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# LET'S PUT A PRICE ON NATURAL BEAUTY

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Prior to the 20th century land was abundant in the United States. There was enough for everybody, and few quarrels developed over its use. The Conservation Movement developed as land became increasingly scarce with the turn of the century. A special breed of conservationist concerned with the preservation of natural beauty fought to set aside the most spectacular areas of our environmental heritage. National and State Parks were created so that future generations would have the same access to natural beauty as had past generations. Access had always been free, and no one questioned whether the same policy should continue. The right to enjoy natural beauty seemed to be the very thing that was at stake.

Preservation of natural beauty and protection of the unrestricted right to enjoy natural beauty, however, are two separate and contradictory goals. This is distressingly clear to all who have made a summer visit to Yosemite Valley. Our parks are overcrowded. And because they are overcrowded, they are considerably less effective than they could be. More land must be made available for aesthetic recreation and/or access to aesthetic recreation must be restricted. Few question whether one or both of these steps should be taken. There is considerable debate as to how they should be taken.

There is no reason for natural beauty to be scarce in an economy which provides nearly everything else in abundance. Food, clothing, and shelter are not scarce. Why should natural beauty be scarce? One popular answer is that the material goods which we have in abundance cannot be produced without destroying natural beauty, so consequently we have a shortage. But this argument is largely fallacious, for the production of food competes in the same way with the production of clothing. Land used for growing wheat cannot at the same time produce cotton. The important difference between food, clothing, and shelter and natural beauty is that the first three are only available for a price.

The price system can help solve our growing scarcity of natural beauty. A suitably high price to enter a park would effectively ration the limited number of opportunities available to visit unspoiled, uncrowded areas. The revenue collected could be used to help maintain existing areas of wild beauty and to purchase new areas. And most important, the price on public land use would make it

profitable for private land owners to make their land available, also for a price, to those who compete for the use of areas of natural beauty. The present $7 per year, per family charged for nearly unlimited access to the Federal recreation lands has the above effects, but to a very small degree. I propose a higher price.

The basic mechanical advantages of the price system are relatively easy to explain. It is considerably more difficult for us to overcome attitudes which descended from our land abundant past. The idea that we have an inalienable right to enjoy natural beauty prevents us from associating vulgar money with innocent, pure nature. But this heritage is as much to blame for the destruction of natural beauty as is the wilderness-taming spirit we acquired at the same time. With this in mind, let's consider the mechanics.

The price should differ depending on the area and season. If the potential number of users is high, the amount of beautiful area small, or the ability of the area to absorb visitors is low, the price should be high. Thus, visitors to wild areas in Alaska should be charged little, if anything, while visitors to small wild areas near large population centers should be charged a higher price. The price differential would encourage some to visit the less crowded area. Within a single recreation area the same technique could be utilized; there could be price differentials to discourage visits to heavily used parts of the area, to encourage dispersion. If we charged more for a visitor day in Yosemite Valley than at Tuolumne Grove, fewer people would come to the Valley floor, and natural beauty, presently displaced by physical dvelopments necessary to accomodate a surplus of visitors, could return.

Similarly, the price of a visit to an area of natural beauty could vary according to the means of travel. People who come to Yosemite Valley by bus and then travel about the Valley by foot or bicycle do less damage to the natural surroundings than those who come to and travel in the Valley by car. Automobiles pollute the air; require space for travel, parking and service facilities; and greatly detract from the natural scene. Clearly people should be charged a higher price if they bring an automobile. The argument can easily be extended to pack animals in wild areas and tote goats in semi-wild. A system of different prices for different activities could be used to encourage people to engage in activities which are compatible with the enjoyment of natural beauty by others.

In the West, private land holders have made very little of their land accessable for the enjoyment of natural beauty. If they charge a price high enough to cover the costs of providing this service, they will have few, if any, customers since natural beauty on public lands can be enjoyed for free. If they do not charge, they take a loss. Thus, they neither develop for nor allow recreation. West of the Rockies, where the public lands are mostly concentrated, the few private outdoor recreation developments that do exist are mostly public relations efforts of large corporations. East of the Rockies there is less opportunity to enjoy free recreation, and private land owners are able to charge for, and therefore do provide, places to swim, boat, fish, hunt, or car camp. The recreation experience is not the same as that in the West, but the difference is due to the physical rather than the economic environment, to topography rather than the transaction of money. A charge for recreation on the public lands would check the increasing pressure to allow car camping, hunting, and motorized travel where none was allowed before by discouraging those who place little value on wildness from coming, by providing revenue for the acquisition of additional areas of natural beauty, and by making it profitable for private land owners to provide for car campers, hunters, and tote goaters.

The effect on Yosemite Park attendance of such an elaborate pricing system has not been investigated. But some understanding of the relationship between attendance and price charged can be acquired from the following data which simply relates the number of persons who would enter the Park at various flat rate entrance prices.[1] In 1967 more than 2,200,000 persons entered the Park as shown on the graph and table 1. The present price of entering the Park is about $0.32

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[1]This relationship was originally derived by Marion Clawson from 1953 data and published in Clawson and Knetsch, The Economics of Outdoor Recreation. The present author adjusted the data proportionately to account for the increase in attendance and deterioration of the dollar since 1953. Though this is the best estimate available, it is used here strictly for illustrative purposes.

Besides the fact that the relationship shown is for a flat rate charge charge rather than a per day per activity charge, it also assumes that at higher prices, private campgrounds will not develop and compete for Yosemite Park visitors. That the number of private campgrounds would increase is one of the most important arguments of this paper; thus this defect is a major limitation. The dashed curve on the graph hypothetically corrects for this error. At each higher price fewer people would in fact attend the National Park because more and more people would find that a private campground was a satisfactory alternative.

per person.[2] If the price were increased, for example, to $5 per person, total Park visits would decrease to 1,825,000 per year, a 16% reduction. But, in addition, revenues would increase by $8.5 million, enough money to pay the interest on the Full-Size Redwood National Park we still need. At $10 per visit, Park visits would be reduced to 1,400,000 and total revenue collected would be $14,000,000. Though these figures are only rough estimates, they certainly indicate that the National Park System could be fully self-sustaining, that funds for administration and maintenance of existing parks and for acquisition of new parks could depend on attendance rather than on fluctuating and never certain Administration requests and Congressional appropriations.

Obviously the poor will be hurt if we allocate visits to areas of natural beauty by a price system. But few of the poor can afford to visit them now. The higher charge advocated would be a small fraction of the present total cost of visiting such an area which includes the cost of not working, transportation, and equipment. But more important, and becoming more widely recognized, is the argument that giving goods and services to the poor, and in this case everyone else, at below cost is a poor way to solve the problem of poverty. If the present income distribution would unsatisfactorily restrict the poor from places of natural beauty if a price were charged, then the present income distribution unsatisfactorily restricts the poor from food, clothing, and shelter now. If the income distribution is unsatisfactory, we should strive to change it.[3] But it would be foolish to allow natural beauty to vanish forever because of our desire to make it available to the poor now.

If higher prices are charged, every park visitor's pocketbook will be hurt. But when they pay the price and go on an outing, they will find fewer prople and more places to go. Previously used areas of natural beauty will be less crowded. The money collected will have gone for purchasing more public park land. Taxes will be lower. And the price system will have opened up more of the privately held land to the type of multiple use so often advocated by resource extractors for all of the public lands. By charging, beauty can be preserved for present and future generations. If we continue to keep the price of enjoying natural beauty low and do not establish some other rationing mechanism, a surplus of

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[2] In fiscal 1968, $705,435 was collected at Yosemite Park entrance gates.

[3] Park stamps could be issued to the poor, much the same as food stamps are issued now, as a temporary solution to this aspect of the poverty problem.

visitors will destroy the remaining beauty for the descendants of today's rich and poor alike.

How can National Park and Forest Service administrators possibly keep track of what everyone is doing in order to charge them accordingly, and will it be worth the trouble? There are numerous ways to put the pricing policy into practice. One would be to give each visitor on entering the recreation area a pamphlet which listed prices and a card on which he could keep track of his activities. At the end of the visit he would turn the card in to the ranger at the park gate,Forest Service Headquarters, or other predetermined location. The ranger would then calculate and collect the appropriate fees. Rangers would only have to check some of the activities of a few visitors to keep most people honest. The extra revenue collected would be well worth this extra cost.

The most probable alternatives to putting a price on natural beauty are to continue our present policy, to ration visits by non-price means, or to encourage private land owners to provide access to areas of natural beauty by offering them a subsidy. Clearly any combination of these alternatives is also possible.

Our present policy has three major limitations. 1) Our areas of natural beauty are being loved to death by ever growing hordes of visitors who are not restrained by any rationing mechanism. 2) Everyone is for more parks but few favor higher taxes. Revenue collected from fees presently covers only about 5% of the National Park Service budget. The remaining 95% comes from Congressional appropriations.[4] Furthermore, appropriations fluctuate with fluctuations in the economy according to accepted fiscal policy. Unfortunately park attendance just keeps growing whether inflation is rampant or not. 3) And most important, the present policy of keeping the price of access to natural beauty on the public lands low has restrained private land owners from providing this same service.

Rationing entrance to our parklands on a first come, first to reserve, or possibly a so many visitor days per person basis would certainly reduce the crowds and produce a net gain in enjoyment for all. But non-price rationing would not generate additional funds for more facilities and the acquisition of more parks. Private land owners would find some incentive to supply campgrounds

[4] See Table 2.

if access to public lands was limited since some persons would rather pay to visit possibly less beautiful private land than be 137th on the waiting list for entrance to the public park. Indeed, the present policy of allowing our parks to become increasingly more crowded has already begun to encourage the use of less crowded private land at a price. But the overflow on to private land would be greatest if a price were charged for access to the public lands.

Access to private lands for aesthetic recreation could also be increased if the government paid a subsidy to those land owners who agreed to allow and provide for visitors. Though a subsidy program would increase the amount of land accessible to the public, the number of visitors would not be reduced by any rationing mechanism. Nor would revenues be generated. Even more money would have to be appropriated by Congress than now. And a government agency would have to be set up for the purpose of establishing the right to a subsidy and enforcing the requirements of the program. These three problems are solved automatically by charging park users directly.

Some people, in the spirit of "all good things in life are free", will argue that pricing the right to enjoy the beauty of our Parks, Forests, Rivers, and Seashores reduces the value of their beauty. Prices are associated with material goods which compete with wildness. To put prices on both places them on the same plane. Nearly two centuries ago, J. B. Say, an early economist, expressed the same feeling: "but happily no one has yet been able to say: 'the wind and the sun are mine, and the services which they render must be paid for.'" But a fine piece of art is not any less beautiful because it has a high price. The important point, however, is that few things in fact are free. To treat the beauty of wildness as if it were free is to misuse it. A price prevents people, enthusiasts and non-enthusiasts alike, from having delusions about its value.

It is a commonly held belief that the market system works adequately for the production and distribution of tangible or material things but inadequately for intangibles, for matters of aesthetics. But it is a belief based on a false division of reality. Take food. It is tangible and actively bought and sold in the market place. But food is purchased for flavor and sustenance and not because it can be touched or held in the hand. Is taste tangible, or hunger? Are these any more tangible than the joy of wildness? Consumers often do without a

practical item in order to save money a little longer for the purpose of buying the same basic item with a more beautiful design. Electricity, symphony tickets, red stripes on auto tires, protest buttons, flowers, telegrams, radios, Sierra Club books...when one considers the numerous reasons why people purchase the widely different items available for a price, the tangible - intangible dichotomy loses its significance. Flavor, hunger, joy,....these are the components of the only reality we know. And the market system has always dealt adequately with these ethereal factors.

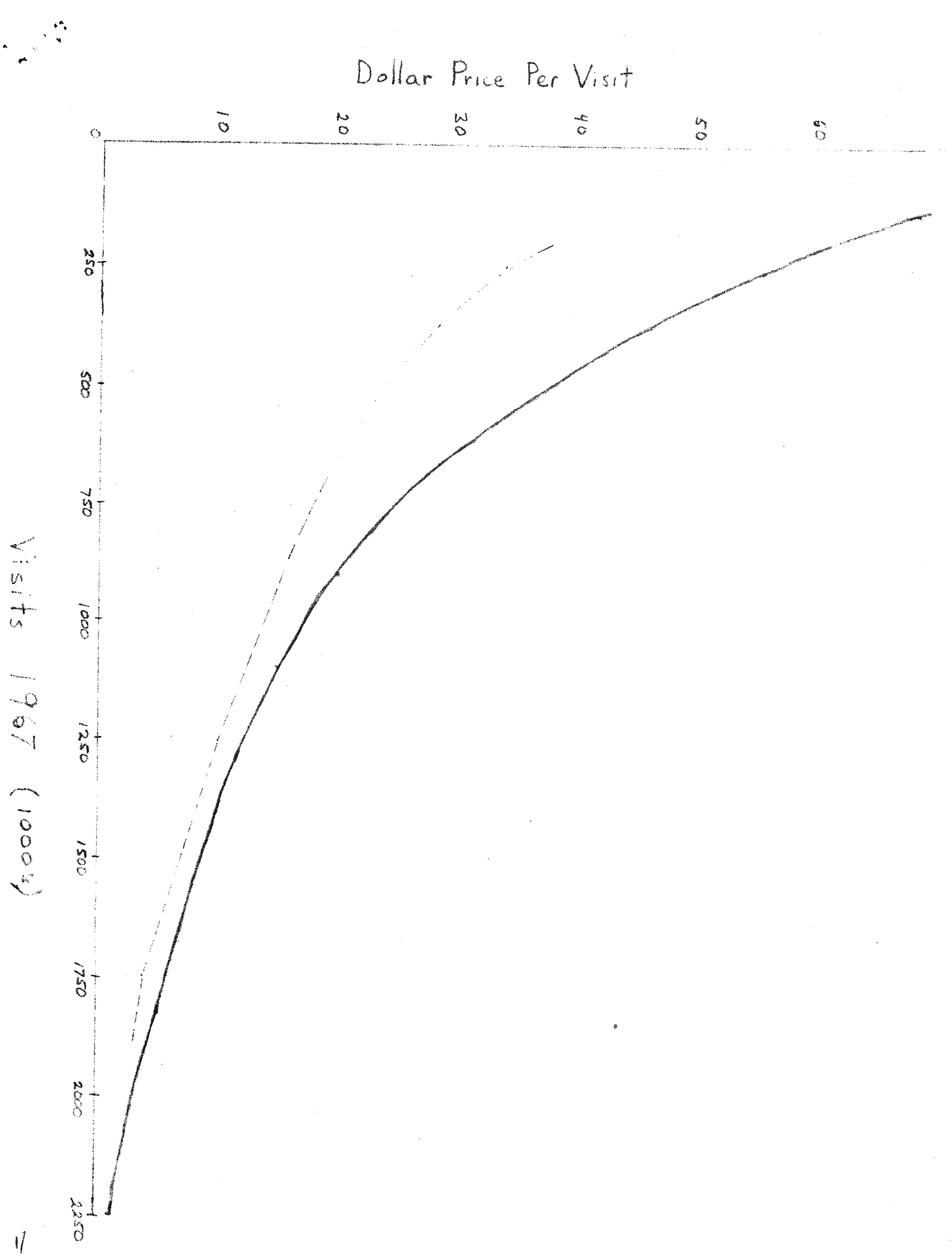
The explanation for our past surplus of agricultural products is nearly an exact parallel to the argument presented thus far. We have had a surplus of farm goods because the Federal government set the price of farm products too high. At the high price, farmers were willing to produce more food than people were willing to consume. Similarly, we have a shortage of natural beauty because at the low government-set price, people desire more access to natural beauty than potential suppliers of access, both public and private, are willing to provide.

I do not advocate sole reliance on prices as a means of managing aesthetic recreation. Rules governing behavior, from littering to length of stay, will still be desirable. Strong arguments can be made for using funds taxed from both recreationists and non-recreationists for the protection of wild areas. The value of wilderness to our understanding of ecology is one reason for government support. But it seems clear that if we pay more, we will receive more. The present shortage of funds and surplus of visitors suggests in itself that our "pricing policy" is far from optimum.

The Colorado River still flows freely through Grand Canyon because conservationists brought to the public's attention the inefficient pricing, accounting, and financial practices of the Bureau of Reclamation and challenged the widely held belief that people have an inalienable right to water. This paper was written for the same reason and in the same spirit. Let's put a price on natural beauty, not to measure its value, not to "quantify it," but to preserve it.

Yosemite National Park

| PRICE PER VISIT PER PERSON | NUMBER OF VISITORS PER YEAR | TOTAL REVENUE COLLECTED PER YEAR |
|---|---|---|
| $ 0.32 | 2,200,000 | $ 705,435 |
| 5.00 | 1,825,000 | 9,000,000 |
| 10.00 | 1,400,000 | 14,000,000 |
| 15.00 | 1,075,000 | 16,120,000 |
| 20.00 | 900,000 | 18,000,000 |
| 25.00 | 775,000 | 19,400,000 |
| 30.00 | 675,000 | 20,230,000 |
| 35.00 | 550,000 | 19,250,000 |


Dollar Price Per Visit
0
10
20
30
40
50
60
250
500
750
1000
1250
1500
1750
2000
2250
Visits (1000's) 1961

National Park Statistics: Selected Years ($thousands)

| | 1950 | 1955 | 1960 | 1965 | 1968 |
|---|---|---|---|---|---|
| 1. Entrance Receipts | 2,948 | 4,090 | 4,817 | 5,953 | 6,996 |
| 2. Other Receipts[1] | 590 | 1,195 | 868 | 1,397 | 1,858 |
| 3. Appropriations | 28,080 | 43,426 | 75,137 | 131,192 | |
| 4. Total Expenditure of Appropriations.[2] | 31,118 | 48,711 | 80,822 | 138,542 | |
| 5. Administration, Management, Maintenance & Protection | 15,457 | 18,990 | 32,836 | 55,946 | |
| 6. Construction | 12,296 | 22,398 | 40,744 | 64,483 | |
| 7. Property Acquisition | 309 | 2,038 | 1,567 | 10,763 | |
| 8. Total Visits to NPS Administered Areas.[3] | 33,253 | 50,008 | 72,288 | 112,141 | |
| 9. Visits to Parks and Monuments | 19,229 | 26,783 | 37,368 | 48,917 | |
| 10. Cost per visit 4÷8.[4] | 0.94 | 0.97 | 1.12 | 1.24 | |
| 11. Receipts per visit. 1÷8.[4] | 0.08 | 0.08 | 0.07 | 0.05 | |
| 12. Cost per visit 4÷9.[4] | 1.36 | 1.82 | 2.16 | 2.84 | |
| 13. Receipts per visit 1÷9.[4] | 0.15 | 0.15 | 0.13 | 0.12 | |

[1] Other receipts come from business concessions, fines and miscellaneous sales.

[2] Most receipts are deposited in the Land and Water Conservation Fund.

[3] A visitor day is defined as a "12-hour visitor day unit of time occupancy by park visitors."

[4] Line 10 is total cost divided by total visits to all NPS administered areas. For this reason it can be considered as a lower limit of cost per visit. Line 12 is total cost divided by Park and Monument visits only and can therefore be considered as an upper limit. The argument is similar for lines 11 and 13. To the extent that the NPS is acquiring property and building facilities which will be used in the future, the cost per visit

[4]figures are an overstatement. On the other hand, since the NPS budget does not include a "return to land" purchased in the past, it would be incorrect to assume that present costs are summarized on line 5.

Source:

Clawson, Marion. The Federal Lands since 1956: Recent Trends in Use and Management. Resources for the Future. 1967 pp. 96-99.

National Park Service Land and Water Conservation Fund and General Receipts, 1968 Fiscal Year, Prepared by Administration Division of the Budget.