SAN FRANCISCO BAY CONSIDERED AS A RECREATIONAL RESOURCE:  
INDICATORS OF ECONOMIC VALUE

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Recent studies of San Francisco Bay have tended to emphasize the negative impacts of man's activities in and around the Bay and ways to mitigate these impacts. This paper emphasizes the positive aspects of San Francisco Bay as a recreational resource. Aesthetic qualities of the Bay as well as water quality are considered in the development of a regional recreational lifestyle for which the Bay itself is the hub. Statistics will be presented on the degree of recreational usage of facilities in and around the Bay. Current public issues which touch on recreational development will be elaborated. Indicators of economic impacts on the regional economy from Bay-related recreation will be presented.

Background

An early outpost of Spain's empire in the Americas, San Francisco rapidly developed when gold was discovered in El Dorado County in 1848. Population grew from 1,000 in that year to 35,000 in 1851, creating a city dominating trade, manufacturing, and finances in the West. San Francisco's distance from industrial centers made it necessary for the area to develop a complete and diverse economic base. While shipping and waterfront industrial activities no longer dominate the economy as they once did, the commercial direction of San Francisco remains the same. Finance, retail trade, and services share the employment spotlight with skilled manufacturing disciplines as the leading areas of today's Bay area economy. High-tech manufacturing, particularly in the famed Silicon Valley, is a feature of this development. Figure 1 which gives projected 1985 and 1990 employment in the region indicates that the current job mix is expected to continue.

The San Francisco Bay region is the fourth largest metropolitan market in the U.S. On January 1, 1985 the region had a population of approximately 5.6 million and within it were nine cities with populations over 100,000 led by San Francisco, San Jose, and Oakland. The city of San Francisco (which is also the county of San Francisco) has been growing rapidly and in particular is the focus of Asian and Latin American immigration. The region's high-tech employment also generates high per capita income. All nine counties of the area had incomes above the national median figure in 1980 and Marin County exceeded that figure by 69 percent. The Census Bureau has estimated that Bay area incomes will be the highest in the country by 2000. (1)

It is the orientation of highly skilled employment, affluence, and leisure time, combined with Californians' love of the great outdoors, that has made San Francisco Bay the focus of recreational activities of the region. The struggle to preserve and enhance the Bay's recreational and aesthetic qualities for both residents and tourists stems naturally from this orientation. But beyond the human needs from which this proceeds are strong economic benefits. The recreational component of San Francisco Bay regional economy is sizable. A 1982 survey by the California Department of Parks and Recreation showed that 7.5 percent of the statewide distribution of personal consumption expenditures went to outdoor recreation (Fig. 2). (2) Given the affluence of the San Francisco Bay population, the regional figure, although not available, might be somewhat larger. In addition to the resident component of recreational expenditures, the San Francisco area is a major tourist attraction, adding billions to the regional economy.
Within its boundaries are a wide variety of activities that go on in them as well as evaluating travel and travel-related expenditures involved in their use. Sports require the purchase of equipment. Bicycling, for example, requires the purchase or rental of a bicycle; swimming the purchase of a suit; jogging the purchase of shoes; and camping the purchase of tents, backpacks, etc. In 1982, for example, the amount of money Californians spent on jogging clothing and shoes was $122.5 million. The San Francisco Bay area represented about 20 percent of the state population in that year and therefore could be estimated to have spent $25 million on this sport alone. Figure 3 shows the leading estimated away-from-home recreation expenditures by Californians in 1982. It will be noted that many of these leading activities are park-oriented.

Park Attendance

The Bay provides both the backdrop for many water-oriented activities as well as the means to enjoy water-contact pursuits. An early version of the California Outdoor Recreation Plan found that 60 percent of the public prefers recreational activities with water as a feature. Walking or picnicking along a waterfront is preferred, say, to just walking down the street or eating in the backyard. Thus, in the Bay area, efforts to preserve the recreational atmosphere have gone beyond water quality to such things as open access to waterfront areas, the provision of more open areas and walkways, control of unsightly waterfront development, and planning for more waterfront parks.

A variety of Federal, state, county, city and regional parks front on or are near the Bay. The East Bay Regional Park District is a planning agency for Alameda and Contra Costa Counties and administers more than 40 park and shoreline areas. San Francisco County in addition to its famous Golden Gate Park and its zoo has 160 neighborhood parks and squares. Golden Gate National Recreation Area (GGNRA), formed in 1972 from land in both San Francisco and Marin Counties, has the largest annual attendance of any of the U.S. national parks. Created with the basic concept of putting parks where people live and work, GGNRA may be accessed by public transportation or, for some San Francisco residents, it may be a short walk away. Parts of the park are adjacent to some of the more popular tourist areas in the city. Within its boundaries are a wide variety of recreational facilities. In 1985 there were 18.4 million visits to GGNRA.

In assessing the value of water-oriented parklands, one must evaluate the variety of activities that go on in them as well as evaluating

![Figure 2. Recreation and leisure expenditures as a percentage of total personal consumption expenditures in California, 1982.](image)

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Economic Value and Outdoor Recreation

Recreational Fishing

Fishing is conducted from beaches, piers, private recreational boats, party/charter boats, bridges, and other vantage points. The number of recreational fishermen in the San Francisco Bay area may be inferred from the numbers of striped bass stamps sold by the California Department of Fish and Game. In order to fish for striped bass, a person must have a stamp affixed to his/her fishing license. Since the Bay, the rivers that enter it, and the nearby ocean are the only California locations where striped bass are found, the numbers of these stamps sold give a good indication of the number of recreational fishermen in the area. Preliminary figures from the California Department of Fish and Game indicate that in 1985 568,384 stamps were sold. Thus, by conservative estimate, there are well over a half-million recreational fishermen in the San Francisco Bay area. A direct indicator of the economic impact is the purchase of the stamps themselves which cost $3.50 in 1985 and had to be affixed to a license which cost $13.75. Other direct impacts would be found in the sales of rods, reels, and bait; boat sales, maintenance, and fuel; charter boat fees; transportation to take part in fishing; and the like. A study done by Meyer Resources, Inc. for the California Department of Fish and

![Figure 3. Major categories of estimated away-from-home recreation expenditures by Californians in California, 1982.](image)

**Figure 3.** Major categories of estimated away-from-home recreation expenditures by Californians in California, 1982.

Game found that in 1983 that the estimated direct profit from sport fishing of striped bass for California businesses was $21.47 per fish caught. Total income generated per fish was estimated to be $257.62. (5)

Charter/party boats which make San Francisco and San Francisco Bay-Delta their landings have their highest numbers of passengers during the traditional vacation months of July and August. Despite this, the interest of sport fishermen on these boats is dominated by the salmon fishery, which is best in early spring when the salmon are making their spawning runs. Salmon is an anadromous species which spawns in rivers and then swims through the Bay to the ocean. Salmon are caught throughout the year and charterboat catches of salmon are taken in the ocean. A typical day trip for salmon fishing in 1985 cost about $30. In 1985 charterboats in the Bay area carried nearly 100,000 passengers, making the industry a sizable contributor to the regional economy.

Recreational Boating, Sailing, and Sailboating

The ownership of recreational boats measured by California registrations continues to expand in the 9-county area surrounding San Francisco Bay and in 1985 totaled about 143,646. Sailing and powerboating are both recreations participated in by people with incomes above the household median. The purchase of the boat represents only the first stage of economic impact. In 1982 Californians spent $391.7 million on the purchase of pleasure boats, motors, and accessories. (6) Expenditures in the San Francisco Bay area would be approximately 23 percent of this amount, the area's share of total California registrations. Expenditures for trips and boat upkeep form a still larger area of economic stimulation for the regional economy than the sales themselves. In 1982 Californians spent $1.275 billion on boating (see Fig. 3, above). Thus the large amount of boat ownership in the San Francisco Bay area indicates substantial economic impacts.

A water-contact sport that is developing rapidly in the area is sailboarding, also known as windsurfing. Riding a large surfboard with a sail or mast, the sailboarder seeks out waves and winds that challenge his/her skills. One estimate of the number of sailboard enthusiasts in the San Francisco Bay area put the current figure at between 6,000 to 10,000. A series of shops around the Bay have sprung up to meet the needs of the sport. Clothing and equipment to participate in it may range from $750 for basic supplies to $2,500 for an elaborate rig.

Wildlife Observation and Use

The waters and marshes of San Francisco Bay and the ocean outside the Bay are the home or place of temporary passage for a large variety of birds, waterfowl, and marine mammals. The Bay is on the Pacific flyway between Canada and areas to the south and attracts a variety of overwintering birds. Many wildlife refuges, both public and private, are located on or near the Bay. The ocean teems with seals, sea lions, and migratory whales. Given the great interest in outdoor recreation in the Bay area and the vocally expressed interest of many groups in the study and preservation of nature, observation of wildlife in the Bay area has become a major recreational pursuit and one that has enriched the economy. There is also an interest of another segment of Bay residents in the hunting of waterfowl and game.

Bird-watching has become one of the nation's most popular passive sports. A survey taken in 1980 by the U.S. Fish and Wildlife Service indicated nearly 26 million people in the U.S. had bought birdseed and that 16 million bought or had developed film related to the nonconsumptive use of wildlife. (7) A survey by the State of California in the same year cited nature appreciation as one of the high-expenditure, rapid-growth recreational activities. (8) As bird-watching develops as a hobby, cameras, camping equipment, binoculars, and field guides may be added to the list. Even more serious hobbyists might add such items as field trips to far off places. The growing popularity of bird-watching is evident in the increasing attendance at the San Francisco Bay National Wildlife Refuge. From 1983 to 1984 number of visits grew 17 percent and from 1984 to 1985 by 20 percent to 159,283.

Duck hunting is a popular recreation on Suisun Marsh. In fact, the marsh is primarily managed to provide an attractive habitat for migratory waterfowl. The area also abounds in opportunities for the hunting of upland game. Several public facilities and over 150 private duck clubs offer opportunities to pursue these sports. The season for duck hunting ranges from October through January. Demand for duck-club membership is high and duck hunting seems to be an increasingly popular recreation, although the actual numbers of people who engage in it do not appear to be large. Duck hunters stimulate the regional economy with sizable expenditures for clothing and paraphernalia used in the sport. Hunters spent more per activity day than any other surveyed recreational group in California in 1982 —$65.00 per day. (9)

The annual migration of the gray whale is a popular event all along the coast of California. Traveling from the Alaskan waters to the Sea of Cortez spawning grounds from January through February and returning from February through April, these whales have increasingly stimulated popular interest and have spawned the development of a California whale-watching industry. In 1978, the National Marine Fisheries Services estimated that about 197,000 individuals had taken part in whale-watching during the 1977-78 gray whale migration. San Francisco Bay is quite removed from the major whale-watching activity which is to the south. However, the area does share in the activity to a limited extent. (10)

In the San Francisco Bay area, most whale-watching operations have been conducted out of
Half Moon Bay, south of San Francisco. This is because the migrational route taken by the whales avoids the mouth of the Bay causing a much longer boat trip from the landings to potential whale sightings. Trips from the area are among the most expensive whale-watching trips along the California coast, ranging from $15 to $25 per adult. While whale-watching vessels run the gauntlet of sportfishing vessels, inland ferries, and sightseeing boats, vessels are increasingly being built specifically for the whale-watch service. In the 1984-85, the Oceanic Society conducted whale-watching expeditions from Half Moon Bay attended by 5,153 people. During the 1985-86 season, the Society began trips from San Francisco aboard an 87-foot catamaran designed specifically for whale-watch cruises. The popularity of this departure point compared to that of Half Moon Bay was immediately apparent. For the entire season, San Francisco cruises attracted 10,142 passengers while those from Half Moon Bay attracted only 1,259 people.(11)

The migrating whales not only provide regular recreational opportunities for residents of the Bay area, they sometimes also provide episodes of exceptional human interest. The immediate popularity of Humphrey, the lost humpback whale, who on his migratory trip took a wrong turn at San Francisco Bay on October 11, 1985 and ended up near Rio Vista in the Sacramento River, is an example of San Franciscans' fascination with marine wildlife. Humphrey, the stranded 45-foot-long mammal, captured the hearts of millions as a series of rescue efforts unfolded. The gigantic rescue event was personally viewed by thousands of area residents who jammed narrow vantage points and clogged roadways for a chance to see the drama unfold. News media from all over the country were on hand. Souvenir sellers, restaurants, gasoline stations and the like profited from the event as did motels that housed news personnel. Economic benefits to the regional economy from this marine wildlife encounter were substantial. Finally, on November 4, Humphrey swam under Golden Gate Bridge, ending a 25-day odyssey.

Tourism

According to estimates made by the San Francisco Convention and Visitors Bureau, about 2.65 million visitors, conventioneers, and business travellers who stayed in overnight accommodations visited the City of San Francisco in 1985. An indication of the degree to which tourism contributes to the regional economy is given by the Convention Bureau. Visitors staying in overnight accommodations in the city of San Francisco generated approximately $1.3 billion in expenditures. About 65 percent of these expenditures were for accommodations and restaurants and about 17 percent for retail sales.(12) Many people who visit the city do not stay in hotels or motels, so this Convention Bureau figure simply is a rough guide to ascertaining the total numbers.

Another indication of the impact of travel/tourism on the regional economy are statistics on travel-related expenditures. In 1984, San Francisco ranked only behind Los Angeles as the California county with the greatest amount of travel expenditures and San Mateo, another Bay county, was close behind. For San Francisco, total expenditures were $3.5 billion and travel-generated employment was 76,276 jobs.(13) For the nine-county Bay area such expenditures were $8.94 billion or 31 percent of the state total, while population of the area is about 20 percent of the state total.

Conclusions

The multiple uses of San Francisco Bay have created many problems for decision-makers who must choose one kind of development over another. The waters of San Francisco Bay are used for transportation and commerce. They are also used for industrial waste and treated sewage discharge. Normal water flows to the Bay are diverted from the Sacramento-San Joaquin river system, primarily to serve the needs of California agriculture. Sportsmen and nature-appreciation enthusiasts delight in the recreational qualities of the Bay and Bay area as do tourists. All of these competing uses of the Bay and its tributaries have associated values for the regional economy and costs. In the discussions and the resolutions of controversies over the allocation of the Bay for these uses, recreational and aesthetic values over the past 25 years are receiving a great degree of attention. The strong protests of environmental groups over water quality, waterfront development, and water diversion are indicative not only of crusading zeal but also of real values associated with the recreational uses of the Bay. Recreational needs of urbanized populations are well known. In the San Francisco region, the Bay has been the focus for these pursuits. But beyond these human values, a clean and healthy Bay which attracts residents and tourists to its shores has economic values of large proportions. Future studies may more adequately assess the amounts of these benefits. However, the scattered information currently available suggests that Bay-related recreation and tourism is a significant element in the regional economy and one that is growing.

References and Notes


9. Ibid., p. 11.

10. Tilt, W. C., Whalewatching in California: An Industry Profile (Yale School of Forestry and Environmental Studies, New Haven, undated).

11. Personal correspondence and telephone conversations with Oceanic Society, San Francisco.
