

Visitor Planning Stakeholder Group: Environmental/rural subgroup
Linda Behnken
May, 2006

QUESTION: Financial benefit comparison between sport and commercial caught fish.

Economic “Impact:”

Charter industry (2005): Total economic input to Sitka includes 22.14 million in sales and an additional 2 million spent in Sitka by charter fishermen. Using a multiplier of 1.4 to capture induced economic impacts, total (direct, indirect and induced) economic input is estimated at \$31 million. (McDowell Group, 2005)

Commercial industry (2004): In 2004, the first wholesale value of fish processed in Sitka was \$49.5 million. Using the 1.4 multiplier as above provides a total economic input of \$69.3 million. The 2004 CFEC report indicates that Sitka commercial fishermen landed a total of \$47.2 million worth of fish (ex-vessel price); some of this fish was landed outside of Sitka (Kodiak, Homer, Bristol Bay etc.). This income for Sitka residents also generated induced economic impact in Sitka that is not captured in the \$69.3 million figure cited above. **Based on raw fish estimates for 2005 and 2006, the first wholesale value is likely to be 18% higher in 2006 than 2004.**

(McDowell report, 2004) Available at:

<http://www.cityofsitka.com/pdf/FinalSitkaEconProf04.pdf> table 3. NOTE:

Commercial fishery employment numbers do not include crew members.

Employment:

Charter industry- 213 vessels in Sitka; 150 crewmembers ?? Processing workers
(McDowell Report, 2005)

Commercial industry- 586 commercial fishing permit holders in Sitka holding 1238 permits; 517 crewmembers; 423 seafood processor employees earning \$3.9 million in annual wages. Close to 1/3 of Sitka’s work force is directly employed in commercial fisheries.

<http://www.cfec.state.ak.us/gpbycen/2004/220.htm>

<http://www.cfec.state.ak.us/cpbycen/2004/220SITKA.htm>

<http://almis.labor.state.ak.us/cgi/dataanalysis/?PAGEID=94&SUBID=212>

DISCLAIMER: I am not an economist but have done my best to capture the various explanations I garnered through research and from economists relative to this question.

FINANCIAL COMPARISON- A comparison of commercial vs. charter caught fish is difficult given the operating differences between the two industries: commercial fishermen strive to maximize harvesting efficiencies while capturing a product that is sold on a per pound basis. Charter operations are far less concerned about efficiency and far more concerned about providing a satisfactory experience that also includes catching fish—or at least providing a reasonable opportunity to catch fish. While customer

satisfaction and the likelihood of return business may be affected by fishing success, charter clients pay a pre-determined price for a charter that is unaffected by the amount of fish caught; commercial fishermen are only paid if fish are delivered.

Nevertheless, there have been numerous attempts to make financial comparisons between the two sectors, with many attempts confusing net economic benefits with economic impacts or, as the McDowell Group terms it, induced economic impacts (Johnston and Sutinen, 1999; Mark Fina, pers. com; McDowell Group, January 2005). Net economic benefit is the sum of economic benefits minus the costs. In a fishery management context “economic benefit reflects the total value that a region (or nation) derives from the use of a resource,” and can not be measured through simple transfers of money (Johnston and Sutinen, 1999). Economic impact is the economic activity generated by money changing hands within some defined area, the community of Sitka, for example—the “churning effect,” as some economists call it. For example: a charter operator or commercial fisherman purchases fuel at Petro Marine; the fuel attendant receives some portion of his/her salary based on that purchase; that same fuel attendant then purchases groceries, pays rent, etc., turning over the money spent at the fuel dock. And so on...

Attempts to capture this form of economic activity often rely on Input-Output (I-O) models, but do not capture net economic benefits of policy changes. As one interviewed economist stated: “just because money is floating around a community does it mean you are using your resource well?” (Mark Fina, NPFMC staff, pers.comm.). Johnston and Sutinen, 1999 are more direct: “I-O analysis measures economic transfers—the shift of money from one group to another—the overall benefit of which, in general, is zero.” (1999, p iv). The benefit-cost analysis associated with determining net economic benefits is far more complex than I-O analysis and involves value determinations as well as monetary expenditures. Please note that the McDowell study conducted at the request of the Sitka Charter Boat Operators Association measures economic input, not benefit, since no effort was made to estimate charter industry costs.

A per pound comparison of value is clearly problematic, since it leads to the conclusion that the more a charter client catches the less the fish is worth. For example: in scenario one, four people charter a vessel for \$150 each, or \$600 total. The clients catch 60 pounds of halibut and 40 pounds of salmon (1 king, 1 coho, 1 humpie). The fish they catch is then worth \$6 per pound to the client. However, in scenario two the same clients catch only one 5 pound humpie, hence that humpie is worth \$120 per pound and every commercial fisherman will be targeting humpies this season.

In the end, I did find one fishery analyst willing to identify parameters for a direct financial comparison based on readily available and measurable information. According to this analyst, the most direct comparison would be the retail cost of a charter vs. the first wholesale value of commercial caught fish (McDowell Group, pers.comm), with first wholesale value defined as the price at which processors sell finished product outside their affiliate network. In the case of commercially harvested seafood, first wholesale value captures the full slate of economic activity associated with converting live fish to a salable food product, packed for shipment outside the port of landing. Ex-

vessel price, which has been used in some studies, only captures payment to the harvesters and would be akin to measuring charter industry value as the payment to skippers and crew ONLY. First wholesale value of commercially-caught fish and retail value of sport charter activity are fairly similar. Both measures reflect most or all of the locally-based economic activity resulting from harvest or utilization of a public seafood resource. This study has yet to be done, but may provide a more meaningful answer. By way of example:

Consider that approximately 4 million pounds of commercially caught halibut is delivered into Sitka each year. This translates into 1.87 million pounds of fletches at \$10.60 per pound, for \$19.1 million in value. Applying a multiplier of 1.4 to capture induced economic impacts, the value of that halibut is 27 million, or 6.67 per pound. Compare this to the per pound value in the charter example scenario one above.

In the end, financial comparisons provide only one measure of value; it is up to the community to provide others.

Sources:

Johnston, Robert J. and Jon G. Sutinen, 1999. Appropriate and inappropriate economic analysis for allocation decisions: The case of Alaska halibut. Prepared for Halibut Coalition; submitted to North Pacific Fishery Management Council October 1999.

McDowell Group, 2005. Sitka Charter Fishing Visitor Profile and Impact Analysis. Prepared for Sitka Charter Boat Operators Association. January 2005.

Links to other sources cited in line.

Personal communications:

*Mark Fina, Staff economist, North Pacific Fishery Management Council.
Chris McDowell, McDowell Group, Juneau.*