

Appendix A

Correcting for Inflation in Housing Prices Using the Consumer Price Index

Brief Explanation of the Consumer Price Index

The Consumer Price Index (CPI) is a measure of the average change in prices over time in a fixed market basket of goods and services. The Bureau of Labor Statistics publishes CPIs for two population groups: (1) a CPI for All Urban Consumers (CPI-U) which covers approximately 80 percent of the total population and (2), a CPI for Urban Wage Earners and Clerical Workers (CPI-W) which covers 32 percent of the total population. The CPI-U includes, in addition to wage earners and clerical workers, groups such as professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, and retirees and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuels, transportation fares, charges for doctors' and dentists' services, drugs, and other goods that people buy for day-to-day living. Prices are collected in 85 urban areas across the country from about 57,000 housing units and approximately 19,000 retail establishments—department stores, supermarkets, hospitals, filling stations, and other types of stores and establishments. All taxes directly associated with the purchase and use of items are included in the index. Prices of food, fuel, and a few other items are obtained every month in all 85 locations. Prices of most other commodities and services are collected every month in the five largest geographic areas and every other month in other areas. Prices of most goods and services are obtained by personal visits of the Bureau's trained representatives. Some data, such as used car prices, are obtained from secondary sources.

In calculating the index, price changes for the various items in each location are averaged together with weights which represent their importance in the spending of the appropriate population group. Local data are then combined to obtain a U.S. city average. Separate indexes are also published by size of city, by region of country, for cross-classifications of regions and population-size classes, and for 29 local areas. Area indexes do not measure differences in the level of prices among cities, they only measure the average change in prices for each area since the base period.

The indexes measure price change from a designated reference date, 1982-1984, which equals 100.0. An increase of 7 percent, for example, is shown as 107.0. This change can also be expressed in dollars as follows: The price of

a base period “market basket” of goods and services in the CPI has risen from \$100 in 1982-84 to \$107.

For further details, see BLS *Handbook of Methods*, BLS Bulletin 2285, April 1988, and *The Consumer Price Index: 1987 Revision*, BLS Report 736, January 1987.

Calculating Index Changes

Movements of the indexes from one month to another are usually expressed as percent changes rather than changes in index points, because index point changes are effected by the level of the index in relation to its base period while percent changes are not. The example below illustrates the computation of index point and percent changes.

Index Point Change	
CPI	112.5
Less Previous Index	108.5
Equals index point change	4.0
Percent Change	
Index point difference	4.0
Divided by the previous index	108.5
Equals	0.037
Results multiplied by one hundred	0.037 x 100
Equals percent change	3.7

Source: Bureau of Labor Statistics, U.S. Department of Labor, 1990s

Consumer Price Index All Urban Consumers (CPI-U)													
U.S. City Average													
Housing													
1982-84=100													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1967	30.5	30.5	30.5	30.6	30.7	30.7	30.8	30.9	30.9	31.0	31.1	31.2	30.8
1968	31.3	31.5	31.5	31.6	31.7	31.9	32.1	32.3	32.4	32.5	32.7	32.9	32.0
1969	32.9	33.1	33.4	33.6	33.8	33.9	34.1	34.3	34.5	34.6	34.8	35.0	34.0
1970	35.1	35.4	35.8	36.0	36.2	36.3	36.5	36.7	36.9	37.1	37.3	37.5	36.4
1971	37.5	37.5	37.4	37.4	37.7	37.9	38.1	38.2	38.3	38.5	38.6	38.7	38.0
1972	38.9	39.0	39.1	39.2	39.3	39.4	39.5	39.7	39.8	39.8	39.9	40.1	39.4
1973	40.1	40.3	40.4	40.5	40.7	40.8	40.9	41.2	41.6	42.1	42.5	42.8	41.2
1975	43.3	43.7	44.1	44.5	44.9	45.4	45.9	46.5	47.1	47.6	48.1	48.6	45.8
1975	49.0	49.5	49.7	50.0	50.2	50.5	50.7	50.9	51.3	51.5	52.0	52.3	50.7
1976	52.6	52.7	53.0	53.1	53.3	53.5	53.9	54.1	54.4	54.6	54.8	55.1	53.8
1977	55.5	55.9	56.2	56.6	56.8	57.3	57.7	58.0	58.4	58.6	58.9	59.2	57.4
1978	59.7	60.0	60.6	61.1	61.6	62.2	62.8	63.2	63.9	64.5	64.9	65.1	62.4
1979	65.6	66.4	67.0	67.7	68.5	69.4	70.3	71.3	72.2	73.2	74.1	75.0	70.1
1980	76.2	77.1	78.4	79.4	80.6	82.1	81.6	81.8	82.4	83.5	84.3	85.3	81.1
1981	85.9	86.5	87.0	87.7	88.8	90.0	91.5	92.3	93.5	93.5	93.7	94.0	90.4
1982	94.3	94.6	94.4	95.3	96.6	97.8	98.3	98.6	98.4	98.8	98.2	97.4	96.9
1983	97.9	98.1	98.1	98.6	99.1	99.5	99.9	100.0	100.5	100.6	100.7	100.8	99.5
1984	101.4	101.9	102.1	102.6	103.0	103.5	104.1	104.5	105.1	105.1	105.0	105.1	103.6
1985	105.3	105.8	106.1	106.5	107.3	107.9	108.3	108.7	108.9	109.1	109.3	109.6	107.7
1986	109.9	109.8	109.9	110.2	110.4	111.2	111.3	111.6	112.0	111.8	111.4	111.5	110.9
1987	112.0	112.4	112.8	113.2	113.6	114.3	114.7	115.4	115.6	115.5	115.5	115.6	114.2
1988	116.2	116.6	117.0	117.3	117.7	118.6	119.1	119.5	119.9	119.9	119.9	120.2	118.5
1989	120.7	121.1	121.5	121.6	122.1	122.9	123.9	124.2	124.3	124.4	124.5	124.9	123.0
1990	125.9	126.1	126.8	126.8	127.1	128.3	129.2	130.2	130.5	130.6	130.4	130.5	128.5
1991	131.8	132.4	132.6	132.5	132.8	133.4	134.2	134.5	134.7	134.7	134.7	135.0	133.6
1992	135.7	136.1	136.6	136.5	136.7	137.7	138.3	138.6	138.6	138.5	138.5	138.5	137.5
1993	139.3	139.7	140.2	140.4	140.5	141.5	141.9	142.3	142.3	142.2	142.0	142.3	141.2
1994	142.9	143.7	144.1	143.9	144.1	144.9	145.4						

Appendix B

Brief Explanation of the Consumer Price Index

Updating Consumer Good Values Using Consumer Price Index City Average

The Consumer Price Index (CPI) is a measure of the average change in prices over time in a fixed market basket of goods and services. The Bureau of Labor Statistics publishes CPIs for two population groups: (1) a CPI for All Urban Consumers (CPI-U) which covers approximately 80 percent of the total population and (2), a CPI for Urban Wage Earners and Clerical Workers (CPI-W) which covers 32 percent of the total population. The CPI-U includes, in addition to wage earners and clerical workers, groups such as professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, and retirees and others not in the labor force.

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Equals percent change	3.7

Source: Bureau of Labor Statistics, U.S. Department of Labor, 1990s

Consumer Price Index, All Items
U.S. City Average
1982-84=100

All Urban Consumers

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1970	37.8	38.0	38.2	38.5	38.6	38.8	39.0	39.0	39.2	39.4	39.6	39.8	38.8
1971	39.8	39.9	40.0	40.1	40.3	40.6	40.7	40.8	40.8	40.9	40.9	41.1	40.5
1972	41.1	41.3	41.4	41.5	41.6	41.7	41.9	42.0	42.1	42.3	42.4	42.5	41.8
1973	42.6	42.9	43.3	43.6	43.9	44.2	44.3	45.1	45.2	45.6	45.9	46.2	44.4
1974	46.6	47.2	47.8	48.0	48.6	49.0	49.4	50.0	50.6	51.1	51.5	51.9	49.3
1975	52.1	52.5	52.7	52.9	53.2	53.6	54.2	54.3	54.6	54.9	55.3	55.5	53.8
1976	55.6	55.8	55.9	56.1	56.5	56.8	57.1	57.4	57.6	57.9	58.0	58.2	56.9
1977	58.5	59.1	59.5	60.0	60.3	60.7	61.0	61.2	61.4	61.6	61.9	62.1	60.6
1978	62.5	62.9	63.4	63.9	64.5	65.2	65.7	66.0	66.5	67.1	67.4	67.7	65.2
1979	68.3	69.1	69.8	70.6	71.5	72.3	73.1	73.8	74.6	75.2	75.9	76.7	72.6
1980	77.8	78.9	80.1	81.0	81.8	82.7	82.7	83.3	84.0	84.8	85.5	86.3	82.4
1981	87.0	87.9	88.5	89.1	89.8	90.6	91.6	92.3	93.2	93.4	93.7	94.0	90.9
1982	94.3	94.6	94.5	94.9	95.8	97.0	97.5	97.7	97.9	98.2	98.0	97.6	96.5
1983	97.8	97.9	97.9	98.6	99.2	99.5	99.9	100.2	100.7	101.0	101.2	101.3	99.6
1984	101.9	102.4	102.6	103.1	103.4	103.7	104.1	104.5	105.0	105.3	105.3	105.3	103.9
1985	105.5	106.0	106.4	106.9	107.3	107.6	107.8	108.0	108.3	108.7	109.0	109.3	107.6
1986	109.6	109.3	108.8	108.6	108.9	109.5	109.5	109.7	110.2	110.3	110.4	110.5	109.6
1987	111.2	111.6	112.1	112.7	113.1	113.5	113.8	114.4	115.0	115.3	115.4	115.4	113.6
1988	115.7	116.0	116.5	117.1	117.5	118.0	118.5	119.0	119.8	120.2	120.3	120.5	118.3
1989	121.1	121.6	122.3	123.1	123.8	124.1	124.4	124.6	125.0	125.6	125.9	126.1	124.0
1990	127.4	128.0	128.7	128.9	129.2	129.9	130.4	131.6	132.7	133.5	133.8	133.8	130.7
1991	134.6	134.8	135.0	135.2	135.6	136.0	136.2	136.6	137.2	137.4	137.8	137.9	136.2
1992	138.1	138.6	139.3	139.5	139.7	140.2	140.5	140.9	141.3	141.8	142.0	141.9	140.3
1993	142.6	143.1	143.6	144.0	144.2	144.4	144.4	144.8	145.1	145.7	145.8	145.8	144.5
1994	146.2	146.7	147.2	147.5	147.5	148.0	148.4						

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table of Over-the-Year % Increases

(An Entry for Feb 1982 indicates the percentage increases from Feb 1981 to Feb 1982)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1971	5.3	5.0	4.7	4.2	4.4	4.6	4.4	4.6	4.1	3.8	3.3	3.3	4.4
1972	3.3	3.5	3.5	3.5	3.2	2.7	2.9	2.9	3.2	3.4	3.7	3.4	3.2
1973	3.6	3.9	4.6	5.1	5.5	6.0	5.7	7.4	7.4	7.8	8.3	8.7	6.2
1974	9.4	10.0	10.4	10.1	10.7	10.9	11.5	10.9	11.9	12.1	12.2	12.3	11.0
1975	11.8	11.2	10.3	10.2	9.5	9.4	9.7	8.6	7.9	7.4	7.4	6.9	9.1
1976	6.7	6.3	6.1	6.0	6.2	6.0	5.4	5.7	5.5	5.5	4.9	4.9	5.8
1977	5.2	5.9	6.4	7.0	6.7	6.9	6.8	6.6	6.6	6.4	6.7	6.7	6.5
1978	6.8	6.4	6.6	6.5	7.0	7.4	7.7	7.8	8.3	8.9	8.9	9.0	7.6
1979	9.3	9.9	10.1	10.5	10.9	10.9	11.3	11.8	12.2	12.1	12.6	13.3	11.3
1980	13.9	14.2	14.8	14.7	14.4	14.4	13.1	12.9	12.6	12.8	12.6	12.5	13.5
1981	11.8	11.4	10.5	10.0	9.8	9.6	10.8	10.8	11.0	10.1	9.6	8.9	10.3
1982	8.4	7.6	6.8	6.5	6.7	7.1	6.4	5.9	5.0	5.1	4.6	3.8	6.2
1983	3.7	3.5	3.6	3.9	3.5	2.6	2.5	2.6	2.9	2.9	3.3	3.8	3.2
1984	4.2	4.6	4.8	4.6	4.2	4.2	4.2	4.3	4.3	4.3	4.1	3.9	4.3
1985	3.5	3.5	3.7	3.7	3.8	3.8	3.6	3.3	3.1	3.2	3.5	3.8	3.6
1986	3.9	3.1	2.3	1.6	1.5	1.8	1.6	1.6	1.8	1.5	1.3	1.1	1.9
1987	1.5	2.1	3.0	3.8	3.9	3.7	3.9	4.3	4.4	4.5	4.5	4.4	3.6
1988	4.0	3.9	3.9	3.9	3.9	4.0	4.1	4.0	4.2	4.2	4.2	4.4	4.1
1989	4.7	4.8	5.0	5.1	5.4	5.2	5.0	4.7	4.3	4.5	4.7	4.6	4.8
1990	5.2	5.3	5.2	4.7	4.4	4.7	4.8	5.6	6.2	6.3	6.3	6.1	5.4
1991	5.7	5.3	4.9	4.9	5.0	4.7	4.4	3.8	3.4	2.9	3.0	3.1	4.2
1992	2.6	2.8	3.2	3.2	3.0	3.1	3.2	3.1	3.0	3.2	3.0	2.9	3.0
1993	3.3	3.2	3.1	3.2	3.2	3.0	2.8	2.8	2.7	2.8	2.7	2.7	3.0
1994	2.5	2.5	2.5	2.4	2.3	2.5	2.8						

Source: U.S. Department of Labor, Bureau of Labor Statistics

Appendix C

Survey Questions

All of the survey questions included in this Appendix were designed for a study on the economic impact of rail-trails, to be completed by the National Park Service and Pennsylvania State University in August 1991. The questions were designed by Dr. Alan Graefe, Dr. Richard Gitelson, and Roger Moore at Pennsylvania State University.

For further information on these questions or the study, contact Roger Moore at (814) 865-1851 or Beth Dillon, National Park Service Rails-to-Trail Program Manager, at (202) 343-3766. (Representatives of federal agencies planning on conducting a survey of the general public must receive survey approval by the Office of Management and Budget.)

Questions regarding Property Values

The questions listed below are suggested types of questions. The exact wording will depend upon the type of project and whether you are interviewing landowners or real estate specialists. A scale of one to seven is suggested for some of the questions to get a better understanding of the respondents perceptions. Before conducting your own survey, we recommend you get assistance from someone who has experience devising and conducting surveys. These questions addressing property values have not yet been tested.

1. Where is the (trail, greenway) in relation to your property? (Check one)

- The trail runs *through* my property
- The trail runs *along the edge* of my property
- The trail is near my property but not touching it
- Don't know

2. About how *far* is the *house* from the nearest part of the (trail, greenway)?

Feet or Miles

Questions regarding Tourism and Local Resident Expenditures

Surveys may be conducted to estimate user spending during typical use, or, a survey could be conducted during a special event held at your river, trail or greenway. The questions listed below are designed to estimate the spending by the group of users rather than individuals within the group. Group expenditures can then be divided by the total number of people to estimate average expenditures.

We recommend you get assistance from someone who has experience devising and conducting surveys.

1. *How many* people from each of the following age categories are in your group on the (trail, river, greenway) today? (Please include yourself and write the numbers in the spaces provided)

___ 15 and under	___ 46 to 55
___ 16 to 25	___ 56 to 65
___ 26 to 35	___ 66 and over
___ 36 to 45	

2. Is your visit to this trail part of an overnight trip away from home?

___ Yes ___ No (If no, go to question #3)

a. How many days will you be away from home during this trip?___

b. During your stay, *how many nights* will you be using each of the following accommodations *in this area*? (Please write number in space provided)

___ Hotel/motel
___ State campground
___ Private campground
___ Rented home or cottage
___ With friends or relatives
___ Other (Please specify)

c. Was visiting (river, trail or greenway) one of the reasons for your trip to this area? ___ Yes ___ No
 (If yes, was it the *primary* reason? ___ Yes ___ No)
 (If no, what was the *primary* reason for this visit? _____)

3. In the spaces below, please list the estimated expenditures made as a result of your entire trip to the (river, trail or greenway). If you paid all of your *own expenses* and no one else's, report only the amounts *you* actually spent in each category. If your group *shared* some or all expenses (group members made some purchases *for one another*), please report your estimates of the amounts spent by the *entire group* in each category.

Please include *all* the expenses associated *with that particular trip* from your preparations before leaving home until your return home. Please indicate where the expenditures took place by recording the amounts in the appropriate columns. Refer to the map on the facing page to help determine what is included in the local county.

Amount spent in:

(NOTE: You may wish to estimate spending for your local economy only)

	Local economy	In state economy	Outside economy
Estimated <i>amount</i> spent for:			
a. Restaurants (including fast food, sit down, etc.)	_____	_____	_____
b. Food and beverage (retail)	_____	_____	_____
c. Lodging expenses:	_____	_____	_____
hotel	_____	_____	_____
motel	_____	_____	_____
camping	_____	_____	_____
other	_____	_____	_____
d. Retail purchases _____ (personal items, souvenirs purchased during trip) <i>excluding</i> durable purchases for equipment.			

- e. Auto expenses:
 - gas and oil _____
 - repairs and service _____
 - parking and tolls _____
- f. Other transportation costs:
 - airfare and busfare _____
 - public transit, taxis, etc _____
- g. Film and developing _____
- h. Fees for other attractions/entertainment _____
- i. All other expenses *for this trip* (program fees, licenses, rental fees for bikes, skis, etc) please specify _____

4. During the last twelve months, what *percentage of the total days* you participated in each of the following activities took place on the (trail, river, or greenway)? (If you did not participate in a particular activity, please mark an "X".) (NOTE: For your greenway or river project you should list appropriate activities. The activities listed below are appropriate for trails.)

- _____ % Walking
- _____ % Running
- _____ % Bicycling
- _____ % Cross Country Skiing
- _____ % Snowmobiling
- _____ % Other activity (please specify _____)

5. Please list any expenditures you made related to this activity during the *last twelve months* if the decision to buy the item was *influenced* by the existence of the (river, trail or greenway). Only include expenditures for *durable items* that are used for more than one trip and *do not include* items you already accounted for related to your specific trip.

(NOTE: You may want to estimate spending for local economy only.)

	Amount you spent in:		
	Local economy	In state economy	Outside economy
Estimated amount spent for:			
a. Clothing (clothing, shoes boots, hats, etc.)	_____	_____	_____
b. Equipment (bicycles, skis, snowmobiles, trailers, etc)	_____	_____	_____
c. Accessories (bike racks, water bottles, helmets, radios, spare parts, cameras, etc)	_____	_____	_____
d. Books, guides, maps, etc.	_____	_____	_____
e. Memberships/subscriptions, program fees, etc.	_____	_____	_____
f. Other expenditures for <i>durables</i> (Please specify):	_____	_____	_____
g. _____	_____	_____	_____

(NOTE: For your greenway or river project you should list appropriate durables.
The durables listed below are appropriate for trails.)