

The Economic Impacts of River Recreation

Whitewater paddlers contribute a significant amount of money to local economies. Through spending money on gas, food, lodging and other items paddlers provide revenue to rural communities. This side effect of whitewater recreation is typically welcomed in these communities and comes at a very low cost, since the towns do not need to market rivers, and since a moderate level of paddling requires little to no investment in infrastructure or services. American Whitewater often shares economic data with communities and managers when river access is either being proposed or challenged in an area, in an effort to show tangible benefits of supporting whitewater recreation.

Many rural communities are suffering economic woes because of shifting economic factors that drive industry. Natural resource extraction has seldom been managed at a sustainable pace. Paddling represents one part of a changing economy in many mountain areas - a change from resource extraction and industrial economies to a tourism based economy. Oftentimes, paddlers visit areas overlooked by other groups, and in times of the year when other tourism is greatly reduced. These factors can make paddlers' contribution to local economies even more important.

One of the best ways for paddlers to encourage river stewardship in the communities that we travel to is through their spending patterns. Paddlers can maximize their economic and social benefit to river communities through spending money in those communities, and specifically in locally owned businesses, rather than filling up gas tanks and buying meals in outlying areas. Spending money in these communities shows local residents a tangible economic benefit associated with river conservation and access, since paddlers prefer rivers that are legally accessible and that have good water quality and natural scenery. American Whitewater encourages all paddlers to have positive social, environmental, and economic effects wherever they travel.

Several studies have measured or predicted the economic impacts of whitewater recreation on local and regional economies. We have collected these studies and have summarized the findings, as well as provided direct links to these studies whenever possible. Most studies have mostly or completely overlooked private boaters in their study designs; however this does not indicate that private boaters do not have significant economic influences.

Studies of Economic Effects

A [2006 Study](#) by the Outdoor Industry Association estimates that active outdoor recreation contributes 730 billion dollars annually to the U.S. economy. Paddling forms a significant percentage of that benefit, including the creation of 308,000 jobs.

In 2002 Charles Sims, a graduate student at the University of Tennessee, wrote an excellent [summary](#) of several peer reviewed journal articles focused on the economic

impact of whitewater paddling. This article is highly recommended as a starting point for anyone interested in the topic. The findings of his summary are described in Table 5.4.1.

Economic Data as Summarized by Charles Simms, 2002.

River	# of People	Total Economic Output (\$)	Total Income (\$)	Value Added (\$)	Jobs	Year of Data
Upper Delaware	232,000	13,351,000	5,582,800	6,222,200	291.93	1986
Delaware Water Gap	135,400	6,929,000	3,246,300	3,695,200	156.37	1986
New River Gorge	100,000	2,567,600	1,217,700	1,391,200	57.93	1986
Upper Klamath	3,000-5,000	490,500-817,400	245,300-408,900	-	16-26	1988
Chattooga	39,000	4,350,000	2,470,000	2,750,000	97.07	1992
Gauley	45,000	8,490,000	4,680,000	5,310,000	208.17	1992
Kennebec	36,000	10,650,000	5,980,000	6,650,000	271.32	1992
Middle Fork Salmon	4,500	9,700,000	5,160,000	5,830,000	237.70	1992
Nantahala	213,000	14,370,000	8,120,000	9,040,000	334.62	1992

A more recent study than those listed in Table 5.4.1 once again estimated the economic impacts of boating on the Gauley and New rivers, as well as the Cheat River. The findings of this study, [Whisman et al, 1996](#), are summarized in Table 5.4.2.

Economic Statewide Impacts of Boating Use as Estimated by Whisman et al, 1996.

River	# of People	Total Economic Output (\$)	Total Income (\$)	Value Added (\$)	Jobs	Year of Data
Gauley	232,000	23,095,000	8,996,000	-	556.7	1995
New	135,400	33,924,000	13,019,000	-	805.4	1995
Cheat	100,000	2,251,000	868,000	-	53.5	1995

American Whitewater worked with Michael Crane to conduct an [economic impact study](#) of the Gauley River Festival.

A recent in-depth study was carried out by NC State University (sponsored by and American Rivers and the US Park Service) found that in 2001 roughly 43,000 people visited the Chattooga River. Even in this low visitation drought year, the authors of the study found that boaters annually spent 1.8 million dollars in a 6 county area, resulting in

a total economic benefit of roughly 2.7 million dollars. The full [Chattooga Study](#) is available online and is an excellent resource.

Another recent study was performed on the West River in Vermont. The [West River Economic Study](#) found that each day of recreational releases on the West River contributed \$148,000 to the regional economy.

The [Colorado River Outfitters Association](#) tracks the economic benefits of rafting from 1988. The report estimates that in 2007 alone rafting resulted in a net benefit of \$153 million in Colorado ([see 2009 report](#)).

Predictive Economic Studies

In addition to these studies of actual spending patterns, several robust predictive studies have been carried out on regulated rivers prior to the restoration of flow. A 1997 US-Forest Service environmental impact statement regarding the Upper Ocoee River in Tennessee predicted that recreational releases would generate roughly \$210,000 per day. American Whitewater and our partners were successful in 2004 in securing 54 annual releases on the Upper Ocoee which should result in an annual economic benefit of roughly \$11,340,000. A similar [Study](#) carried out by the Licensee on the Cheoah River in western North Carolina predicted that each release would generate roughly \$155,000 per day. While the actual number of recreational releases has yet to be determined, Table 5.4.3 shows the economic impact of a range of release numbers. Table 5.4.3 is based on the assumptions from the relicensing economic and recreation studies, specifically that an average day of releases would draw 576 commercial boaters spending \$234.38 each, and 256 private boaters spending \$79.84 each.

Predicted Economic Impacts of Recreational Releases on the Cheoah River.

Number of In-season Whitewater Days	Total Annual New Output in Graham County	Economic Output as % of Annual County Retail Sales	New Employment (includes Guides)
0	\$0	0.0%	0.0
1	\$155,440	0.4%	5.1
2	\$310,879	0.8%	10.2
5	\$777,199	2.0%	25.4
10	\$1,554,397	3.9%	50.9
15	\$2,331,596	5.9%	76.3
20	\$3,108,795	7.8%	101.8
30	\$4,663,200	11.7%	153.0
40	\$6,217,590	15.6%	203.5

Whitewater Park Studies

Whitewater parks are increasingly being built in towns across the country. While use of these parks is consistent and the towns are generally pleased with the aesthetic and health benefits of the park, few studies have reported the economic impact of the parks. One example is the recent [Golden Whitewater Park Study](#), focused on the Clear Creek Whitewater Park in Golden Colorado, which reported positive results. The authors found that the annual value of the Whitewater Park (based on boater spending) is between \$1.4 and \$2.0 million per year. The authors also estimated significant future increases in that value.

Study Your River

Oftentimes economic arguments prevail. However, while the economic benefits of dams, pollution, or development are readily available, sound economic data on the economic benefits of river conservation and access are seldom available. To help river stewards effectively make economic arguments, American Whitewater developed a [Methodology](#) for gathering and reporting the economic benefits of river conservation and access. This methodology was designed to be user friendly and scientifically robust. More often than not, the true value of healthy rivers far outweighs the value derived from allowing them to be impacted.

Additional Resources

American Whitewater's Kevin Colburn and Trout Unlimited's Mike Clark presented a talk titled "[Recreation and Economics](#)" at the 2005 River Rally.

For further information on the economic benefits of river stewardship we encourage those interested to view two annotated bibliographies. The first is a document published by the National Parks Service's Rivers, Trails, and Conservation Assistance Program titled [The Economic Benefits of Conserved Rivers: An Annotated Bibliography](#). The second such resource is another [Annotated Bibliography](#) that was generated by American Whitewater. This document focuses on economic research methodology, recreation, and hydroelectric projects. A related resource for learning about whitewater boating use levels and trends is the [Outdoor Industry Association](#), who publish an Annual Participation Study]] addressing many forms of outdoor recreation.

The benefits of river protection under the Wild and Scenic Rivers Act have also been documented with studies on the [Chattooga Wild and Scenic River](#), [Rogue Wild and Scenic River](#), and [West Branch Farmington Wild and Scenic River](#).

State tourism departments have economic impact analysis of tourism related activity and in some cases have grants for tourism development projects. Such funds have been used to build river access areas, and may be available for whitewater park and greenway

development. Regional economic development offices and state departments of commerce are also good recourses for finding out about local economies and the impact of recreation and tourism activity at a local or county level. These economic development entities sometimes support destination marketing organizations, which have been very active in the promotion of heritage tourism (including outdoor recreation and whitewater paddling). A good example of such an organization is North Carolina's [Advantage West](#).

We encourage individuals seeking to make an economic case for river stewardship to utilize these resources.