bay[a]	4	1	1	0	1.00
Gustavus	38	5	5	0	1.00
Haines	179	42	32	2	0.80
Hoonah	338	82	48	0	0.59
Hydaburg	56	14	8	0	0.57
Juneau-Douglas	3,832	923	583	61	0.68
Kake	154	36	17	0	0.47
Kasaan	4	1	0	0	0.00
Ketchikan	2,436	594	327	26	0.58
Klawock	228	57	27	5	0.52
Metlakatla	63	15	6	0	0.40
Meyers Chuck	16	4	4	0	1.00
Pelican	89	22	15	0	0.68
Petersburg	689	168	119	3	0.72
Point Baker	30	7	5	1	0.83
Port Alexander	20	5	5	0	1.00
Sitka	2,311	554	336	30	0.64
Skagway	18	4	2	0	0.50
Tenakee Springs	50	11	8	0	0.73
Other Prince of Wales[b]	257	64	38	1	0.60
Wrangell	687	170	108	3	0.65
Yakutat	8	2	1	0	0.50
Total Southeast Region	12,036	2,912	1,764	134	0.63
Other Alaska	276	59	35	8	0.69
Nonresidents	108	30	20	0	0.67
TOTAL	12,420	3,001	1,819	142	0.64

[a] Includes Funter Bay, Excursion Inlet, and Chatham.
[b] Includes Thorne Bay, Edna Bay, North Whale Pass, Cape Pole, Coffman Cove, and Laboucher Bay.

Table 9. Harvest and Effort of Reported Deer Hunters by Community of Residence and Harvest Area, Expanded by Community Response Rate[a], Southeast Alaska, 1985

Community	Harvest Area	Total Expanded Deer Killed	Total Expanded Bucks Killed	Total Expanded Does Killed	Total Expanded Hunter Days	Hunting Trips For Sample	Expanded Number of Hunting Trips	Average Deer Per Hunter Day[b]	Average Hunter Days Per Deer[b]
Angoon	1	0	0	0	-	1	7	----	----
	2	0	0	0	7	1	7	0.00	----
	29	0	0	0	35	5	35	0.00	----
	33	69	14	56	76	11	76	0.91	0.92
	40	243	118	125	396	30	208	0.63	1.57
	Unknown	0	0	0	7	1	7	0.00	----
Craig	9	64	64	0	176	14	112	0.36	1.64
	10	8	8	0	24	2	16	0.50	1.00
	11	16	16	0	32	2	16	0.50	2.00
	13	184	160	24	576	58	464	0.36	1.17
	14	120	104	16	328	24	192	0.42	1.58
	15	56	56	0	128	13	104	0.45	1.43
	34	8	8	0	240	1	8	0.03	30.00
	Unknown	8	8	0	---	3	24	----	0.00
Elfin Cove	30	0	0	0	30	5	30	0.00	----
	33	24	18	6	36	3	18	0.67	1.67
	34	24	24	0	126	4	24	0.19	5.25
Funter Bay	38	16	8	8	12	3	12	1.33	0.83
Gustavus	35	24	8	16	124	7	28	0.66	2.90
	36	4	0	4	4	1	4	1.00	1.00
Haines	11	10	10	0	37	1	5	0.29	3.50
	12	16	16	0	1,417	3	16	0.01	90.00
	15	5	5	0	26	5	26	0.20	1.00
	20	0	0	0	5	1	5	0.00	----
	22	0	0	0	31	5	26	0.00	----
	30	5	5	0	5	1	5	1.00	1.00
	34	21	16	5	42	2	10	0.29	1.75
	35	163	94	68	283	10	52	0.58	2.04
	36	42	21	21	42	2	10	1.07	1.00
	38	21	5	16	21	1	5	1.00	1.00
	39	0	0	0	26	1	5	0.00	----
	40	5	0	5	26	1	5	0.20	5.00
Hoonah	34	55	41	14	41	7	48	1.00	0.83
	35	670	438	232	1,169	116	793	0.53	1.38
	36	82	48	34	75	10	68	0.94	1.30
	Unknown	14	7	7	14	2	14	1.00	1.00

--- Means no data available.

[a] Expanded based on community response rate and 25% sample.

[b] Averages based on mean of ratios estimators computed by taking mean hunter deer per hunter day (DHD) and hunter days per deer (HDD). See Appendix 3 for further explanation on effort computations.

Table 9. Harvest and Effort of Reported Deer Hunters by Community of Residence and Harvest Area, Expanded by Community Response Rate[a], Southeast Alaska, 1985 (continued page 2)

Community	Harvest Area	Total Expanded Deer Killed	Total Expanded Bucks Killed	Total Expanded Does Killed	Total Expanded Hunter Days	Hunting Trips For Sample	Expanded Number of Hunting Trips	Average Deer Per Hunter Day[b]	Average Hunter Days Per Deer[b]
Hydaburg	9	14	14	0	28	4	28	0.50	1.00
	11	35	35	0	49	9	63	0.42	0.83
	12	7	7	0	7	1	7	1.00	1.00
	13	7	7	0	21	5	35	0.00	0.00
	14	21	21	0	21	3	21	1.00	0.75
	15	0	0	0	---	1	7	----	----
	Unknown	21	21	0	21	3	21	1.00	1.00
Juneau-Douglas	1	5	5	0	31	2	12	0.25	2.00
	5	0	0	0	25	2	13	0.00	----
	14	46	33	13	53	3	20	0.67	1.00
	15	45	45	0	77	6	38	0.56	1.50
	20	0	0	0	33	1	7	0.00	----
	22	11	11	0	31	5	31	0.40	1.00
	23	19	13	6	20	6	39	0.00	---
	24	0	0	0	46	5	32	0.00	----
	25	12	12	0	212	25	153	0.06	2.00
	26	154	123	32	737	65	412	0.23	1.94
	27	317	158	159	2,800	256	1,624	0.14	1.66
	28	0	0	0	26	2	13	0.00	----
	30	39	33	5	124	12	77	0.22	1.88
	31	19	19	0	68	3	19	0.28	3.67
	32	13	13	0	39	3	20	0.42	2.50
	33	118	72	46	184	10	66	0.65	1.46
	34	236	143	93	598	34	205	0.38	2.07
	35	285	183	102	585	35	222	0.56	1.96
	36	361	241	120	878	41	260	0.50	2.14
	37	124	94	30	200	16	102	0.76	1.43
	38	860	584	276	2,729	213	1,357	0.31	2.00
	39	137	83	54	580	25	157	0.34	2.77
	40	156	104	52	659	34	216	0.31	1.95
	41	1,157	708	450	3,162	233	1,479	0.39	1.84
	Unknown	7	7	0	12	6	37	0.00	---
Kake	16	17	8	8	85	2	17	0.20	2.50
	39	144	127	17	144	11	93	0.65	1.22
	40	51	51	0	34	2	17	1.50	0.67
	41	8	8	0	144	4	34	0.04	6.00
Ketchikan	1	142	142	0	1,123	89	644	0.17	1.38
	2	7	7	0	64	5	36	0.20	1.00
	3	0	0	0	14	2	14	0.00	----

--- Means no data available.

[a] Expanded based on community response rate and 25% sample.

[b] Averages based on mean of ratios estimators computed by taking mean hunter deer per hunter day (DHD) and hunter days per deer (HDD). See Appendix 3 for further explanation on effort computations.

Table 9. Harvest and Effort of Reported Deer Hunters by Community of Residence and Harvest Area, Expanded by Community Response Rate[a], Southeast Alaska, 1985 (continued page 3)

Community	Harvest Area	Total Expanded Deer Killed	Bucks Killed	Does Killed	Hunter Days	Hunting Trips For Sample	Expanded Number of Hunting Trips	Average Deer Per Hunter Day[b]	Hunter Days Per Deer[b]
Ketchikan	4	173	173	0	1,808	116	853	0.17	1.70
(cont.)	5	46	46	0	1,026	50	379	0.07	5.00
	6	157	157	0	549	45	342	0.36	1.80
	7	0	0	0	57	2	14	0.00	----
	8	0	0	0	28	2	14	0.00	----
	9	14	14	0	36	3	21	0.44	2.00
	10	157	157	0	875	14	100	0.30	8.21
	11	28	28	0	100	9	64	0.25	2.25
	12	116	116	0	304	23	166	0.50	1.92
	13	260	260	0	1,162	53	383	0.25	3.11
	14	477	477	0	3,120	76	546	0.34	5.01
	15	340	340	0	1,525	50	359	0.45	4.29
	18	7	7	0	21	1	7	0.33	3.00
	19	7	7	0	57	3	21	0.17	3.00
	30	0	0	0	36	1	7	0.00	----
	33	36	28	7	214	3	21	0.14	5.42
	35	0	0	0	7	1	7	0.00	----
	38	0	0	0	18	1	9	0.00	----
	39	21	21	0	71	1	7	0.30	3.33
	40	7	0	7	36	2	14	0.17	3.00
	51	0	0	0	14	1	7	0.00	----
	52	71	71	0	210	24	174	0.33	1.28
	Unknown	21	21	0	---	14	100	----	---
Klawock	1	25	25	0	17	1	8	1.50	0.67
	3	8	8	0	8	1	8	1.00	1.00
	10	8	8	0	110	3	25	0.07	5.00
	12	0	0	0	17	1	8	0.00	----
	13	143	143	0	549	21	177	0.24	3.53
	14	186	186	0	430	21	177	0.57	1.55
	15	84	84	0	245	9	76	0.53	2.95
	30	8	0	8	25	1	8	0.33	3.00
	31	0	0	0	8	1	8	0.00	----
	32	0	0	0	8	1	8	0.00	----
	Unknown	8	8	0	25	5	42	0.33	3.00
Metlakatla	1	0	0	0	10	1	10	0.00	----
	2	50	50	0	50	3	30	1.44	1.33
	4	0	0	0	30	1	10	0.00	----
	12	30	30	0	70	2	20	0.42	2.50

--- Means no data available.

[a] Expanded based on community response rate and 25% sample.

[b] Averages based on mean of ratios estimators computed by taking mean hunter deer per hunter day (DHD) and hunter days per deer (HDD). See Appendix 3 for further explanation on effort computations.

Table 9. Harvest and Effort of Reported Deer Hunters by Community of Residence and Harvest Area, Expanded by Community Response Rate[a], Southeast Alaska, 1985 (continued page 4)

Community	Harvest Area	Total Expanded Deer Killed	Total Expanded Bucks Killed	Total Expanded Does Killed	Total Expanded Hunter Days	Hunting Trips For Sample	Expanded Number of Hunting Trips	Average Deer Per Hunter Day[b]	Average Hunter Days Per Deer[b]
Meyers Chuck	1	0	0	0	60	1	4	0.00	----
	6	20	20	0	40	7	28	0.20	5.00
Pelican	34	88	82	6	293	35	205	0.30	1.70
Petersburg	2	23	23	0	260	2	11	0.19	11.50
	4	0	0	0	11	1	6	0.00	----
	6	11	11	0	11	2	11	1.00	1.00
	12	0	0	0	11	1	6	0.00	----
	13	17	17	0	79	4	23	0.15	3.50
	14	28	28	0	175	6	34	0.18	5.20
	15	28	28	0	147	9	51	0.19	1.78
	16	17	17	0	113	5	28	0.31	6.00
	17	0	0	0	40	3	17	0.00	----
	19	6	6	0	34	4	23	0.25	1.00
	20	0	0	0	34	3	17	0.00	----
	30	11	6	6	23	2	11	0.67	2.00
	33	169	141	28	254	11	62	0.65	1.75
	35	0	0	0	---	1	6	----	----
	37	124	113	11	220	12	68	0.46	1.83
	39	446	367	79	932	38	215	0.55	2.43
	40	56	51	6	119	6	34	0.64	2.00
	41	85	40	45	141	9	51	0.81	1.67
	50	11	0	11	11	1	6	1.00	1.00
	51	0	0	0	11	1	6	0.00	----
	Unknown	0	0	0	6	1	6	0.00	----
Point Baker	15	28	28	0	73	4	22	1.25	0.42
Port Alexander	31	0	0	0	4	1	4	0.00	----
	32	0	0	0	4	1	4	0.00	----
	37	60	52	8	56	11	44	1.09	0.95
Sitka	2	13	13	0	7	1	7	2.00	0.50
	4	0	0	0	33	4	26	0.00	----
	6	0	0	0	53	6	40	0.00	----
	10	7	7	0	7	1	7	1.00	1.00
	13	0	0	0	7	1	7	0.00	----
	15	13	13	0	13	2	13	1.00	1.00
	20	7	0	7	7	1	7	1.00	1.00
	24	13	13	0	---	1	7	----	0.00

--- Means no data available.

[a] Expanded based on community response rate and 25% sample.

[b] Averages based on mean of ratios estimators computed by taking mean hunter deer per hunter day (DHD) and hunter days per deer (HDD). See Appendix 3 for further explanation on effort computations.

Table 9. Harvest and Effort of Reported Deer Hunters by Community of Residence and Harvest Area, Expanded by Community Response Rate[a], Southeast Alaska, 1985 (continued page 5)

Community	Harvest Area	Total Expanded Deer Killed	Total Expanded Bucks Killed	Total Expanded Does Killed	Total Expanded Hunter Days	Hunting Trips For Sample	Expanded Number of Hunting Trips	Average Deer Per Hunter Day[b]	Average Hunter Days Per Deer[b]
Sitka	30	1,530	1,020	510	4,166	426	2,821	0.42	1.55
(cont.)	31	563	430	132	1,424	131	868	0.47	1.70
	32	272	192	79	682	53	351	0.49	1.98
	33	695	536	159	1,205	93	616	0.64	1.53
	34	205	126	79	477	24	159	0.60	1.91
	35	7	7	0	26	2	13	0.17	3.00
	36	66	66	0	113	8	53	0.72	1.81
	37	99	79	20	179	12	79	0.67	1.71
	38	20	7	13	46	1	7	0.43	2.33
	39	7	7	0	7	1	7	1.00	1.00
	40	7	0	7	20	1	7	0.33	3.00
	50	205	113	93	331	42	278	0.61	1.18
	60	0	0	0	13	2	13	0.00	----
	Unknown	13	7	7	20	1	7	0.67	1.50
Skagway	27	0	0	0	16	1	8	0.00	----
Tenakee Springs	36	149	99	50	358	24	132	0.66	2.18
Thorne Bay	6	7	7	0	20	1	7	0.33	3.00
and Other	10	13	13	0	27	2	13	0.50	2.00
Prince of	11	7	7	0	13	2	13	0.50	2.00
Wales	13	162	162	0	707	57	384	0.34	2.50
	14	101	101	0	337	29	195	0.34	1.96
	15	114	74	40	290	19	128	0.59	2.28
Wrangell	1	13	13	0	44	1	6	0.29	3.50
	10	6	6	0	32	1	6	0.20	5.00
	12	6	6	0	38	1	6	0.17	6.00
	13	44	44	0	76	3	19	0.56	2.00
	14	51	51	0	259	6	38	0.38	4.61
	15	19	19	0	259	10	63	0.10	3.33
	18	6	6	0	76	6	38	0.06	3.00
	19	76	76	0	582	46	291	0.15	2.27
	20	6	6	0	6	1	6	1.00	1.00
	30	19	19	0	51	4	25	0.56	2.00
	31	13	13	0	19	3	19	0.67	1.00
	33	13	6	6	13	1	6	1.00	1.00
	39	32	19	13	44	2	13	0.83	1.25
	40	51	32	19	76	2	13	0.69	1.50
	51	63	63	0	310	28	177	0.24	1.90
	Unknown	19	19	0	19	1	6	1.00	1.00

--- Means no data available.

[a] Expanded based on community response rate and 25% sample.

[b] Averages based on mean of ratios estimators computed by taking mean hunter deer per hunter day (DHD) and hunter days per deer (HDD). See Appendix 3 for further explanation on effort computations.

Table 9. Harvest and Effort of Reported Deer Hunters by Community of Residence and Harvest Area, Expanded by Community Response Rate[a], Southeast Alaska, 1985 (continued page 6)

Community	Harvest Area	Total Expanded Deer Killed	Total Expanded Bucks Killed	Total Expanded Does Killed	Total Expanded Hunter Days	Hunting Trips For Sample	Expanded Number of Hunting Trips	Average Deer Per Hunter Day[b]	Average Hunter Days Per Deer[b]
Yakutat	36	32	16	16	56	1	8	0.57	1.75
Other Alaska	1	0	0	0	8	1	8	0.00	----
	4	7	7	0	44	2	11	0.08	6.00
	6	0	0	0	16	2	16	0.00	----
	12	0	0	0	13	1	13	0.00	----
	13	4	4	0	28	2	8	0.25	2.00
	27	0	0	0	16	1	4	0.00	----
	30	6	6	0	32	2	10	0.10	5.00
	31	6	6	0	---	1	6	----	----
	32	8	8	0	20	1	4	0.40	2.50
	33	0	0	0	52	2	19	0.00	----
	35	12	12	0	28	4	35	0.67	1.00
	36	16	16	0	28	1	4	0.57	1.75
	38	4	4	0	8	1	4	0.50	2.00
	40	8	8	0	24	1	8	0.33	3.00
	41	6	6	0	81	3	18	0.11	3.00
	51	8	8	0	24	1	8	0.33	3.00
Nonresidents	4	0	0	0	16	1	4	0.00	----
	9	4	4	0	12	1	4	0.33	3.00
	12	0	0	0	16	1	4	0.00	----
	15	0	0	0	20	1	4	0.00	----
	18	0	0	0	24	1	4	0.00	----
	20	0	0	0	20	1	4	0.00	----
	27	0	0	0	8	1	4	0.00	----
	30	12	8	4	56	3	12	0.20	1.67
	33	4	4	0	16	1	4	0.25	4.00
	34	4	0	4	44	2	8	0.50	1.00
	35	4	0	4	24	4	16	0.25	1.00
	36	4	4	0	20	2	8	0.17	3.00
	39	0	0	0	28	1	4	0.00	----
	40	0	0	0	8	1	4	0.00	----
	41	4	4	0	40	2	8	0.13	4.00

--- Means no data available.

[a] Expanded based on community response rate and 25% sample.

[b] Averages based on mean of ratios estimators computed by taking mean hunter deer per hunter day (DHD) and hunter days per deer (HDD). See Appendix 3 for further explanation on effort computations.

Table 10. Buck, Does, and Total Deer Harvested, Total Hunter Days, Average Deer Per Day, Average Hunter Days Per Deer, and Number of Hunting Trips Expanded Based on Response Rate*, Southeast Alaska, 1985

Game Management Unit	Total Expanded				Hunting Trips For Sample	Expanded Number of Hunting Trips	Average	
	Deer Killed	Bucks Killed	Does Killed	Hunter Days			Deer Per Hunter Day[a]	Hunter Days Per Deer[a]
1A	779	779	0	5,683	380	2,762	0.20	2.15
1B	47	39	8	359	18	111	0.15	4.42
1C	527	329	197	3,977	378	2,387	0.15	1.73
2	3,151	3,058	94	14,182	603	4,356	0.37	3.97
3	173	166	7	1,138	92	579	0.19	2.04
4	10,389	7,103	3,287	25,184	1,895	12,181	0.46	1.82

* Expanded based on community response rate and 25% sample.

[a] Averages based on mean of ratios estimators, computed by taking mean hunter deer per hunter day (DHD) and hunter days per deer (HDD). See Appendix 3 for further explanation on effort computation.

Table 11. Number of Sampled Individual Hunters Reporting 1-10 Deer Hunting Trips by Hunter Game Management Unit of Residence, 1985

GMS/GMU	Trips	Number of Hunters 1	2	3	4	5	6	7	8	9	10	Total	Average No. Trips per Hunter
1A		72	59	43	24	15	7	1	3	1	3	602	2.6
1B		35	19	8	3	1	0	0	0	0	0	114	1.7
1C		159	100	52	46	18	13	5	5	1	10	1,051	2.6
1D		18	2	2	0	0	1	0	0	0	0	34	1.5
2		24	15	16	15	8	1	6	3	2	3	322	3.5
3		55	29	7	0	0	0	1	0	0	0	141	1.5
4		70	86	49	46	34	7	8	6	4	16	1,085	3.3
5A		1	0	0	0	0	0	0	0	0	0	1	1.0
Other Alaska		19	2	1	0	0	0	0	0	0	0	26	1.2
Nonresident		15	2	0	1	0	0	0	0	0	0	23	1.3
Unknown		--	--	--	--	--	--	--	--	--	--	6	--
TOTAL		468	314	178	135	76	29	21	17	8	32	3,405	2.7
Expanded Total*		--	--	--	--	--	--	--	--	--	--	22,653	2.7

* Expanded based on community response rate and 25% sample.

Table 12. Total Buck, Does, and Deer Harvested, Total Hunter Days, Trips, and Deer Per Hunter, Expanded by Community Response Rate[a], by Hunter Community of Residence, Southeast Alaska, 1985

Community	Total Expanded				Hunting Trips For Sample	Expanded Number of Hunting Trips	Average		
	Deer Killed	Bucks Killed	Does Killed	Hunter Days			Deer Per Hunter	Deer Per Hunter Day[b]	Hunter Days Per Deer[b]
Angoon	312	132	181	521	49	340	3.21	0.69	1.80
Craig	464	424	40	1,504	117	936	1.87	0.53	3.49
Elfin Cove	48	42	6	192	12	72	2.67	0.29	3.38
Funter Bay	16	8	8	12	3	12	4.00	1.33	0.75
Gustavus	28	8	20	128	8	32	2.33	0.30	4.04
Haines	289	173	115	1,963	33	173	2.50	0.49	4.00
Hoonah	821	533	287	1,299	135	923	3.08	0.91	1.99
Hydaburg	105	105	0	147	26	182	1.88	0.70	1.27
Juneau/ Douglas	4,122	2,683	1,439	13,906	1,043	6,610	1.59	0.35	2.77
Kake	220	195	25	407	19	161	1.73	0.64	1.39
Ketchikan	2,088	2,074	14	12,476	591	4,311	1.27	0.26	5.15
Klawock	473	464	8	1,443	65	549	2.24	0.48	3.60
Metlakatla	80	80	0	160	7	70	2.00	0.79	1.39
Meyers Chuck	20	20	0	100	8	32	1.67	0.10	5.00
Pelican	88	82	6	293	35	205	1.50	0.36	2.46
Petersburg	1,034	847	186	2,633	122	689	2.35	0.49	2.62
Point Baker	28	28	0	73	4	22	1.67	1.17	0.58
Port Alexander	60	52	8	64	13	52	3.00	0.93	1.10
Sitka	3,742	2,636	1,106	8,834	814	5,391	2.27	0.52	2.56
Skagway	0	0	0	16	1	8	0.00	0.00	----
Tenakee Springs	149	99	50	358	24	132	3.38	0.80	2.00
Thorne Bay	404	364	40	1,394	110	741	1.94	0.39	3.55
Wrangell	437	399	38	1,905	116	734	1.03	0.27	3.46
Yakutat	32	16	16	56	1	8	4.00	0.57	1.75
Other Alaska	83	83	0	422	26	175	0.73	0.21	3.13
Outside Alaska	36	24	12	352	23	92	0.47	0.16	3.24
TOTAL[c]	15,177	11,571	3,606	50,658	3,405	22,653	1.79	0.37	2.29

[a] Expanded based on community response rate and 25% sample.

[b] Averages based on mean of ratios estimators, computed by taking mean hunter deer per hunter day (DHD) and hunter days per deer (HDD). See Appendix 3 for further explanation on effort computation.

[c] Totals may not match other tables as a result of differences in rounding and missing data.

Table 13. Number of Hunters, Deer Killed,Hunter Days, and Trips, Expanded by Community Response Rate[a] for Harvest Areas, Southeast Alaska, 1985

Harvest Area	Number of Hunters Expanded	Total Expanded Deer Killed	Total Expanded Hunter Days	Average Days Per Hunter	Hunting Trips for Sample	Expanded Number of Hunting Trips	Average Deer Per Hunter Day[b]	Average Hunter Days Per Deer[b]	Average Deer Per Hunter
1	426	186	1,293	3.00	97	700	0.18	1.48	0.44
2	76	93	388	5.10	12	90	0.64	4.07	1.22
3	23	8	23	1.00	3	23	0.33	1.00	0.35
4	554	179	1,943	3.50	125	910	0.16	1.90	0.32
5	261	46	1,052	4.00	52	392	0.06	5.00	0.18
6	217	195	689	3.20	63	444	0.32	2.10	0.90
7	14	0	57	4.00	2	14	0.00	----	0.00
8	14	0	28	2.00	2	14	0.00	----	0.00
9	103	96	252	2.40	22	165	0.39	1.71	0.93
10	115	199	1,074	9.30	23	167	0.34	6.36	1.73
11	99	97	231	2.30	23	162	0.34	2.02	0.98
12	200	175	1,894	9.50	34	246	0.38	16.05	0.88
13	807	821	3,204	4.00	204	1,499	0.31	2.45	1.02
14	746	1,030	4,723	6.30	168	1,224	0.39	3.58	1.38
15	589	733	2,803	4.80	129	893	0.46	3.12	1.24
16	40	34	198	5.00	7	45	0.28	5.13	0.86
17	17	0	40	2.30	3	17	0.00	----	0.00
18	43	13	121	2.80	8	49	0.08	3.00	0.30
19	265	89	673	2.50	53	335	0.16	2.23	0.34
20	46	13	105	2.30	8	46	0.25	1.00	0.28
22	28	11	62	2.20	10	57	0.20	1.00	0.39
23	26	19	20	0.80	6	39	0.00	----	0.73
24	32	13	46	1.50	6	38	0.00	----	0.41
25	137	12	212	1.50	25	153	0.06	2.00	0.09
26	252	154	737	2.90	65	412	0.23	1.94	0.61
27	821	317	2,840	3.50	259	1,640	0.14	1.66	0.39
28	13	0	26	2.00	2	13	0.00	----	0.00
29	7	0	35	5.00	5	35	0.00	----	0.00
30	1,243	1,630	4,547	3.70	457	3,007	0.41	1.59	1.31
31	526	600	1,524	2.90	140	923	0.46	1.76	1.14
32	281	293	754	2.70	59	387	0.47	2.02	1.04
33	616	1,128	2,050	3.30	135	889	0.65	1.60	1.83
34	367	641	1,861	5.10	109	667	0.42	2.59	1.75
35	546	1,165	2,247	4.10	180	1,173	0.54	1.65	2.13
36	389	756	1,573	4.00	90	548	0.61	1.99	1.94
37	203	407	655	3.20	51	293	0.74	1.46	2.01
38	823	921	2,834	3.40	220	1,394	0.33	1.96	1.12
39	409	787	1,832	4.50	80	500	0.49	2.36	1.92
40	382	584	1,397	3.70	80	526	0.49	1.86	1.53
41	970	1,260	3,568	3.70	251	1,590	0.39	1.89	1.30
50	151	217	342	2.30	43	284	0.62	1.17	1.43
51	160	71	360	2.20	31	198	0.23	2.00	0.45
52	118	71	210	1.80	24	174	0.33	1.28	0.61
60	---	0	13	---	2	13	0.00	----	----
Unknown	124	111	124	1.00	37	264	0.58	1.31	0.90
TOTAL	8,502	15,177	50,658	6.00	3,405	22,652	0.37	2.29	1.79

[a] Expanded by community response rate and 25% sample.

[b] Averages based on mean of ratios estimators, computed by taking mean hunter deer per hunter day (DHD) and hunter days per deer (HDD). See Appendix 3 for further explaination on effort computation.

Table 14. Number of Sampled Individual Hunters Reporting 1-10 Deer Hunting Trips by Hunter Residence, Southeast Alaska, 1985

Community / Trips	Number of Hunters											Average No. Trips per Hunter
	1	2	3	4	5	6	7	8	9	10	Total	
Angoon	4	5	0	0	3	0	0	0	0	2	49	3.5
Craig	7	5	4	6	3	0	3	1	0	2	117	3.8
Elfin Cove	0	0	1	1	1	0	0	0	0	0	12	4.0
Funter Bay	0	0	1	0	0	0	0	0	0	0	3	3.0
Gustavus	1	0	1	1	0	0	0	0	0	0	8	2.7
Haines	17	2	2	0	0	1	0	0	0	0	33	1.5
Hoonah	12	8	3	6	5	0	0	0	1	4	135	3.5
Hydaburg	3	1	2	0	0	0	1	1	0	0	26	3.3
Juneau-Douglas	157	100	51	45	18	13	5	5	1	10	1,042	2.6
Kake	9	5	0	0	0	0	0	0	0	0	19	1.4
Ketchikan	70	55	43	24	14	7	1	3	1	3	587	2.7
Klawock	5	4	5	3	2	0	1	1	0	0	65	3.1
Metlakatla	1	3	0	0	0	0	0	0	0	0	7	1.8
Meyers Chuck	1	1	0	0	1	0	0	0	0	0	8	2.7
Pelican	2	4	0	1	0	1	1	1	0	0	35	3.5
Petersburg	46	24	7	0	0	0	1	0	0	0	122	1.6
Point Baker	2	1	0	0	0	0	0	0	0	0	4	1.3
Port Alexander	1	1	2	1	0	0	0	0	0	0	13	2.6
Sitka	51	64	41	35	24	6	7	5	3	10	814	3.3
Skagway	1	0	0	0	0	0	0	0	0	0	1	1.0
Tenakee Springs	0	4	1	2	1	0	0	0	0	0	24	3.0
Thorne Bay	7	4	5	6	3	1	1	0	2	1	110	3.4
Wrangell	35	19	8	3	1	0	0	0	0	0	114	1.7
Yakutat	1	0	0	0	0	0	0	0	0	0	1	1.0
Other Alaska	19	2	1	0	0	0	0	0	0	0	26	1.2
Nonresident	15	2	0	1	0	0	0	0	0	0	23	1.3
Unknown	--	--	--	--	--	--	--	--	--	--	6	--
Southeast Alaska TOTAL	467	314	178	135	76	29	21	17	8	32	3,404	2.7
Expanded Total	--	--	--	--	--	--	--	--	--	--	22,653	2.7

* Expanded based on community response rate and 25% sample.

Table 15. The Relative Importance (%) of Hunt Area Characteristics to Deer Hunters in Southeast Alaska, 1985 (n=1295)

Characteristics of Hunting Areas	Caused Me To Select	Caused Me To Avoid	Did Not Matter
Good chance of getting a deer	91	---	9
Protected waters	67	2	31
Boat anchorage or landing	63	3	34
Floatplane anchorage or landing	28	7	65
Wheelplane beach access	20	8	72
Road access (by cars or trucks)	39	23	38
Trail access (hiking)	39	12	49
Three wheeler or ATV access	21	27	52
Forest Service cabin	28	10	62
Private cabin or lodge	28	14	58
Developed campground	20	26	54
Undeveloped campsite	32	6	62
Close enough for 1-day trip from home	74	3	23
Wilderness or natural area	68	1	31
Opportunity to hunt other game	35	2	63
Opportunity to sport fish	39	1	60
Knew few (only 1-2) other people use area	58	2	40
Knew other groups of people might be using area	21	39	40
Alpine area	52	4	44
Muskeg	58	3	39
Young clearcut with open areas	39	19	42
Older clearcut with shrubs and trees	38	21	41
My hunting partners preferred area	55	1	44
Outstanding scenery	49	0	51
Development (e.g., logging camp, shoreline development, private homes)	24	42	34

Table 16. Frequency and Cumulative Total of Ranking of Deer Hunt Area Characteristics, 1985 (n=1290)

Characteristics of Hunting Areas	RANKING 1	2	3	4	5	Total*
Good chance of getting a deer	504	113	59	47	38	761
Close enough for 1-day trip from home	69	129	114	109	54	475
Protected waters	34	162	80	51	37	364
Boat anchorage or landing	26	83	128	54	52	343
Wilderness or natural area	18	46	83	80	71	298
Knew few (only 1-2) other people using area	28	43	65	61	76	273
My hunting partners preferred area	36	27	33	65	59	220
Road access (by cars or trucks)	24	51	32	22	18	147
Alpine area	14	23	25	50	35	147
Muskeg	4	16	27	53	42	142
Outstanding scenery	7	13	19	34	62	135
Trail access (hiking)	10	26	22	20	27	105
Opportunity to hunt other game	6	13	25	31	30	105
Opportunity to sport fish	6	5	28	27	39	105
Young clearcut with open areas	6	10	16	23	29	84
Private cabin or lodge	25	18	11	10	9	73
Older clearcut with shrubs and trees	4	9	14	18	28	73
Floatplane anchorage or landing	2	16	27	14	8	67
Forest Service cabin	6	17	8	20	11	62
Undeveloped campsite	1	10	4	13	11	39
Development (e.g., logging camp, shoreline development, private homes	7	6	5	3	8	29
Three wheeler or ATV access	4	5	6	6	3	24
Knew other groups of people might be using area	2	5	2	6	7	22
Wheelplane beach access	1	0	2	0	0	3
Developed campground	0	1	1	0	0	2

* Total times as one of five most important characteristics.

Table 17. Percentage of Deer Survey Respondents Within Income Categories, Southeast Alaska, 1985

Income Category	Percentage
$0-$9,999	11
$10,000-$19,999	13
$20,000-$29,999	20
$30,000-$49,999	33
$50,000-$100,000	21
OVER $100,000	2
Median Income Category	$30,000 to $49,999

Table 18. Employment Status of Deer Survey Respondents, Southeast Alaska, 1985

Employment*	Percentage
Unemployed	15
Self-employed	21
Employed in Year-round job	48
Employed part of the year, but not when deer hunting	14
Employed in exchange for food, lodging, or other goods	**
Retired	2

* At the time of 1985 deer hunts.
** Less than 1%.

Table 19. Percentage of Deer Survey Respondents Within Age Categories, Southeast Alaska, 1985

Age Category	Percentage
Under 12 Years	3
12 to 18	6
18 to 24	8
25 to 35	35
36 to 45	28
46 to 55	12
56 to 65	5
66 to 75	2
Over 75	1
Median Category	25 to 35 years old

Table 20. Use of Deer Harvested by Southeast Alaska Households, 1985 (n=1290)

Use	Percentage*
Eaten by my household	80%
Given as gift to other household(s)	19%
Traded for other meat, fish or goods	3%
Hunted primarily for a trophy	3%
Other	3%

* Based on the number of total responding hunters per community. More than one choice and a total of 100% are possible.

Table 21. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Southeast Alaska (n=1290)

Source	Percentage*
Receive deer meat from others	18%
Hunt grouse more than usual	5%
Hunt waterfowl more than usual	6%
Hunt bear more than usual	5%
Hunt goat more than usual	3%
Go fishing more than usual	32%
Hunt moose more than usual	5%
Buy more food from the store	54%
Eat less meat	27%
(Other)	1%

* Based on the number of total responding hunters per community. More than one choice and a total of 100% are possible.

Table 22. Number and Percentage of Trips Taken by Deer Hunter Survey Respondents by Mode(s) of Transportation by Selected Communities of Residence in Southeast Alaska, 1985.

Mode(s) of Transportation	Angoon	Craig	Elfin Cove	Haines	Hoonah	Hydaburg	Juneau-Douglas
Boat	46(94)	37(33)	7(58)	17(51)	49(36)	13(50)	407(39)
Car or Truck	0	67(57)	5(42)	4(12)	60(44)	10(38)	195(19)
Small Plane	0	0	0	1(3)	6(4)	0	114(11)
Ferry	0	0	0	1(3)	0	0	7(1)
Walking	0	3(2)	0	3(10)	1(1)	0	19(2)
Boat, Car or Truck	2(4)	3(2)	0	1(3)	7(4)	0	174(17)
Boat, Small Plane	0	0	0	1(3)	0	0	20(2)
Boat/Commercial Airlines	0	0	0	0	0	0	13(1)
Boat, ATV	0	0	0	0	0	0	3(*)
Car or Truck/Small Plane	0	0	0	0	0	0	31(3)
Car or Truck/Ferry	0	0	0	0	0	0	1(*)
Other	0	0	0	4(12)	1(1)	0	22(2)
Unknown	1(2)	7(6)	0	1(3)	11(10)	3(12)	36(3)
Total No. of Trips	49	117	12	33	135	26	1042

* Less than 1%.

Table 22. Number and Percentage of Trips Taken by Deer Hunter Survey Respondents by Mode(s) of Transportation by Selected Communities of Residence in Southeast Alaska, 1985 (Continued page 2)

Mode(s) of Transportation	Kake	Ketchikan	Klawock	Pelican	Petersburg	Port Alexander	Sitka
Boat	16(85)	235(40)	9(14)	35(100)	93(77)	13(100)	489(60)
Car or Truck	0	144(25)	50(77)	0	6(5)	0	88(11)
Small Plane	1(5)	22(4)	0	0	9(7)	0	9(1)
Ferry	0	9(2)	0	0	3(2)	0	1(*)
Walking	0	18(3)	1(2)	0	0	0	48(6)
Boat, Car or Truck	1(5)	53(9)	0	0	6(5)	0	139(17)
Boat, Small Plane	0	1(*)	0	0	0	0	1(*)
Boat/Commercial Airlines	0	0	0	0	3(2)	0	1(*)
Boat, ATV	0	3(1)	0	0	0	0	17(2)
Car or Truck/Small Plane	0	10(2)	0	0	0	0	1(*)
Car or Truck/Ferry	0	64(11)	0	0	0	0	0
Other	1(5)	7(1)	0	0	1(1)	0	2(*)
Unknown	0	21(4)	5(7)	0	1(1)	0	18(3)
Total No. of Trips	19	587	65	35	122	13	814

* Less than 1%.

Table 22. Number and Percentage of Trips Taken by Deer Hunter Survey Respondents by Mode(s) of Transportation by Selected Communities of Residence in Southeast Alaska, 1985 (Continued page 3)

Mode(s) of Transportation	Tenakee Springs	Other Prince of Wales	Wrangell	Other Alaska Outside Southeast Alaska	Other Alaska Non-Residents	All Respondents
Boat	13(54)	4(4)	80(70)	7(27)	6(27)	1,577(46)
Car or Truck	0	89(81)	7(6)	3(11)	2(9)	730(21)
Small Plane	0	0	3(3)	3(12)	1(4)	169(5)
Ferry	0	0	0	0	0	21(1)
Walking	10(42)	4(4)	3(3)	0	0	110(3)
Boat, Car or Truck	0	2(2)	15(13)	3(12)	1(4)	407(13)
Boat, Small Plane	0	0	2(2)	1(4)	0	26(1)
Boat/Commercial Airlines	0	0	0	4(15)	4(17)	25(1)
Boat, ATV	1(4)	0	0	0	0	24(1)
Car or Truck/Small Plane	0	0	4(3)	0	0	46(1)
Car or Truck/Ferry	0	0	0	1(4)	1(4)	67(2)
Other	0	0	0	4(15)	8(35)	50(2)
Unknown	0	11(9)	0	0	0	115(3)
Total No. of Trips	24	110	114	26	23	3404(100)

* Less than 1%.

Table 23. Estimated Deer Hunter (Respondents) Expenditures ($) by Category for Southeast Alaska Region 1985 (n=1290)

Category	Average (all)[a]	Average (users)[a]	Total[b]	No. of Users
1. Transportation (roundtrip from home to hunting location).				
a. By private boat	65.94	79.65	85,013	1,068
b. By charter boat	4.09	8.22	5,278	642
c. By private car or truck	19.09	30.47	24,621	808
d. By rental car or truck	0.22	0.45	282	628
e. By private plane	6.03	11.82	7,775	658
f. By air charter	20.69	37.54	26,693	711
g. By commercial airline	10.85	21.28	14,001	658
h. By ferry	7.09	13.23	9,144	691
i. By three-wheeler or other ATV	0.72	1.45	925	638
j. Other	0.83	1.90	1,080	567
2. Restaurants/bars	5.70	9.99	7,349	736
3. Lodging	4.87	8.62	6,284	729
4. Groceries (includes beverages)	56.34	66.80	72,673	1,088
5. Ammunition (for hunt and target practice)	23.38	27.44	30,148	1,099
6. Butchering (including game bags, freezer paper, etc.)	9.20	12.76	11,857	930
7. Film and developing	4.84	7.74	6,240	806
8. Taxidermy	6.10	11.33	7,866	694
9. Guiding services	0.63	1.19	810	678
Subtotal[c]	260.89	---	335,817	1,290
10. Equipment				
a. Firearms, scope, knives	77.52 (61.24)[d]	91.16 (72.01)[d]	78,999	1,097
b. Camping equipment	20.59 (12.47)	25.72 (15.57)	16,073	1,033
c. Special hunting clothing	20.49 (13.70)	25.62 (17.18)	17,662	1,032
d. Books and maps	2.04 (1.45)	2.62 (1.87)	1,873	1,003
e. Boat	400.53(167.93)	521.37(218.60)	206,633	991
f. Three-wheeler or other ATV	10.12 (5.25)	13.40 (6.95)	6,764	974
g. Plane	26.83 (10.29)	35.76 (13.72)	13,266	968
h. Camera, binoculars	21.03 (11.21)	27.27 (14.54)	14,463	995
i. Other	--- (4.30)	--- ---	5,241	---
Subtotal	579.15(287.84)	--- ---	360,974	1,288
Total	840.04(541.41)	--- ---	696,791	1,287
Average per day	206.42(120.18)	--- ---	148,118	1,290
Average per trip	406.86(263.50)	--- ---	327,017	1,290

[a] Average (all) is the mean expenditures based on the complete sample of hunters in the community; average (users) is the mean expenditures based on the subsample of hunters in the community who used the specific category.

[b] Subtotals and totals based on the proportion of equipment costs directly attributable to deer hunting activity.

[c] Contains additional expenditures for license and tag fees.

[d] Expenditures in parentheses are the amounts attributable to deer hunting activity.

Table 24. Estimated Deer Hunter (Respondents) Expenditures ($) by Category for Juneau-Douglas, 1985 (n=408)

Category	Average (all)[a]		Average (users)[a]		Total[b]	No. of Users
1. Transportation (roundtrip from home to hunting location).						
a. By private boat	63.79		80.09		26,028	325
b. By charter boat	6.38		12.65		2,605	206
c. By private car or truck	10.14		16.62		4,138	249
d. By rental car or truck	0.10		0.21		42	199
e. By private plane	11.90		22.48		4,855	216
f. By air charter	40.68		65.34		16,597	254
g. By commercial airline	7.23		13.92		2,951	212
h. By ferry	3.51		6.67		1,443	215
i. By three-wheeler or other ATV	0.05		0.11		21	198
j. Other	0.56		1.29		230	178
2. Restaurants/bars	4.88		8.61		1,990	231
3. Lodging	7.60		12.70		3,090	244
4. Groceries (includes beverages)	62.00		69.88		25,296	362
5. Ammunition (for hunt and target practice)	22.63		26.38		9,233	350
6. Butchering (including game bags, freezer paper, etc.)	10.00		13.79		4,082	296
7. Film and developing	4.62		7.30		1,884	258
8. Taxidermy	4.98		9.31		2,030	218
9. Guiding services	0.02		0.05		10	212
Subtotal[c]	273.09		---		111,420	408
10. Equipment						
a. Firearms, scope, knives	83.38	(61.59)[d]	96.37	(71.18)[d]	25,128	353
b. Camping equipment	22.77	(13.19)	27.90	(16.16)	5,367	333
c. Special hunting clothing	23.92	(16.49)	29.67	(20.44)	6,726	329
d. Books and maps	3.27	(2.53)	4.16	(3.22)	1,030	321
e. Boat	601.96	(232.20)	767.15	(296.05)	94,737	320
f. Three-wheeler or other ATV	3.68	(0.92)	4.84	(1.21)	375	310
g. Plane	65.09	(21.07)	87.07	(28.21)	8,575	305
h. Camera, binoculars	21.30	(9.61)	27.50	(12.41)	3,920	316
i. Other	0.66	(0.36)	1.34	(0.74)	149	202
Subtotal	826.03	(358.74)	---	---	146,007	408
Total	1,099.12	(631.83)	---	---	257,427	408
Average per day	253.16	(131.93)	---	---	51,839	408
Average per trip	492.55	(283.65)	---	---	113,866	408

[a] Average (all) is the mean expenditures based on the complete sample of hunters in the community; average (users) is the mean expenditures based on the subsample of hunters in the community who used the specific category.

[b] Subtotals and totals based on the proportion of equipment costs directly attributable to deer hunting activity.

[c] Contains additional expenditures for license and tag fees.

[d] Expenditures in parentheses are the amounts attributable to deer hunting activity.

Table 25. Estimated Deer Hunter (Respondents) Expenditures ($) by Category for Ketchikan, 1985 (n=225)

Category	Average (all)[a]	Average (users)[a]	Total[b]	No. of Users
1. Transportation (roundtrip from home to hunting location).				
a. By private boat	49.27	63.34	11,085	175
b. By charter boat	0.44	0.95	100	105
c. By private car or truck	36.36	51.78	8,182	158
d. By rental car or truck	0.04	0.10	10	102
e. By private plane	1.69	3.62	380	105
f. By air charter	12.64	24.96	2,845	114
g. By commercial airline	0.36	0.78	80	102
h. By ferry	23.54	38.66	5,297	137
i. By three-wheeler or other ATV	0.36	0.79	82	105
j. Other	2.29	5.48	515	94
2. Restaurants/bars	6.36	11.17	1,430	128
3. Lodging	4.96	8.99	1,115	124
4. Groceries (includes beverages)	59.52	72.00	13,392	186
5. Ammunition (for hunt and target practice)	28.61	33.18	6,437	194
6. Butchering (including game bags, freezer paper, etc.)	8.24	11.82	1,855	157
7. Film and developing	7.75	11.86	1,744	147
8. Taxidermy	6.64	12.46	1,495	120
9. Guiding services	---	---	---	---
Subtotal[c]	261.08	---	56,044	225
10. Equipment				
a. Firearms, scope, knives	86.36 (66.80)[d]	103.34 (79.95)[d]	15,031	188
b. Camping equipment	32.28 (18.21)	40.57 (22.86)	4,097	179
c. Special hunting clothing	15.13 (10.02)	19.23 (12.74)	2,255	177
d. Books and maps	1.60 (0.96)	2.08 (1.25)	217	173
e. Boat	264.35(106.17)	349.87 (140.52)	23,888	170
f. Three-wheeler or other ATV	11.98 (6.33)	16.14 (8.53)	1,424	167
g. Plane	5.78 (5.17)	7.78 (6.96)	1,163	167
h. Camera, binoculars	28.64 (15.84)	37.25 (20.59)	3,564	173
i. Other	0.31 (0.14)	0.63 (0.29)	33	111
Subtotal	446.43(229.64)	--- ---	51,672	255
Total	707.51(490.72)	--- ---	107,716	255
Average per day	148.87(96.80)	--- ---	20,424	255
Average per trip	389.88(261.64)	--- ---	55,729	225

[a] Average (all) is the mean expenditures based on the complete sample of hunters in the community; average (users) is the mean expenditures based on the subsample of hunters in the community who used the specific category.

[b] Subtotals and totals based on the proportion of equipment costs directly attributable to deer hunting activity.

[c] Contains additional expenditures for license and tag fees.

[d] Expenditures in parentheses are the amounts attributable to deer hunting activity.

Table 26. Estimated Deer Hunter (Respondents) Expenditures ($) by Category for Petersburg, 1985 (n=78)

Category	Average (all)[a]	Average (users)[a]	Total[b]	No. of Users
1. Transportation (roundtrip from home to hunting location).				
a. By private boat	102.90	113.04	8,026	71
b. By charter boat	---	---	---	---
c. By private car or truck	2.88	6.62	225	34
d. By rental car or truck	1.92	4.69	150	32
e. By private plane	7.88	18.09	615	34
f. By air charter	14.81	35.00	1,155	33
g. By commercial airline	8.33	19.12	650	34
h. By ferry	8.14	19.24	635	33
i. By three-wheeler or other ATV	0.04	0.09	3	32
j. Other	2.56	6.67	200	30
2. Restaurants/bars	2.69	6.18	210	34
3. Lodging	1.03	2.42	80	33
4. Groceries (includes beverages)	67.41	80.90	5,258	65
5. Ammunition (for hunt and target practice)	23.92	27.85	1,866	67
6. Butchering (including game bags, freezer paper, etc.)	13.37	19.31	1,043	54
7. Film and developing	2.64	5.42	206	38
8. Taxidermy	6.73	15.91	525	33
9. Guiding services	---	---	---	---
Subtotal[c]	279.27	---	21,783	78
10. Equipment				
a. Firearms, scope, knives	83.22 (68.73)[d]	108.13 (89.34)[d]	5,361	60
b. Camping equipment	15.83 (10.91)	21.29 (14.68)	851	58
c. Special hunting clothing	20.77 (16.19)	27.93 (21.77)	1,263	58
d. Books and maps	0.64 (0.59)	0.96 (0.89)	46	52
e. Boat	112.44 (43.01)	165.47 (63.30)	3,355	53
f. Three-wheeler or other ATV	25.64 (6.41)	37.74 (9.43)	500	53
g. Plane	21.47 (9.94)	31.60 (14.62)	775	53
h. Camera, binoculars	2.44 (1.81)	3.52 (2.62)	141	54
i. Other	0.36 (0.21)	0.78 (0.47)	17	36
Subtotal	282.81(157.80)	--- ---	12,309	78
Total	562.08(437.07)	--- ---	34,092	78
Average per day	148.07(96.28)	--- ---	7,318	78
Average per trip	363.46(292.08)	--- ---	21,905	78

[a] Average (all) is the mean expenditures based on the complete sample of hunters in the community; average (users) is the mean expenditures based on the subsample of hunters in the community who used the specific category.

[b] Subtotals and totals based on the proportion of equipment costs directly attributable to deer hunting activity.

[c] Contains additional expenditures for license and tag fees.

[d] Expenditures in parentheses are the amounts attributable to deer hunting activity.

Table 27. Estimated Deer Hunter (Respondents) Expenditures ($) by Category for Sitka, 1985 (n=248)

Category	Average (all)[a]	Average (users)[a]	Total[b]	No. of Users
1. Transportation (roundtrip from home to hunting location).				
a. By private boat	93.34	101.98	23,149	227
b. By charter boat	0.08	0.16	20	124
c. By private car or truck	6.18	10.21	1,532	150
d. By rental car or truck	---	---	---	---
e. By private plane	2.62	5.16	650	126
f. By air charter	7.26	14.29	1,801	126
g. By commercial airline	3.23	6.45	800	124
h. By ferry	0.98	1.97	242	123
i. By three-wheeler or other ATV	1.70	3.27	422	129
j. Other	0.48	1.07	120	112
2. Restaurants/bars	2.63	4.84	653	135
3. Lodging	0.85	1.58	210	133
4. Groceries (includes beverages)	57.20	67.88	14,186	209
5. Ammunition (for hunt and target practice)	24.76	28.43	6,140	216
6. Butchering (including game bags, freezer paper, etc.)	9.88	12.50	2,450	196
7. Film and developing	4.11	6.70	1,019	152
8. Taxidermy	6.62	12.53	1,641	131
9. Guiding services	---	---	---	129
Subtotal[c]	233.92	---	58,011	248
10. Equipment				
a. Firearms, scope, knives	72.51 (60.39)[d]	84.03 (69.98)[d]	14,976	214
b. Camping equipment	18.55 (13.60)	23.23 (17.03)	3,373	198
c. Special hunting clothing	22.58 (15.06)	27.45 (18.31)	3,735	204
d. Books and maps	1.79 (1.22)	2.28 (1.55)	302	195
e. Boat	504.76 (227.00)	655.40 (294.75)	56,297	191
f. Three-wheeler or other ATV	15.97 (7.17)	21.29 (9.56)	1,778	186
g. Plane	5.85 (5.15)	7.80 (6.86)	1,276	186
h. Camera, binoculars	19.86 (9.71)	25.93 (12.67)	2,407	190
i. Other	1.09 (0.41)	2.14 (0.81)	250	126
Subtotal	662.96 (339.71)	--- ---	84,394	248
Total	896.88 (573.63)	--- ---	142,405	248
Average per day	201.77 (123.66)	--- ---	29,429	248
Average per trip	325.76 (200.16)	--- ---	47,438	248

[a] Average (all) is the mean expenditures based on the complete sample of hunters in the community; average (users) is the mean expenditures based on the subsample of hunters in the community who used the specific category.

[b] Subtotals and totals based on the proportion of equipment costs directly attributable to deer hunting activity.

[c] Contains additional expenditures for license and tag fees.

[d] Expenditures in parentheses are the amounts attributable to deer hunting activity.

Table 28. Estimated Deer Hunter (Respondents) Expenditures ($) by Category for Wrangell, 1985 (n=67)

Category	Average (all)[a]		Average (users)[a]		Total[b]	No. of Users
1. Transportation (roundtrip from home to hunting location).						
a. By private boat	66.87		75.93		4,480	59
b. By charter boat	---		---		---	---
c. By private car or truck	8.46		13.50		567	42
d. By rental car or truck	---		---		---	---
e. By private plane	0.30		0.53		20	38
f. By air charter	10.00		17.63		670	38
g. By commercial airline	2.99		5.26		200	38
h. By ferry	---		---		---	---
i. By three-wheeler or other ATV	0.75		1.35		50	37
j. Other	0.22		0.43		15	35
2. Restaurants/bars	2.31		3.97		155	39
3. Lodging	0.15		0.26		10	38
4. Groceries (includes beverages)	67.15		74.98		4,499	60
5. Ammunition (for hunt and target practice)	17.84		22.55		1,195	53
6. Butchering (including game bags, freezer paper, etc.)	6.30		8.98		422	47
7. Film and developing	3.67		5.86		246	42
8. Taxidermy	---		---		---	---
9. Guiding services	---		---		---	---
Subtotal[c]	199.00		---		13,332	67
10. Equipment						
a. Firearms, scope, knives	50.82	(43.88)[d]	57.71	(49.83)[d]	2,940	59
b. Camping equipment	12.99	(9.07)	15.26	(10.66)	608	57
c. Special hunting clothing	13.21	(9.85)	16.38	(12.22)	660	54
d. Books and maps	1.16	(0.85)	1.39	(1.02)	57	56
e. Boat	271.63	(88.49)	324.98	(105.87)	5,929	56
f. Three-wheeler or other ATV	2.24	(2.24)	2.73	(2.73)	150	55
g. Plane	---	---	---	---	---	---
h. Camera, binoculars	17.25	(10.54)	21.81	(13.32)	706	53
i. Other	0.33	(0.33)	0.52	(0.52)	22	42
Subtotal	369.63	(165.25)	---	---	11,072	67
Total	568.63	(364.25)	---	---	24,404	67
Average per day	147.61	(96.72)	---	---	6,423	67
Average per trip	293.86	(221.59)	---	---	14,403	67

[a] Average (all) is the mean expenditures based on the complete sample of hunters in the community; average (users) is the mean expenditures based on the subsample of hunters in the community who used the specific category.

[b] Subtotals and totals based on the proportion of equipment costs directly attributable to deer hunting activity.

[c] Contains additional expenditures for license and tag fees.

[d] Expenditures in parentheses are the amounts attributable to deer hunting activity.

Table 29. Estimated Deer Hunter (Respondents) Expenditures ($) by Category for Rest of Southeast Alaska[d], 1985 (n=191)

Category	Average (all)[a]		Average (users)[a]		Total[b]	No. of Users
1. Transportation (roundtrip from home to hunting location).						
a. By private boat	56.41		69.07		10,775	156
b. By charter boat	---		---		---	---
c. By private car or truck	28.35		45.50		5,415	119
d. By rental car or truck	---		---		---	---
e. By private plane	5.00		10.38		955	92
f. By air charter	9.90		20.11		1,090	94
g. By commercial airline	3.46		7.17		660	98
h. By ferry	3.01		5.86		575	91
i. By three-wheeler or other ATV	1.66		3.48		317	91
j. Other	---		---		---	---
2. Restaurants/bars	4.76		8.20		910	111
3. Lodging	4.08		7.43		780	105
4. Groceries (includes beverages)	31.69		43.23		6,052	140
5. Ammunition (for hunt and target practice)	19.94		24.89		3,808	153
6. Butchering (including game bags, freezer paper, etc.)	8.25		12.60		1,575	125
7. Film and developing	2.51		4.44		480	108
8. Taxidermy	6.41		12.01		1,225	102
9. Guiding services	---		---		---	---
Subtotal[c]	197.43		176.40		37,709	191
10. Equipment						
a. Firearms, scope, knives	66.93	(62.15)[e]	81.42	(75.61)[e]	11,870	157
b. Camping equipment	7.58	(4.29)	10.26	(5.81)	819	141
c. Special hunting clothing	14.82	(11.13)	19.79	(14.90)	2,116	143
d. Books and maps	0.68	(0.52)	0.94	(0.72)	100	139
e. Boat	239.56	(150.96)	341.46	(215.18)	28,834	134
f. Three-wheeler or other ATV	14.40	(13.29)	20.07	(18.52)	2,538	137
g. Plane	16.02	(6.13)	22.50	(8.60)	1,170	136
h. Camera, binoculars	12.03	(9.60)	16.18	(12.91)	1,834	142
i. Other	53.03	(26.46)	9,999.00	(4,999)	5,054	2
Subtotal	425.05	(284.53)	---	---	54,335	---
Total	622.48	(481.96)	---	---	92,044	191
Average per day	170.78	(105.48)	---	---	22,099	191
Average per trip	261.98	(189.65)	---	---	39,613	191

[a] Average (all) is the mean expenditures based on the complete sample of hunters in the community; average (users) is the mean expenditures based on the subsample of hunters in the community who used the specific category.

[b] Subtotals and totals based on the proportion of equipment costs directly attributable to deer hunting activity.

[c] Contains additional expenditures for license and tag fees.

[d] Communites of Angoon, Craig, Elfin Cove, Funter Bay, Gustavus, Haines, Hoonah, Hydaburg, Kake, Klawock, Metlakatla, Meyers Chuck, Pelican, Point Baker, Port Alexander, Skagway, Tenakee, Thorne Bay, and Yakutat.

[e] Expenditures in parentheses are the amounts attributable to deer hunting activity.

Table 30. Estimated Deer Hunter (Respondents) Expenditures ($) by Category for Other Alaska, 1985 (n=22)

Category	Average (all)[a]		Average (users)[a]		Total[b]	No. of Users
1. Transportation (roundtrip from home to hunting location).						
a. By private boat	32.27		44.38		710	16
b. By charter boat	---		---		---	---
c. By private car or truck	45.77		71.93		1,007	14
d. By rental car or truck	---		---		---	---
e. By private plane	6.82		13.64		150	11
f. By air charter	24.32		38.21		535	14
g. By commercial airline	133.09		209.14		2,928	14
h. By ferry	6.77		12.42		149	12
i. By three-wheeler or other ATV	---		---		---	---
j. Other	---		---		---	---
2. Restaurants/bars	31.82		50.00		700	14
3. Lodging	14.09		22.14		310	14
4. Groceries (includes beverages)	54.27		59.70		1,194	20
5. Ammunition (for hunt and target practice)	18.95		20.85		417	20
6. Butchering (including game bags, freezer paper, etc.)	5.77		7.94		127	16
7. Film and developing	6.09		8.38		134	16
8. Taxidermy	---		---		---	---
9. Guiding services	---		---		---	---
Subtotal[c]	392.05		---		8,624	---
10. Equipment						
a. Firearms, scope, knives	20.14	(5.31)[d]	21.09	(5.56)[d]	117	21
b. Camping equipment	17.27	(7.61)	17.27	(7.61)	168	22
c. Special hunting clothing	7.27	(1.82)	8.00	(2.00)	40	20
d. Books and maps	3.00	(2.25)	3.14	(2.36)	50	21
e. Boat	409.09	(102.27)	428.09	(107.14)	2,250	21
f. Three-wheeler or other ATV	---	---	---	---	---	---
g. Plane	5.45	(5.45)	6.00	(6.00)	120	20
h. Camera, binoculars	0.18	(0.09)	0.20	(0.10)	2	20
i. Other	---	---	---	---	---	---
Subtotal	462.40	(124.80)	---	---	2,747	---
Total	854.45	(516.85)	---	---	11,371	22
Average per day	595.83	(243.89)	---	---	4,878	22
Average per trip	804.97	(469.64)	---	---	10,332	22

[a] Average (all) is the mean expenditures based on the complete sample of hunters in the community; average (users) is the mean expenditures based on the subsample of hunters in the community who used the specific category.

[b] Subtotals and totals based on the proportion of equipment costs directly attributable to deer hunting activity.

[c] Contains additional expenditures for license and tag fees.

[d] Expenditures in parentheses are the amounts attributable to deer hunting activity.

Table 31. Estimated Deer Hunter (Respondents) Expenditures ($) by Category for Non-Resident, 1985 (n=20)

Category	Average (all)[a]	Average (users)[a]	Total[b]	No. of Users
1. Transportation (roundtrip from home to hunting location).				
a. By private boat	36.00	60.00	720	12
b. By charter boat	127.65	232.09	2,553	11
c. By private car or truck	45.50	82.73	910	11
d. By rental car or truck	---	---	---	---
e. By private plane	7.50	16.67	150	9
f. By air charter	50.00	90.91	1,000	11
g. By commercial airline	286.60	382.13	5,732	15
h. By ferry	40.65	90.33	813	9
i. By three-wheeler or other ATV	---	---	---	---
j. Other	---	---	---	---
2. Restaurants/bars	61.05	71.82	1,221	17
3. Lodging	33.00	60.00	660	11
4. Groceries (includes beverages)	98.25	122.81	1,965	16
5. Ammunition (for hunt and target practice)	25.70	32.13	514	16
6. Butchering (including game bags, freezer paper, etc.)	1.50	3.00	30	10
7. Film and developing	22.00	25.88	440	17
8. Taxidermy	47.50	86.36	950	11
9. Guiding services	40.00	80.00	800	10
Subtotal[c]	1,050.40	---	21,006	20
10. Equipment				
a. Firearms, scope, knives	138.30 (67.33)[d]	162.71 (79.21)[d]	1,347	17
b. Camping equipment	62.05 (35.98)	73.00 (42.32)	720	17
c. Special hunting clothing	90.50 (29.50)	106.47 (34.71)	590	17
d. Books and maps	6.00 (2.94)	7.50 (3.67)	59	16
e. Boat	40.25 (17.19)	50.31 (21.48)	344	16
f. Three-wheeler or other ATV	--- ---	--- ---	---	---
g. Plane	22.50 (9.38)	28.13 (11.72)	188	16
h. Camera, binoculars	163.95 (87.58)	182.17 (97.31)	1,752	18
i. Other	0.85 (0.85)	4.25 (4.25)	17	4
Subtotal	524.40(250.75)	--- ---	5,017	20
Total	1,575.80(1,301.15)	--- ---	26,023	20
Average per day	358.33 (302.45)	--- ---	5,747	20
Average per trip	1,486.29(1,248.95)	--- ---	23,729	20

[a] Average (all) is the mean expenditures based on the complete sample of hunters in the community; average (users) is the mean expenditures based on the subsample of hunters in the community who used the specific category.

[b] Subtotals and totals based on the proportion of equipment costs directly attributable to deer hunting activity.

[c] Contains additional expenditures for license and tag fees.

[d] Expenditures in parentheses are the amounts attributable to deer hunting activity.

Table 32. Estimated Deer Hunter (Respondents) Total and Average Expenditures[a] ($) by Hunter Community of Origin, Southeast Alaska, (n=1240)

Community	Average Per Day[d]	Average Per Trip[d]	Average Per Hunter[d]	Average Per Deer Killed[b]	Sample Total	Expanded Total*
Angoon (n=14)	76.55	215.47	463.82	145.44	6,493	44,991
Craig (n=31)	133.50	147.40	694.92	304.50	21,543	172,340
Elfin Cove (n=3)[c]	120.17	247.20	---	472.00	---	22,847
Gustavus (n=3)	34.21	46.75	135.33	64.13	406	1,624
Haines (n=21)	77.60	345.14	346.27	144.41	7,272	39,821
Hoonah (n=39)	88.92	141.48	430.43	139.36	16,787	114,925
Hydaburg (n=8)	195.31	238.45	470.69	188.14	3,765	26,359
Juneau-Douglas (n=407)	131.93	283.65	631.83	293.14	257,427	1,634,544
Kake (n=15)	127.18	281.30	317.27	142.00	4,759	40,293
Ketchikan (n=225)	96.80	261.64	490.73	313.70	110,413	803,816
Klawock (n=21)	91.14	182.30	322.55	150.72	6,774	57,091
Metlakatla (n=4)	60.64	119.25	224.25	99.50	897	8,970
Meyers Chuck (n=3)	29.46	389.80	315.08	37.98	945	3,781
Pelican (n=10)	273.27	293.98	509.30	61.83	5,093	30,049
Petersburg (n=78)	96.28	292.08	437.07	176.59	34,092	192,748
Point Baker (n=3)	232.23	253.83	256.50	173.04	770	4,361
Port Alexander (n=5)	31.46	52.54	114.50	33.53	573	2,290
Sitka (n=248)	123.66	200.16	573.63	247.22	142,405	945,915
Tenakee Springs (n=7)	79.16	114.25	224.79	67.38	1,574	9,891
Other Prince of Wales (n=31)	80.40	124.28	290.25	181.62	8,998	60,662
Wrangell (n=67)	96.73	221.59	364.24	297.04	24,404	154,438
Other Alaska (n=22)	243.88	469.64	516.85	370.55	11,371	77,011
Nonresident (n=20)	302.45	1,248.95	1,301.13	1,289.86	26,023	98,886
Southeast Alaska Total[e] (n=1240)	120.18	263.50	541.41	261.99	696,791**	4,603,068*

* This includes $1,248 for Yakutat hunters and $96 for Skagway hunters.

** This includes $3,808 for Elfin Cove hunters, $187 for Yakutat hunters, and $12 for Skagway hunters.

[a] Only includes expenditures directly attributable to deer hunting.

[b] Based on the number of deer killed and expenditures of successful hunters.

[c] Modes of transportation and expenditures by hunters using an Elfin Cove address indicate that some respondents were probably nonresidents or not residents of Elfin Cove. Therefore, Elfin Cove expenditure results provide information for regionwide results but are not accurate for Elfin Cove alone.

[d] Averages are a mean of ratios estimate, with only hunters completing both numerator and denominator portions of the variable considered in the calculation. This explains why answers reported will differ from simple ratio of sums expressions. For example, if a hunter failed to respond to an expenditure question, yet completed number of days hunted, this hunter would not be considered in computing average expenditure per hunter day.

[e] See footnote d on table 33.

Table 33. Estimated 1985 Deer Hunter Total and Average Expenditures[a] ($) by Game Management Unit/Subunit[b] in Southeast Alaska (n=1288)

GMU/GMS	Average Per Day	Average Per Trip	Average Per Hunter	Average per Deer Killed[c]	Sample Total	Expanded Total
1A (n=232)	95.51	260.21	483.86	304.78	112,255	817,723
1B (n=67)	96.72	221.59	364.24	297.04	24,404	154,438
1C (n=409)	131.49	282.56	629.99	292.46	257,668	1,637,344
ID (n=22)	74.35	328.48	331.08	144.41	7,284	40,723
2 (n=94)	115.07	159.35	445.20	215.87	41,849	314,756
3 (n=93)	100.50	290.28	417.75	172.27	38,851	237,282
4 (n=327)	119.49	193.12	540.59	216.37	176,775	1,166,593
5A (n=1)	45.57	312.00	312.00	78.00	312	2,496
Other Alaska (n=22)	243.88	469.64	516.85	370.55	11,371	77,011
Nonresident (n=20)	302.45	1,248.95	1,301.13	1,289.86	26,023	98,886
TOTAL SOUTHEAST REGION[d] (n=1,287)	120.18	263.50	541.41	261.99	696,791	4,063,068

[a] Only includes expenditures directly attributable to deer hunting.

[b] Based on hunter GMU/GMS of residence.

[c] Based on the number of deer killed and expenditures of successful hunters.

[d] The community (table 32) and game management unit (GMU) (table 33) expanded expenditure totals do not sum to the expanded regional expenditure total because the calculations of these values are weighted by different response rates. The expanded total populations of hunters of communities and GMU's are weighted by their respective response rates to the hunting portion of the questionnaire (i.e. question number 9). The average expenditures per hunter by community and GMU are weighted by the response rates to expenditure questions (12 and 13). Unless the response rates for both the hunting and expenditure questions are the same, the GMU and community totals will not sum to the expanded regional expenditure total. The product of the regional expanded hunter population and average expenditure per hunter is used to compute the regional expanded total expenditure.

Table 34. Replacement Value Information for Deer Harvested by Southeast Alaska Residents, 1985.

Community	Population (1984)	Active Hunters	Estimated Deer Killed	Pounds Useable Weight[a]	Per Capita Pounds	DOLLARS			
						Replacement Cost/Pound[b]	Total Replacement Cost	Expanded Hunter Expenditure	Net Replacement Value
Angoon	470	97	313	25,040	53	3.12	77,875	44,991	32,884
Craig	881	248	464	37,120	42	2.92	108,390	172,340	-63,950
Elfin Cove	20	18	48	3,840	192	4.64	17,818	22,847	-5,029
Funter Bay	---	4	16	1,280	---	3.50	4,480	---	4,480
Gustavus	218	12	28	2,240	10	3.50	7,840	1,624	6,216
Haines	1,839	115	289	23,120	13	3.17	73,390	39,821	33,569
Hoonah	803	267	821	65,680	82	3.38	221,998	114,925	107,073
Hydaburg	371	56	105	8,400	23	3.39	28,476	26,359	2,117
Juneau/Douglas	23,729	2,587	4,122	329,760	14	3.00	989,280	1,634,544	-645,264
Kake	574	127	220	17,600	31	3.46	60,896	40,293	20,576
Ketchikan	12,705	1,638	2,067	165,360	13	2.89	477,890	803,816	-325,926
Klawock	532	177	397	31,760	60	3.49	110,842	57,091	53,751
Metlakatla	1,134	40	80	6,400	6	3.12	19,968	8,970	10,998
Meyers Chuck	52	12	20	1,600	23	3.71	4,452	3,781	671
Pelican	206	59	88	7,040	34	3.28	23,091	30,049	-6,958
Petersburg	3,188	441	1,034	82,720	26	3.02	249,914	192,748	57,166
Point Baker	93	17	28	2,240	24	3.82	8,577	4,361	4,216
Port Alexander	162	20	60	4,800	30	3.34	16,032	2,290	13,742
Sitka	7,611	1,649	3,742	299,360	39	2.81	841,201	945,915	-104,714
Skagway	794	8	0	0	--	3.12	0	192	-192
Tenakee Springs	156	44	149	11,920	76	3.61	43,031	9,891	33,140
Other Prince Wales[c]	775	209	404	32,320	42	3.34	107,949	60,662	47,287
Wrangell	2,376	424	437	34,960	15	2.81	98,238	154,438	-56,200
Yakutat	453	8	32	2,560	6	4.10	10,496	1,496	9,000
TOTAL SOUTHEAST REGION RESIDENTS	59,142	8,277	14,964	1,197,120	20	(Average) 3.35	3,602,124	4,373,444	-771,320

Source: Kookesh, 1986, pers. comm.; George, 1986, pers. comm.; Johnson, 1986, pers. comm.

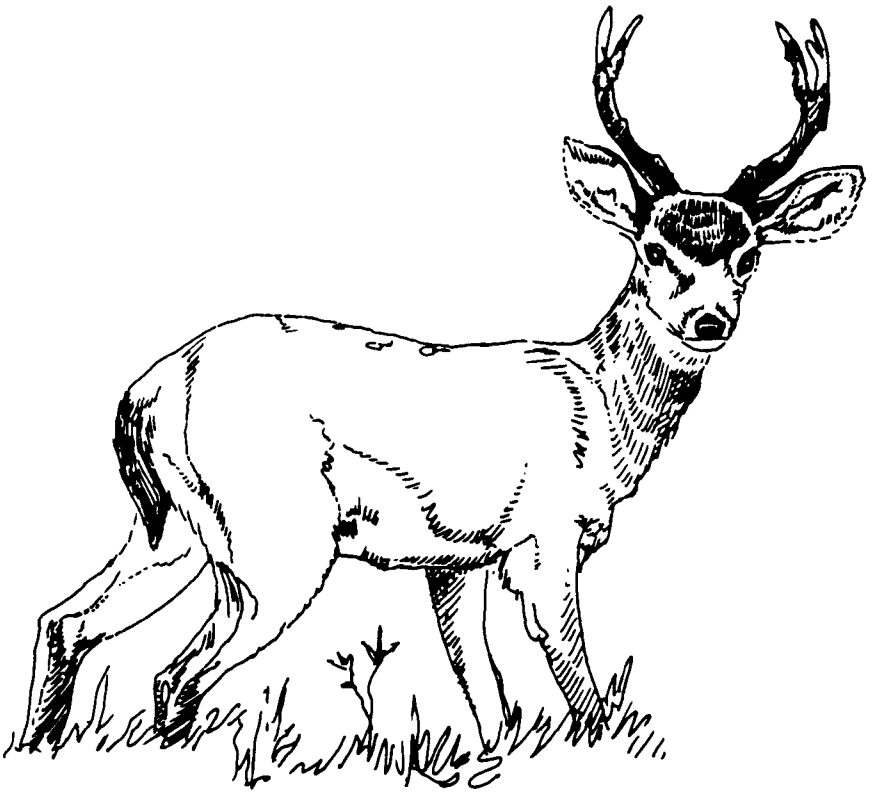
[a] Based on 80 pounds useable weight per deer.

[b] Based on a telephone survey to all Southeast Alaska communities conducted June 1986.

[c] Includes Edna Bay, Thorne Bay, North Whale Pass, Cape Pole, Coffman Cove, and Laboucher Bay.

Southeast Alaska Deer Hunter Survey

APPENDIX ONE



Alaska Department of Fish and Game

This questionnaire is being sent to a sample of deer hunters who obtained deer harvest tickets in Southeast Alaska during 1985. Your answers are important and will enable us to better manage deer hunting. We are particularly interested in determining what hunt characteristics are important to deer hunters. **Your answers will be kept confidential,** released only as part of total figures. Please answer and return this questionnaire today in the postage-paid envelope provided. We appreciate you participation in this questionnaire.

Please check box A or B below.

A) **Hunted deer** in 1985 ☐, please complete the whole survey.

B) **Did not hunt deer** in 1985 ☐, please stop and return this survey.

First, we would like to know how you chose **your** deer hunting areas in 1985.

1) How did each characteristic below influence your decision to **select** or **avoid** a particular area during your 1985 deer hunts? If a characteristic listed below did not influence your decision, please check off that it **did not matter.**

RANK	CHARACTERISTICS OF HUNTING AREAS	CAUSED ME TO SELECT	CAUSED ME TO AVOID	DID NOT MATTER
	Good chance of getting a deer			
	Protected waters			
	Boat anchorage or landing			
	Floatplane anchorage or landing			
	Wheelplane beach access			
	Road access (by cars or trucks)			
	Trail access (hiking)			
	Three wheeler or ATV access			
	Forest Service cabin			
	Private cabin or lodge			
	Developed campground			
	Undeveloped campsite			
	Close enough for 1-day trip from home			
	Wilderness or natural area			
	Opportunity to hunt other game			
	Opportunity to sport fish			
	Knew few (only 1-2) other people use area			
	Knew other groups of people might be using area			
	Alpine area			
	Muskeg			
	Young clearcut with open areas			
	Older clearcut with shrubs and trees			
	My hunting partners preferred area			
	Outstanding scenery			
	Development (e.g., logging camp, shoreline development, private homes)			
	Other (specify)			

2) Return to the list above and rank the **five** most important reasons you hunted where you did in 1985 by placing numbers from 1 - 5 in the blanks to the left of the question.

We would like to know more about you. Some of these questions may seem unrelated to deer hunting, but they will help us better understand who hunts deer in Southeast Alaska.

3) How many years have you hunted deer in Alaska? _____ Years.

4) How many people live in your household? _____.

5) How did you use the deer harvested in 1985? (check as many as apply)

(a) ____ eaten by my household
(b) ____ given as gifts to other household(s)
(c) ____ traded for other meat, fish, or goods
(d) ____ hunted primarily for a trophy
(e) ____ other (please specify)

6) If your hunting trips were not successful in 1985, how will you obtain this year's meat? Please check any of the activities listed below that apply.

(a) ____ receive deer meat from others
(b) ____ hunt grouse more than usual
(c) ____ hunt waterfowl more than usual
(d) ____ hunt bear more than usual
(e) ____ hunt goat more than usual
(f) ____ go fishing more than usual
(g) ____ hunt moose more than usual
(h) ____ buy more food from the store
(i) ____ eat less meat
(j) ____ other, please list: _____

7) How many deer does your household **normally** eat in a year, including deer meat that someone gives you? ____ deer.

8) How old are you?

(a) ____ under 12
(b) ____ 12 to 18
(c) ____ 18 to 24
(d) ____ 25 to 35
(e) ____ 36 to 45
(f) ____ 46 to 55
(g) ____ 56 to 65
(h) ____ 66 to 75
(i) ____ over 75

Now, we would like to know about your individual deer hunting
To answer questions #9 you will need to remove the maps in the

9) For **each** of your 1985 deer hunting **trips**, please fill in the blanks below.
list the number(s) that corresponds to the area(s) you hunted on each trip. If y
at the end for comments on additional trips.

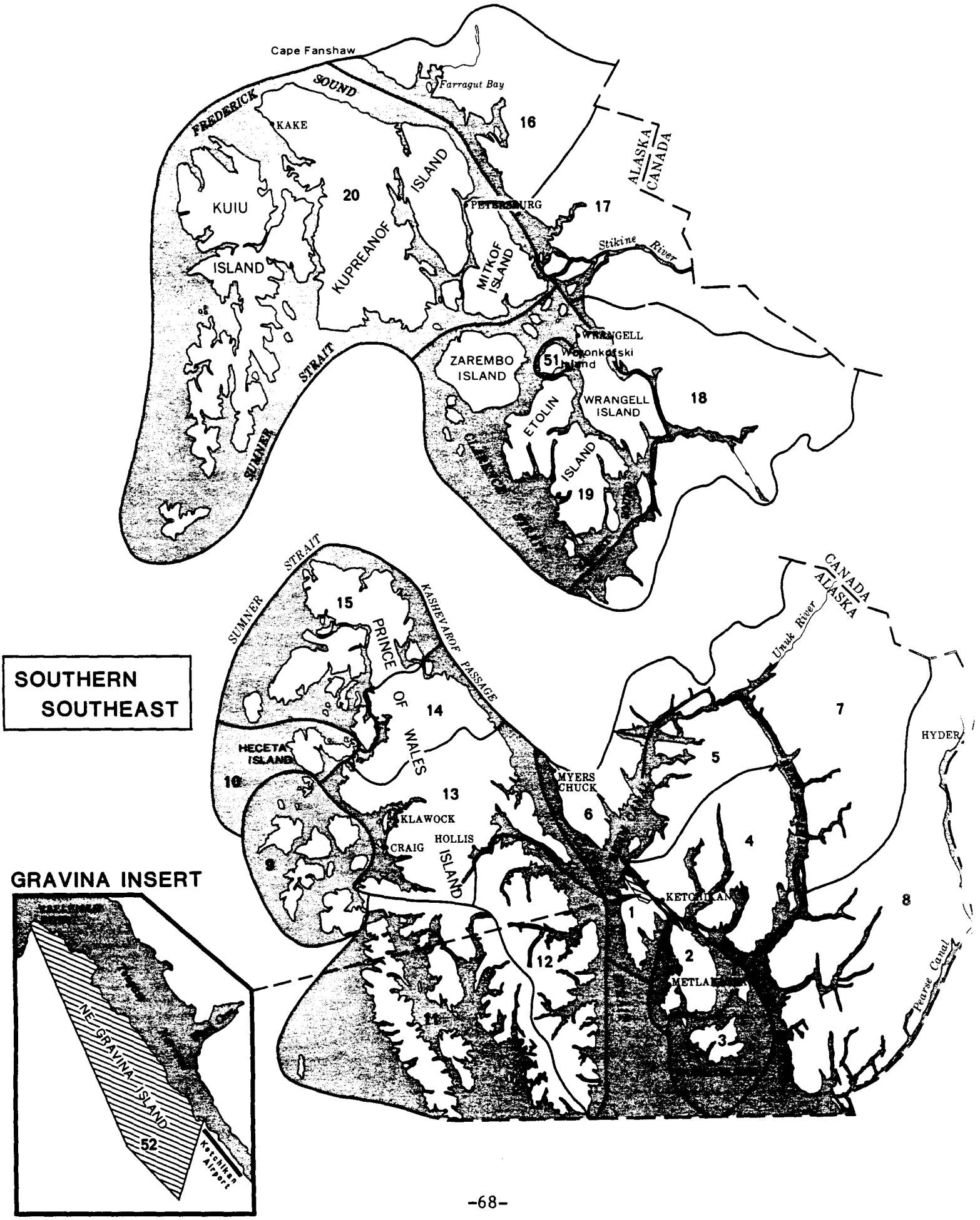
	Number of Harvest Area*	Number of Days Hunted In Area	Month(s) Deer Killed (Circle)	Number of Deer Killed Bucks	Does
Example	2 1	0 5	Aug. Sept (Oct) Nov. Dec.	1	1
Trip #					
1			Aug. Sept. Oct. Nov. Dec.		
2			Aug. Sept. Oct. Nov. Dec.		
3			Aug. Sept. Oct. Nov. Dec.		
4			Aug. Sept. Oct. Nov. Dec.		
5			Aug. Sept. Oct. Nov. Dec		
6			Aug. Sept. Oct. Nov. Dec		
7			Aug. Sept. Oct. Nov. Dec		
8			Aug. Sept. Oct. Nov. Dec		
9			Aug. Sept. Oct. Nov. Dec		
10			Aug. Sept. Oct. Nov. Dec		

ıips.
enter of the survey booklet so you can refer to them.

ındicate the areas where you hunted, please see the enclosed harvest unit map and
ı hunted with a group, include only **your portion** of trip costs. Please use the space

How did you travel from home to where you started hunting/ walking (see list below)	How much did you spend ($) traveling round from home (see list below)	How many hours did you travel round trip from home to where you started hunting	Other activities during trip (use numbers from list below)	Portion of total time deer hunting use numbers from list below)
1,4	3	2 hrs	3	3

1. own boat	1. $0 - 24		1. only hunted deer	1. ¼
2. friend's boat	2. $25 - 49		2. sport fishing	2. ½
3. charter boat	3. $50 - 99		3. hunting other game	3. ¾
4. truck or car	4. $100 - 149		4. commercial fishing	4. all
5. own plane	5. $150 - 199		5. other (specify)	
6. friend's plane	6. $200 - 249			
7. air charter	7. $250 - 299			
8. commercial airlines	8. $300 - 399			
9. ferry	9. $400 - 499			
10. walk	10. $500 - 599			
11. bicycle	11. $600 - 699			
12. three-wheeler	12. $700 - 799			
13. Other (specify)	13. $800 - and over			


SOUTHERN SOUTHEAST
GRAVINA INSERT
Cape Fanshaw
Farragut Bay
FREDERICK SOUND
KAKE
KUIU ISLAND
KUPREANOF ISLAND
MITKOF ISLAND
PETERSBURG
ALASKA/CANADA
Stikine River
WRANGELL
Wrangell Island
ZAREMBO ISLAND
ETOLIN ISLAND
WRANGELL ISLAND
SUMNER STRAIT
SUMNER STRAIT
KASHEVAROF PASSAGE
PRINCE OF WALES
HECETA ISLAND
KLAWOCK
CRAIG
HOLLIS
MYERS CHUCK
CANADA/ALASKA
Unuk River
HYDER
KETCHIKAN
METLAKATLA
Pearse Canal
NE GRAVINA ISLAND
Ketchikan Airport
16
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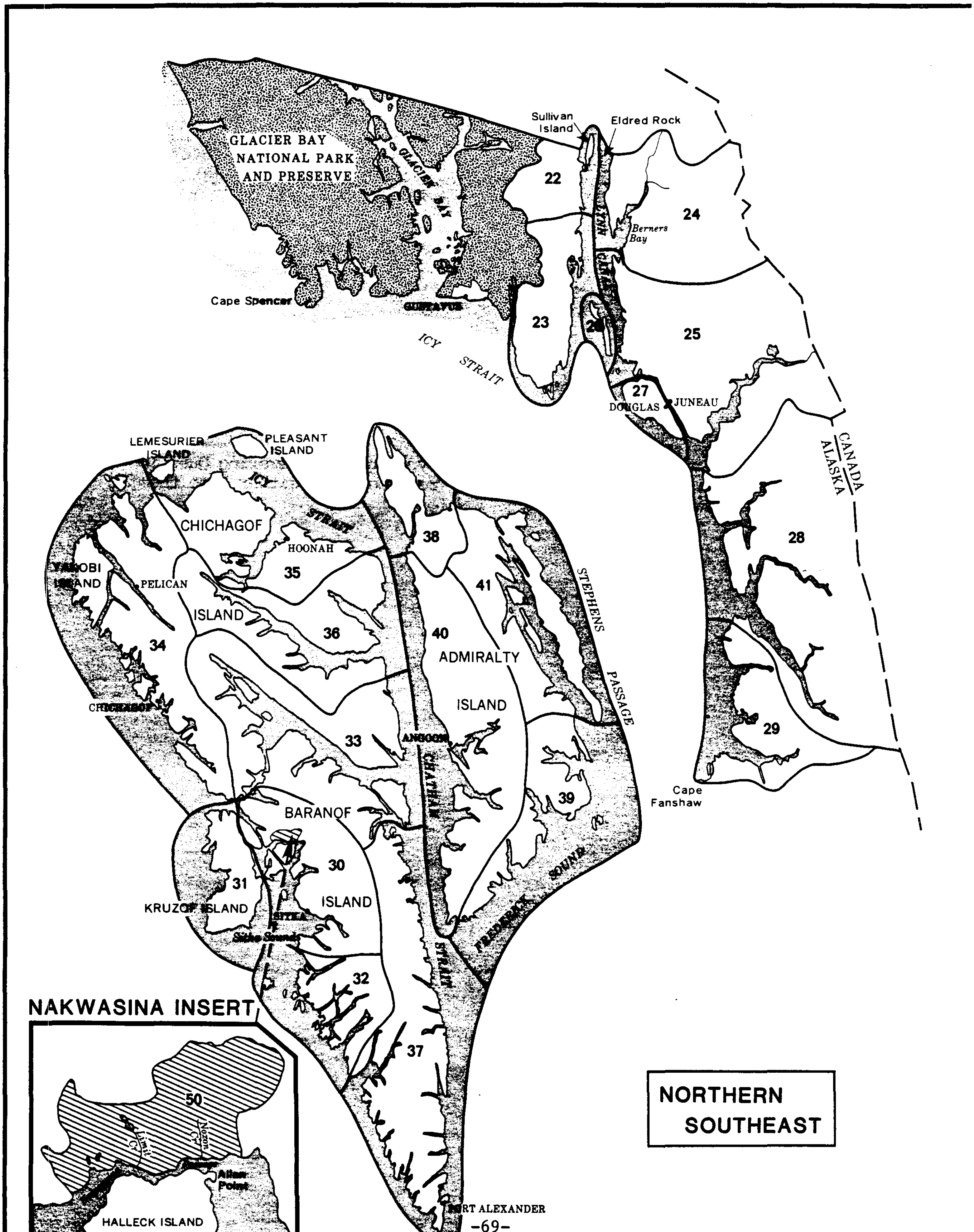
GLACIER BAY
NATIONAL PARK
AND PRESERVE
GLACIER BAY
Cape Spencer
GUSTAVUS
ICY STRAIT
Sullivan Island
Eldred Rock
22
23
24
Berners Bay
25
26
27
DOUGLAS
JUNEAU
CANADA
ALASKA
28
29
Cape Fanshaw
LEMESURIER ISLAND
PLEASANT ISLAND
ICY STRAIT
CHICHAGOF
HOONAH
YAKOBI ISLAND
PELICAN
ISLAND
34
35
36
38
40
41
STEPHENS PASSAGE
ADMIRALTY
ISLAND
CHICHAGOF
33
ANGOON
CHATHAM
39
BARANOF
30
31
KRUZOF ISLAND
SITKA
Sitka Sound
ISLAND
FREDERICK SOUND
STRAIT
32
37
PORT ALEXANDER
NAKWASINA INSERT
50
Allan Point
HALLECK ISLAND
NORTHERN SOUTHEAST

10) Which of the following best describes your use of roads while deer hunting? (Check as many as apply for 1985).

___ a. I did not use roads.
___ b. I drove to a boat or a plane to go somewhere to hunt.
___ c. Whenever I drove along local roads, I usually carried a gun during deer season.
___ d. I took trips along local roads for the purpose of hunting deer.
___ e. I drove out to a place where I could hunt for deer on foot.
___ f. I drove out to a place where I use an ATV (3-wheeler).
___ g. I went by boat or plane to a remote logging road and hunted from the logging roads on foot.
___ h. Other:

11) If you used a boat while deer hunting, which of the following best describes how it was used? (Check as many as apply for 1985).

___ a. I did not use a boat.
___ b. I usually carry a gun in the boat during hunting season.
___ c. I took trips to hunt along the beach for deer.
___ d. I took the boat to get to another area, anchor, and then hunt in the woods on foot.

We would like to ask you some questions about what you spent on deer hunting in 1985. Try to estimate **only your own costs** (do not include total group costs).

12) For ALL your deer hunting trips in Southeast **in 1985,** what is your estimate of how much you sepnt on each of these types of costs? Please enter zero if you spent nothing in a category.

(a) Transportation (roundtrip from home to hunting location). INCLUDE you portion of group actual trip costs for gas, tickets, rental fees, etc. the cost of equipment maintenance that was directly related to deer hunting. Include the cost of transporting your game.

1. By private boat..... $_____
2. By charter boat..... $_____
3. By private car or truck..... $_____
4. By rental car or truck..... $_____
5. By private plane..... $_____
6. By air charter..... $_____
7. By commercial airline..... $_____
8. By ferry..... $_____
9. By three-wheeler or other ATV..... $_____
10. Other..... $_____

(b) Resturants/bars..... $_____
(c) Lodging..... $_____
(d) Groceries (include beverages)..... $_____
(e) Ammunition (for hunt and target practice)..... $_____
(f) Butchering (including game bags, freezer paper, etc.)..... $_____
(g) Film and developing..... $_____
(h) Taxidermy..... $_____
(i) Guiding services..... $_____

13) Some things that you use for deer hunting can be used for many years as well as for other activities. What did you spend **in 1985** on each of the following items that you used while deer hunting? Please enter zero if you spent nothing in a category. Then, circle what proportion of the item's use was for deer hunting in 1985.

(a) Firearms, scope, knives ..... $ ___	¼	½	¾	all
(b) Camping equipment..... $ ___	¼	½	¾	all
(c) Special hunting clothing..... $ ___	¼	½	¾	all
(d) Books and maps..... $ ___	¼	½	¾	all
(e) Boat..... $ ___	¼	½	¾	all
(f) Three-wheeler or other ATV..... $ ___	¼	½	¾	all
(g) Plane..... $ ___	¼	½	¾	all
(h) Camera, binoculars..... $ ___	¼	½	¾	all
(i) Other (please specify)_____ $ ___	¼	½	¾	all
_____ $ ___	¼	½	¾	all
(j) What portion of this money was spent in Southeast Alaska?	¼	½	¾	all

14) At the time of your deer hunts in Southeast in 1985, were you—

___ a. unemployed
___ b. self-employed
___ c. employed in year-round job
___ d. employed part of the year, but not when you went deer hunting
___ e. employed in exchange for food, lodging, or other goods

15) If you were employed or self employed, did you take time off from work to go deer hunting?
yes____ no____

If yes, how much would you have earned if you had worked instead of going deer hunting? $_____

16) About what was your approximate total personal **family** income (before taxes) in 1985? Do not include business income.

(a) $0-9,999
(b) $10,000-19,999
(c) $20,000-29,999
(d) $30,000 to $49,999
(e) $50,000 to $100,000
(f) $100,000+

THE ALASKA DEPARTMENT OF FISH AND GAME WOULD LIKE YOUR COMMENTS ON THIS SURVEY. PLEASE CONTINUE ON THE BACK PAGE.

THANK YOU VERY MUCH FOR YOUR HELP. PLEASE CHECK HERE IF YOU WOULD LIKE TO RECEIVE A SUMMARY OF THE SURVEY RESULTS. _____

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APPENDIX TWO

LIST OF ECONOMISTS

Gary Anders, University of Alaska, Juneau

Gardner Brown, University of Washington, Seattle

Benjamin Muse, State of Alaska, Commecial Fisheries Entry Commission, Juneau

George Rogers, Juneau, Alaska

Jinny Worthington, U.S.D.A. Forest Service, Juneau

APPENDIX THREE

EXPLANATION OF MEASUREMENTS OF HUNTER SUCCESS

Deer per hunter day (DHD) and hunter days per deer (HDD) are ratio variables commonly used to monitor density of animals in a given area. There are two possible ways to report ratio variables. One method is to take the ratio of two sums, in the case of DHD the total deer killed divided by the total hunter days for a given area. This provides a measure of success per unit effort for a given area. Another way to compute DHD and HDD is called the mean of ratios. This method computes each hunter's DHD or HDD providing a better estimate of mean DHD and HDD per hunter. Additionally, the mean of ratios is a statistic with a variance estimate.

The example below illustrates the differences between these two methods of computation. Take a hypothetical watershed with 5 hunters.

Hunter	Hunt Days	Deer		DHD Deer/Hunter Day (mean of ratios)	HDD Hunter Days/Deer (mean of ratios)
1	4	2		0.5	2
2	15	1		0.067	15
3	15	0		0.0	*
4	3	1		0.333	3
5	10	0		0.0	*
Sum	47	4	mean	0.18	6.7 **

* No ratio possible due to division by zero.
** Mean using N=3, only successful hunters averaged.

Using the mean of ratios the average hunter DHD is 0.18. The ratio of sums, derived by dividing the sum of deer (4), by total hunter days (47), gives a DHD of 0.085, less than half the first estimate. Using the mean of ratios, the estimate of HDD is 6.7 days per deer, yet the ratio of sums gives a HDD of 11.8. It is obvious that the ratio of sums estimator gives more weight to those hunters that spend more time hunting. If interest is in hunter days and not hunters, there might be some merit in using the ratio of sums.

Measuring DHD by using the ratio of sums implicitly states that all hunters hunt with equal skill. If hunters do not hunt with equal skill, the results are biased towards hunters that spend a lot of time hunting, and have little or no success. For these reasons and the fact that the ratio of sums is not a statistic, the mean of ratios is the preferred method of computing mean hunter DHD and HDD.

APPENDIX FOUR

TABLES ON THE USE OF DEER MEAT AND ALTERNATIVE SOURCES OF MEAT FOR SOUTHEAST ALASKA COMMUNITIES

Table 1. Use of Deer Harvested by Angoon Households, 1985 (n=19)

Use	Percentage*
Eaten by my household	69%
Given as gift to other household(s)	16%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community. More than one choice and a total of 100% are possible.

Table 2. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Angoon, Alaska (n=19)

Source	Percentage*
Receive deer meat from others	21%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	0%
Hunt bear more than usual	0%
Hunt goat more than usual	0%
Go fishing more than usual	27%
Hunt moose more than usual	0%
Buy more food from the store	21%
Eat less meat	11%
(Other)	11%

* Based on the number of total responding hunters per community. More than one choice and a total of 100% are possible.

Table 3. Use of Deer Harvested by Craig Households, 1985 (n=46)

Use	Percentage*
Eaten by my household	57%
Given as gift to other household(s)	16%
Traded for other meat, fish or goods	3%
Hunted primarily for a trophy	3%
Other	0%

* Based on the number of total responding hunters per community. More than one choice and a total of 100% are possible.

Table 4. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Craig, Alaska (n=46)

Source	Percentage*
Receive deer meat from others	11%
Hunt grouse more than usual	3%
Hunt waterfowl more than usual	3%
Hunt bear more than usual	7%
Hunt goat more than usual	0%
Go fishing more than usual	16%
Hunt moose more than usual	0%
Buy more food from the store	35%
Eat less meat	26%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 5. Use of Deer Harvested by Elfin Cove Households, 1985 (n=4)

Use	Percentage*
Eaten by my household	50%
Given as gift to other household(s)	50%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 6. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Elfin Cove, Alaska (n=4)

Source	Percentage*
Receive deer meat from others	25%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	0%
Hunt bear more than usual	0%
Hunt goat more than usual	0%
Go fishing more than usual	25%
Hunt moose more than usual	0%
Buy more food from the store	25%
Eat less meat	0%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 7. Use of Deer Harvested by Gustavus Households, 1985 (n=5)

Use	Percentage*
Eaten by my household	40%
Given as gift to other household(s)	0%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	20%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 8. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Gustavus, Alaska (n=5)

Source	Percentage*
Receive deer meat from others	0%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	20%
Hunt bear more than usual	0%
Hunt goat more than usual	0%
Go fishing more than usual	40%
Hunt moose more than usual	0%
Buy more food from the store	60%
Eat less meat	20%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 9. Use of Deer Harvested by Haines Households, 1985 (n=32)

Use	Percentage*
Eaten by my household	60%
Given as gift to other household(s)	7%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	4%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 10. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Haines, Alaska (n=32)

Source	Percentage*
Receive deer meat from others	10%
Hunt grouse more than usual	13%
Hunt waterfowl more than usual	10%
Hunt bear more than usual	13%
Hunt goat more than usual	10%
Go fishing more than usual	22%
Hunt moose more than usual	13%
Buy more food from the store	25%
Eat less meat	22%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 11. Use of Deer Harvested by Hoonah Households, 1985 (n=48)

Use	Percentage*
Eaten by my household	80%
Given as gift to other household(s)	19%
Traded for other meat, fish or goods	2%
Hunted primarily for a trophy	2%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 12. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Hoonah, Alaska (n=48)

Source	Percentage*
Receive deer meat from others	15%
Hunt grouse more than usual	2%
Hunt waterfowl more than usual	5%
Hunt bear more than usual	2%
Hunt goat more than usual	0%
Go fishing more than usual	25%
Hunt moose more than usual	0%
Buy more food from the store	46%
Eat less meat	19%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 13. Use of Deer Harvested by Hydaburg Households, 1985 (n=8)

Use	Percentage*
Eaten by my household	100%
Given as gift to other household(s)	13%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 14. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Hydaburg, Alaska (n=48)

Source	Percentage*
Receive deer meat from others	25%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	0%
Hunt bear more than usual	0%
Hunt goat more than usual	0%
Go fishing more than usual	25%
Hunt moose more than usual	0%
Buy more food from the store	50%
Eat less meat	50%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 15. Use of Deer Harvested by Juneau Households, 1985 (n=583)

Use	Percentage*
Eaten by my household	52%
Given as gift to other household(s)	16%
Traded for other meat, fish or goods	3%
Hunted primarily for a trophy	2%
Other	3%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 16. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Juneau, Alaska (n=583)

Source	Percentage*
Receive deer meat from others	16%
Hunt grouse more than usual	6%
Hunt waterfowl more than usual	4%
Hunt bear more than usual	4%
Hunt goat more than usual	3%
Go fishing more than usual	23%
Hunt moose more than usual	6%
Buy more food from the store	39%
Eat less meat	21%
(Other)	1%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 17. Use of Deer Harvested by Ketchikan Households, 1985 (n=327)

Use	Percentage*
Eaten by my household	60%
Given as gift to other household(s)	11%
Traded for other meat, fish or goods	2%
Hunted primarily for a trophy	5%
Other	3%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 18. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Ketchikan, Alaska (n=327)

Source	Percentage*
Receive deer meat from others	11%
Hunt grouse more than usual	3%
Hunt waterfowl more than usual	5%
Hunt bear more than usual	5%
Hunt goat more than usual	3%
Go fishing more than usual	29%
Hunt moose more than usual	3%
Buy more food from the store	46%
Eat less meat	19%
(Other)	1%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 19. Use of Deer Harvested by Kake Households, 1985 (n=17)

Use	Percentage*
Eaten by my household	77%
Given as gift to other household(s)	18%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	6%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 20. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Kake, Alaska (n=17)

Source	Percentage*
Receive deer meat from others	30%
Hunt grouse more than usual	24%
Hunt waterfowl more than usual	6%
Hunt bear more than usual	12%
Hunt goat more than usual	0%
Go fishing more than usual	53%
Hunt moose more than usual	6%
Buy more food from the store	47%
Eat less meat	24%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 21. Use of Deer Harvested by Klawock Households, 1985 (n=27)

Use	Percentage*
Eaten by my household	71%
Given as gift to other household(s)	19%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	4%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 22. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Klawock, Alaska (n=27)

Source	Percentage*
Receive deer meat from others	19%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	12%
Hunt bear more than usual	0%
Hunt goat more than usual	0%
Go fishing more than usual	30%
Hunt moose more than usual	0%
Buy more food from the store	45%
Eat less meat	4%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 23. Use of Deer Harvested by Metlakatla Households, 1985 (n=6)

Use	Percentage*
Eaten by my household	67%
Given as gift to other household(s)	17%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 24. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Metlakatla, Alaska (n=6)

Source	Percentage*
Receive deer meat from others	33%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	0%
Hunt bear more than usual	0%
Hunt goat more than usual	0%
Go fishing more than usual	0%
Hunt moose more than usual	0%
Buy more food from the store	33%
Eat less meat	33%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 25. Use of Deer Harvested by Pelican Households, 1985 (n=15)

Use	Percentage*
Eaten by my household	54%
Given as gift to other household(s)	0%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 26. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Pelican, Alaska (n=15)

Source	Percentage*
Receive deer meat from others	20%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	7%
Hunt bear more than usual	0%
Hunt goat more than usual	7%
Go fishing more than usual	33%
Hunt moose more than usual	0%
Buy more food from the store	33%
Eat less meat	27%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 27. Use of Deer Harvested by Petersburg Households, 1985 (n=119)

Use	Percentage*
Eaten by my household	58%
Given as gift to other household(s)	16%
Traded for other meat, fish or goods	2%
Hunted primarily for a trophy	2%
Other	1%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 28. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Petersburg, Alaska (n=119)

Source	Percentage*
Receive deer meat from others	11%
Hunt grouse more than usual	3%
Hunt waterfowl more than usual	2%
Hunt bear more than usual	2%
Hunt goat more than usual	10%
Go fishing more than usual	17%
Hunt moose more than usual	7%
Buy more food from the store	35%
Eat less meat	15%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 29. Use of Deer Harvested by Pt. Baker Households, 1985 (n=5)

Use	Percentage*
Eaten by my household	40%
Given as gift to other household(s)	0%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 30. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Pt. Baker, Alaska (n=5)

Source	Percentage*
Receive deer meat from others	20%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	40%
Hunt bear more than usual	20%
Hunt goat more than usual	0%
Go fishing more than usual	40%
Hunt moose more than usual	20%
Buy more food from the store	40%
Eat less meat	20%
(Other)	20%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 31. Use of Deer Harvested by Port Alexander Households, 1985 (n=5)

Use	Percentage*
Eaten by my household	100%
Given as gift to other household(s)	0%
Traded for other meat, fish or goods	20%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 32. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Port Alexander, Alaska (n=5)

Source	Percentage*
Receive deer meat from others	20%
Hunt grouse more than usual	20%
Hunt waterfowl more than usual	20%
Hunt bear more than usual	20%
Hunt goat more than usual	20%
Go fishing more than usual	20%
Hunt moose more than usual	20%
Buy more food from the store	20%
Eat less meat	20%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 33. Use of Deer Harvested by Sitka Households, 1985 (n=336)

Use	Percentage*
Eaten by my household	66%
Given as gift to other household(s)	16%
Traded for other meat, fish or goods	3%
Hunted primarily for a trophy	1%
Other	2%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 34. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Sitka, Alaska (n=336)

Source	Percentage*
Receive deer meat from others	13%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	2%
Hunt bear more than usual	2%
Hunt goat more than usual	1%
Go fishing more than usual	20%
Hunt moose more than usual	1%
Buy more food from the store	40%
Eat less meat	19%
(Other)	1%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 35. Use of Deer Harvested by Skagway Households, 1985 (n=2)

Use	Percentage*
Eaten by my household	0%
Given as gift to other household(s)	0%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 36. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Skagway, Alaska (n=2)

Source	Percentage*
Receive deer meat from others	0%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	0%
Hunt bear more than usual	0%
Hunt goat more than usual	0%
Go fishing more than usual	50%
Hunt moose more than usual	0%
Buy more food from the store	0%
Eat less meat	0%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 37. Use of Deer Harvested by Tenakee Households, 1985 (n=8)

Use	Percentage*
Eaten by my household	100%
Given as gift to other household(s)	38%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 38. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Tenakee, Alaska (n=8)

Source	Percentage*
Receive deer meat from others	13%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	13%
Hunt bear more than usual	0%
Hunt goat more than usual	0%
Go fishing more than usual	25%
Hunt moose more than usual	0%
Buy more food from the store	50%
Eat less meat	50%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 39. Use of Deer Harvested by Wrangell Households, 1985 (n=108)

Use	Percentage*
Eaten by my household	45%
Given as gift to other household(s)	6%
Traded for other meat, fish or goods	1%
Hunted primarily for a trophy	3%
Other	5%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 40. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Wrangell, Alaska (n=108)

Source	Percentage*
Receive deer meat from others	11%
Hunt grouse more than usual	3%
Hunt waterfowl more than usual	6%
Hunt bear more than usual	5%
Hunt goat more than usual	2%
Go fishing more than usual	22%
Hunt moose more than usual	7%
Buy more food from the store	42%
Eat less meat	19%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 41. Use of Deer Harvested by Yakutat Households, 1985 (n=1)

Use	Percentage*
Eaten by my household	100%
Given as gift to other household(s)	100%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 42. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Yakutat, Alaska (n=1)

Source	Percentage*
Receive deer meat from others	0%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	0%
Hunt bear more than usual	0%
Hunt goat more than usual	100%
Go fishing more than usual	0%
Hunt moose more than usual	100%
Buy more food from the store	0%
Eat less meat	0%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 43. Use of Deer Harvested by Other-Alaska Households, 1985 (n=35)

Use	Percentage*
Eaten by my household	6%
Given as gift to other household(s)	12%
Traded for other meat, fish or goods	0%
Hunted primarily for a trophy	0%
Other	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 44. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Other-Alaska (n=35)

Source	Percentage*
Receive deer meat from others	15%
Hunt grouse more than usual	6%
Hunt waterfowl more than usual	9%
Hunt bear more than usual	6%
Hunt goat more than usual	9%
Go fishing more than usual	29%
Hunt moose more than usual	0%
Buy more food from the store	29%
Eat less meat	20%
(Other)	0%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 45. Use of Deer Harvested by Non-Resident Households, 1985 (n=20)

Use	Percentage*
Eaten by my household	0%
Given as gift to other household(s)	15%
Traded for other meat, fish or goods	10%
Hunted primarily for a trophy	18%
Other	5%

* Based on the number of total responding hunters per community; more than one choice possible.

Table 46. Alternative Sources of Meat Indicated by Hunters if Deer Hunting Trips Were Unsuccessful, Non-Resident, Alaska (n=1)

Source	Percentage*
Receive deer meat from others	0%
Hunt grouse more than usual	0%
Hunt waterfowl more than usual	10%
Hunt bear more than usual	5%
Hunt goat more than usual	10%
Go fishing more than usual	15%
Hunt moose more than usual	0%
Buy more food from the store	30%
Eat less meat	10%
(Other)	5%

* Based on the number of total responding hunters per community; more than one choice possible.